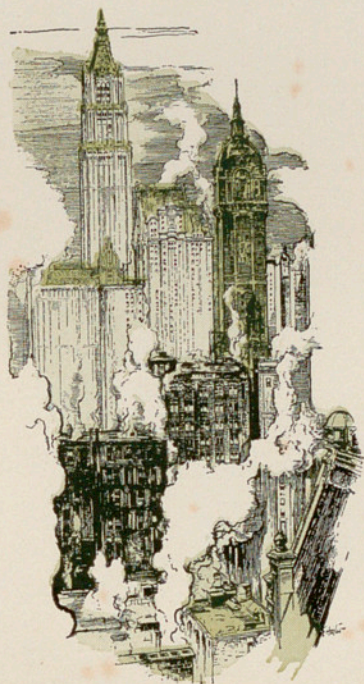


Woolworth Building

New York

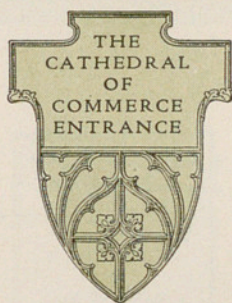
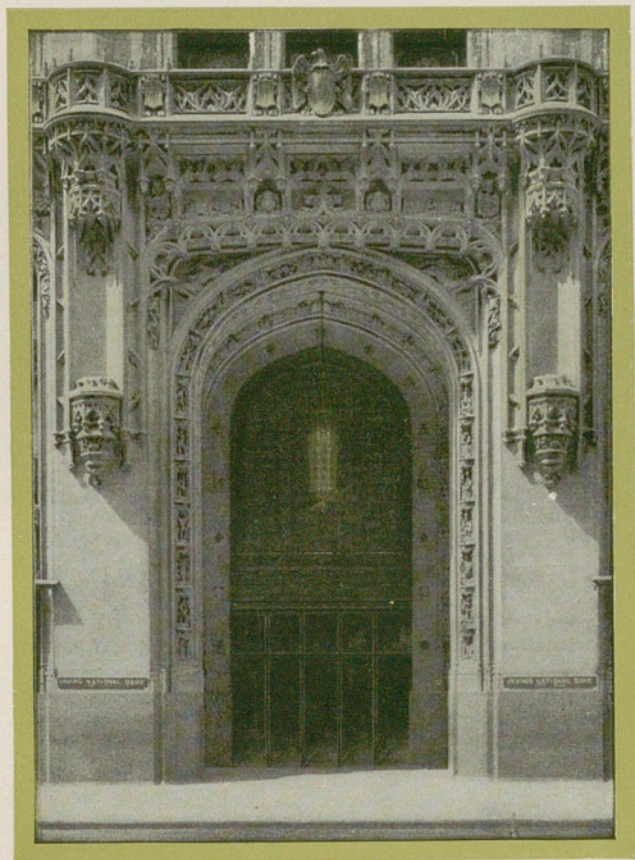
Archivo

The Cathedral
of Commerce



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GRAND ARCADE
OF THE
CATHEDRAL
OF
COMMERCE

The Cathedral of Commerce

mcmlxxix



FRANK W. WOOLWORTH

1852 · 1919

THE visitors to the Observation Gallery of the Woolworth Building, and others, who read the story of "The Cathedral of Commerce," may be interested in a brief résumé of the life of the man by whom this Gothic monument was built.

Frank W. Woolworth was descended from Richard Woolworth, who came from England about 1650 and settled in Massachusetts. He was born April 13, 1852, at Rodman, Jefferson County, N.Y., his parents being John H. and Fannie (McBrier) Woolworth. When he was about seven years of age the family moved to a farm at Great Bend, N.Y. Here the boy worked on the farm and attended a district school. Later he attended a Watertown Commercial College, from which he was graduated in 1872.

Starting as a clerk in 1873 in the department store of Augsbury & Moore at Watertown, N.Y., at \$3.50 per week, he remained with that firm (which became Moore & Smith) until the early part of the year 1879, when he left to go in business for himself.

