

ARCHITECTURE AND BUILDING

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ENTRANCE FOYER TO HOTEL PENNSYLVANIA, SEVENTH AVENUE,
32ND AND 33RD STREETS, NEW YORK CITY.

McKim, Mead & White, Architects.

Artificial marble work—H. A. Cousins, Inc.; sculptors—Ricci & Zari; interior
marble—Batterson & Eisele.

ARCHITECTURE AND BUILDING

A Magazine Devoted to Contemporary Architectural Construction

WILLIAM P. COMSTOCK
Managing Editor

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HOTEL PENNSYLVANIA, NEW YORK.

Part I.

How the Hotel Came to Be Built.

Thoughts, so the "New Thoughtists" tell us, are "real things" which make themselves felt quite as forcibly as does concrete matter. Carrying their argument one step farther the "New Thoughtists" quite correctly maintain that every great project, every great structure, every great institution was once just "a mere thought" in the brain of some dreamer. All of us possess, in greater or lesser degree, the power to dream or to indulge in flights of mental fancy in which we achieve objects near to our heart's desire, but, unfortunately, comparatively few of us possess the power to cause our noble day dreams, our thought achievements to come true. Now and then there exists a man who possesses this rare gift of being able to dream great dreams or have great thoughts, plus the power to force his dreams to come true, to make his thoughts develop into tangible realities.

Some twenty years ago a big, gray man sat at an open window in a house at Sea Bright, New Jersey, gazing out over the broad Atlantic Ocean. It was a beautifully calm day in mid-summer and the sea was as quiet as a mill-pond. As the big, gray man gazed out over the calm gray sea he sat dreaming, it is quite safe to say, "dreaming dreams no mortal ever dared to dream before." He was a railroad man, president of one of the greatest—he firmly believed The greatest—railroad of America. The thing he dreamed of was a terminal for his road in the City of New York, a privilege which only one railroad in all America enjoyed at that time. With the delightful impetuosity of your true dreamer the big, gray man quickly obtained the terminal privileges in his dream and then he set about planning that terminal in his mind. He was a big man mentally as well as physically and a very prince of dreamers, possessed of an imagination such as few men possess and as he dreamed his active mind flew along with its plans until he had visioned not only a terminal in the City of New York which would prove the envy of his contemporaries and the marvel of future generations, but he had extended his road across the city of New York and all down Long Island to Montauk Point, at that

time regarded as being a great landing place for European steamers at some time in the future. With the tenderness of a lover the big, gray man dwelt on the various features of his dream adding some new embellishment to it with every moment until at last carried away by the glory of the vision he had seen he leaped to his feet and hurried off to lay his vision before his associates and insist that they join with him in making it a reality. The big, gray man was Alexander Johnston Cassatt, President of the Pennsylvania Railroad Company from 1899 to 1906 when he died, the dream he dreamed that calm summer day was of a terminal in the city of New York for the Pennsylvania Railroad with affiliations with the Long Island Railroad that would carry his trains to the very ocean edge at Montauk Point, Long Island.

That this great dream of President Cassatt's came true everybody now knows, and the manner of its working out to fulfilment is a part of the engineering history of America. As everybody knows the site selected for the New York City terminal of the Pennsylvania Terminal was in the very heart of a slum district where vice and poverty flourished in hideous tenements erected in the "roaring forties." For some reason Seventh Avenue, New York, had never developed. If it had done anything it had retrograded and from the point where it started at Greenwich Avenue and Eleventh Street clear up to Fortieth Street it was a neglected, unsightly waste abandoned to the very ocean edge at Montauk Point, Long type saloon. It is no small part of Mr. Cassatt's achievement that by the force of his will and ideas he was able to transform a vast area of this wilderness of poverty, degradation and dirt into a center of civic beauty, dignity and decency. Nothing in the tales of Haroun Al Raschid excels in the writer's opinion the magic of the transformation which the Pennsylvania Development worked in this section of Seventh Avenue.

It has also been said that the range of thought is immeasurable and that from the idle speculations of one mind consequences so far reaching as to be past belief may follow. This idea would indeed seem to be true as regards the thoughts of Mr. Cassatt. In his speculations the idea of building an hotel had never found a place, but he had surrounded himself with men who were also given to great dreams, if he had not he never

could have carried his own dreams to fulfilment, and when Death had gathered him unto his fathers those of his associates whom he had left behind him continued to dream and their restless fancies continued to seek after new achievements. So one day they conceived the idea of erecting immediately in front of their wonderful terminal building an hotel which should be in keeping with that building and with their accomplishments in the past. So you see the power of a thought and its far-reaching consequences! Mr. Cassatt had never even thought of an hotel, but this idea grew out of his original thought just as naturally as the child grows into the man.

Once having been seized with the germ of an idea these progressive men of the Pennsylvania Railroad Company set to work to arrange its details, with the result that on January 25, 1919, their dream had taken concrete form in the shape of a finished product. Standing fifteen feet back from the building line of Seventh Avenue, with a frontage of two hundred feet on that Avenue and a depth of four hundred feet on Thirty-second and Thirty-third streets and towering twenty-two stories above the street level this finished product was known as Hotel Pennsylvania with 2,200 rooms and 2,200 baths and all the conveniences of a great city beneath its roof.

It is one of the secrets of the success of great men that they surround themselves with men who are already great or who are potentially great, and that in the carrying out of their plans they manage to get the aid of those who are acknowledged to be the greatest in their particular line or field, and this policy the Pennsylvania men adopted in the designing, building and equipment of their hotel. For their architects they selected the firm of McKim, Mead & White and, for the work of construction, the George A. Fuller Company, and it will be interesting to note that most of the names which will be mentioned in this article are those of individuals, firms and corporations of national prominence in their respective fields.

The architecture of Hotel Pennsylvania, while not in any well defined classic style, is along classic lines. The building consists of a solid block for the first four stories above which there rise four great wings for a height of eighteen stories with alternate wide courts facing south. The solid base structure is faced with Indiana limestone and treated with a border of Roman-Ionic pilasters, the walls between the pilasters being lightly rusticated. The effect of this treatment of the vast structure is to cause it to harmonize in effect, design and scale with the Pennsylvania station across the street. The front facade is, of course, on the Seventh Avenue side, facing the station opposite, and a portico of six Ionic columns, three on either side, marks the main entrance which gives upon the main lobby.

The main lobby is perhaps the largest possessed by any hotel in New York City for the reason

that the space ordinarily given over to a goodly number of small shops is in the case of Hotel Pennsylvania devoted to the main lobby. This lobby is 70 by 133 feet in size and in the Italian Renaissance style of architecture. Six huge pillars stretch along each side of the lobby and three across each end on which is supported the vaulted ceiling. The effect of these pillars taken in conjunction with the soft gray tint of the walls is to give the impression of great space which effect is accentuated by the light from a skylight of leaded gray glass thirty-five feet above the level of the floor. Both the wall and the pillars are of artificial Botticino marble and the lighting effect from the beautiful ornamental glass ceiling tends to bring out to the best advantage the beauties of this material. This ornamental glass ceiling which was executed by the firm of G. Rae & Co. is one of the most striking features of the lobby and is largely responsible for the beauty of this important portion of the hotel.

The floors of the lobby which are marked out in great squares are covered with large, heavy rugs of Persian design in colors of blue and old red with suggestions of browns and greens running through the pattern. The furniture in the lobby is of Walnut, heavily carved, with the carvings picked out in dull gold, and is suggestive of the Italian in its character. In addition some of the pieces of furniture are covered with heavy brocades and damasks and some with mohair velvets. Many of these coverings are reproductions of ancient materials with designs copied from old Italian textiles. In addition to the main entrance from the Seventh Avenue side there is an entrance to the main lobby from Thirty-second Street and one from Thirty-third Street. There is also an entrance to the ballroom with direct stair and elevator connection to the ballroom floor.

The desk, which is of walnut, is on the Thirty-second Street side of the lobby and directly beneath the mezzanine gallery. At the desk may be found every modern convenience for the transaction of its business as well as many special devices designed for the purpose of expediting the work of complying with the requirements of the hotel's patrons.

Directly to the right of the main entrance is the men's cafe. This room also has a direct entrance from the street. The men's cafe is Georgian in character with details and incidents strongly suggestive of the early Colonial architecture. The walls of this room which are panelled to the ceiling are finished in light chestnut and the floor is of imported quarry tiles. The lighting fixtures which are of pewter and brass are of Georgian or Flemish chandelier design, and were made especially for Hotel Pennsylvania by Edward F. Caldwell & Co., Inc.

At one end of this room is a fire-place typical of the period and along one wall runs a grill, framed in cheery, unique tiles. The tiled floors

and the Windsor chairs of walnut with the brightly colored English linen hangings at the windows make an atmosphere which would have just suited the amiable Sir Roger De Coverly when he was pleased to take his ease at his inn.

To the left of the main entrance is the bar which is decorated in such fashion as to immediately call to mind the characteristics of some of the better type inns of Northern Italy. The floor of this room is of stone, the upper walls and the vaulted ceiling of Travertino marble, a soft buff in color, while the lower walls are panelled in a soft brown wood.

From the south end of the main lobby opens the main restaurant, a huge room which measures 60 by 140 feet and is over 20 feet high. The architecture of this room follows the Italian Renaissance. An air of cheerfulness and brightness is given to this room by its high arched windows at one end of the room faced by corresponding high arched mirrors at the other end. The ceiling of this room is beamed and richly ornamented with motifs both carved and painted which add greatly to the decorative effect. At each end of this room there is a raised terrace provided so that guests who wish to do so may command a view over the entire room. At the edge of each dais is a light screen of four columns which add height and architectural interest to the scheme.

Opening from the east end of the lobby is the Palm Room or Tea Room. This room is a veritable revelation of delicate treatment. The walls are panelled with inset mirrors and a ceiling ornamented with low relief plaster executed by H. W. Miller, Inc., which company executed all the ornamental plastering throughout the hotel as well as all of the ornamental plastering in the Pennsylvania Station across the street. This work was executed from models furnished by Ricci & Zari, who furnished all the models for the Grand Foyer, Ladies' Restaurant, Ball Room and Cafe. The floor of this room is covered with a heavy rug the design of which was copied from an old Chinese carpet and the colors of which are gold and blue. These colors harmonize perfectly with the furniture which is Chinese Chippendale in design and executed in old blue lacquer and upholstered in silk brocaded Chinese fabric. All the corridors about this room of which there are a number are treated so as to carry out the color scheme of the room. The walls of these corridors are of Caenstone and scattered about these corridors are Italian benches and high-backed chairs covered in old red and gold brocade. All the table linens used in this room as well as in all the dining-rooms and restaurants throughout the hotel were furnished by the firm of B. Altman & Co., and all the silver service for the entire hotel was furnished by Reed & Barton. An illustration of the silver service appears on another page and lovers of the beautiful in silver will be charmed by a study of it.

From the mezzanine floor one reaches the hotel library, a large room treated in the early English style. Lined with book-shelves reaching almost to the ceiling this room has a ceiling of plaster decorated with models in low relief representing many quaint and curious designs taken from ancient printers' marks which prove a never-failing source of delight to the occasional bibliophile who wanders into this ideal library. There are four groups of leaded windows in this room which are hung with Jacobean embroidered curtains. All of the luxuriously comfortable chairs and couches are covered with fine English needlepoint and tapestries.

