

Back of all this fashion work that the Wanamaker Stores are doing, lies, however, another purpose that rises to the surface once in a while. It is, to guide women to dress better, more simply, and more graciously; to make themselves more attractive by wearing well-bred clothes that express them; to choose these clothes wisely—in a word, to make their own the Frenchwoman's century-old fascination and daintiness of dress. Without doubt, a large share of credit for the general progress made in these directions can be rightly ascribed to the long-continued and never-failing efforts of the Wanamaker Stores to get the right fashions and to present them with an intelligent perception of what the influence of their development will mean.



## BOOK SIX.

THE JOHN WANAMAKER STORE  
IN PHILADELPHIA.

ARCHITECTURAL fascination and inspiration make the appeal of the new Wanamaker building in Philadelphia to the architect, the engineer and the eye of the multitude. It is a cosmopolitan unit. It is more than the keystone of a business arch, unique in the history of the business world. It is a collection of efficiency units, all converging to one meeting place, determined fifty years ago as a possibility in the mind of the Founder, then woven into the fabric of a dream, and today a concrete demonstration of original thought.

This Philadelphia Store, the largest building in the world devoted to retail merchandizing, occupies an entire city block in the very heart of Philadelphia, next to City Hall, which huge pile it overtops and actually dwarfs. It covers an area of 250 feet wide, 480 feet long and rises to a height of 247 feet above the sidewalk. It is twelve stories in height above ground and three stories below. The total floor area of the building is nearly 45 acres, almost 2,000,000 square feet. If all the floors were put end to end there would be a continuous

floor one and one-third miles long by 250 feet wide, the width between Juniper and Thirteenth streets.

The style of architecture is Roman Doric. The entrances are midway of the building on all four sides. They are splendid and spacious. Two imposing columns dignify the entrance, the capitals with their evenly proportioned outlines bearing up the cornice of the second floor. Twelve stories of gray granite, fronting on four splendid thoroughfares, made majestic by the Corinthian cornice which crowns all, loom large as the master building of the city.

The plaster work throughout the building, except the floors devoted exclusively to stock rooms, is ornamental in character. On the main, first and second floors, the columns which are fluted, and have the typical Doric cap, and the walls, are done in Keene cement. These three floors have deeply coffered ceilings with Grecian cornice, the egg and dart moulding, the Grecian honeysuckle being worked into the design. The rest of the building is done in hard white plaster.

The exterior walls are of Maine granite. The interior construction is of steel and concrete. The store is divided into three sections by two fire-walls, running from Thirteenth street to Juniper street. On both sides of these fire-walls are the elevator shafts, which serve the purpose of concealing the fire-walls. Fire doors are placed on either side of each of the openings in these fire-walls, and the doors are made so that should fire occur they will close automatically.

The sub-basement is 34 feet below the sidewalk. There are three stories below the sidewalk, one being a mezzanine, or gallery, floor. The sub-basement is 10 feet 4

inches high. The basement is 20 feet high. This basement height is divided in two around the walls by the mezzanine, or gallery, floor. The first story is 25 feet high. This story has a gallery running around the sides. In the middle section, on the west side, the gallery is set low to provide a waiting room for the women customers. The second floor is 22 feet high. A gallery is provided on the east and west sides on the Market and Chestnut street fronts, while in the middle section the gallery runs all around the four sides. The third story is 23 feet 7 inches high. The Market street section of this story has a gallery running around its four sides. The balance of the third story has a clear height without galleries. From the fourth to the eighth stories, inclusive, the story heights are 15 feet 6 inches. The ninth story is 20 feet high. The tenth, eleventh and twelfth stories are 15 feet 6 inches in height. The twelfth story receives most of its light from the skylights in the roof.

The whole height of the building above the sidewalk averages about 247 feet, plus 34 feet, the depth below the sidewalk, making a total height of 281 feet. The foundations extend 12 feet beyond this into the rock gravel.

