several sooty backs in the pillar, which had been in a wet condition until the present summer. From an investigation of the occurrence it would appear that the drainage of moisture from the backs had caused a measurable shrinkage of the fine coal sufficient to afford, under ventilating-pressure, avenues for the passage of air through the pillar, thus contributing to a set of circumstances for a fast rate of absorption of oxygen in the fine dry coal. The fire was suppressed by the filling-out of the heated coal. Two coal-cutting machines were employed during the year, for the production of 85 per cent. of the total output from the mine. In the early operating stages the machines were useful in advancing the heading faces at double the rate of ordinary hand-mining. That point has now been passed, and it can be reasonably stated that the performances of the machines in the bord places during the past year have firmly established the practicability of their use in all working-places of the mine. In this colliery two bord sections produce 550 tons daily from two machines. This fast rate of driving affords facilities for intensive mining which results in reduced costs for haulage and general maintenance as compared with the slow method of driving by hand. The small coal on the floors of the working-places is cleaned up before the rails are uplifted in disused places, thus reducing the risk of an ignition of the coal-dust. The mine is admirably developed to produce an increased output.

Wilton Collieries (Wilton Collieries Ltd., Owners).—This colliery reached the productive stage at the end of the year, when a commencing daily output of 300 tons was produced from headings turned off the main haulage-road to the east, south, and west respectively. The following construction work was completed during the year: 80 chains of railway and siding formation; screen-site formation to take screens and buildings; the formation and equipment of 50 chains of endless-rope roadway at a maximum gradient of 1 in 3. The seam was explored by ten boreholes drilled over an area of 30 square chains. The average depth of the holes was 130 ft., and the average thickness of the proved coal-seam was 7 ft. 6 in. A 4 in. band of stone on top of the coal-seem falls down readily with the coal. Immediately above the band the roof is difficult to hold, and much timber will be required to support the roof, especially if the places are driven more than 12 ft. in width. A Mavor and Coulson coal-cutting machine has been introduced for cutting the developing headings.

Old Stockman Coal-mine, Mokau.—A small output was produced by two miners from a 4 ft. seam, for supplying the requirements of settlers on the banks of the Mokau River.

Paparata Coal-mine, Tangarakau (Crown Lease; Taranaki Coal-mining Co., Ltd., Owners).—A small output was obtained during the summer months from a 3 ft. seam which has been displaced by a fault. A prospecting-drive on Section 9, Block III, following the coal from the Tangarakau Stream, was driven a distance of 90 ft. in a seam 3 ft. 3 in. of clean hard coal. Operations were suspended pending the policy of the company in respect to means of access and transportation of output to the Stratford–Ohura Railway now in course of construction.

Egmont Colliery, Tangarakau (Crown Lease; Egmont Collieries, Ltd., Owners).—The working-seam is 5 ft. in thickness, including 1 ft. of shale band occurring 1 ft. from the floor, which leaves only 3 ft. of marketable coal available for extraction. The shale band is usually uplifted for height along the roadways. The roof-cover of compact sandstone varies from outcrop to 700 ft. The main headings to the east have been advanced 20 chains under a roof-cover of 400 ft. The headings to the south encountered a down-throw fault of unknown displacement of the seam. Bords are driven 14 ft. wide, and 70 ft. square pillars are formed in support of the roadways. The working-faces are machine-holed in the shale band by a Mavor and Coulson "Arc Wall" coal-cutting machine. The daily output per miner from the machine places is 7·5 tons, as compared with 2·7 tons by hand. The output is 80 tons per day for 47 men employed in and about the mine.

Gilberd's Colliery (Crown Lease, Tatu).—The area is situated 7 miles from Ohura, near Tatu Village. An outcrop of 5 ft. of clean coal with a tender roof is being followed into the hillside. Access is being obtained by the formation of half a mile of road.

Rangitoto Colliery (Tahia, near Te Kuiti).—Mining operations have been conducted on the Native lease for the return of a small output. The seam is 6 ft. in thickness, and the quality of the coal is improving with the advance of the mine-heading into the hillside. The output is carted to Te Kuiti, a distance of ten miles. The local body controlling the road imposes a royalty road tax of 4s. 6d. per ton on all coal conveyed over the road.

Fatal Accidents.

On 13th February Albert Nightingale was fatally injured at the Avoca Colliery near Tangowahine as a result of a blow on the right side of the neck from a winch-brake lever when he was engaged in operating the winch on the top of the surface incline. The deceased was a member of a party of co-operative miners owning the Avoca Colliery, and at the time of the accident the workmen were not covered by an insurance policy under the Workers' Compensation Act.

On 28th April Thomas Hart and John W. Yates, miners, were fatally injured in No. 1 Rotowaro Colliery due to the premature collapse of the roof whilst they were engaged in extracting the remaining stump of pillar coal in their working-place.

Serious Non-fatal Accidents.

On 29th March James Stirling was accidentally injured by being struck on the head with a 40 lb. iron bracket which dropped 15 ft. from the screen building whilst he was working below preparing foundations.

On 10th April, at Holland's Mine, J. Green received a serious injury to his elbow by falling when carrying timber.

On 9th July J. A. Wood was jammed between a jig prop and a rake of three skips and sustained fractures of two ribs while working at Renown Colliery.

On 7th August John McKernon, engaged at Wilson's Collieries, sustained serious bruises and a badly cut head, the result of being injured by a slab of roof stone which fell whilst he was preparing timber to support the roof.

On 24th September, at Pukemiro Colliery, a fall of coal partially buried two miners and slightly injured them. A trucker, George Holmes, was also caught by the fall, and sustained a fracture of his right leg.

On 26th September, while working at Glen Afton Mine, Stephen James was jammed between a skip and a prop and sustained a fractured ankle.

Prosecutions.

On 27th June a miner engaged at Graham's Coal Co., Glen Afton, was prosecuted for using threatening language towards another miner. He was fined £1, costs 10s., by the Stipendiary Magistrate at the Huntly Court.

On 26th September an engine-driver in Glen Afton Colliery was convicted and fined £3, costs 12s., for taking intoxicating liquor into the mine, contrary to the regulations.

Dangerous Occurrences (Regulation 82).

On 26th April a fire was reported on the east section of Pukemiro Colliery. The affected part was sealed off, and mining operations were resumed in the section three months later.

On 29th July the Hikurangi Shaft Colliery was again flooded, due to the inefficiency of the installed pumps and boilers. The workings were almost unwatered at the end of the year.

Rotowaro.—On 22nd October "fire stink" was reported in Mills' dip. Stoppings previously prepared were closed to seal off the area. On 19th November a fire was reported in the electric-cable-junction box, No. 3 Mine, due to the fusing of cables in flexible conduit.

On 10th November indications of heating were discovered in the south straight pillar-workings at Pukemiro Colliery. Stoppings were erected against the goaf.

On 10th December a heating of the coal in a solid coal-pillar near the entrance to the mine was discovered in Renown Colliery. The heated coal was filled out and the pillar cooled down by ventilation.