Mr. Woolworth was married in 1876 to Miss Jennie Creighton, of Watertown, N.Y., and had three daughters.

The first store (which was strictly a 5-cent store) was opened by Mr. Woolworth February 22, 1879, at Utica, N.Y. This store was not a success. The second store, established at Lancaster, Pa., was a successful venture. The third store, opened at Harrisburg, Pa., in June, 1879, was not successful, while the fourth, started at Scranton, Pa., was a success.

Despite the failure of later ventures at Philadelphia, Pa., Newark, N.J., and Elmira,

N.Y., he persisted in the establishment of a chain of 5- and 10-cent stores.

In 1886, Mr. Woolworth opened a small office in New York City, at 104 Chambers Street, and made this his headquarters.

In 1905, he owned and operated about 300 stores when he incorporated his business for \$10,000,000, under the name of F. W. Wool-

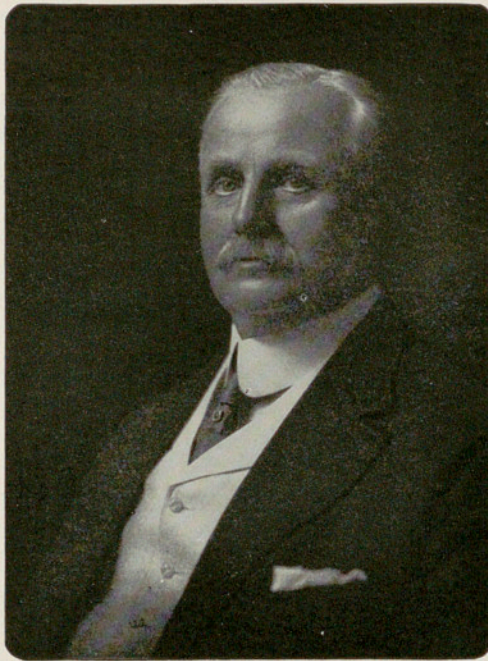
worth & Company. This company was reorganized in 1912 as the F. W. Woolworth Company, with a capital of \$65,000,000, and absorbed the business of S. H. Knox & Co., F. M. Kirby & Co., E. P. Charlton & Co., C. S. Woolworth and W. H. Moore, with a total of 600 stores.

At the date of the death of the late Frank W. Woolworth, the Company owned and operated over one thousand stores and doing a total annual business of approximately \$120,000,000.

Mr. Woolworth died April 8, 1919, at his country home at Glen Cove, L.I. His New York City residence was at 990 Fifth Avenue.

In 1914, in memory of his father and mother, he built and endowed the Woolworth Memorial Methodist Episcopal Church at Great Bend, N.Y. His contributions to charitable causes were large.

Up to the time of his death, Mr. Woolworth was a member of the board of directors of many banks and commercial corporations. He was a member of numerous associations and clubs, including among others, the New York Chamber of Commerce, the Merchants' Association of New York, the Union League Club, the Lotos Club, the Hardware Club, and the Automobile Club of America.



FOREWORD

S. PARKES CADMAN, D.D., S.T.D., L.H.D.

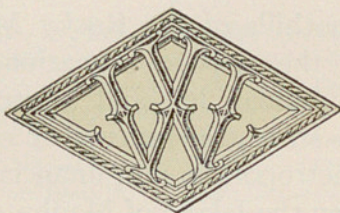


THE man who proposes and the architect who designs a truly great building confer a lasting favor on the race at large. Our indebtedness to those who constructed the Parthenon, the Coliseum at Rome, St. Peter's Cathedral in that city, St. Paul's in London, St. Mark's in Venice and the pure Gothic of St. Chapelle and Notre Dame in Paris is utterly beyond ordinary methods of computation. These monuments of rare beauty, devotion and civic pride far outlast other achievements of their respective periods. Their true value is not in stone nor in gold but in the spiritual aspirations which they embodied and expressed. Brute material has been robbed of its density and flung into the sky to challenge its loveliness.