The building is built on a framework of steel. The walls of each story above the sidewalk are carried independently. Any one of the stories could be removed without disturbing the other stories.

The floors are of concrete, on top of which is placed a maple wood floor.

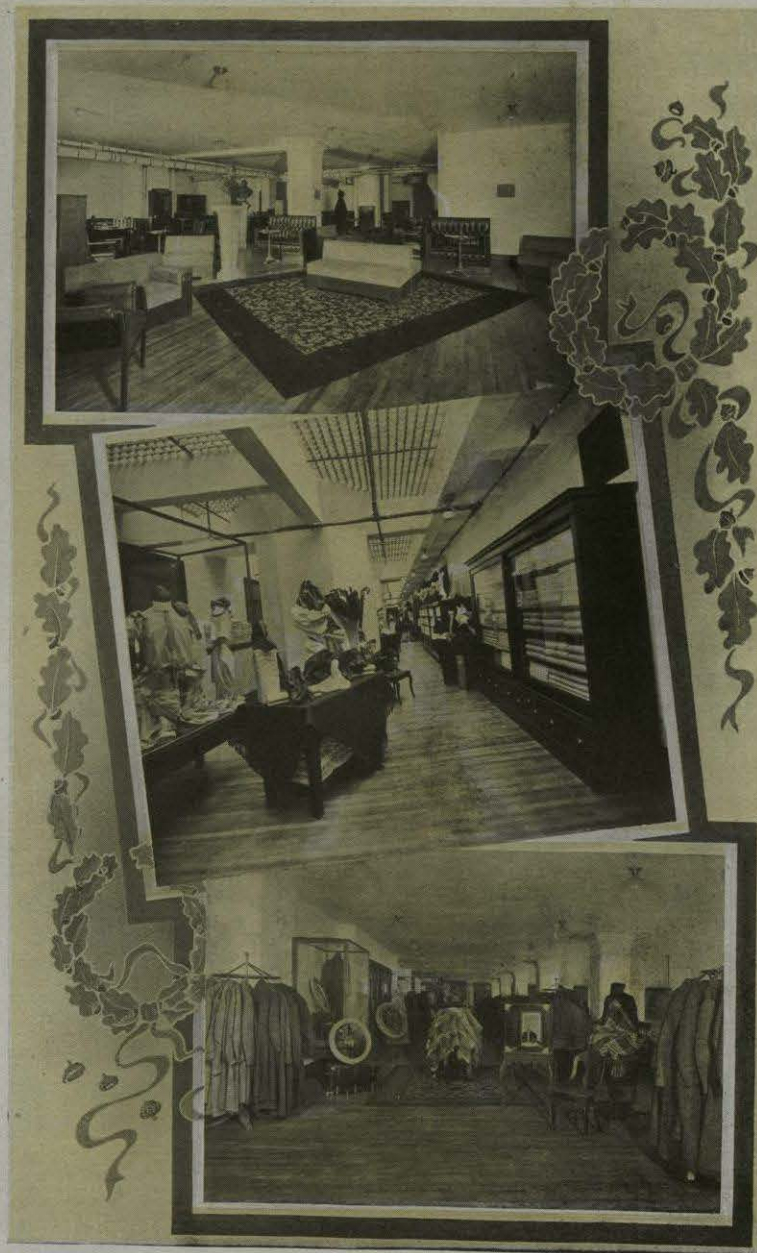
A marked and well-defined guaranty of safety, both for the employes and the uncounted thousands who visit the store, is the character and construction of the elevators installed in the building. They are of the "Plunger" type,

direct hydraulic. Which means that the plunger piston travels through a hole drilled through the solid rock directly under the elevator to a depth corresponding with the height that the elevator travels.

