

commenced. The rise headings have been driven approximately 27 chains. The coal is of good quality. On the west side of the Seven-mile Creek the output has been derived solely from pillar-extraction, owing to the seam being thin and incapable of further development. There now only remains the standing pillars to be won.

**The Morgan Seam:** This seam, underlying the upper seam above referred to, is entered by a cross-measure drift from the main adit of the upper seam. East and west levels have been driven during the year a distance of  $7\frac{1}{2}$  chains and  $5\frac{1}{2}$  chains respectively. The Morgan seam, which when first entered was very soft, friable coal, has somewhat improved in hardness. During the year small quantities of fire-damp have been met with. A considerable area of proved coal in this seam awaits exploitation.

**Section No. 3A:** This area, employing only a limited number of colliers, has not, during development, shown any improvement, and is, in fact, fast becoming unworkable, owing to thinning caused by stone replacing the coal.

**Section No. 3:** Development during the year has undoubtedly proved this area to be limited in extent, owing to extensive faulting trending north-east and south-west, in addition to thinning of the seam to the north-east and east. The coal won has been excellent in quality. A fair quantity has been obtained by pillar-extraction. The life of this area will most probably be of short duration.

**Point Elizabeth Colliery.**—This colliery is almost exhausted, and cannot, under the most favourable conditions, continue to produce coal beyond a few months at most.

**Paparoa Colliery.**—A small area lying to the south-east has been opened, and is still under development. The coal throughout is very friable and soft. Inflammable gas has been met with frequently during the year, which undoubtedly proves the stand taken to prevent the manager replacing the safety-lamps with naked lights was a wise one. During the period under review a deputy and trucker were prosecuted and fined for abusing each other on the property during working-hours. The manager was also proceeded against and fined for failing to provide timber in accordance with Special Rule 11.

**Blackball Colliery.**—During June a very serious fire originated between the main haulage-road and the return airway from No. 9 dip at No. 7 bank, necessitating the entire isolation of the principal winning portion of the colliery, No. 17 section and No. 9 dip. The former section was closed for approximately three months, whilst the latter was idle for the remainder of the year. During the period the inner workings were cut off; the No. 2 dip only was available for production of coal. This section was subsequently abandoned towards the end of the year. Future development of the colliery will be mostly to the dip, necessitating expensive pumping plant, as all previous workings in the colliery having proved the dip areas to be heavily watered. Two fatal accidents, by which three lives were lost, occurred at this colliery during the year.

**North Brunner Colliery.**—The output has been exclusively won from pillar-extraction. The top section has been won back; work thereon ceased until a lower level commanding a small area may be attained by a stone drive. The lower section (Changing Flat) approaching exhaustion will cease to produce coal in a few months.

**Brunner Mine.**—The output has exclusively been obtained from pillar-extraction. There is no prospect of improvement in the area being worked, and with the present small output the life of the present mine can only be a matter of two or three years. An inclined stone drive has been driven intermittently during the year in order to cut a seam of clay previously proved by boring to enable the brick and tile works to continue operations. An endeavour is being made to unwater the old Tyneside and Brunner workings in order to win some pillars of coal that were previously abandoned.

**Reefton Mines.**—The output of 14,717 tons from these small mines, ten in number, shows an increase of 3,218 tons over last year's winnings, the coal being used for household and steam purposes. A good deal of local assurance exists that in the near future there will be large collieries operating in this district; but before such can be warranted it will be necessary to expend a considerable sum of money in boring to thoroughly prove the area, which I believe will be found to be extensively faulted. The overlying strata is heavily charged with water.

**Iron Bridge Colliery, Denniston.**—Development has proceeded steadily in a westerly direction on the north side of the Waimangaroa River. The seam, approximately 12 ft. thick where pierced, has proved the coal to be hard and of excellent quality. Preparations for endless-rope haulage for this area have not yet reached completion. A good deal of the output has been won from pillars in the Shaft and Deep Creek sections. The future outlook for a steady output from this colliery is good.

**Coalbrookdale Colliery, Denniston.**—The Warcata area, lying to the south of the lease, is the only one that is capable of development, and during the year operations have been steadily pushed forward. The seam, which is undulating and variable in thickness, has been proved to be hard coal and of excellent quality. Stone-band intrusions, causing splitting and occasionally minor faulting, have been encountered, but nothing to hamper to a serious degree the development of the area. There yet remains a large portion of the lease untouched that is known to contain workable coal. No. 8 and Dip sections, both of which are in the Cascade area, have produced their output exclusively by pillar-extraction. These sections are both incapable of further extension, and their life depends entirely on the amount of coal that can be safely won. The overlying strata in both sections are difficult to control, and most probably some of the pillar coal will have to be sacrificed in order to keep the operations within safe mining limits.

**Millerton Colliery.**—Development of the colliery has mostly been confined to the areas known as the Stone Drive, 2nd West and 4th West levels. All of these sections are in the Mine Creek portion of the colliery, and are operated from the crosscut haulage-way going north and west.