Just as religion monopolized art and architecture during the Medieval epoch, so commerce has engrossed the United States since 1865. The close of the Civil War released the pent-up powers of a young nation, occupying a virgin soil, with the consequences we now witness. Multitudes flocked to our shores, trade increased by leaps and bounds, railways linked East and West in a continental expanse, cities thrived apace. Out of the struggles of this process, not without its pulsive and sordid features, have been developed gratifying benefits. The prairies of Illinois, Indiana, Iowa and the Dakotas have become the granaries of the earth. The mineral treasures of Pennsylvania, Georgia and the States located among the foothills of the Rocky Mountains have been mined and placed at the disposal of nations. These and many other enrichments of human life and intercourse received their visible tokens in the steady advancement of general prosperity and welfare. Their metropolitan and financial centers were found in New York. Here, on the Island of Manhattan, and at its southerly extremity, stands a succession of buildings without precedent or peer. The vision of their grandiose effect from the Brooklyn Bridge at dusk, when the gathering darkness softens their bold outlines, and every one of the numberless windows coruscates with radiance, is beyond the brush of Turner to paint or the eloquence of Ruskin to describe. It outvies imagination in its most fertile moments. Of these buildings the Woolworth is Queen,

acknowledged as premier by all lovers of the city and the commonwealth, by critics from near and far, by those who aspire toward perfection, and by those who use visible things to attain it. When seen at nightfall bathed in electric light as with a garment, or in the lucid air of a summer morning, piercing space like a battlement of the paradise of God which St. John beheld, it inspires feelings too deep even for tears. The writer looked upon it and at once cried out, "The Cathedral of Commerce"—the chosen habitation of that spirit in man which, through means of change and barter, binds alien people into unity and peace, and reduces the hazards of war and bloodshed. Such is its testimony due to Frank W. Woolworth, whose magnitude of mind originated the scheme, and to Cass Gilbert, whose genius executed it to the last detail. To these men, America pays a lasting tribute, and their accomplishment will remain at the heart of the world of trade, a lofty example of the best possibilities in human nature, even when engaged in mercantile pursuits.

Stansford Redman



THE CATHEDRAL OF COMMERCE

ON the night of April 24, 1913, President Wilson pressed a tiny button in the White House and 80,000 brilliant lights instantly flashed throughout the Woolworth Building. The event marked the completion, the dedication and the formal opening of that regal edifice, the highest and most beautiful building in all the world erected to commerce, so judged by the officials of the Panama-Pacific Exposition when they placed their seal of approval upon it and awarded it a gold medal. It was a memorable night. A profusion of light filled the twenty-seventh floor, which had been arranged for a superb banquet. And assembled there was a great host of statesmen, captains of industry, merchants, journalists, scholars, poets—all representative Americans, proud to break bread with, and honor the man who had realized his dream, and the gallant aides who tirelessly had labored with him to accomplish the stupendous task, the upbuilding of a monument to small things.

Yes, as a commercial institution the Woolworth Building is preeminent. Within its walls are

housed great banking institutions, the executive and clerical staffs of giant industries, the New York representatives of America's big business enterprises and a great many leaders in the professions. Its tenants, with their employees, number upwards of 14,000 people—the population of a city—and only tenants of the highest standard are accepted. The Building could have been filled twice over had not Mr. Woolworth been so strict about the responsibility and personal integrity of every lessee. Altogether, these tenants rank among our country's most prosperous, progressive and most reputable business and professional men.

Doctor Cadman, the noted divine, has called this Building "The Cathedral of Commerce." This term fittingly describes it. It stands in magnificent splendor, a masterpiece of art and architecture, a Glorious Whole, quite beyond the control of human imagination. The true Gothic lines and tracery of the exterior are extremely impressive, and the proportions have been executed with such studious care and fidelity to detail that its enormous height is not realized from the



LOWER MANHATTAN BY NIGHT
FROM THE OBSERVATION GALLERY OF THE WOOLWORTH BUILDING

street; yet in its splendor this distinctive structure rises 792 feet and 1 inch above the sidewalk, its summit piercing the heavens. The recessive Tower, gradually diminishing from base to pinnacle and appearing always in new lights and colors, forms a fascinating picture from every viewpoint, as it stands silhouetted against the sky.