A short flight of stairs leads to the ballroom floor which is arranged so as to offer a large and very flexible section for all kinds of entertaining. On this floor are the grand foyer, ballroom, two large parlors, a banquet-room and three small private dining-rooms any or all of which may be used singly or together for an evening affair. All of these rooms have their auxiliary spaces and, in addition to having private elevator service, are provided with service from a large banquet pantry. Because of this arrangement it is possible to serve one or two or more large or small parties at one time.

The ballroom which is on the south side of the building directly over the main dining-room is 72 by 144 feet and a little over twelve feet wider than that room. The ceiling of this room is thirty feet high and is delicately modeled with Italian arabesque ornaments superimposed in color on a deep ivory toned background after the manner of Raphael and Giovanni da Udino in the Vatican and the Villa Madama in Rome. The usual gallery of boxes with promenade in the rear runs around three sides of the room. The decorations in this fine room were executed by Charles A. W. Rinschede.

All the bedroom furniture is of American walnut in Chippendale design. The bed is a three-quarter size and the other pieces consist of two chairs, upholstered in a rose-colored mohair velvet, a dresser with wall mirror, a desk and a small table beside the bed for the telephone. Fastened to the head of each bed is a reading lamp. In the large rooms the window hangings are draped from cornices, but in the smaller rooms they are hung from rods. All the fabrics for these hangings were furnished by the Orinoka Mills. All of the radiators are hung from the ceiling or walls thus giving an open space underneath. The pictures in all of the bedrooms show that the utmost care and thought was devoted to their selection and the collection is most artistic and in good taste. All of these pictures were furnished by Rudolf Lesch the frames being furnished by Menger, Ring & Weinstein who made them to order. The mirrors in all bedrooms are of the finest French plate glass and were made to order by Friedman Brothers.

Of all the many improvements in the hotel construction the most prominent and what is absolutely new is the Servidor—the modern guestroom door—with which every one of the 2,200 rooms of the Hotel Pennsylvania is equipped.

The Servidor is fitted with a full length cabinet. This cabinet has two doors, one on the room side and one on the corridor side. These cabinet doors cannot be opened at the same time as an ingenious interlocking device prevents this; thus it is impossible for anyone to enter or see into a room through its Servidor.

The purpose of the Servidor is to add to the comfort, convenience and privacy of guests. It also adds to hotel profits as it is economical and efficient because it eliminates the delaying of messengers and repeated calls to deliver goods when guests are absent. The Servidor is always ready to deliver goods to the guest-room or from the guest-room.

In the Servidor cabinet the guest hangs clothes to be pressed, places shoes to be polished, linen to be laundered, or any other articles requiring service. Into it from the corridor these articles are returned. A silent signal device on the room side announces to the guest when a completed service awaits his convenience in the Servidor.

From the illustration of a typical floor corridor as shown on a previous page, it will be observed that the Servidor cabinet does not project beyond the door jamb and that the graceful swell fronts of the cabinet doors add much to the attractiveness and beauty of the corridor. The Servidores in the Hotel Pennsylvania are finished in a natural Circassian walnut. The Servidor is hung with roller-bearing butts and is equipped with standard locks and hardware like any ordinary door. It is in the cabinet doors where the chief distinction and absolutely new innovation lies. These doors not only form between them a cabinet for the convenience of both hotel and guest, but they also hide from view an unique ventilating feature.

The Servidor has a ventilator at both bottom and top. A perfect circulation of air is thereby assured. The ventilator openings are entirely hidden within the cabinet doors. Both the upper and lower vent may be opened or closed at one operation by merely pushing small buttons over the knob. The combined area of the two openings assures sufficient ventilation for the guest-rooms. Even with the two ventilators open, the Servidor is light-proof, sight-proof and more sound-proof than the ordinary transomed door.

The operating of the ventilators is easy and comparatively noiseless. The entire mechanism which operates the ventilator is completely within the cabinet. In doing away with the old-fashioned transom with its hard-to-operate hardware and space required for the transom itself, the architectural advantages of the Servidor to both guest-rooms and corridor are at once apparent. The corridors of the Hotel Pennsylvania have an inviting atmosphere of restful quiet, while the rooms to which the corridors give access offer a seclusion

and privacy to the guest, heretofore desired but never acquired. In fact, the Servidor gives to the individual guest-room all the privacy of a real home, as it not only does away with useless door knocking, door tending and other disturbing annoyances incidental to guest-room service, but also at the same time affords a method of ingress and egress. It materially adds to the pleasure and convenience of the guest and promises that which is of much interest to hotel operators in the way of increasing room revenue and adding distinctively new sources of revenue.

Adjoining every bedroom is a bathroom, which is equipped with every conceivable device to add to the comfort of the guest. Each of these bathrooms is furnished with a shower equipped with a Niedecken Mixer, manufactured by the Hoffmann & Billings Mfg. Co., of Milwaukee, Wis., a detailed description of which appears elsewhere in this issue. All bathrooms are of tile furnished by Adolph Grant & Co., who also installed the special tile work in many of the main rooms of the hotel.

Having read this description of the general aspect of the Hotel Pennsylvania the reader is invited to now read

Part II.

The General Equipment of the Hotel.

In equipping the Hotel Pennsylvania that same penchant for picking the doers of big deeds which is characteristic of the officers of the Pennsylvania Railroad Company was exercised. The roster of names of those who were intrusted with this great task reads like a Bradstreet List de Luxe of Leading American Industrial Institutions. For instance, the Architects of the hotel were McKim, Mead & White; the Builders, the George A. Fuller Co.; the Consulting Electrical Engineer was Chas. E. Knox; the Electrical Contractors, L. K. Comstock & Co., and the Consulting Mechanical Engineers, Tenny & Ohmes. Add to these names such nationally known ones as Reed & Barton, who furnished the silver equipment; Duparquet, Huot & Moneuse Co., who furnished the entire kitchen equipment; the Otis Elevator Co., who furnished all the elevators; Westinghouse Electric & Manufacturing Co., who furnished the ventilating motors and control; the Western Electric Co., who furnished a new type of toggle switch for turning on the electric lights, and A. H. Cousins, Inc., which company supplied and installed all the artificial Marble used in the Hotel Pennsylvania, as well as many other too numerous to mention and it will be seen that the writer's contention is correct.

In attempting to describe the equipment of the Hotel Pennsylvania the writer will try to refrain from borrowing from the descriptive terms of his literary brother who writes circus announcements and will endeavor not to describe anything as being "a gorgeously glittering galaxy of glorious Golgothian marvels." Neither will he
(Continued on page 22)

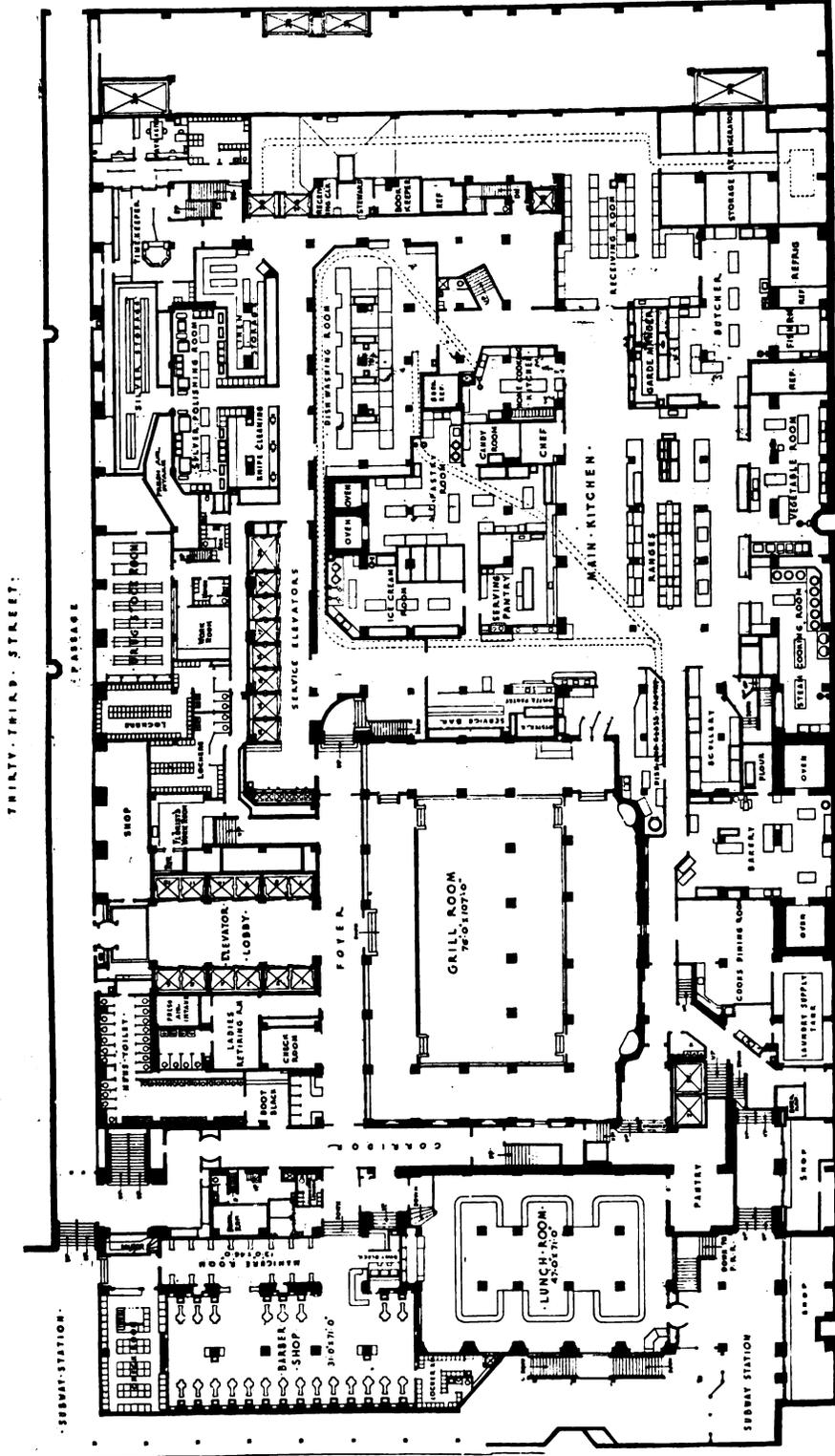


HOTEL PENNSYLVANIA, SEVENTH AVENUE, 32ND AND 33RD STREETS,
NEW YORK CITY.

McKim, Mead & White, Architects.
Charles E. Knox, Consulting Electrical Engineer.
Tenny & Ohmes, Consulting Mechanical Engineers.
Modjeski & Angier, Inspecting Engineers for the Steel Frame Work.

ARCHITECTURE AND BUILDING. Plate 39.

Built by George A. Fuller Co.; cut stone—J. J. Spurr & Sons, Inc.; cement walks—Harrison & Meyer; terra cotta—Atlantic Terra Cotta Co.; plumbing contractors—W. G. Cornell Co.; valves and fittings for steam—The Kelly & Jones Co.; kalamein doors—Reliance Fireproof Door Co.; masons' materials—Empire Brick & Supply Co.; panel boards—H. Krantz Mfg. Co.; Westinghouse ventilating motors and control; asbestos pipe covering—Robert A. Keasby Co.; drainage fittings—Essex Foundry; wrought iron pipe made by A. M. Byers Co.; door checks—The Oscar C. Rixson Co.

