

gravitation, 26 lb.; with tower supply, 51 lb.: third delivery, 100 ft. hose and $\frac{3}{4}$ in. nozzle—gravitation, 21 lb.; with tower supply, 51 lb.: fourth delivery, 250 ft. hose and $\frac{3}{4}$ in. nozzle—gravitation 18 lb.; with tower supply, 51 lb. Two more deliveries with $\frac{5}{8}$ in. nozzles each were got to work with the tower supply on and made very little difference in the readings.

The second test was carried out as follows: The standing pressure was taken on the 6 in. main in High Street nearly opposite Union Street, and registered 57 lb. The signal was then given to turn on the tower supply, and in 70 seconds the standing pressure had risen to 64 lb. Deliveries were then got to work, the first 100 ft. of hose and 1 in. nozzle off the 6 in. in High Street, the second 100 ft. hose and $\frac{3}{4}$ in. nozzle off the 4 in. in Union Street, the third 100 ft. hose and $\frac{3}{4}$ in. nozzle off the 10 in. in High Street, and the fourth 100 ft. hose and $\frac{3}{4}$ in. nozzle off the 10 in. in High Street. The pressure was taken as each delivery was got to work, and from each stand-pipe whilst all four were at work, with the result that with the four deliveries discharging an aggregate quantity of 443 gallons per minute the lowest pressure recorded was 58 lb.

As recommended in my report, dated the 12th June, 1912, a reflux valve should be fixed on the supplying-main at a point in Glover Road; then, in the event of a break in the ten-mile length of the 10 in. carrying-main, and should a fire occur at the same time, the whole of the water stored in the town would be available as follows: Storage in upper reservoir of tower, 100,000 gallons; in lower reservoir, 50,000 gallons; in public baths, 110,000 gallons: total, 260,000 gallons, but allowing 10,000 gallons for defective suction, &c., say a total of 250,000 gallons. With the pump delivering into the upper reservoir 300 gallons per minute from the reserve storage of 160,000 gallons, and with the four deliveries previously mentioned discharging an aggregate of 443 gallons per minute, or, allowing 57 gallons for loss by leakage, &c., say 500 gallons, the 100,000 gallons in the upper reservoir would be depleting at the rate of 200 gallons per minute; but a supply discharging at the rate of 500 gallons per minute would be maintained for over eight hours at a mean static pressure of 61.27 lb., with a minimum pressure of 56.74 lb. Should it be necessary to get two more deliveries to work, say, with a $\frac{5}{8}$ in. nozzle each, the six deliveries would then be discharging an aggregate of approximately 600 gallons per minute, and the supply would be maintained for seven hours.

With the fixing of the reflux valve as recommended I am of opinion that the scheme as completed will provide a reasonably efficient and reliable water-supply for fire-protection purposes under the existing local conditions in Hawera.

A matter to which I consider it necessary to direct the attention of your Board is the necessity of making absolutely reliable arrangements with the Borough Council whereby immediately an alarm of fire is given the water-tower supply shall at once be made available.

I have, &c.,

THOS. T. HUGO,

Inspector of Fire Brigades.

As will be seen in the report dated 2nd April, the Borough Council have practically completed their scheme for the improvement of the water-supply and pressure for fire-protection purposes, and under present local conditions have made reasonably safe provision in that direction.

The Board have under consideration the purchase of a motor-car and the installation of a street fire-alarm system.

Four calls were received, of which three proved to be actual fires—one less than last year. The attendance of brigadesmen at three calls, No. 1 omitted, averaged nineteen per call, or 80.16 per cent. of the total membership.

The fire loss for the year amounted to £881, as against £1,772 for the preceding year, a decrease of £891.

The estimated cost of the brigade for this year, 1914–15, is £767, as compared with £617 16s. for 1913–14, an increase of £149 4s., due to making provision towards the purchase of a motor appliance.

HOKITIKA.

Two visits were paid to Hokitika—viz., 5th December, 1913, and 22nd April, 1914.

At my first visit in December an inspection of the stations and equipment was made, when everything was found to be in good order. The boiler of the fire-engine was then down for inspection purposes, and certain repairs required by the Government inspecting officer were in course of being effected.

At the second inspection muster there were present the Superintendent, Deputy, and seventeen firemen; these, with six on leave, accounting for twenty-five out of a total strength of twenty-seven then on the roll.

Various hose, reel, and ladder drills, both wet and dry, were carried out in a satisfactory manner.

During the year nine calls were received, seven more than during the previous twelve months, all proving to be actual fires, and of which number no less than four were set down as due to incendiarism. The attendance of members of the brigade at eight calls, No. 3 omitted, averaged 21.38 per call, or 73.7 per cent. of the full strength.

The fire loss for the year amounted to £125, as against £22 for 1913, an increase of £103.

The estimated cost of the brigade for 1914–15 is £433 6s. 8d., the same amount as for 1913–14.