Its location, too, is of supreme importance. It is in the very heart of things—the civic center of the world's great metropolis, in the midst of all transportation lines. It faces upon three streets and has nine entrances, including two direct communications with the subway transportation system.

It is within a stone's throw of City Hall, the Municipal Building, Brooklyn Bridge, the Post Office and all Courts, also close by the great financial and banking center. No building could command a better location or one more advantageous to its tenants.

From the Observation Gallery, fifty-eight stories above the street, the view is marvelous, and the thrilling sensation which comes over the sightseer is never to be forgotten. It is indeed the most remarkable if not the most wondrous view in all the world. The scenic and color effects, with the sun shining on the multi-colored buildings around it, but far



THREE TOWERS OF LOWER MANHATTAN AT NIGHT

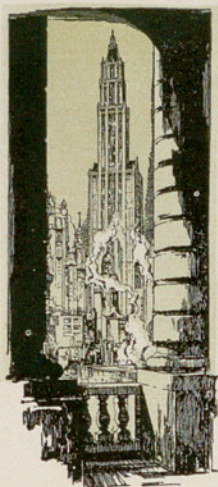
below, and on the water and land for twenty-five miles in every direction, make a landscape impossible of adequate description. The vast area spread out before the visitor's eye is inhabited by more than 9,500,000 souls. To the north lies the great City, with the Hudson River and the lordly Highlands beyond. To the east, Long Island and the mighty Atlantic Ocean, with its ships passing to and fro far distant on the horizon where sky and water seem to meet. To the south, the great Harbor of New York, the Narrows through which pass all ships entering and leaving this Port, Governor's Island, the Statue of Liberty, and Staten

Island in the distance. To the west again is seen the Hudson River and the great expanse of meadow-land and mountainous country embracing Eastern New Jersey. Looking downward, the multitudes of people scurrying about the busy streets in close proximity to the Woolworth Building resemble an aggregation of pygmies—a crowd seen through the large end of a telescope. The view is bewildering. Every year upwards of 300,000 visitors from all parts of the world come here and the Guests' Register shows that these good people represent more than sixty different countries and thousands of cities.

The wonders of the Woolworth Building have not been confined to its exterior, for within will be found a wealth of things intensely interesting. First among these should be mentioned the grand arcade, its tall, perfect lines rising and sweeping into graceful curves and arches. The marble, with its warm, golden, evenly matched colors of varied hues forming the arcade walls, was quarried on the Isle of Skyros off the coast of Greece, from the choicest marble obtainable there. It is richly carved in pure Gothic design, blending with the magnificently decorated dome-ceiling, which is a masterpiece of glass mosaic. Its rare beauty is accentuated by the soft glow of artificial light concealed behind the lacelike marble cornice at the springing of the arches. It suggests a flood of dazzling jewels glittering in the sunlight—emeralds, rubies, sapphires, diamonds—a riot of harmonious colors, all spread out in golden settings, and arranged in exquisite designs. The whole effect is one of grandeur with which the arcade of no other building in the world may be compared. It is, indeed, an appropriate entrance to this regal structure, "The Cathedral of Commerce."

In the sub-basement is located the power plant which generates

electricity to operate the elevators and furnish light and ventilation for the entire Building.