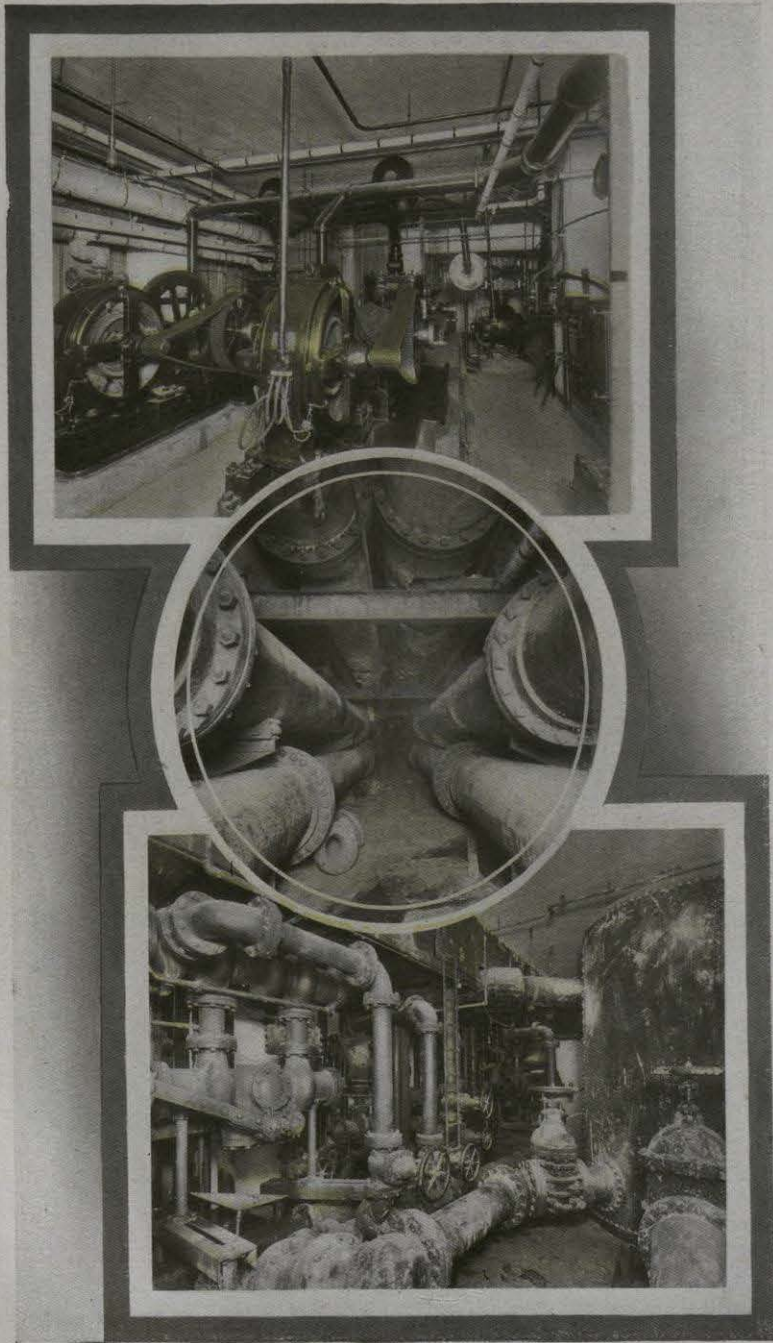
The plunger in each instance rests upon a cushion of water which, in its descent, it displaces, hence cannot fall. When the car goes up it is pushed up by a water pressure of 150 lbs. per square inch.

There are sixty-eight elevators in the building, fifty-two of which are for passengers and sixteen for freight service. In addition thereto there are ten electric dumb waiters, which travel from the stock rooms direct to the selling floors. These are used for the quick delivery of stock to any of the departments needing it, and are practically the errand boys to and from the stock rooms. There are also installed four double spiral chutes running from the top of the building to the sub-basement. One of the spirals in each chute is used for sending such goods as are wrapped and ready for delivery from any of the selling floors direct to the delivery department in the sub-basement. The other spiral is used only from the stock room floors and delivers directly to outlets located, one on the basement floor, two on the main floor, and one on the first floor.