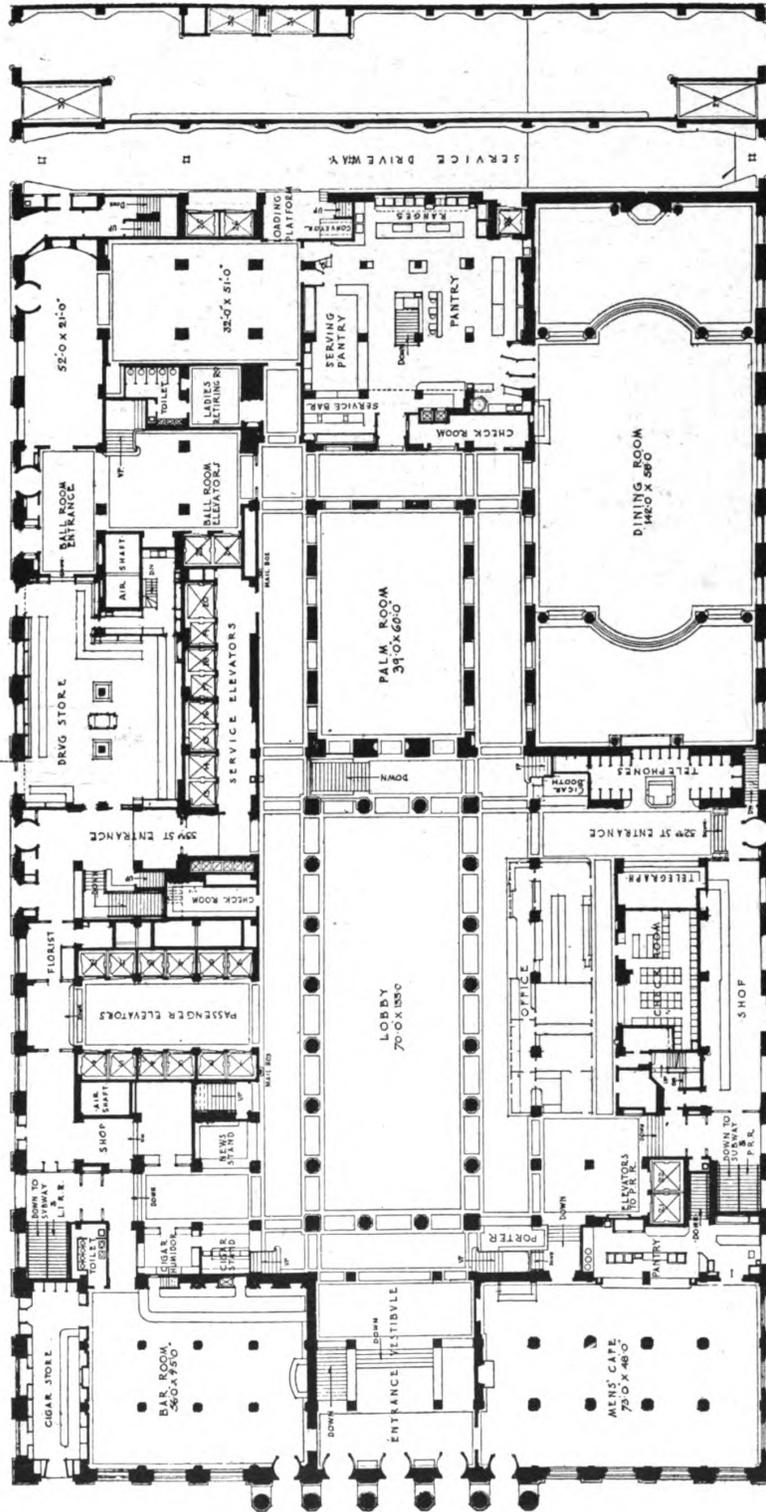


HOTEL PENNSYLVANIA
SEVENTH AVE. 32ND AND 33RD STREETS
NEW YORK CITY
MCKIM, MEAD AND WHITE ARCHITECTS

THIRTY SECOND STREET
BASEMENT FLOOR PLAN

ARCHITECTURE AND BUILDING. Plate 40.

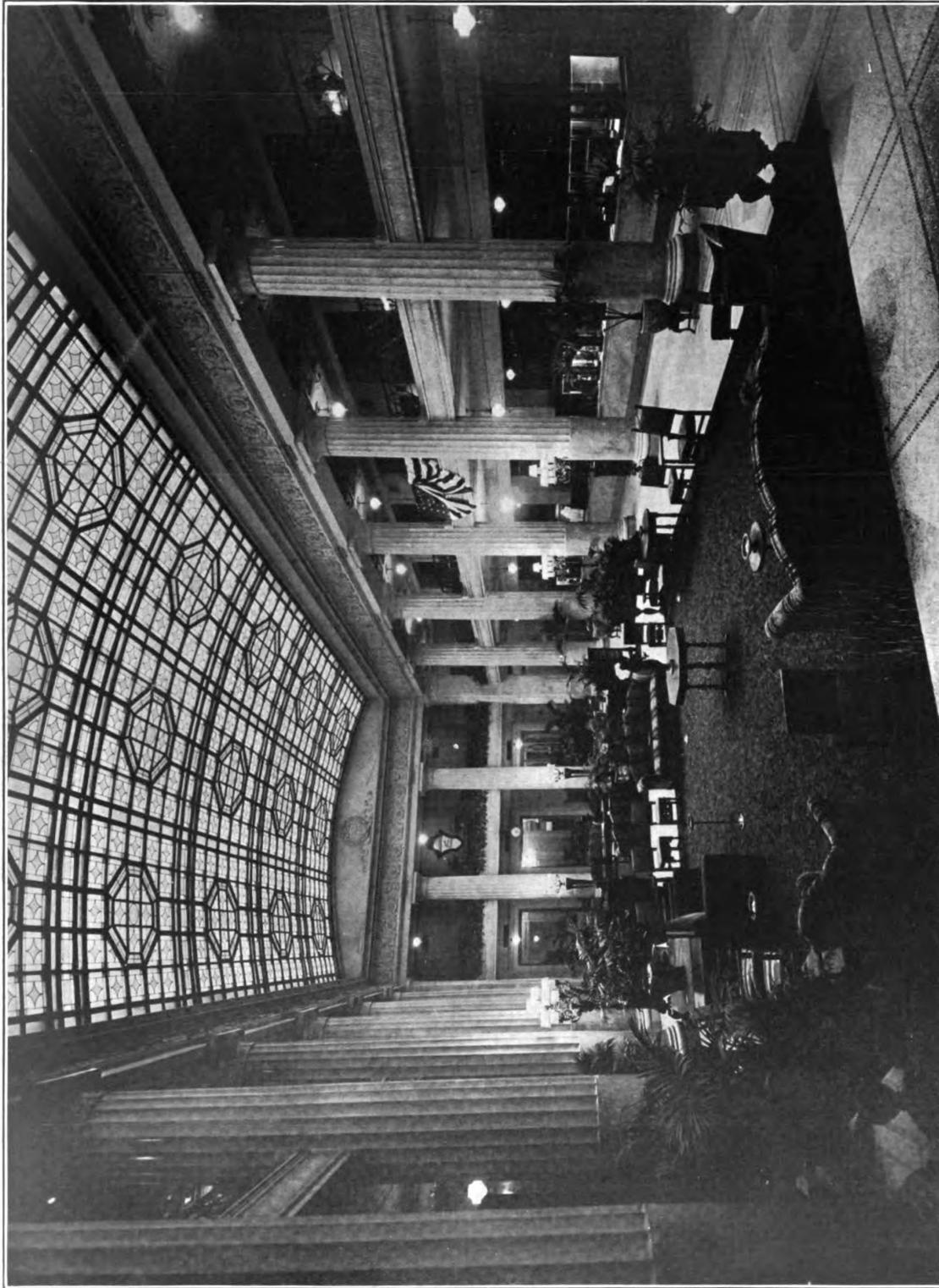
THIRTY THIRD STREET



THIRTY SECOND STREET
FIRST FLOOR PLAN

HOTEL - PENNSYLVANIA
SEVENTH AVE. - 32ND AND 33RD STREETS
NEW YORK CITY
McKIM, MEAD AND WHITE - ARCHITECTS

ARCHITECTURE AND BUILDING. Plate 41.



LOBBY, HOTEL PENNSYLVANIA, NEW YORK CITY.
McKim, Mead & White, Architects.
Charles E. Knox, Consulting Electrical Engineer.

ARCHITECTURE AND BUILDING. Plate 42
Built by George A. Fuller Co.; artificial marble work—H. A. Cousins, Inc.;
stained glass—W. W. Miller, Inc.; metal fixtures—C. J. Cahill & Co.;
carpeting—C. R. & C. Co.; lighting fixtures—F. C. Cahill & Co.;
models—Menconi Brothers; directory boards—Building Directories, Bulletin &
Sign Co., Inc.



PALM ROOM, HOTEL PENNSYLVANIA, NEW YORK CITY.
McKim, Mead & White, Architects.

ARCHITECTURE AND BUILDING. Plate 43.

Built by George A. Fuller Co.; sculptors—Rice & Zari; ornamental and plain plastering—H. W. Miller, Inc.; calcimero wall coating—The Muralo Co.; decorative painting—Sherwin & Berman, Inc.; compo ornaments on woodwork furnished by Jacobson & Co.; lamps—A. Notman & Co.; mirrors—Friedman Bros.; metal lath—The Composite Metal Lath Co.—Cut loaned by Hotel Review.