This plant is complete in its make-up. Its four mighty engines and dynamos, operating day and night—never idle—are wondrous pieces of machinery, and considered the most efficient known to engineering science. The plant has a total capacity of 1,500 kilowatts, and consists of two 500 kilowatt units, one 300 kilowatt unit, and one

200 kilowatt unit. These units are of varying size, so as to afford maximum operating efficiency, according to the varying electrical load at different hours of the day. The engines are of tandem-compound low-speed Corliss type moving at one hundred revolutions per minute, and are capable of generating sufficient power to operate an electric street railway or supply electric light for a city of 50,000 inhabitants. The Engine Room itself is especially attractive with walls and floor of white tile and ceiling of white enamel, always spotless clean. Here, too, will be found an elaborate ventilating plant, designed to furnish a complete change of air in the three stories underground and the first four above four times in every hour. The air is drawn down from outside the Building above the sixth floor, passed through fine sieves

and then through a curtain of constantly running filtered water, where it is cleansed and distributed to tenants free of impurity. In summer months, this air is cooled by refrigeration, and in winter it is warmed by passing through heated pipes. A water filtration plant and refrigerating plant also form part of the vast mechanical equipment required for the exacting needs of the Building's tenants.

The Boiler Room houses six giant boilers having a total capacity of 2,500 horse-power. These boilers are operated at high pressure and except during a few weeks of unusually cold weather in mid-winter the entire building is

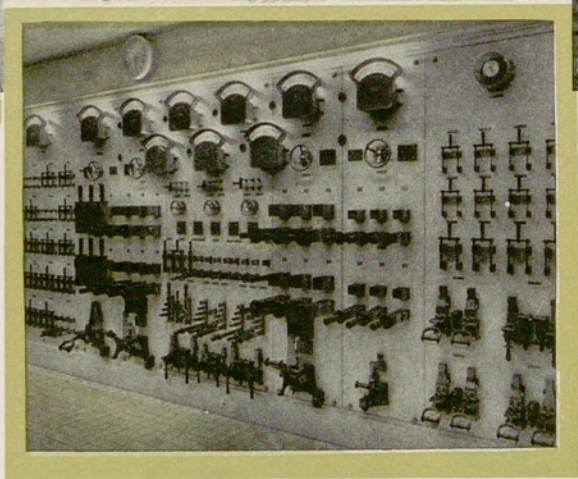
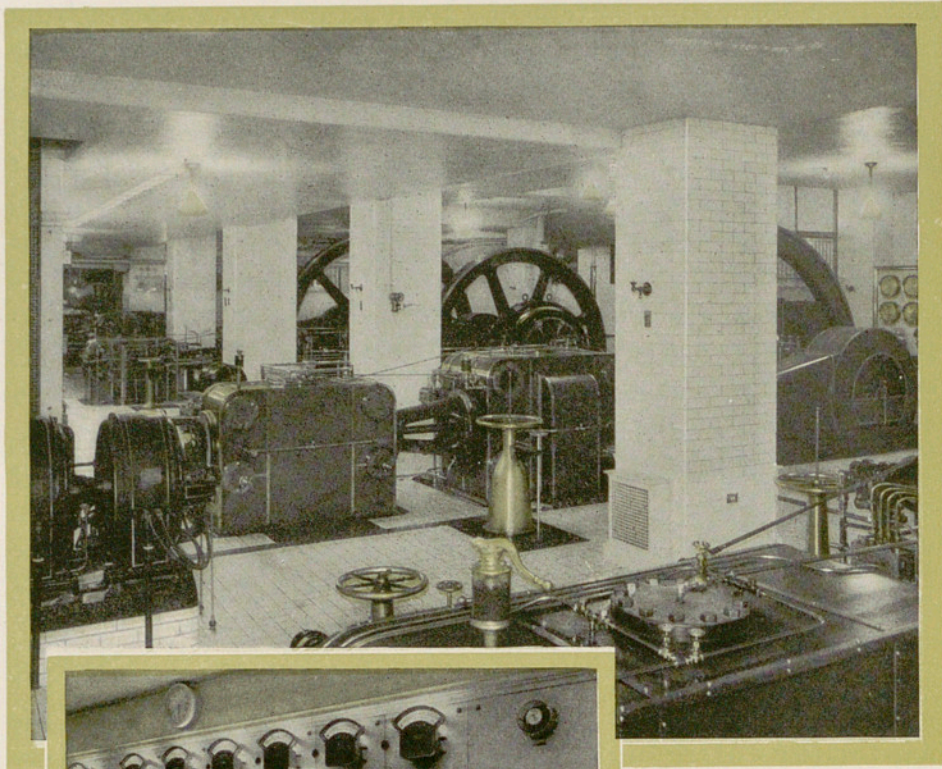
heated by exhaust steam from the engines and pumps. Some idea may be formed of the coal consumed by these boilers from the fact that the Building's coal bunkers contain over 2,000 tons of coal, which is replaced as used by cargo shipments direct from the anthracite fields of Pennsylvania.