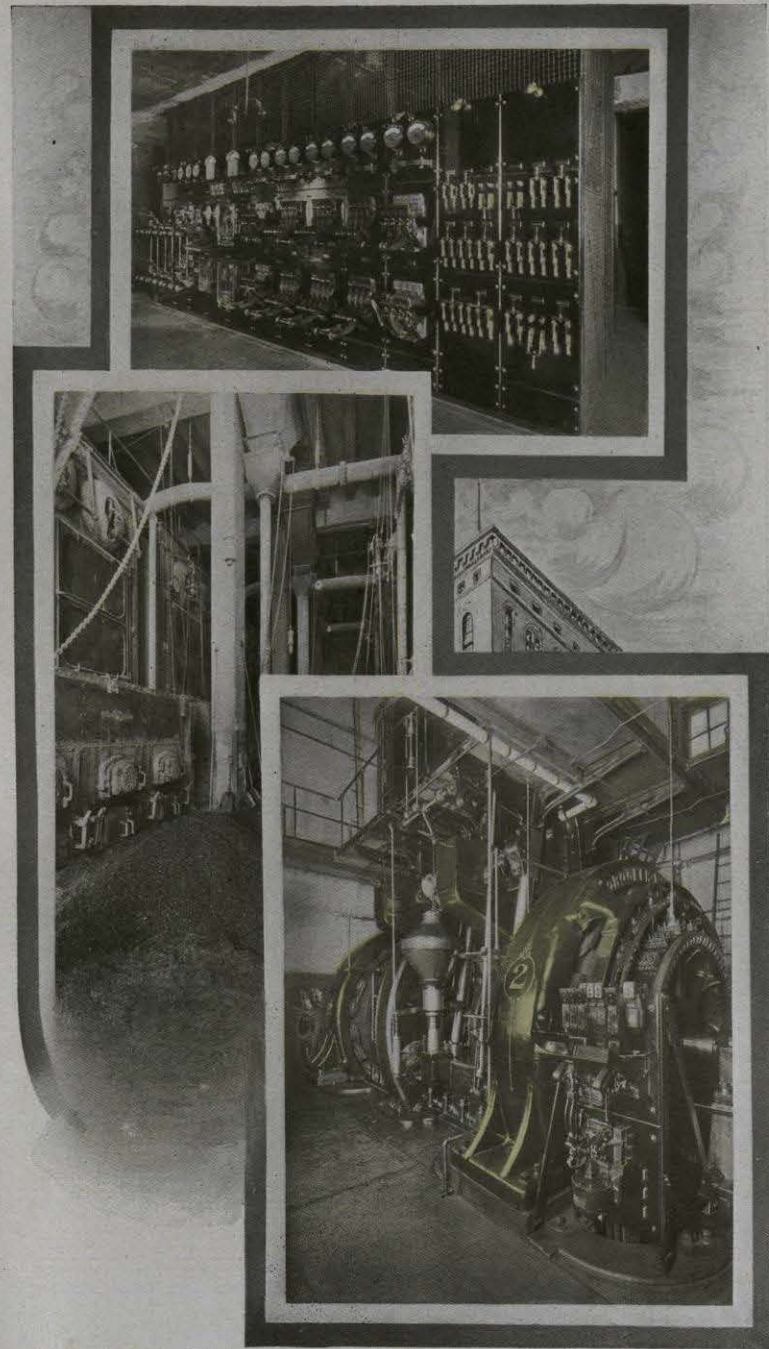
There are four tower fire-escapes in the building. These escapes are built within solid brick walls and have no opening except from the outside, and are therefore smokeproof as well as fireproof. These tower fire-escapes are located at the divisions, or fire-walls, with openings into them from each side of the fire-walls. Each has enclosed therein two separate stairways, making in all eight stairways in the fire towers for escape in case of



London Shop for Men, Philadelphia Wanamaker Store.