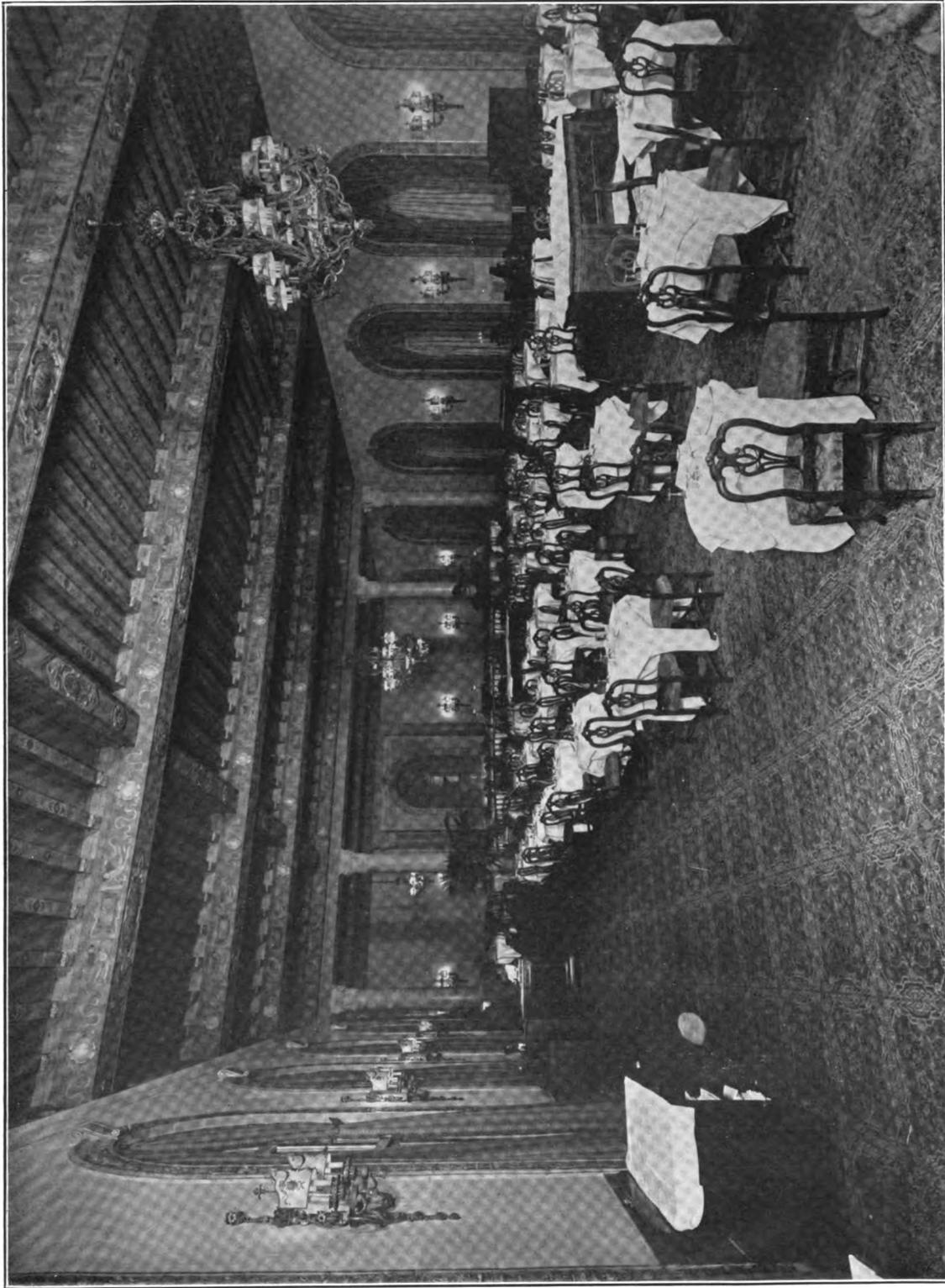
THIRTY THIRD STREET



THIRTY SECOND STREET
THIRD FLOOR PLAN

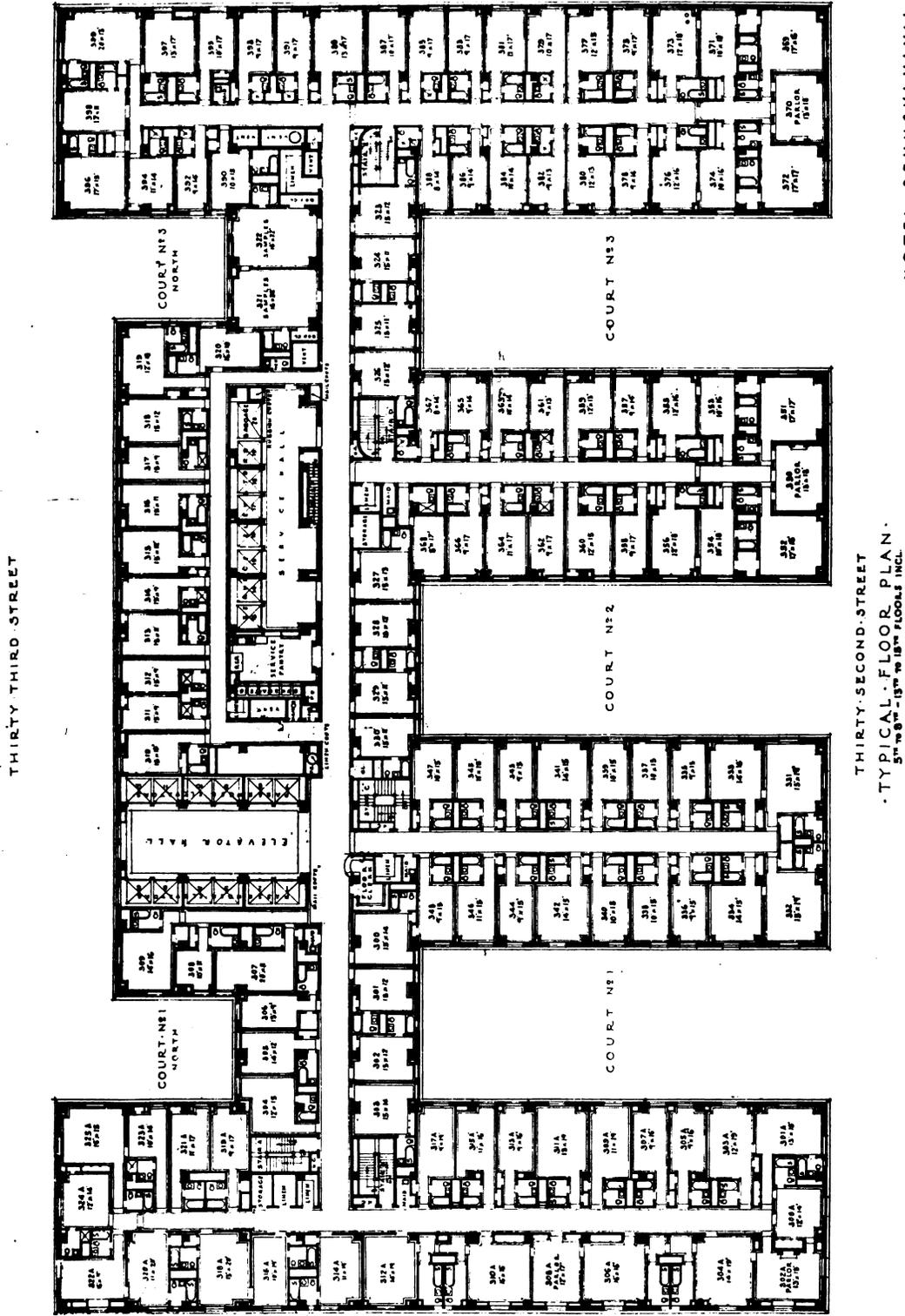
HOTEL PENNSYLVANIA
SEVENTH AVE. 32" AND 33" STREETS
NEW YORK CITY
MR. KIM, MEAD AND WHITE ARCHITECTS

ARCHITECTURE AND BUILDING. Plate 44.



MAIN RESTAURANT, HOTEL PENNSYLVANIA, NEW YORK CITY.
McKim, Mead & White, Architects.

ARCHITECTURE AND BUILDING. Plate 45.
Built by George A. Fuller Co.; lighting fixtures—Edward F. Caldwell & Co., Inc.;
table linens—B. Allyn & Co.; kitchen materials—Witcombe, McGeehan & Co.;
silver service—Reed & Barton; kitchen equipment—Duparquet, Hutot & Moneuse;
terra cotta—Atlantic Terra Cotta Co.; models for the terra cotta work—
Rochetti & Parzini; compo ornaments on woodwork furnished by Jacobson & Co.



HOTEL · PENNSYLVANIA
· SEVENTH AVE. 32ND AND 33RD STREETS ·
· NEW YORK · CITY
· MCKIM, MEAD AND WHITE ARCHITECTS

THIRTY SECOND STREET
· TYPICAL FLOOR PLAN ·
5TH TO 8TH - 13TH TO 18TH FLOORS INCL.



GRILL, HOTEL PENNSYLVANIA, NEW YORK CITY.
McKim, Mead & White, Architects.

ARCHITECTURE AND BUILDING. Plate 47.
Heating and ventilating contractors—Baker, Smith & Co.; tile—Adolph Grant & Co.; terra cotta—Atlantic Terra Cotta Co.; calcimco wall coating—The Muralo Co.; sgraffito work—Menconi Brothers; door checks—The Oscar C. Rixson Co.—Cut loaned by Hotel Review.



PRIVATE BEDROOM AND DINING ROOM SUITE, HOTEL PENNSYLVANIA, NEW YORK CITY.
McKim, Mead & White, Architects.

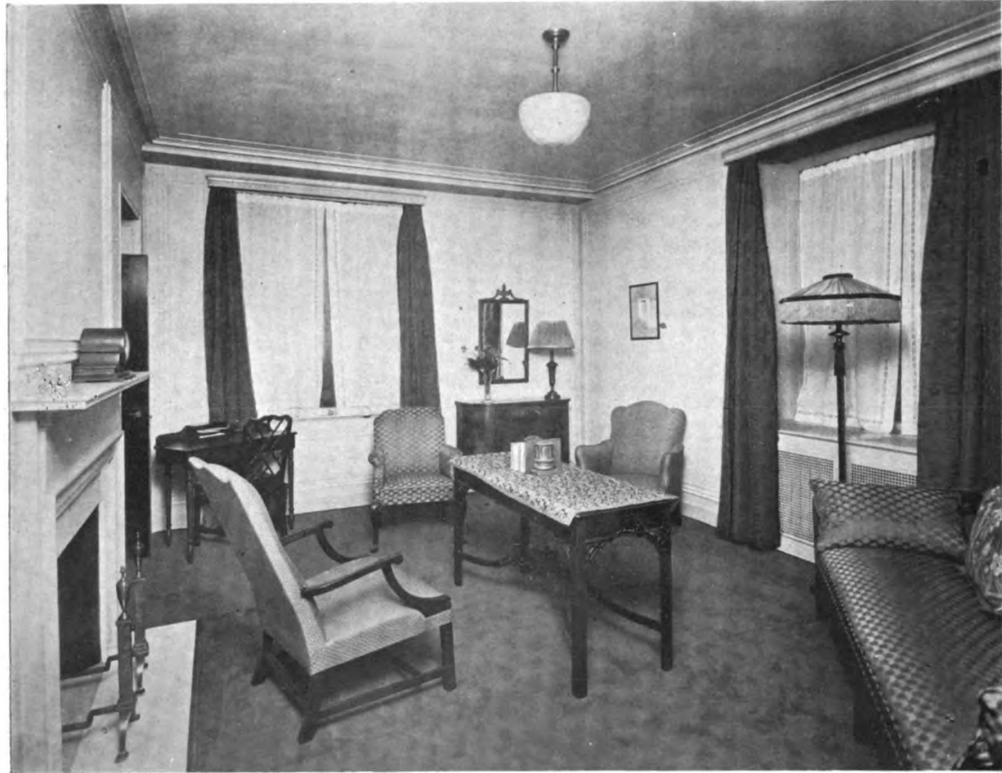
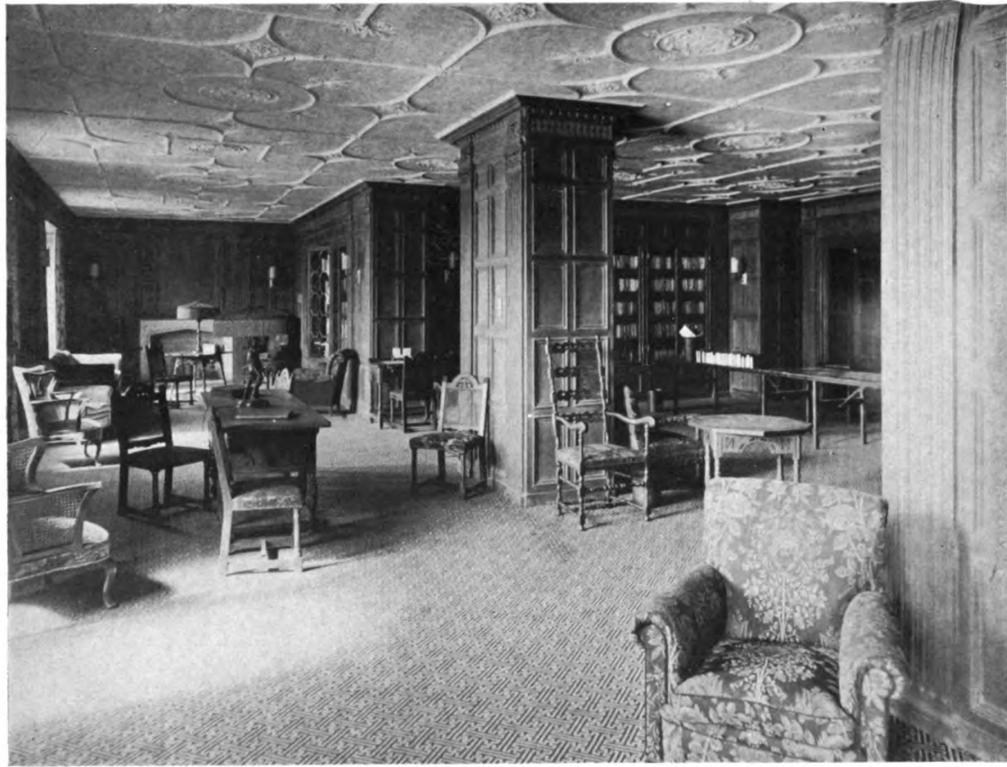
ARCHITECTURE AND BUILDING. Plate 48.
Painting—W. P. Nelson Co.; drapery materials—The Orinoka Mills; pictures—Rudolf
Lesch; picture frames—Menger, Ring & Weinstein; cement floors—Harrison &
Meyer.