A modern Health Club, equipped with Swimming Pool and Baths, is located in the sub-basement, and patronized by building tenants and others in the vicinity.

The fortress-like vaults of the Irving Safe Deposit Company



VIEW FROM THE SOUTHWEST



GENERATORS AND MAIN SWITCHBOARD IN THE ENGINE ROOM

are a feature of the basement, the first business floor. Upwards of five thousand boxes, many of them extra size, provide safe-keeping for the important documents, securities and valuables of almost as many business and individual customers. Another interesting place in the basement is the Restaurant—a show-place noted for its good food and fine service. There is also a finely appointed Barber Shop in the basement.

The American Exchange Irving Trust Company, whose resources of more than \$600,000,000 give it rank among the great institutions of the country, occupies the banking floors. The grand staircase facing the Broadway entrance leads directly into the Banking Office which serves a large number of clients in New York City. On upper floors are the Banking Offices especially organized to handle the business



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At dusk, its gigantic Tower, bathed in electric light of many gorgeous hues, rises high into the heavens like a shaft of fire heralding the approach of night.



LOOKING NORTH FROM THE OBSERVATION GALLERY

minute, moving so quietly and smoothly that the high rate of speed is unnoticed. Although elevator service is provided in the Eiffel Tower, Paris, to a height of nearly 1,000 feet, three lifts must be used to reach the top, the highest rise of a single lift being about 450 feet.

On account of the complex elevator problem and the high speed at which service is maintained, together with the fact that nearly 35,000 people daily travel upon these elevators (more than 11,000,000 a year), particular attention is given to the matter of safety devices. The more important of these are the under-car safety operated by an over-

head governor; oil buffers placed under each car; retarding and latching device at the top of each shaftway; limit switches at the top and bottom of travel; speed governor and potential switches operated by governor; switch attached to safety plank on the under-car safety; emergency wheel and safety switch inside the car itself. Besides these, the gearless traction elevator has the great inherent safety feature because, if either the car or counterweight over-travels, the tractive force is lost, owing to the weight of the car or counterweight being removed from the hoisting cables. There are also many electrical safety devices which form a part of the controlling equipment



LOOKING EAST FROM THE OBSERVATION GALLERY

upon a powerful testing machine to determine the weight it would sustain before pulling apart. It broke only after assuming a burden of 16,600 pounds; hence the total carrying strength of the six condemned cables was at least 99,600 pounds. As the maximum weight of an elevator and its passengers is about 6,000 pounds, it will be seen that these cables were, by actual test, still strong enough to safely handle sixteen times the maximum weight of a loaded elevator.