Vacuum Pumps and Tanks. Tunnel under Thirteenth Street, showing how power and light are conducted from the Power House to the Philadelphia Wanamaker Store. Showing elevator valve gear beneath all elevators.

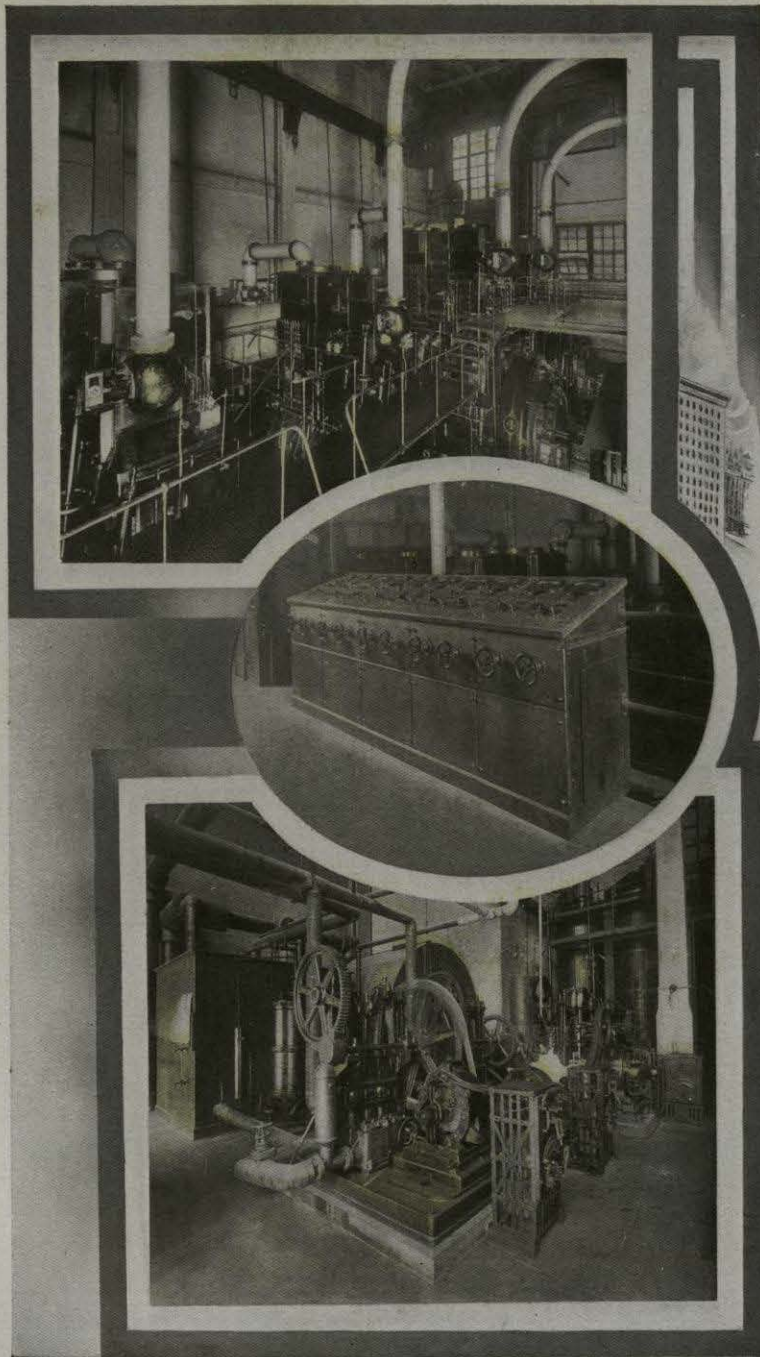


Switchboard, Boiler Room, 1500 H. P. Engine, Philadelphia Wanamaker Store.

fire. In addition there are four wide stairways leading from the sub-basement and basement directly to the street without the necessity of coming into the store at all.