PRIVATE BEDROOM AND PARLOR SUITE, HOTEL PENNSYLVANIA, NEW YORK CITY.

ARCHITECTURE AND BUILDING. Plate 49.

Painting—W. P. Nelson Co.; drapery materials—The Orinoka Mills; lamps—A. H. Notman & Co.; electric plugs and receptacles—The Bryant Electric Company.



LIBRARY AND PRIVATE PARLOR, HOTEL PENNSYLVANIA, NEW YORK CITY.
McKim, Mead & White, Architects.

ARCHITECTURE AND BUILDING. Plate 50.
Decorative painting—Sherwin & Berman, Inc.; electric plugs and receptacles—The Bryant Electric Company.



Made by Reed & Barton.

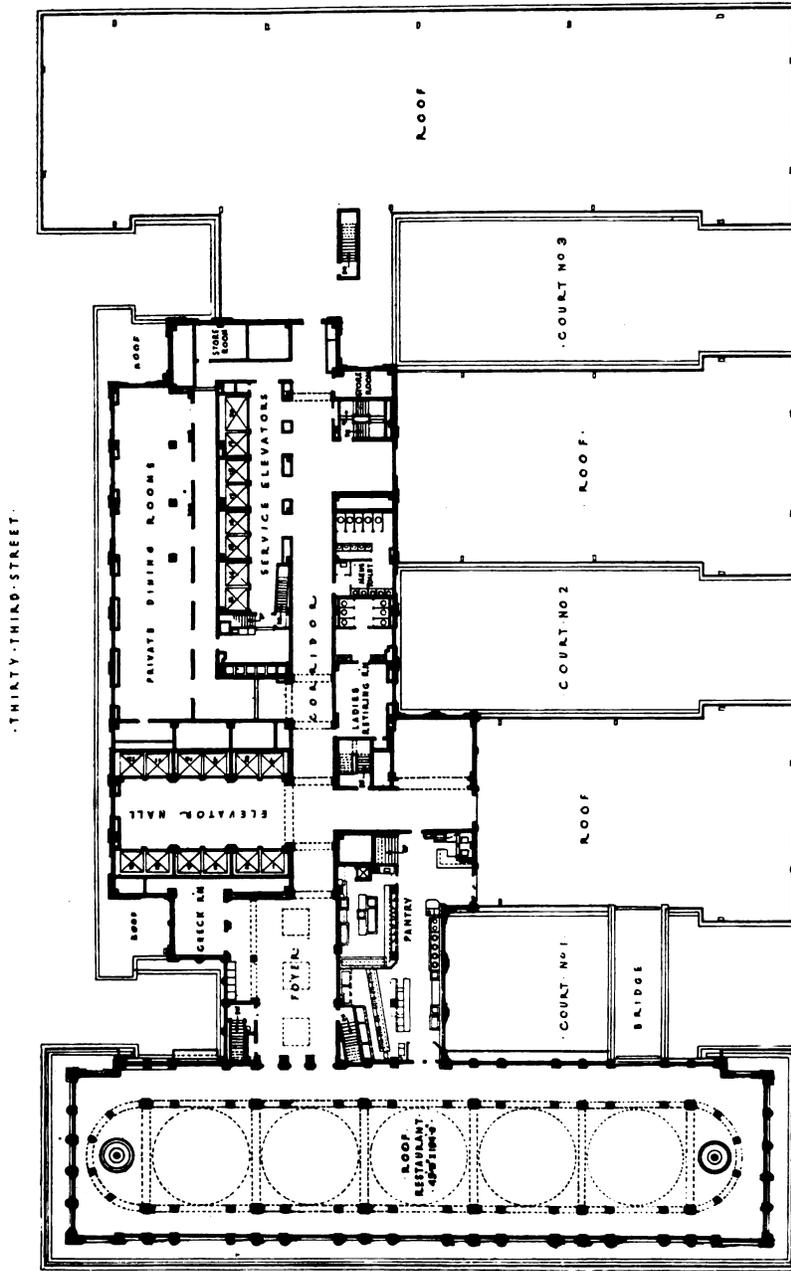
SPECIAL SILVER SERVICE, HOTEL PENNSYLVANIA, NEW YORK CITY.



LUNCH ROOM, HOTEL PENNSYLVANIA, NEW YORK CITY.

ARCHITECTURE AND BUILDING. Plate 51.

Kitchen equipment—Duparquet, Huot & Moneuse; tile—Adolph Grant & Co.; "Haustetter Victor" dishwashers furnished by F. G. Street & Company; cleaning materials—The J. B. Ford Co.; grease traps—USSESA Sales Co.; valves and fittings for steam—The Kelly & Jones Co.; kalamein doors—Reliance Fireproof Door Co.; overhead tracking in basement—Richmond & Daniels, Inc.; York ice machines installed by the Shipley Construction & Supply Company; flush valves and fittings—Murray & Sorensen Brass & Bronze Works; knife cleaning machines made by Ernest Koepfen.



THIRTY-THIRD STREET

THIRTY-SECOND STREET
MAIN ROOF PLAN

HOTEL PENNSYLVANIA
SEVENTH AVE. 32ND AND 33RD STREETS
NEW YORK CITY
MR. RIM, MEAD AND WHITE ARCHITECTS

ARCHITECTURE AND BUILDING. Plate 52.



BALLROOM, HOTEL PENNSYLVANIA, NEW YORK CITY.

ARCHITECTURE AND BUILDING. Plate 53.
Ornamental and plain plastering—H. W. Miller, Inc.; decorations—Charles A. W. Rinschde; lighting fixtures—Edward F. Caldwell & Co., Inc.; trimmings for curtains—Edward Maag; metal lath—The Composite Metal Lath Co.



TYPICAL ROOM CORRIDOR, SHOWING "SERVIDOR," HOTEL PENNSYLVANIA, NEW YORK CITY.
(Note absence of transoms due to Servidor ventilating features.)

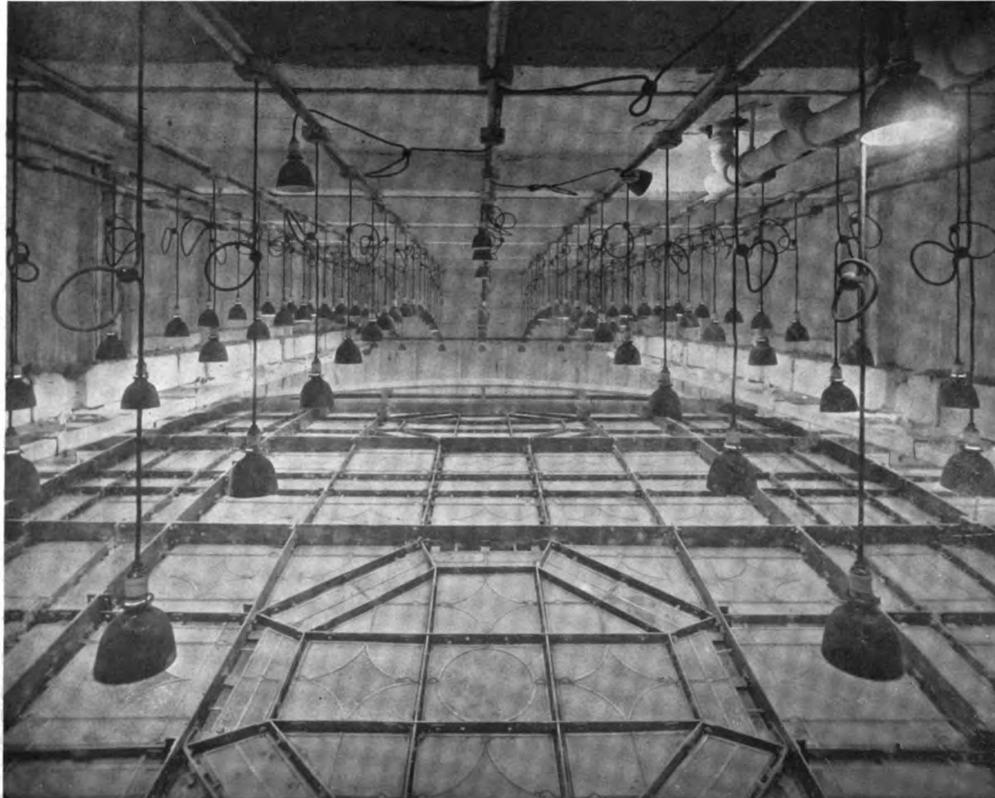


UPPER ELEVATOR CORRIDOR, HOTEL PENNSYLVANIA, NEW YORK CITY.

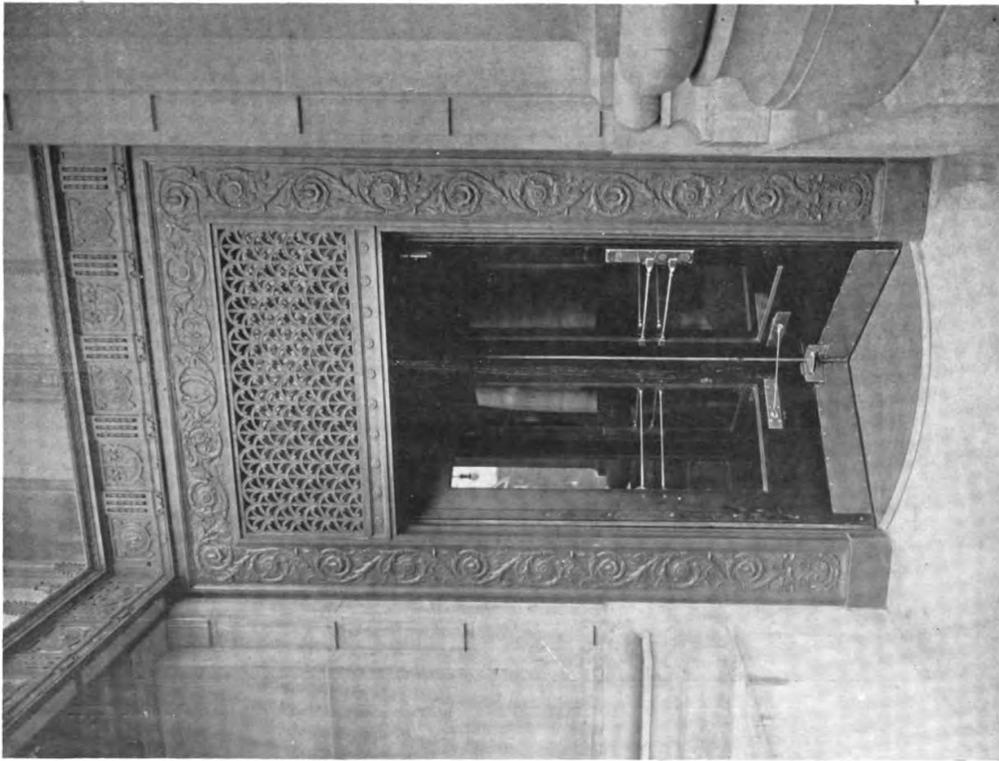
ARCHITECTURE AND BUILDING. Plate 54.
Tile—Adolph Grant & Co.; non-slip composition floors—Solry Tile Mfg. Co.; tile—
The C. Pardee Works; asbestos pipe covering—Robert A. Keasbey Co.; bulletin
boards—Building Directories, Bulletin & Sign Co.; A. D. T. fire alarm and night
watch system installed; drapery materials—The Orinoka Mills; interior woodwork—
Philip Feigin, M. E.; painting—W. P. Nelson & Co.; Otis elevators.