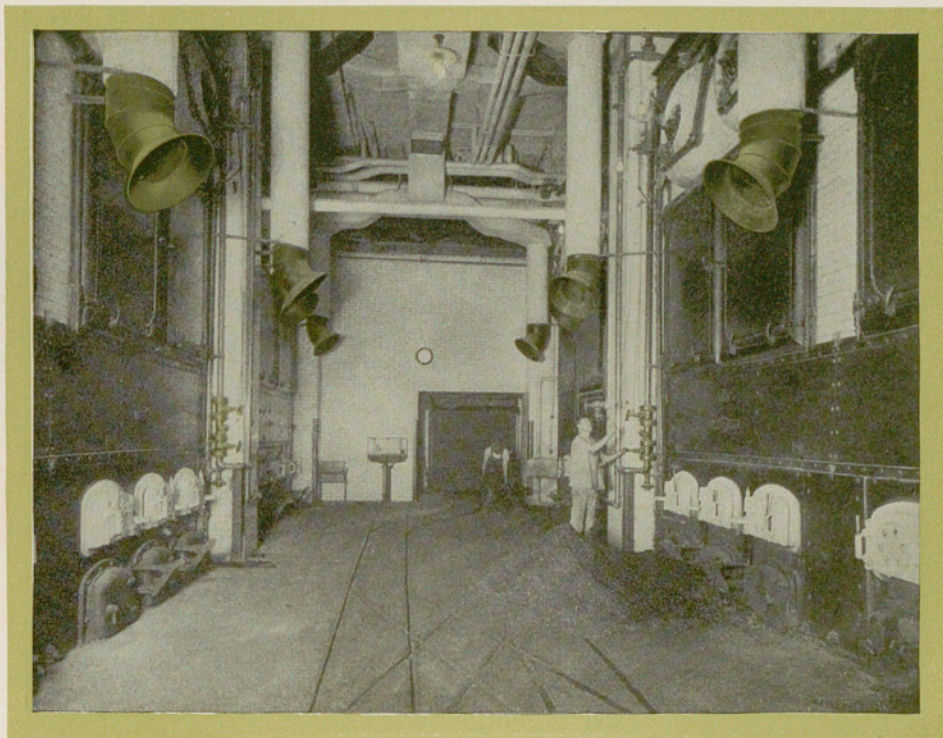
“Safety first” and always is the watchword in the operation of this vertical railway system. While the cars travel at great speed, the maintenance is so closely watched and cared for that they move along almost un-

noticed—no quivering, no vibration, no sound whatever, absolute smoothness and safety.

Because of the arrangement of the elevators, the severe service to which they are subjected, and the variations in the height of travel, it was necessary to provide special means of controlling the operators and the movement of the elevators themselves. A Dispatcher System was therefore devised and used in this Building for the first time. This system consists of a dispatch board and a signal board with electric flashlights indicating the movement and location of every elevator. The dispatcher absolutely controls the elevators and is prepared, by means of telephonic communication, to pass instruc-



GRAND ARCADE FROM MAIN STAIRWAY LOOKING
TOWARD BROADWAY



BOILER ROOM

Italian marble carried half-way up to the ceiling. Directories on every floor below the Tower enable one to locate his destination quickly upon alighting from the elevators. The toilet facilities are unique as regards the number of rooms assigned for that purpose and the elegance of their appointments. A toilet room for ladies and one for gentlemen will be found conveniently located on practically every floor of the Building. The walls of these rooms are lined with white carrara glass, the costliest, most sanitary, and most attractive wall decoration known for this purpose. The ceilings are of white enamel, and the floors of white flint tile. The fixtures, too, are the last word in modern design and construction,

and, as a whole, these rooms are all that the word "sanitary" implies.

More than 150,000 pieces of mail are delivered to tenants of the Woolworth Building every business day, and a dozen letter-carriers are required for this service. The tenants' outgoing mail matter is fully as voluminous and requires an additional force of handlers to convey it to the General Post Office. Four huge letterboxes are placed in the main corridor, from which twenty-seven collections are made every twenty-four hours on week days. For the convenience of tenants, four mail chutes, connected with the mail boxes mentioned, serve every floor of the Building.