The basement is heated and ventilated by a fan system. The air is admitted and passes through an air wash which removes all suspended matter and dust, and then passes through the heating coils where it is warmed, after which it passes through the fans and into the building. The foul air at the same time is drawn out of the basement by means of exhaust fans. This keeps the air in constant circulation; in fact, the air is completely changed several times an hour, affording pure and wholesome air all the time. In the summer the same process is gone through, except, of course, the heating of the air. The upper floors of the building are heated by direct radiation.

Power and light are furnished by means of the Wanamaker Power Plant erected in Ludlow street, near Thirteenth street. This Power Plant is gigantic, and in itself equal to a central station such as you find in large cities. In fact, there are many cities of large proportions which cannot boast of a plant so large. Installed in this plant are eight 600 horse-power high-pressure water tube boilers, three 500 horse-power vertical compound steam engines, two 1500 horse-power vertical compound steam engines, and four high duty pumps equal to a capacity of 9000 gallons per minute. These pumps are for the elevator service. In addition thereto are pumps for the house service. There is also installed in the power house a refrigerating plant, consisting of two 75-ton ice machines, and other paraphernalia necessary to a high



Engine Room. Bench Board. Ice Machine. Power House Philadelphia Wanamaker Store.

class refrigerating plant. This plant furnishes frigid air for the kitchen and fur storage vaults.

The capacity of the electric plant is 3050 kilowatts, or 27,700 amperes of current. This is equivalent to 5500 arc lamps, or over 55,000 incandescent lamps of 18 candle power. The plant, however, is easily capable of developing 25 per cent. more than the figures here quoted.

The sanitary system consists in maintaining an adequate number of hygienically clean toilet rooms, a supply of filtered water (cooled for drinking purposes), a splendid ventilating system, modern methods of cleaning and dusting the store, and instruction of the employes in the observance of hygienic rules.

The ventilating system of the Subway floor, the Subway Gallery, and the Sub-Basement, consists of air being removed by suction, while fresh air, which is washed pure, is pumped in, the air being completely changed every six minutes.

The construction of the building, with the light shaft in the center, together with high ceilings and high and wide windows, permits a free and natural ventilation above these floors.

The heating plant being entirely separate from the building is a factor in keeping the air clean and fresh.

The Wanamaker Fur Vault is the only genuine cold storage vault within ninety miles of Philadelphia, and is duplicated in the New York Wanamaker Store. It is a little section of the Arctic Zone, created on the top floors of the Wanamaker Building. It reaches up through the 11th and 12th floors and contains 161,000 cubic feet of storage room. The 24-inch walls are composed of cork and fireproof materials, which shut out completely any warmth from the outside air.

A powerful ice-machine in the new power-house plant on Ludlow street produces in cold the equivalent of one hundred and fifty tons of ice daily to preserve the frigid temperature of the vault.

The refrigerating machinery is of the absorption type and is run on exhaust steam when the cooling water is at 60 degrees or lower. Each one of the machines has a capacity of 75 tons of refrigeration. One machine will cool the mammoth fur vault of 161,000 cubic feet, 50 ice boxes and refrigerators in the kitchens and keep them all properly chilled.

All the drinking water is filtered and chilled in this plant and circulated through the store to the extent of about 1000 gallons per hour. This compels continuous pumping of ice water from the refrigerating plant to the top of the store. The drinking fountains are all on the line to the tank, thus insuring cold water at every fountain.

The crowning glory of the building is to be found in the Grand Court, in its very center. The architecture here is Ionic and Corinthian. The splendid lines vie with each other in their contribution to a superb picture. The dome rises to the height of one hundred and fifty feet from a stolybate of Italian and Greek marble arches that are the full height of the main floor of the store. From this stolybate classic Corinthian and Ionic columns rise toward the dome-capped cornices of Grecian design, the whole surmounted by a series of groined arches surrounding the skylight. The floor of the Court is paved with grey Tennessee marble. The openings of the several bays of the seven floors facing the Court are protected by very substantial balustrades of ornamental

iron, and where the construction of any of these floors forms part of the architectural design of the Court itself the balustrades and facia are subordinate to the general design, both in architectural design and color treatment.

