

A false alarm of fire was given at 7.42 p.m. from an alarm-box in Stafford Street, and was responded to by the horsed hose-reel arriving at 7.43.10 p.m., and the first water was shown at 7.44.10 p.m.—a satisfactory result.

*Central Station.*—Whilst the position is an excellent one in regard to the risks of the town, the site itself is altogether too small, even for present requirements, without taking into consideration the need for future extension. The internal arrangements of the building are unsuitable: the ground-floor studs are too low, and would require raising at least 2 ft., with a corresponding raising of the roof; also, the timber appears to be badly worm-eaten in a number of places.

*Plant.*—The two-horsed hose-reel is a good appliance, and the horses a good stamp of animal, altogether suitable for the work hitherto; but the machine has served its purpose, and, as recommended below, it should be replaced. The stock of good hose is inadequate, and the brigade has no suitable fire-ladder.

*Water Reticulation, Pressure, &c.*—The reservoir storage, 20,000,000 gallons, is an ample provision. The static head, owing to many irregular levels, varies considerably throughout the borough. The head available on the lower levels, about 196 ft. (= 85 lb.) is not an adequate pressure under local conditions, particularly in view of the undersized and faulty reticulation. There is at present no connected or comprehensive plan of the water-mains as laid down, and no really reliable information either; and in company with the Borough Engineer, Superintendent of the brigade, &c., tests were made of the pressure and flow in various parts of the town, which tended to show in instances the flow was not what it should be, and in one case at least, provided the pipe is of the stated size, there is some serious obstruction. The supply-mains leading from the reservoir are of good size, the diameter of that along the Wai-iti Road being 18 in., 12 in., and 10 in., and the one along North Street 14 in., 12 in., and 10 in.; but practically the whole of the reticulation therefrom is inadequate in size, and a portion of the piping along Stafford Street North that completes the circuit between the two supply-mains is only 4 in. in diameter. The only water at present available for the protection of the wool, grain, and other large stores, &c., on the harbour side of the railway-line is by means of a 4 in. pipe from Strathallan Street, and that runs only a short distance along Hayes Street. This is a very serious position, and calls for some immediate remedy. There is a large number of 3 in. pipes included in the reticulation, and the laying-down of that size of pipe has been generally recognized for years past to be a mistake both as regards utility and economy. The street hydrants are spaced at an average of 100 yards apart, and are kept fairly clear. The hydrant-indicators are of two patterns, and some are missing.

*Recommendations.*—Brigade: The brigade is weak numerically. The authorized strength should be raised from twenty-one to twenty-eight, and endeavour should be made to have not less than twenty-five available at all times.

Central station: A new site should be purchased. There are several available in very suitable positions, particularly the one in Barnard Street, and that, I understand, can be obtained at a reasonable figure. The new station should contain at least one set of married quarters, and sleeping-accommodation for from six to eight single men, &c.

Plant: The horsed reel should be replaced with a motor machine to carry six to eight men, having an engine capable of developing, say, 60 h.p.; hose-box large enough to contain 1,200 ft. of flaked hose; fitted with a pump having a capacity of 300 to 400 gallons per minute, and a 50 ft. or 60 ft. wheeled fire-ladder. 1,000 ft. of new hose should be obtained at once, and some new branches and nozzles are required.

Water: The Borough Council should be requested to improve the circuit between the two supply-mains by laying down along Stafford Street at least an 8 in. pipe in place of the 7 in., 5 in., and 4 in. pipes at present there; to lay down an 8 in. pipe to the harbour side of the railway-line, making with it a complete circuit round Hayes Street; and generally to improve the reticulation, as, for instance, in Turnbull Street and Cain's Terrace. More street hydrants should be interspaced between those already down in the more congested parts of the town, and the same pattern of covers as the hydrant-covers should not be used for other purposes. One pattern of hydrant-indicator should be adopted and adhered to.

I have, &c.,

THOS. T. HUGO,

Inspector of Fire Brigades.

#### WHANGAREI.

Two inspections of the Whangarei Fire Brigade and its equipment has been made—viz., 10th and 11th December and 22nd and 23rd May: The following two reports, forwarded to the secretary of the Board, covers both inspections:—

SIR,—

6th January, 1913.

In connection with my recent inspection of the Whangarei Fire Brigade and its equipment I have the honour to forward the following report for the consideration of your Board:—

At the inspection muster held at 8 p.m. on the 11th ultimo there were present the Superintendent, Deputy, and fourteen firemen: these, with one on duty and two on leave, accounted for the full strength of the brigade—viz., nineteen all told—a satisfactory attendance.

Various drills, wet and dry, were carried out in a satisfactory manner.

An inspection of the fire-station lately removed and re-erected on the new site at the corner of Norfolk and Dent Streets shows that the work has been carried out in a very slipshod manner, and that the fittings and furnishings are very poor and incomplete. Daylight is visible through