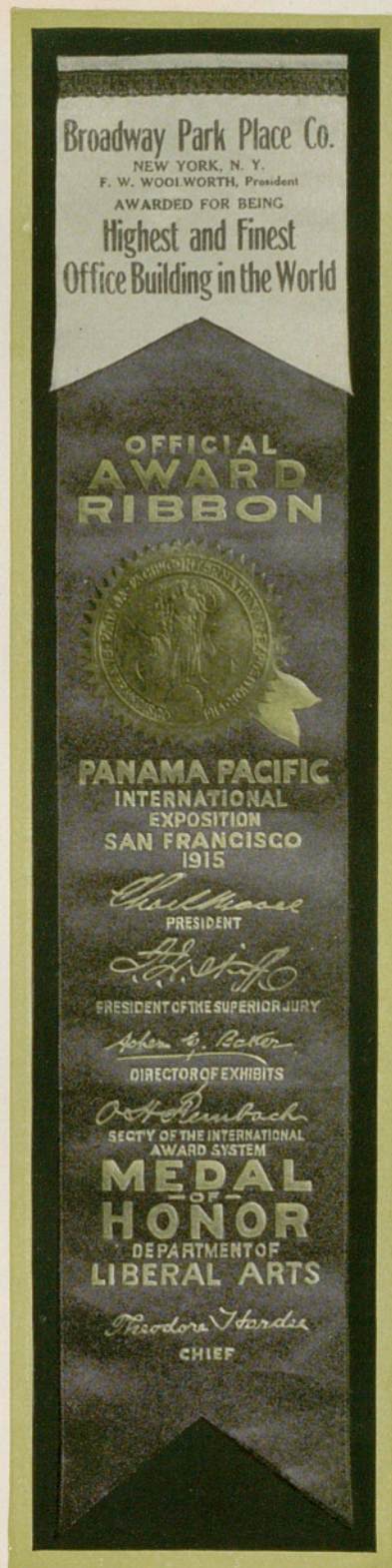
THE EMPIRE ROOM—EXECUTIVE OFFICE OF THE PRESIDENT OF
F. W. WOOLWORTH COMPANY

Twenty-eight hundred telephones are in service throughout the Building, a greater number than is used in a city of 45,000 inhabitants. The average daily traffic is 38,000 calls, totaling 11,400,000 messages per year.

Frequently visitors to the Observation Gallery and others ask interesting questions with regard to the means which have been devised to make a building of this height entirely safe in the face of the elements. As a matter of general information it may be said that, regardless of its supreme height, the structure is quite as safe as the Rock of Gibraltar, and the following facts

will probably be of interest to those who read them: The foundations for all columns are carried down to solid bed rock by means of concrete piers sunk by the pneumatic caisson process, which consists of sinking metal tubes of the size required for the finished piers. Some of these are 19 feet in diameter. In sinking these metal tubes water was encountered and the pneumatic process had to be resorted to, consisting of closing up the upper ends of the tubes by a system of air locks. The interiors were then filled with air under pressure, equivalent to the water pressure outside, and this prevented the water from entering at the bot-

Substantially all the repair work—and this is a vast item—is executed by the Building's mechanical forces, which include, among others, the Electrical, Plumbing, Heating and Elevator Maintenance Departments, all operating coordinately and under well-trained heads. Even the tools required to perform special classes of work are made by the house mechanics, and the Building may be said to be self-contained. Absolute cooperation exists among all departments, and, to a man, the 300 odd employees know how to serve. They go about their work determined to satisfy and please every tenant from the largest to the smallest uni-



formly, knowing, as they do, that upon that altogether the success of the great institution depends

The Woolworth Building has been called "The Cathedral of Commerce"—a monument to small things, yet it is even more—it is the colossal and enduring gift to civilization of a true-born, patriotic American, Frank W. Woolworth, and it stands unique in the history of great buildings throughout the world in that it was built without a mortgage or dollar of indebtedness. Mr. Woolworth paid for this gigantic structure from start to finish from his own resources, accumulated through his business sagacity in establishing an entirely new line of



EMERGENCY ROOM FOR TENANTS AND VISITORS



merchandising through retail stores handling only five and ten cent goods. This enterprise has developed into the largest retail business in existence today.

Thus it may be said that the name Frank W. Woolworth has been indelibly inscribed throughout the length and breadth of our land and abroad, and the Woolworth Building, symbolizing, as it truly does, the crowning achievement of a career of usefulness toward mankind, will long herald the march of progress down through the corridors of time.

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Woolworth Building

New York

The Cathedral
of Commerce