The entire Court gives forth an atmosphere of spaciousness and uplift, the white and green marbles, the sweep of arch, the aspiring columns, the far-off dome. And yet the Court itself is endowed with a further architectural enrichment. The south end of the Court contains a gallery, the balustrade of which is a continuation of the upper treatment of the marble stolybate. The soffit of this gallery has a beautifully paneled ceiling, and the whole structure is supported on two enormous and elaborately carved consols of Italian white marble. Above this gallery is the organ loft and the mammoth organ now being placed in position. An organ that required thirteen freight cars to transport from St. Louis, where it was played in the Exposition as the largest organ in the world. The organ screen has been specially designed to conform with and enhance the general architectural design. In addition, there is a balcony for the use of the Orchestra, which will accommodate one hundred musicians. As this Grand Court is about 112 feet long and 66 feet wide, it is estimated that over 25,000 people can comfortably listen to the music from the seven abutting floors.

The entire architectural design is ever and again luminous with surprises. Even without the spirit of investigation one happens on things that make one pause.

People entering the store for the first time halt and wait and wonder. Rising to an upper floor on the Chestnut street front, one leaves the shimmer of silks and

passes through the first fire door, and amid the open spaces lofty with fluted columns the eye is caught with the stupendous consol of the mighty organ and the sweeping arches of the Grand Court.

Once through the second fire door, visitors enter the Market street section of the store. Here they are mastered by the solemn grandeur of Egyptian Hall. Stately columns that might have been dug from the ruins of the Temple at Karnak support a gallery on three sides. At the far end may be seen the golden glitter of a myriad of organ pipes, which represent the speaking tubes of a magnificent organ. These are fronted by winged figures and grim faces of the undying Spinx. Carved everywhere one may find the emblems of Old Egypt, the land which gave birth to music, the land of the Pyramids and the Nile. This splendid Temple is devoted to the cause of Music and Education.

Just in the rear one may find Greek Hall, a classic gem and true to its name. The wainscoting is of mahogany, and the pilasters are inlaid with the gorgeous plumage of the peacock. Sumptuous is the word to be used. Here also is another organ.

The difficulties of construction entailed in the erection of this mammoth building were many. It was decided before the plans for the new building were fully matured that excavations be begun under that portion of the old building which was least suitable for Merchandizing. This section covered about 27 per cent. of the total lot area. This work was done very carefully; heavy yellow pine posts and girders being used and the excavations being made to the full depth of the proposed new structure, building at the same time the concrete retaining

walls. Then the foundations for the new columns were put in place so that the sub-structure for the new building was completely ready for the erection of the steel before the old super-structure was torn down. This work was completed in about nine months and was carried forward without a single mishap.

This first section of the old building was then demolished and the erection of the steel columns for the first new section was actually begun, and this section was entirely completed and ready for occupancy before any remaining portions of the old building were demolished. The story of the erection of this first new section was practically the same as that for the two other sections which followed, with the exception that the excavation under the last of the two old sections was not done until after these sections had been demolished.

Anticipating the difficulty of tying the first and second sections together, so that there would be no break where the courses of granite are toothed into each other—as is usually the result—bench marks were placed on surrounding property and an accurate record kept of the settlement of the first section from the time of its commencement, when there was practically no load, to the time of its completion. It was found that under the full load the Market street front showed a settlement of one-half inch. The stratification being the same, it was presumed there would probably be an equal compression of the soil and the attendant settlement of the second section, and it was decided to increase the foundations under the first column of this section adjoining the last column of the first section, so that there would be one ton less per square foot of load upon the soil under it. The foundations were then



Speedy and Safe Delivery is a Great Feature of Wanamaker Service.