TERMINAL BARBER SHOP, HOTEL PENNSYLVANIA, NEW YORK CITY.
Contractors for barber shop—The Chisholm Co.; barber chairs made by the Koken Barbers Supply Co.; arm chairs—Milwaukee Chair Co.



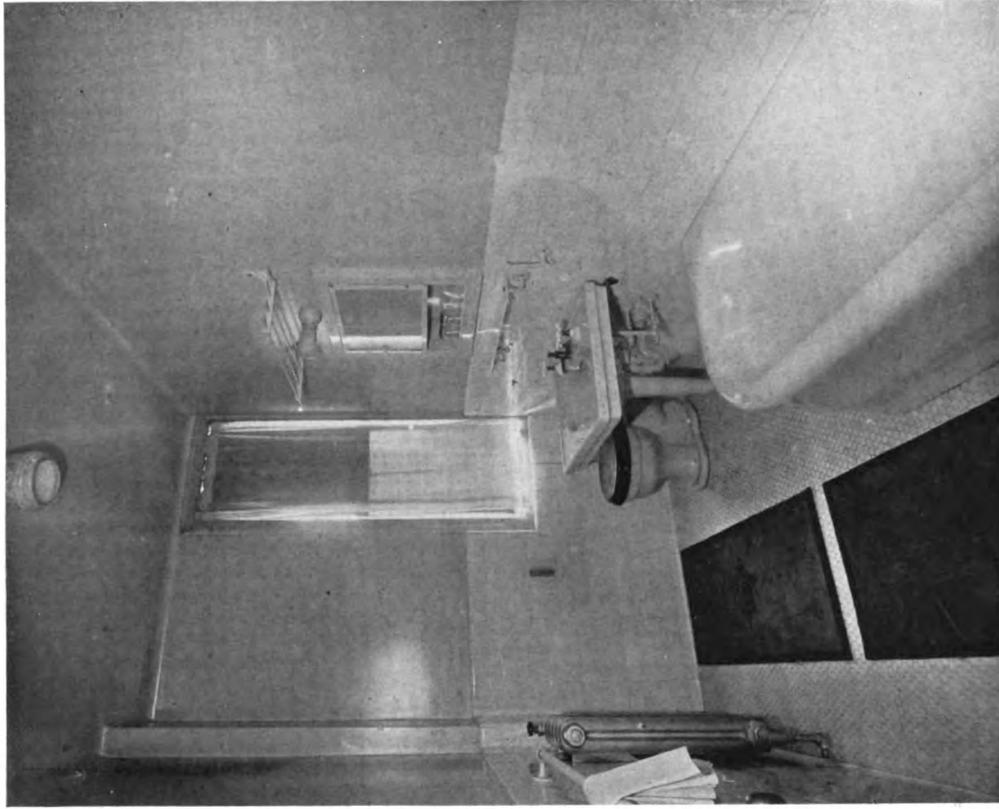
MECHANICAL EQUIPMENT OVER LOBBY CEILING, HOTEL PENNSYLVANIA, NEW YORK CITY.
ARCHITECTURE AND BUILDING. Plate 55.
"Beehive" reflectors installed by the National X-Ray Reflector Co.; traveling bridges for cleaning the lights installed by The Wagner Manufacturing Co.



ONE OF THE REVOLVING DOOR ENTRANCES TO THE HOTEL
PENNSYLVANIA, NEW YORK CITY.

ARCHITECTURE AND BUILDING. Plate 56.

Revolving doors—Van Kannel Revolving Door Co.; models for the limestone and iron work—Kochetti & Parzini; non-slip composition floors—Sotry Tile Mfg. Co.; paper balling presses—Logemann Bros. Co.



TYPICAL BATHROOM, HOTEL, PENNSYLVANIA, NEW YORK CITY

Plumbing contractors—W. G. Cornell Co.; tile—Alolph Grant & Co.; whale-bone-ite toilet seats—The Brunswick-Balle-Collider Co.; flush valves and fittings—Murray & Sorensen Brass & Bronze Works; medicine cabinets and toilet fittings—made by the White Steel Sanitary Furniture Co.; electric light bath cabinets—Burdick Cabinet Co.; soap dispensing machines installed by Re-Be-Soap Co., Inc.; shower baths with Niedeecken mixers—Hoffmann & Billings Mfg. Co.; tile—The C. Pardee Works; cleaning materials—The J. B. Ford Co.; pool sterilizers—The R. U. V. Company, Inc.

(Continued from page 21)

wearily the reader with exactly painstaking details and parallels such as, "If the bricks used in constructing Hotel Pennsylvania were placed end to end they would encircle the globe seven times," or "If the waste paper baskets used in Hotel Pennsylvania were piled one on top of the other they would reach a height great enough to enable the late Kaiser of Germany to mount to the planet Mars and there seize the throne." Persons interested in such minute details are referred to the magazine sections of the Metropolitan Sunday newspapers.

Perhaps the most important and interesting equipment of Hotel Pennsylvania is the electrical equipment which was executed and installed under the supervision of Charles E. Knox, the electrical engineer, who has written an article descriptive of this equipment which will be found in another part of this issue.

Readers interested in an enumeration of the electrical features of this particular hotel are earnestly referred to the article by the engineer himself in which he has clearly and succinctly set forth all the essential facts covering this installation, as the writer shall attempt only a brief description of a few of the most interesting features of this department of the hotel.

Illumination.

The most interesting feature of the illumination of Hotel Pennsylvania is that in the main lobby. The ceiling of the lobby is constructed of a special glass in two colors, supported on a steel frame work, arranged in an attractive design. Above the glass are a number of lamps arranged in three groups with suitable reflectors of high efficiency, arranged so as to control the three groups of lights. These lights and reflectors were installed by the National X-Ray Reflector Co. which firm specializes in this difficult class of lighting. The problem of renewing lamps which had burned out and of cleaning the lamps would have been an insurmountable one were it not for the fact that there was installed a system of trolley tracks above the glass ceiling. These tracks are suspended between the heavy steel girder in each of the seven bays over the lobby. On each of these tracks, of which there are two running the full length of each bay, there is set a specially designed Wagner Carrier connected with a bridge where the workmen stand or sit while at work. These Wagner Carriers carry the workmen directly to the light it is desired to repair or clean, and each one of these outfits will sustain a weight of one thousand pounds. This remarkable installation was made by the Wagner Mfg. Co., of Cedar Falls, Iowa.

Telautograph.

This is an instrument by means of which you can send orders, messages and drawings by electricity over wires and have them recorded simultaneously at as many different points as you may desire in the actual handwriting of the person sending the message. This device is largely used in the Hotel Pennsylvania and a brief description of its workings may best be given by an actual illustration of how it works. A guest wishes a meal served in his room. He takes up his room telephone and the switchboard operator, on learning his wants, connects him with the Order Department. In the Order Department the message is taken down by an expert telephone operator who then transmits it instantly and simultaneously to the proper floor clerk for supervisory purposes, to the floor pantry, so that the waiter can make out a check and prepare the table, and to the telautograph receiver, located in the Room Service Kitchen, where the Captain in charge tears off the order and sends it by Bus Boy to the Chef for prepa-

ration in advance of the making out of the check. The waiter in the Floor Pantry makes out the check, sends it down by pneumatic tube to the kitchen to have its articles priced and checked against the dishes as they are put on the dumbwaiter and shot up to the Floor Pantry. In the meantime the waiter has prepared the table and is ready to immediately serve the meal. By means of this device three departments concerned with the service of the meal have been functioning at the same time with a consequent saving of time.

Elevators.

The elaborate elevator equipment in the Hotel Pennsylvania was installed by the Otis Elevator Company and consists of two rows of six passenger elevators in one group and eight service elevators in another group. It was felt that in arranging the passenger elevators all in one group better service could be furnished the guests and that the confusion due to having the elevators separated into a number of different groups could be avoided. All of the elevators, with the exception of one extra large service elevator, are of the one to one gearless traction type running at the rate of 480 feet a minute. The large service elevator is of the worm gear traction type and runs at the rate of 400 feet per minute.

Automatic door closers of the pneumatic and catch spring type are provided on all the passenger and service elevators and a simple safety device is in use to prevent the car from moving until both the hatchway door and the car gate is closed. Another feature connected with the elevators is the fact that every door and passageway which leads to every elevator corridor has a non-slip composite floor approach which was furnished by the Solry Tile Mfg. Co.

In addition to the elevators there is a bank of six dumb-waiters for furnishing service between the kitchen and the various pantry floors. These dumb-waiters are operated from a single point control plant in the basement kitchen by a special operator maintained there for that purpose who despatches the dumbwaiters to the floor they are wanted at in accordance with a signal indicated on an annunciator provided for that purpose.

Plumbing Installation.

The plumbing work in the Hotel Pennsylvania was done by the W. G. Cornell Co., another one of the big fellows I have referred to in the course of this article. To describe this work in detail would require a book of several hundred pages, so that the best that can be done in the course of an article of the scope of this one is to describe a general outline of the several separate systems and let the experienced reader fill in the details either from his imagination or by obtaining further information from the firm which executed the work and which will be glad to furnish information to any person interested.

The separate systems installed in the hotel are the following: (1) A system of water supply and general distribution for all purposes. (2) A system of drainage for all purposes.

The first mentioned system includes such systems as (A) supply and distribution under street pressure; (B) under immediate tank pressure; (C) under roof tank pressure; (D) a system of ice water supply for drinking purposes; (E) a system for fire protection, and (F) a system for service of the mechanical equipment, etc. These are the principal separate elements in the general scheme of water supply and distribution in this large and very complicatedly equipped hotel.

