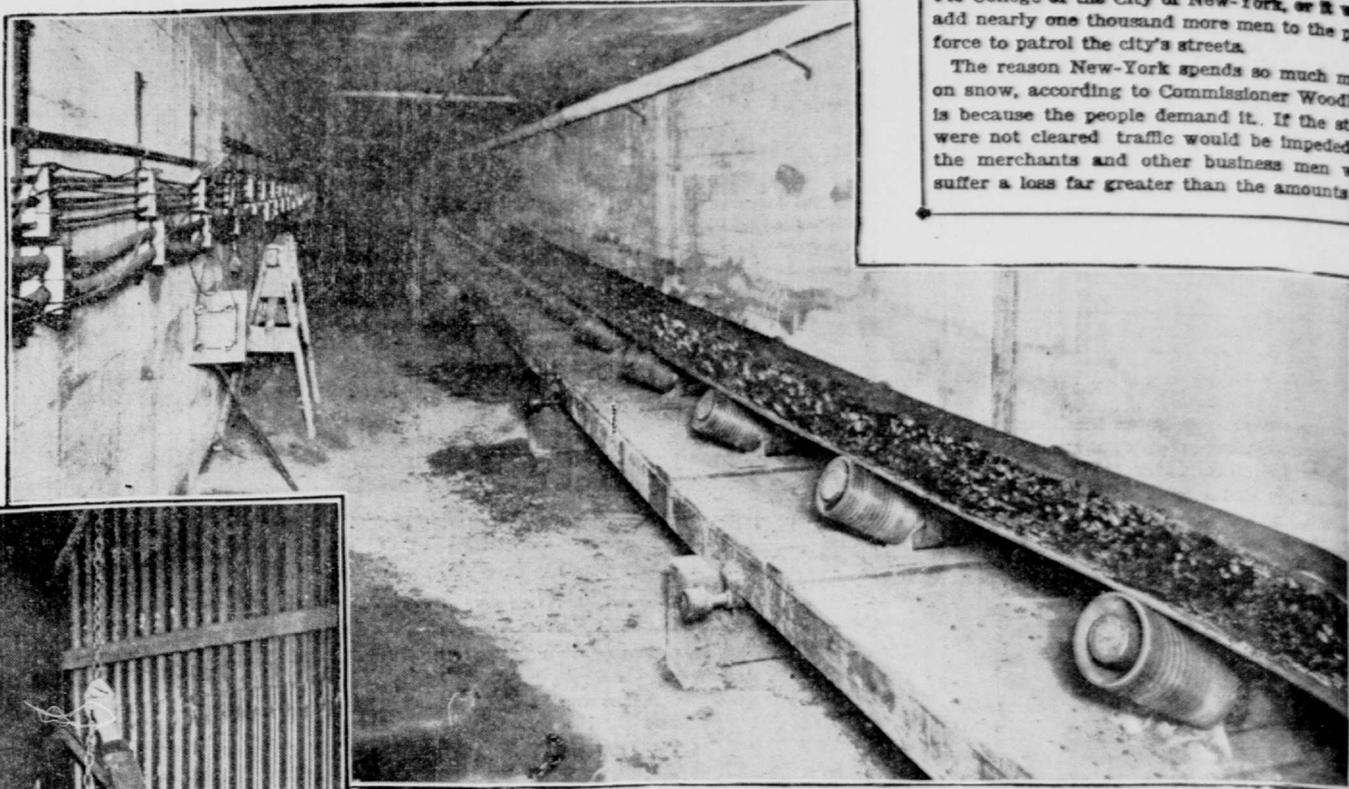


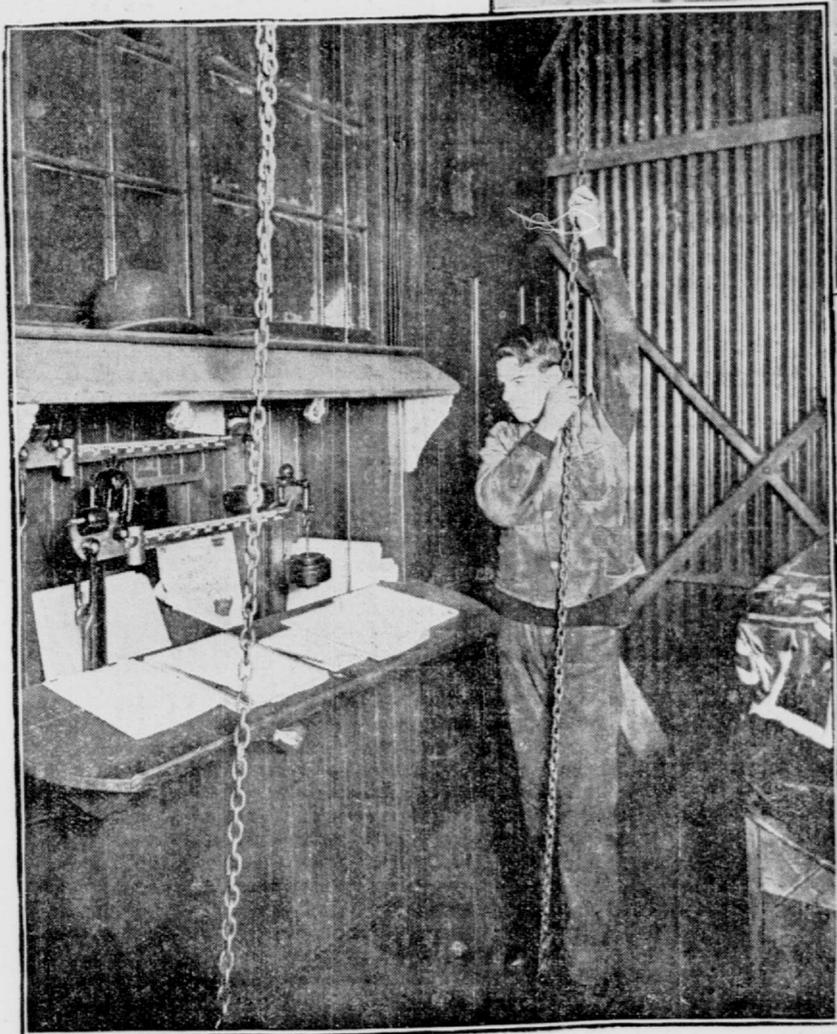
THE SUBWAY'S SUBWAY.

Carries 600 Tons of Coal Daily from Pier to Power House.

The power of a coin of small denomination is freshly realized by the visitor to the power house of the subway railroad. As one stands by the side of one of the nine towering engines, each of them as high as a two-and-one-half-story house, watching the giant piston rod, as big around as a man's body, moving with the regularity of a pendulum, and the engineer whispers in one's ear that the furnaces in the adjoining apartment are swallowing up more than 600 tons of coal each day, one realizes afresh that in the union of many five-cent



the College of the City of New-York, or it would add nearly one thousand more men to the police force to patrol the city's streets. The reason New-York spends so much money on snow, according to Commissioner Woodbury is because the people demand it. If the streets were not cleared traffic would be impeded and the merchants and other business men would suffer a loss far greater than the amounts paid



WEIGHING THE COAL FOR THE SUBWAY POWERHOUSE.

The coal tumbles into a weighing hopper. When the beam in an adjoining room "kicks" at two tons the boy there pulls a chain which shifts the stream of coal from one hopper to the other, and then he presses a lever with his foot, releasing the weighed coal. The latter then falls on the belt and is carried automatically to the coal bins over the boilers, 1,300 feet away.

