

THE RESIGNATION OF WM. BUCHANAN, SUPERINTENDENT OF ROLLING STOCK OF THE NEW YORK CENTRAL RAILROAD.

Rumor has been busy for some months past with reference to the retirement of Mr. Buchanan from the position on the New York Central Railroad, which he has so long and honorably filled. The rumor was not credited by those who knew him well, but on April 22 it was announced that his resignation had been sent in and accepted by the Board of Directors. At that time probably only a very few of those most nearly associated with him knew of his intention to retire from active work.

He was born in Scotland on March 6, 1830, and is therefore in his seventieth year. His service with the New York Central Railroad began in September, 1849, and he has been in the employ of the company ever since, so that in a few months more he would have completed fifty years of continuous service.

His father was a blacksmith by trade, and after coming to this country was employed in the Burden Iron Works in Troy. His son William obtained work in the same establishment, where he was first employed in punching the old-fashioned railroad chair plates. Later he worked with his father in the blacksmith trade. Being ambitious to learn the machine business, the son left the Burden Works and obtained employment on the old Albany & Schenectady Railroad, now a part of the New York Central line. He remained there about two years and a half, when, as he said, he concluded that no career was open to him there, and he determined to try his fortune in New York. After drawing his pay and paying his debts and his fare to New York, he had \$1.25 left, with which he arrived in this city, which presumably was not as wicked then as it is now, or his capital of \$1.25 would not have gone as far as it did. He at once applied for employment at the shops of the Hudson River Railroad at the foot of West Thirtieth Street. These shops were then under the charge of Walter McQueen, who afterward became the head of the mechanical department of the Schenectady Locomotive Works. When Mr. McQueen learned where young Buchanan had been employed he asked him whether he could set the valves of a locomotive. "Our man," Mr. McQueen said, "has been trying for four days to set them on one of our locomotives, and they are not set yet." Buchanan said he had done that kind of work on the Albany & Schenectady road and thought he could do it in New York. He was then placed in charge of the work and in about three or four hours had the valves properly set. It must be remembered that in those days "setting valves" was considered a great mystery. His success in doing this work was his first start on the Hudson River—now part of the New York Central—Railroad, and, as before stated, he has remained in the employ of the same company or its successors ever since. Soon afterward he was made shop foreman.

When Mr. McQueen left the Hudson River Railroad to take charge of the Schenectady Locomotive Works he was succeeded by Mr. Waterman. A disagreement between him and Mr. Buchanan led the latter to ask for employment running a locomotive. He was engaged in that occupation long enough to become thoroughly familiar with the practical part of the management of locomotives, and this experience was of very great value to him all through his career.

Waterman being of an inventive turn of mind, and like many other inventors often more sanguine about the success of his inventions than his employers were, dissatisfaction on the part of the latter resulted and his resignation followed, and in 1853 Mr. Buchanan was asked to take charge of the Thirtieth Street shops as Master Mechanic. The scope of his authority was extended from time to time, and in 1881 he became Superintendent of Motive Power of the entire New York Central system. Subsequently the title of the position was changed to Superintendent of Motive Power and Rolling Stock, and some time afterward the West Shore line was leased by the New York Cen-

tral, the machinery department of the leased line was also placed under Mr. Buchanan's jurisdiction.

In the departments over which he had direct supervision between 7,500 and 8,000 men are regularly employed. It is doubtful whether any railroad man in the country, having authority over an equal number of men, has commanded their respect, confidence and feeling of personal allegiance to the same extent that Mr. Buchanan has, and the news of his resignation has been learned by them with profound feelings of regret.

Besides an intimate practical knowledge with all the details of construction and operation of railroad machinery, during all his career he has shown a remarkable clear and unerring discernment of the merits of mechanical appliances. His name became known the world over from the celebrated locomotive, No. 999, exhibited at the Chicago World's Fair, and which he designed and had built in the shops of the New York Central Railroad at West Albany. In his early days on the Albany & Schenectady road he did more or less work on the old pioneer locomotive, De Witt Clinton. Aided by some old drawings, he had a duplicate of this machine and three of the old cars used on that road built, which were also exhibited in Chicago, and attracted a great deal of attention.

A marked characteristic of his mind is conservatism, and he always seemed to have an unerring judgment in deciding whether any mechanical appliance was entirely practicable or not, and in the administration of the affairs, in the department over which he has had control, he showed a remarkable amount of skill and ability in producing maximum results with a minimum of expenditure. The system of management of the machinery department of the New York Central line and that of the Pennsylvania road are in many respects totally different. If some competent person should acquaint himself thoroughly with each of the two systems and make an analysis and comparison of their respective merits and demerits, it would be a work of the utmost value to the railroad companies of the country.

Mr. Buchanan has earned a rest, but those who have been favored with his acquaintance and friendship may perhaps now experience the same feeling of perplexity that American people generally feel about our ex-Presidents—that of finding a worthy occupation for him during the remainder of his life, Mr. Buchanan, though somewhat overworked, is still vigorous, and it is quite certain that in the years that remain for him—and may they be many—he will realize the truth of Joubert's remark, that "the residue of human wisdom purified by old age is, perhaps, the best thing we possess." M. N. FORNEY.

LARGE DREDGE FOR RUSSIAN CANALS.

A very large dredge, built by the Société John Cockerill, at Seraing, Belgium, for the Russian government, at a cost of \$559,700, is described by Consul Alfred A. Winslow, writing from Liege, as follows:

The dredge is constructed on the principle of the dredge Beta, in use in the Mississippi, but is very much larger, being able to remove 4,000 cubic yards of sand, gravel, clay, or similar material per hour to a distance of 700 feet. The earth is cut up and mixed with water by revolving trepans, until it is of a consistency that can readily be forced up by two powerful steam pumps of 1,428 horse power each.

The dredge is 214 feet 6 inches long, 61 feet 6 inches wide, and when ready for work, draws 4 feet 6 inches of water. It can excavate a channel nearly 80 feet wide and 14 feet deep at one cutting. The fuel used is naphtha, and when the dredge is in full blast, it consumes about 1,200 gallons per hour. Tanks are provided that hold sufficient fuel to run the dredge at full pressure for twenty-four hours. When in full operation, it will give employment to 36 men, as follows: Stewards, 6; engineers, 12; and laborers, 18.

The dredge will be given a trial on the River Scheldt, near Antwerp, Belgium. From there it will be towed to the vicinity of St. Petersburg, where it will begin its work.