The second mentioned general system namely, the drainage system, also comprises several separate systems,

which, like the aforementioned separate systems of water supply, have more or less relation to each other. These separate drainage systems are principally as follows: (A) a drainage system to convey all waste water and sewerage matter from all plumbing fixtures which are located above the level of the street sewers. This system discharges by gravity into the street sewer. (B) A system of drainage to convey waste water and sewerage from all plumbing fixtures which are located below the level of the street sewers. This system discharges such waste and sewerage by gravity into certain closed receptacles which are located below the level of the lowest fixture in the lowest story, or sub-basement, of the building. The sewerage from this system is automatically and periodically lifted and discharged into the street sewers by a series of automatic ejectors. (C) A separate system of roof and storm water drainage which drains and delivers to the city sewers all rain and storm water from all roofs, balconies, open areas, etc. This delivers to sewers entirely independently of the sewage carrying house drainage systems. (D) A subsoil drainage system which conveys drips from machines, underground water, etc., to a sump located at a level below every other part of the building equipment. Automatic pumps operate in conjunction with the water line in the sump and pump sump water up to the street sewer intermittently, as it may from time to time accumulate in the sump. (E) Separate systems of drainage ventilation and back-drainage for each of the above drainage systems to insure their thorough ventilation and security for trap seals, etc. All of this work was executed in strict conformity with the severe New York City Plumbing Code. Connected with this elaborate system of piping are a great variety of plumbing fixtures, such as bath tubs, slop sinks, guest lavatories, manicure tables, etc.

The insulation of the hot and cold water piping, apparatus, etc., installed by the plumbing contractor, was executed by the Robert A. Keasbey Co., of New York City.

The most interesting feature of their work was in connection with the Drinking Water System. In a building of the type of the Pennsylvania Hotel, it is of utmost importance that cool drinking water be available for the guests at all times. The Refrigerating Engineer insisted that but a 5° drop in temperature would be allowed in the drinking water from start to finish of its circulation. Armorak Sectional Covering, manufactured and applied by the Robert A. Keasbey Co., was, after investigations and tests of the different types of coverings, selected as being the most efficient and satisfactory to perform this task.

Due to the excessive moisture prevailing in filter rooms, usually located in the sub-basement, it is necessary to provide an insulation on filters and other cold surfaces, with an outer shell which is absolutely air tight. The Robert A. Keasbey Co.'s work in this regard met the requirement in every way.

In the swimming pool of the Hotel Pennsylvania, every modern device has been provided for the comfort and convenience of the bathers.

The pool water is kept in the highest possible degree of purity by the use of the R. U. V. method of swimming pool sanitation; ultra violet ray sterilization being used to insure that the water entering the pool is at all times free from all disease producing bacteria. This form of sterilization, being absolutely positive in its action and without any chemical effect on the water itself, makes what was at one time a serious and difficult problem, one of comparative simplicity. Ultra violet ray sterilization

is accepted as the best standard practice in swimming pool maintenance as evidenced by its use in the finest pools in the country, and on the large pools put in at the Government Naval Training Stations last year."

Mycenian Marble.

An item of peculiar interest to architects and owners in connection with the Hotel Pennsylvania is the large amount of Mycenian Marble which was used. The large fluted monolith columns with their decorative caps and moulded bases 26 feet in height, all the wall linings in rusticated or plain ashlar form of all corridors leading to the different entrances, the stairways leading to the mezzanine floors, the ball room, to the grill in the basement and the corridors thereof, the barber shop, the ladies manicuring parlor, the elevator halls on all of the twenty-two floors, from floor to ceiling are done in Mycenian Marble.

In addition to the above there are some large decorative monolith columns in the Main Dining Room, besides the spiral fluted columns which form part of the wall decoration at each end of the room. In all save a few cases, the Mycenian Marble work is done to reproduce Botticino Marble with a dull hone finish.

The advantages gained from the use of art marble in preference to natural marble are many. For instance, no heavy construction for the support of either the monoliths or wall linings in the Hotel Pennsylvania had to be built, with a saving in the cost of construction which will readily appeal to architects and owners. In addition, the practicability and adaptability of this material, Mycenian Marble, can be readily appreciated when one sees a fluted column twenty-six feet high built around the structural steel without a single visible joint or seam, and possessing all the dignity and beauty of a natural monolith, with the advantage of much less weight and greater economy of construction and material cost. Again take the case of the spiral columns in the Main Dining Room. It would have taken many months to carve the finely detailed ornamentation in a natural block of marble, which would have cost a very large sum in these days of excessively high wages. In the Hotel Pennsylvania nearly seventy-five thousand feet of Mycenian Marble was installed by H. A. Cousins, Incorporated.

In harmony with the beautiful furnishings of the Hotel Pennsylvania is the Silver Service supplied by Reed & Barton. No equipment has ever been given more thought in detail than this, not only by the manufacturer, but also by Mr. Statler, the lessee of the hotel himself, who personally approved each piece as to design and adaptability.

Many unique innovations in the various pieces have been adopted, some of which enhance the attractiveness, while others simplify and make the service more practical. The design carried out is in harmony with the Adam period. The knives, forks and spoons are notable for their beautiful lines, well distributed metal and clean cut die work. Each piece bears an Adam shield in the handle with the "H. P." monogram imprinted therein.

The holloware is unusually distinctive and graceful. All pieces are embellished with an Adam mount or border and an etching of the Statler crest. The finish was produced by a new process which gives a pleasing soft pearl or satin effect.

Back of the artistic appearance is the Reed & Barton quality assuring the best base metal and utmost durability. From experience with this line in his Buffalo hotels, Mr. Statler has chosen it again for his newest

hostelry, which speaks well for this widely known silverware.

The souvenirs for the opening dinner, also furnished by Reed & Barton, were handsome Jewel Cases manufactured of French Bronze inlaid with sterling silver and lined with pale blue velvet. To make these a more personal memento of the occasion, Mr. Statler arranged to have the monogram of each recipient inlaid in gold. Never before at such an occasion have so handsome and such costly souvenirs been presented.

The Kitchen Equipment.

The entire kitchen equipment was supplied by the Duparquet, Huot & Moneuse Co. of New York City and is most complete in every detail. In addition to the usual collection of copper boilers, steam tables, urns and the general paraphernalia which one is accustomed to seeing in large hotel kitchens there are a number of new devices which are worthy of special mention and description.

The first of these is to be found in the Grill Room and consists of a polished monel metal grill fixture on which food is cooked for over 1,500 persons a day when the device is running at only half capacity. This grill fixture consists of three ovens heated by the excess heat from the three broiler units below.

Below the broilers, there is an Electric Hot Top, constructed of heavy cast iron plates which can be run red hot at full heat or arranged to be easily adjusted to obtain any heat desired for the various requirements and purposes of the kitchen force.

The lower part of the fixture contains four plate shelves, the necessary controlling switches (all three heat) and the fuses for all circuits. This fixture is covered by a polished monel metal canopy.

The Home Cooked Food Kitchen is electrically equipped throughout and is operated entirely by women. The electric range is of the standard Duparquet construction and the ovens of all these ranges are thoroughly insulated to prevent any waste of heat.

The electric oven is used for making the Southern Corn Pone, pies and biscuits and it has proven most satisfactory in every manner.

The Main Kitchen is also equipped with the standard Duparquet Hotel Electric Broilers and the entire equipment is of the Duparquet standard and is the last word in modern kitchen construction and equipment.

For the benefit of those who may be interested, the writer will add at this point the names of a few of the individuals, partnerships and corporations whose labors or products contributed to the construction, decoration and equipment of this masterpiece of modern financial and industrial enterprise. They are the following: Harrison & Meyer installed all the cement floors. All the lamps were manufactured by A. H. Notman & Co. The Building Directories in the lobby and upper corridors were supplied by Building Directories Bulletin & Sign Co. Inc. All the switchboards in the hotel were made by the H. Krantz Mfg. Co. All the structural steel work

was inspected by Modjeski & Angier, Inspecting Engineers. The Composite Metal Lath Company supplied a new kind of metal lath made of metal with a burnt clay covering. The models for the entrance to the lobby and those for the Dining Room were executed by Menconi Bros., who also did the Sgraffito work for the grill room. The models for the limestone, ornamental iron and terra cotta work were made by Rochette and Parzini. The Heating and Ventilating Engineers were Baker, Smith & Co. J. J. Spurr & Sons supplied all the cut stone and executed the fine stone work for the exterior. The revolving doors to the main entrance were built by the Van Kannel Revolving Door Co. Ussesa Sales Co. supplied the Grease Traps and F. G. Street & Co. furnished the "Haustetter Victor Dishwashers." A. M. Byers & Co. made all the wrought iron pipe and Essex Foundry supplied the drainage fittings. The medicine cabinets and toilet fittings were made by White Steel Sanitary Furniture Co. Murray & Sorenson Brass & Bronze Works supplied the flush valves and fittings. The tile for the bath rooms and kitchen floors was supplied by The C. Pardee Works. The Oscar C. Rixson Company furnished all the door checks. Richmond & Daniels, Inc. installed the overhead tracking in the basement. Re-Be Soap Co. supplied the soap dispensing machines, and Ernest Koeppen made the knife cleaning machines.

The mason's materials were supplied by the Empire Brick & Supply Co. Reliance Fireproof Door Co. made the kalamein doors and W. P. Nelson Co. did the painting. The drapery materials were furnished by Whitcombe, McGeachin & Co. and Edward Maag supplied the trimmings for the curtains on the ball room floor. The Muralo Co. supplied the wall coatings used in the decorations and Philip A. Feigin, M. E., Inc. did the interior woodwork in the Turkish Bath and Linen Room. The J. B. Ford Co. supplied the cleaning materials, Battersen & Eisele did the interior marble work and Shipley Construction & Supply Company installed the York Ice Machines. The Kelly & Jones Co. supplied the valves and fittings for the steam equipment, the Brunswick-Balke Collender Co. supplied the "Whale-bone-ite" toilet seats. The decorations in the mezzanine gallery installed by the Sherwin Berman Co. and The R. U. V. Company, Inc., the pool sterilizers. Atlantic Terra Cotta Co. supplied all terra cotta and The Bryant Electric Company installed all plugs and electrical receptacles. If the writer has failed to mention any person or institution whose efforts or products contributed to the making of the hotel, he hopes that the aggrieved one will not regard the lapse as a personal slight, but will recognize the limitations of space and the frailties of the human memory.

With this list the writer will conclude his labors "done" as the late Elbert Hubbard would say, "in the city of New York in the year Nineteen Hundred Nineteen" and having presented his case leave it to the jury, his readers, to say whether or not he has sustained the arguments of the "New Thoughtists" and demonstrated the mighty power of an idea.

CHARLES WARREN HASTINGS.

THE ELECTRIC AND ELEVATOR EQUIPMENT OF THE HOTEL PENNSYLVANIA.

By CHARLES E. KNOX, E. E.

The outstanding requirement of the electrical and elevator equipment of an hotel is service. With the keen competition existing between the hotels today, it is mandatory that the guests be provided with every convenience in the way of lighting, signal systems and elevator service, so that their needs may be quickly satisfied.

A brief description of how these requirements are met in the Hotel Pennsylvania, so far as the electrical equipment and elevator service is concerned, may therefore prove of some interest.

We have found by experience gained in the design of the electrical equipment of over twenty large hotels in the past, that while it was desirable to provide the guests with every possible facility for their convenience, it was nevertheless equally desirable that the equipment be simplified as much as possible, reducing thereby not only the initial expenditure of installation but greatly reducing the cost of maintenance and repairs.

The current supply for the Hotel Pennsylvania is obtained from the Pennsylvania Railroad. The steam is obtained from the power plant of the Pennsylvania Railroad on 32nd Street between 7th and 8th Avenues, the electric current supply being obtained from the Long Island City plant of the Pennsylvania Railroad. The electric current supply is alternating current, a portion of which is changed to direct current by means of three rotary converters installed in the sub-basement of the hotel for supplying the elevators and ventilating fans and other large motors. The alternating current is used for lighting and for small motors so as to avoid the losses incidental to converting the energy from alternating current to direct current. A 500 KW steam driven generator is also installed in the sub-basement, this steam supply being obtained from the Pennsylvania Railroad. The object in installing this steam driven unit was to obtain the exhaust steam from the engine and use it for heating purposes during the winter months and at such times when there would not be sufficient exhaust steam from the other steam driven apparatus in the hotel.