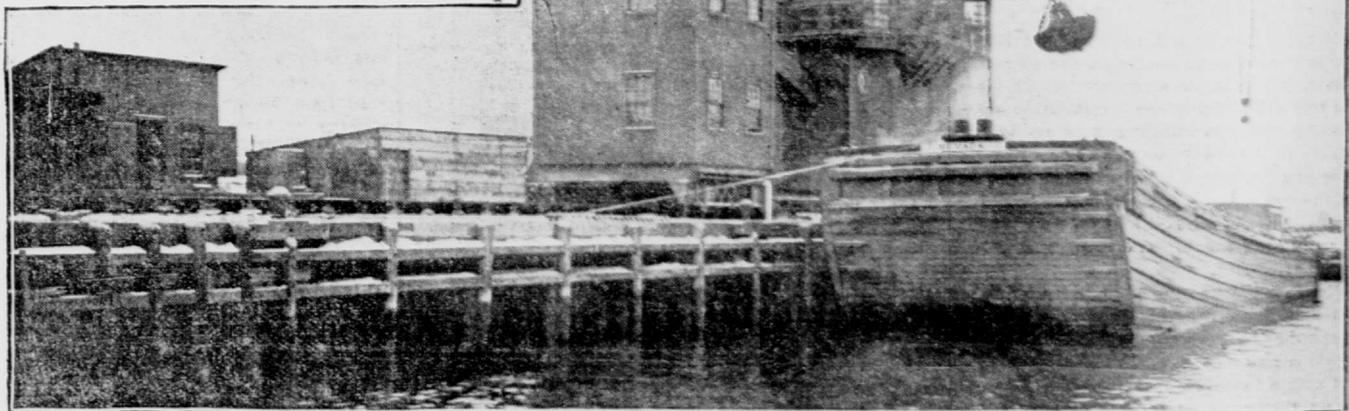
pieces there is strength, and that "Money a mickle makes a muckle." Although the coffers of the Interborough Rapid Transit Company are daily gorged with more than 300,000 five-cent pieces or their equivalent, which amounts to \$15,000, the company does not hesitate to follow the advice of the author of "A penny saved is two earned," and make use of every device in the operation of the road which will work a saving. The engineers have introduced several nickel-saving devices in the new power house which would not be apparent to the casual visitor.

It is into the maws of the furnaces, however, that the nickels go by the shovelful. At the present time the furnaces turn 600 tons of hard coal into ashes, gas and heat daily. When the plant is developing power to its full requirements, a thousand tons will be thrown into the glowing mouths of the furnaces in the same space of time. When one stops to think how much coal this indicates, and which must be delivered to the plant every day, it is easy to see that if the North River should freeze over, which, of course, it is not likely to do, or there should be a strike of tugboat men, or the coal roads should be tied up, there would ensue a tie-up of the subway in the course of three or four days. For that matter, if any of these contingencies should become a fact, all of the transit roads of the city would be obliged to stop running within that brief space of time. The supply of coal at the subway power house is enough to last about three days. In order to keep ahead of the demands of the ravenous furnaces, it is necessary to unload at least one 800-ton barge each day.

When asked the other day how many units of human labor were saved by the device which has just been put in to move the coal from the pier to the coalbins in the top of the power house over the boilers, Superintendent Stott replied: "It is impossible to say, for human labor could not accomplish it."

By means of a series of leather belts thirty inches wide, the coal is carried a distance of 1,300 feet, or almost exactly a quarter of a mile, part of the way in a subway of its own, and is elevated 100 feet to the bins, in the space of three and a half minutes. In the course of this time it is also weighed. From the time the coal is shovelled into a bucket in the grimy hold of the coal barge lying alongside the pier until it is

shovelled up from the floor of the boiler room and thrown into the furnaces, the hand of man performs no labor in its movement. Two men on the wharf operating electric controllers similar to those on the platforms of the surface trolley cars raise the coal from the boat and empty it into a hopper. Through large-holed sieves it is deposited on a leather belt, up-curved like a hammock. From this it is dropped into a second hopper. This rests on a series of levers. The exit is closed. The hopper gradually fills until the scales in an adjoining room away from the coal dust indicate that two tons have poured into it. With hand upon the chain which guides the coal from one of the weighing hoppers to the other and a foot upon the releasing lever, the youth who weighs the coal stands with eyes glued upon the beam of the scale. As it rises his fingers close tightly upon the chain about which they have been clasped loosely awaiting this moment of action, and he gives it a downward pull, at the same time pressing one of the levers. The gate of the full pocket is opened and the shining stream turns into a second hopper. In an instant down below, as when a dam is opened, the crest of the coal wave appears moving along its channel,



