

The storage-bins, into which the tubs are emptied, are capable of holding about 1,000 tons of coal. The company is using about 1,200 steel tubs, with half-round bottoms, having steel wheels and axles, and each capable of holding half a ton, and, at the time of my visit, 120 more were being made. Since that date the company has erected two shaking screens, which are of English construction, and are being used exclusively to screen coal for household purposes.

The following description of these screens is taken from the *Otago Witness*: "The screens divide the small and large coal, and consist of three different sections. The upper is an iron box, 4ft. wide and 8ft. long, with inclined bars at the bottom running parallel with the length thereof, the highest end of the shelving being immediately under the tumbler, so that no damage results to the coal when leaving the tub. As the coal slides down, the small falls through to a receiving-bin below, leaving the larger coal to travel on to the second section, which is what is called a rocker. It is of similar dimensions to that of the grating-box described, but is not stationary—as, indeed, its name might signify. The bottom is composed of strongly-netted steel-wire ropes, interlaced after the manner of a riddle, which it really is on a large scale. The motions are caused by a Tangye engine, having weighted eccentrics, the latter being needed to steady the cradle, which would otherwise have uneven jerky movements. The coal is now on the rocker, and is still moving downwards, but before it leaves, the riddled bottom has relieved all the lumps of every particle of coal-dust, so that it is shining, clean, pure, and certainly worth looking after. We do not want to see these refined diamond blocks chipped or broken, and so we have an endless belt of broad sheet-iron plates moving ever downwards. These carefully take the now screened coals when the rocker is fairly done with them, and carry them on to the point where they turn over a roller, finally depositing them gently on to the Government railway-wagons waiting to receive their successive loads. Mark you, there has been no smashing nor grinding of the mineral during the whole screening process, for the lumps, only wiped clean of the coal-dust, now lie inside the railway-wagons as intact as when they were first tumbled from the mine-tub above. The time occupied, too, in screening and loading a 6-ton wagon—that being the holding capacity of the railway-wagons—is only a few minutes." The cost of these screens, including their erection, is said to be about £4,000.

At the end of the main haulage through the tunnel, a separate system of haulage commences at what is called the Iron Bridge, where there is an engine having double cylinders, 8in. in diameter and 9in. stroke, hauling by their endless-rope system for a distance of 44 chains. A similar engine is used at the Coalbrookdale section, and the same system of haulage is adopted for a distance of 104 chains. There are also a pair of engines at Cascade, having cylinders 6in. in diameter, and effecting a haulage of 42 chains.

At Munsey's another pair of engines are erected, having cylinders of 8in. in diameter, which are hauling a distance of 12 chains; and there were, at the time of my visit, a pair of engines ready to be erected at Coalbrookdale, the cylinders of which are 12in. in diameter, with a 9ft. surging-drum; and there was also in course of erection a compound engine, having cylinders of 10in. and 24in. respectively, this engine being intended for working the Iron Bridge section. In addition to all these there is a large quantity of machinery in use, and lying about the company's works, which has cost a considerable sum of money.

The *Gravity Creek Mine Lease* belongs to the same company, and a great amount of work has been done in connection with this mine by the construction of an incline-tramway from the foot of the hill, where the railway passes along to Mokihinui, to the top of the plateau above Gravity Creek. From the head of this incline-tramway to the place where the company proposes to open up the mine is about half a mile. The incline-tramway is not nearly so expensively constructed as the one now in use at Denniston Hill, for, in place of using the railway-wagons on the incline, storage-bins are being constructed at the foot of the hill close alongside the railway, and the company intend to run the tubs from the mine to the bins. The original intention, when this work was first commenced, was to construct a line of railway from the top of the plateau to the mine, and run the tubs with a light locomotive, but this idea has now been abandoned, and a stationary haulage will be substituted. As soon as all appliances are complete, and the whole of the storage-bins constructed in accordance with original plan, that is, to have a storage-capacity of about 10,000 tons, the working in this mine can be so regulated that, should a number of vessels arrive in port on the same day, there will always be a large supply of coals in stock ready for shipment.

The area which the company holds in the Gravity Creek lease will not be nearly so broken or disturbed as the field they are now working about Coalbrookdale. This has, to a certain extent, been proved by the number of bores put down in the different parts of the lease; and, when once the mine is opened out, there is no doubt the coal can be delivered on the railway-trucks at a much cheaper rate than is at present done from the Denniston Mine, and even from that mine last year the returns of the output of coal, and the number of men employed in all the different haulage systems, show that the average output for every man in the company's employ was 642 tons last year, which was about 140 tons per man more than from any other mine in the colony. This shows what can be done by having machinery properly applied in connection with working a mine. Any one unacquainted with the working of a coal-mine on seeing the quantity of machinery employed and the intricate system of haulage would naturally conclude that the system would be an expensive one.

*Greymouth Point Elizabeth Company.*—This company has held a coal-lease, comprising an area of 4,700 acres, for a considerable time, and, previous to the company's formation, a portion of the same ground has been held on lease for the last twenty years, the lessees always anticipating to be able to form a company to find the necessary capital to open up the mine and construct either a tramway or railroad from the mine to Greymouth. Mr. McDougall, the managing director of the present company, after getting a proper title to the property, went home to England and got a company formed to work this property, which is situate about five miles in a north-easterly direction from the Port of Greymouth. A good deal of prospecting operations have, from