Illumination: One of the main features of interest in the way of illumination in the hotel, is the lighting of the lobby. The ceiling of the lobby is of glass arranged in an attractive design supported on steel framework. Special glass in two colors is used and in the space above the glass ceiling are located a number of lamps with efficient reflectors arranged for control in three groups. The lighting effect is very attractive and obtained with an unusually small expenditure of energy for this type of lighting. Standard fixtures are also located on the floor which are used in connection with the lighting above the glass ceiling.

Each of the bed rooms is provided with a center ceiling light controlled by a push button switch near the door. This ceiling fixture is of the semi-indirect type consisting of a simple but attractive, etched glass bowl. This fixture is equipped with a rather novel and clever means for removing the bowl for the purpose of lamp renewals and cleaning. In addition to the ceiling fixture a desk lamp is provided, supplied from a plug. Two other fixtures are supplied from a duplex cord which fixtures are attached to the bureau and a third plug is provided for supplying current to a small fixture attached to the bed for reading purposes. In the bath room a simple fixture is provided over the mirror above the wash basin, and is controlled by a pull switch, in some cases,

and in the larger bath rooms, by a push button switch located near the door. In each of the bed room closets a lamp is provided in a receptacle over the door controlled by a substantial pull chain socket.

It has already been mentioned that the electrical equipment has been simplified as far as possible. As an instance of this, no push button calls are provided in the bed rooms as the telephone is used entirely for calling maids or pages and for all meal orders, etc. This feature of the design resulted in a material reduction in the cost of the electrical equipment and also reduced repairs and maintenance. Telautographs and pneumatic tubes are used for transmitting messages, mail, cards, newspapers, etc. A floor clerk is stationed at a desk on each floor opposite the group of passenger elevators. The floor clerk receives and distributes the guests' mail, the room keys, supervises the maids, pages and the operation of the floor generally. On each bed room floor is also located a service pantry, in charge of a waiter and bus boys. A bank of six dumbwaiters extending from the kitchen pantry connects with and supplies these service pantries. Telautographs and a separate pneumatic tube service are also part of the equipment of the service pantries. This pneumatic tube service extends to the main kitchen at the basement floor. From the main office at the ground floor a system of pneumatic tubes connects with a number of stations throughout the hotel, including the bar, grill, roof, restaurant, etc.

The watchman's detector system[®] is of the portable type, with the addition that on each floor there is provided a separate watchman's station connecting with an outside supervised service. The fire alarm system is also of the interior type, connecting with the engine room, with an additional signal station on each floor, connecting directly through the National District Telegraph Company, with fire headquarters.

An electric clock system is provided, including a clock in each elevator corridor and in the public rooms on the main floors, and in some of the administration and service departments. This clock system is also operated in connection with the electric time stamp system, the time stamps being located on the floor clerks' desks, service pantries, bell captain and other service portions of the house.

Elevator Equipment: There is one group of main passenger elevators consisting of two rows of six elevators each, opening on the passenger elevator corridor. These elevators run from the basement to the roof floor and by locating all of the elevators in one group, it was deemed that better service to the guests would be provided and less confusion exist to the guest in locating the elevators. Two elevators are installed at the southwest corner of the building which serve to carry passengers, from the tunnel connecting with the Pennsylvania Railroad station and the subway, to the main floor.

At the 33rd Street side of the building near the hall room entrance two elevators are also provided for carrying passengers from the main floor to the ball room floor about twenty-five feet above the ground floor.

Eight service elevators in one bank are provided for the service requirements of the hotel. These elevators extend from the sub-basement to the roof and are arranged to be operated in three separate groups so far as signaling is concerned, thereby permitting a certain amount of flexibility in assigning the elevators to different purposes. For example, one pair of elevators may be used for waiters exclusively, another pair for baggage, laundry, etc. The passenger elevators are arranged so that one side of (six) elevators may be run local and

the other side may be run express. All of the passenger and service elevators with the exception of one large service elevator are of the one to one gearless traction type running at 600 feet per minute. The large service elevator which is approximately nine feet wide by seven feet deep is of the worm gear traction type, running at 450 feet per minute.

There are three additional elevators in the rear of the building which serve to carry supplies from the driveway to the lower floors and also to provide service between the sub-basement and the banquet room kitchen, which is located on the first mezzanine floor.

The signal system for the passenger elevators consists of up and down flashlight annunciators in the car with push buttons and up and down signal lanterns located at the various landings.

Dial indicators are placed on the ground floor as well as telltale annunciators for furnishing to the elevator starter the necessary information as to the location of cars and the car signals.

Door closers of the pneumatic and spring catch type are provided on all of the passenger and service elevators. On all passenger elevators a simple safety device is used to prevent the car moving until both the hatchway door and the car gate is closed.

A bank of six dumbwaiters is provided for furnishing service between the kitchen and the various floor pantries, one of which is located on each of the bed room floors. These dumbwaiters are operated on the single point control plan, that is, an operator in the basement kitchen controls the movement of these cars and dispatches the dumbwaiters to the various floors in accordance with demands or in accordance with signals received from the floors. These signals are indicated on the annunciator in the basement kitchen. The dumbwaiters run at a speed of 500 feet per minute and are capable of carrying a load of 100 pounds.

Book Reviews

THE AMERICAN HOSPITAL OF THE TWENTIETH CENTURY. By Edward S. Stevens, Architect. New York, Architectural Record Co. Cloth, 10 $\frac{1}{4}$ x 7 $\frac{1}{4}$ inches, 300 pages, 350 illustrations and floor plans. Price, \$5.00 net.

The author of this book is himself the architect of 84 hospitals and has the reputation of being an authority on this subject, both in this country and in Europe. He gives as a reason for having written this book the fact that there is a surprising dearth of reliable literature covering this very important branch of modern architectural construction. In a sincere endeavor to serve the general practitioner in the architectural profession, who may be called upon from time to time to design a hospital, the author has gathered together from every available source, data, material and technical matter, which he has put into this book and which he has amplified by his own knowledge gained as the result of an unusual wealth of personal practical experience. The arrangement of the book is most logical in that it starts with a brief historical dissertation, then takes up the question of hospital sites, passes on to the exterior of the hospital as a whole and then discusses the separate and distinct departments or units going to make up the hospital in its entirety. The book is divided into 19 chapters and contains 350 illustrations and floor plans. A feature of the book is the unusually complete index,

both of the subject matter treated and of the illustrations. It is a matter of common knowledge that many an otherwise excellent book is spoiled by a bad index, or the lack of a good one, but in this instance, the excellent text has been supplemented by a most excellent index.

It is the belief of the publisher as well as of this reviewer that this book is destined to occupy a lasting place in the literature hereafter to be developed covering this type of construction, and that, however many books may be written in the future on this important topic, this book will always hold its place as a sort of fountain of wisdom on this subject.

Industrial Progress

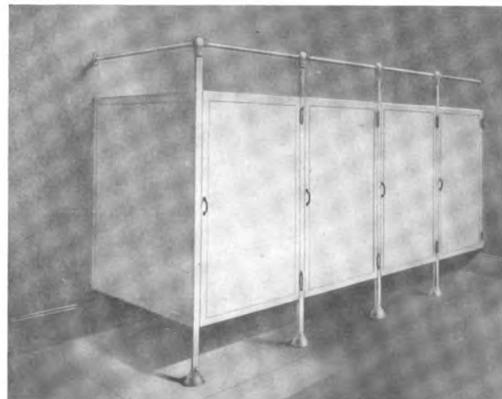
Niedecken Showers and Mixers.

In the equipment of a great hotel with showers and mixers due regard must be given to two things; the dependability of the device used and its ability to stand up under service without requiring frequent repairs. In selecting the showers and mixers for the new Hotel Pennsylvania a large variety of showers and mixers were examined by the architects and owners and finally their choice fell upon the Niedecken Shower and Mixer, which are manufactured by the Hoffmann & Billings Mfg. Co., of Milwaukee, Wisconsin. It was particularly gratifying to the manufacturers that this should be the case, for the reason that Mr. Statler, the lessee of the Hotel Pennsylvania, had already thoroughly tested the Niedecken Shower and Mixer in his two hotels—one in Cleveland and one in Detroit and was evidently so well pleased with the result that he felt justified in ordering another thousand showers with mixers from the Hotel Pennsylvania.

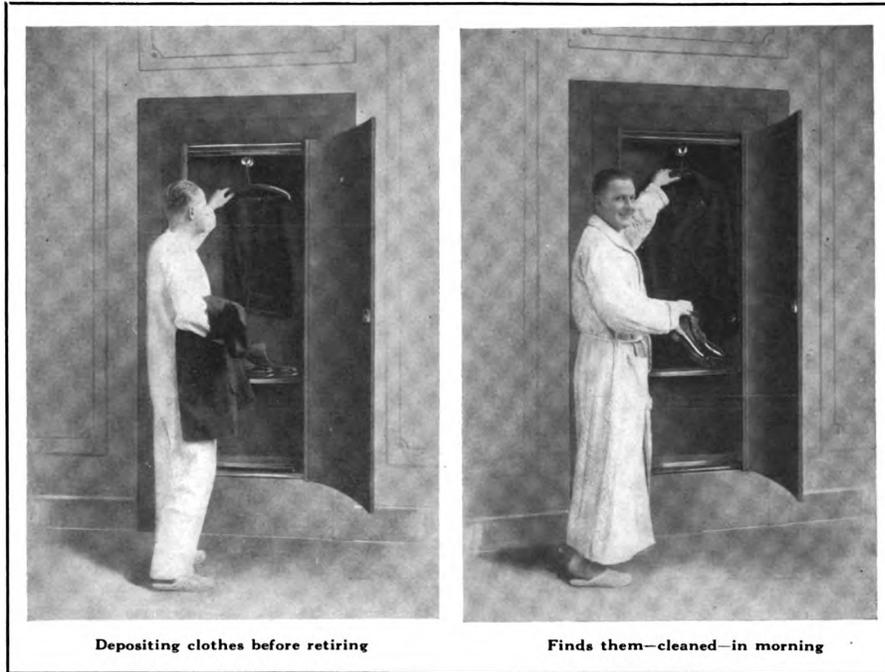
The Niedecken Shower and Mixer is manufactured in a variety of forms such as the concealed type and the exposed type and is fitted for any character of use to which a hotel owner or householder may wish to put them. An attractive folder descriptive of the Niedecken fixtures may be had by persons interested in return for a postal card of request addressed to the manufacturers, Hoffmann & Billings Mfg. Co., Milwaukee, Wisconsin.

Steelbilt Toilet Partitions.

Architects and engineers for some time have been demanding a material for toilet room partitions, dressing rooms, shower baths, wainscoting and urinals, suitable for hotels, hospitals, theatres, schools, office buildings



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Depositing clothes before retiring

Finds them—cleaned—in morning

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Hotel Pennsylvania	- - -	New York City	- - -	2200 Rooms	- - -	2200 Servidors
Hotel Cleveland	- - -	Cleveland, Ohio	- - -	1000 Rooms	- - -	1000 Servidors
Hotel Fort Shelby	- - -	Detroit, Mich.	- - -	400 Rooms	- - -	400 Servidors
Hotel Fort Des Moines	- - -	Des Moines, Iowa	- - -	350 Rooms	- - -	350 Servidors

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