

has been well maintained, and seldom less than 300 to 500 cubic feet per man per minute, but even with this amount of fresh air there was a constant air-temperature of 89° Fahr., fully saturated, in the Victoria and main crosscuts. The men worked only six-hour shifts. The Roots blower fan worked well and continuously throughout the year.

*Saxon Mine.*—The Saxon Company during the year completed the all-important work of enlarging and retimbering the main shaft from the surface to the No. 6 level (446 ft.). The shaft has also been sunk the first stage of 100 ft. toward connecting with the Deep Levels crosscut. At this point the work of further sinking had been suspended for a time to allow of prospecting operations being carried on from the No. 7 level (546 ft.) opened out from bottom of the shaft. A crosscut has been driven from the shaft at this point to intersect the Saxon Nos. 2 and 3 reefs. At 100 ft. a quartz vein 3 ft. in width, supposed to be the Saxon No. 2 reef, was intersected. Mining has been hindered by inadequate ventilation. Occasionally carbon-dioxide gas was found in such quantities as to necessitate suspending work. The company propose to install a Sirocco fan. I examined the mine-workings on several occasions during the year, and found them in good order, except for defective ventilation. The miners' change-room has been renovated, and bathing facilities with hot and cold water have been provided.

*Victoria Mine.*—This mine has been protected pending the completion of the Deep Levels crosscut at the 1,000 ft. level. The crosscut is now about 160 ft. from the company's boundary. During the past year a few tributers have been working in the mine occasionally, and have crushed 27 tons 46 lb. of ore for a return of gold valued at £446 3s. 11d. The company has also crushed 3 tons of ore which was obtained the previous year, for a return of £16 18s. 3d. I examined the mine during the year, and found the workings in good order.

*Waiotahi Mine.*—For the development of the deep levels of the Waiotahi Mine better ventilation was necessary, and with this end in view a Sirocco fan, single inlet, has been installed. On the 4th December a special examination was made, and it was found that the fan delivered 21,500 cubic feet of air per minute, against a water-gauge pressure of 0.68 in. It is driven by a 5 ft. 6 in. Pelton wheel, the water being supplied from a 1 in. nozzle. The effective head is 138 ft. (60 lb.) per square inch pressure, about 31 cubic feet of water per minute being utilized. This is a cheap and at the same time effective means of ventilation. With a 3½ in. nozzle the fan is capable of producing 70,000 cubic feet per minute. An attempt was made during the year to continue the sinking of the main shaft to the 1,000 ft. level, but this important work had to be suspended after sinking 70 ft., owing to the influx of water, which it was found had not yet been drained away by the Deep Levels crosscut, although the crosscut had passed the point immediately below it. This shaft is now down 600 ft., and requires a further 400 ft. of sinking to connect with the Deep Levels crosscut. Prospecting-works have been carried on at the No. 7 level (522 ft.). The main crosscut at this level is also being continued on past the drive on the foot-wall dropper for the purpose of intersecting the main reef, and this may be expected to be cut at any time now. During the year 87 tons of ore was treated, for a return of £393 6s. 7d. An average of eleven men was employed. On the several occasions I examined the mine during the year I found it in good order.

*Moanataiari Mine.*—The mine has been protected for the past year, pending the development of the Deep Levels crosscut through this company's claim.

*Kuranui-Caledonian Mine.*—For the past year this mine has been protected, and, with the exception of one or two tributers prospecting occasionally on the surface, no work has been done on the property, but as the Deep Levels crosscut is now only about 170 ft. from this company's boundary they anticipate making a start in the development of their property at the 1,000 ft. level. During the year tributers have crushed 7 tons of ore, for a return of £9 12s. 9d.

*Kuranui Mine.*—The work at this mine has been principally of a prospecting nature. At the Battery level the Oddfellows reef was driven on for 120 ft. A portion of the reef was stoped, and 30 tons of ore yielded £10 16s. 2d. The Magazine level was extended, to cut several reefs known to exist in that portion of the claim. The drive, being out of the gaseous zone, is ventilated by a water-blast through pipes, which may be effective for some time.

*Waitangi Mine.*—The Beach (No. 4) level has been extended a further distance of 1,024 ft., making the total distance driven 3,763 ft. The main reef-lode formation, 60 ft. wide, was intersected at 2,891 ft. along the drive. This lode for 20 ft. consisted of a strong body of quartz, the remainder being quartz and country. This reef has been driven on for about 800 ft., the value of ore varying from time to time. At 3,140 ft. from the main crosscut a branch crosscut was driven for 237 ft., and at 35 ft. thereon the main reef, which had been previously displaced by a fault, was cut into and found to be only 5 ft. in width, and of low grade. A connection by rise was made with Nos. 3 and 4 levels. I examined the mine on several occasions during the year, and found it in good order. The ventilation was fair. For a breach of the Mining Act, 1908, section 254, subsection (3) (b)—failing to handle and store explosives as required by the Act—the mine-manager and contractor were convicted and fined. During the year 170 lb. of ore was treated, for a return of £18 19s. 2d.

*Watchman Mine.*—For the year the work carried out at this mine has been chiefly prospecting. The City of Dunedin and parallel reefs were driven on in a most up-to-date manner for the purpose of testing the value of the ore-bodies. There is good reason to believe that this company have a good property, which is well opened up by driving, rising, and sinking on the reefs. During the year the following works were accomplished: Driving, 678 ft.; rising, 608 ft.; sinking, 52 ft.; total, 1,338 ft. A trial crushing of 855 tons of general ore was milled, and treated at the Waiotahi Company's mill for a return of £1,772, or £2 1s. 5d. a ton, a very satisfactory return indeed. I examined the mine on several occasions during the year, and found it in fair order. The ventilation was good. Nineteen men have been employed on an average.

*Bonanza Mine.*—During September a start was made at a point 1,800 ft. in the drive, where a small but promising quartz reef 12 in. wide was located in driving the main crosscut. A drive has