COAL BEGINNING ITS JOURNEY TO THE POWERHOUSE.

Electricity is used to pull the barges into position, hoist the coal and move it to the powerhouse. The furnaces eat so much coal that never a day passes that a 600-ton barge is not unloaded here.

THE SUBWAY'S SUBWAY.

This tunnel is used only for conveying coal from a pier on the North River to the power house. The coal is carried along on a great belt, which runs over peculiarly shaped rollers that keep the belt always bent up like an endless hammock. From this hammock the coal cannot slip as it is hurried along.

the curved leather belt, from beneath the gate house.

Through the subway faster than a man can walk it moves toward the power house, more than a block away. It soon reaches that point, and in a little cascade rattles into a small hopper. Through this it pours into a third belt and begins its climb to the bins at the top of the building. It is now travelling at right angles to its previous course. The belt mounts at an angle of 22 degrees, but the coal does not slide back. Up it goes at the same speed as it travelled from the pier. Across the end of the building, back and forth, it zigzags. Leaping from belt to belt, it makes its way upward toward the skies. At last it is at the top, and other belts carry it along the entire length of the power house, or so far as may be desired, when it takes one more leap into the great pile which is soon to give its energy for the benefit of humanity and the accumulation of nickels. Its last journey is through a dark tube to the boiler room floor.

FIVE MILLIONS GONE.

Continued from second page.

equal to the one recently opened to the public, or five bridges like the structure which first joined Manhattan and Brooklyn, or more than twice as many schoolhouses as now stand in this city. Or if this \$1,000,000 was used each year for some particular purpose it would maintain two more institutions such as Bellevue Hospital; it would pay the entire expense of the Health Department; it would increase the library work of the city threefold; it would support three additional schools of learning such as

to the snow shovellers. The blizzard of 1888 was said to have damaged the business of the city to the extent of \$5,000,000. If the snow had been carted off, even at a cost of \$500,000, the city would have lost only one-tenth as much.

In digging itself out of the tremendous blizzard of 1888, when twenty-one inches of snow fell, a depth not equalled by any storm since, the city paid only \$25,000, or one-tenth what an ordinary storm now costs. All that the city in 1888 tried to do was to open alleyways through the snow to the ferry slips and up and down Broadway from the Battery to Thirty-fourth-st. The snow was piled up, and citizens were asked to start bonfires in front of their houses and stores to help it melt. In that blizzard winter 47.4 inches fell and 110,000 cubic yards were dumped into the rivers. Last year thirty-seven inches fell, and yet in the same territory 5,743,387 cubic yards were removed. At the present time the city tries to clean all the streets south of Houston, about half of those between Houston and Fifty-ninth sts., and only the main arteries of traffic further north. Altogether the city clears the streets on one-third of Manhattan Island.

The old way to pay for the removal of snow was by the cartload removed. The system instituted by Commissioner Woodbury is to let out the contract to certain companies for the cleaning of certain streets for so much a square yard cleared. The whole city is mapped out and the area of each street known. The computation is based on the figures of the Weather Bureau. For example, if the weather man says that there has been a fall of twelve inches of snow and the contractor clears 900,000 square yards of street, he is paid for 300,000 cubic yards of snow removed. If the area cleared is downtown he gets more than uptown, there being various rates for various districts. In some 12 cents a cubic yard is paid and in others 23 cents.