

*Waipawa*.—An isolating-link on the line side of the north O.C.B. carried away while the O.C.B. was being isolated. The post insulators on this phase were subsequently replaced.

The bushings in this O.C.B. were reconditioned, and provision was made to drain the oil from the bushings for test purposes.

*Napier*.—No trouble was experienced here during the year. The station battery was replaced by one of the motor-car type.

*Wairoa*.—Trouble was experienced on one occasion due to failure of an 11 kv. cable-sealing box, two roof bushings being damaged by flying metal. A virtual interruption of 8 hours 44 minutes resulted.

Plans have been prepared for alterations to the layout to facilitate the changing-over from one transformer to the other in the event of faults.

*Gisborne*.—No trouble was experienced here during the year.

(c) TRANSMISSION-LINES.

(i) 110 kv.

*Mangaore-Khandallah Duplicate Line*.—A deviation of about half a mile was made at Paraparaumu in order to connect up with the new substation structure.

A shut-down of 27 minutes occurred on the line on the 27th February, due to a flashover caused by a gorse fire under the tower section near Pahautanui.

Heavy flooding occurred in the Ohau, Otaki, and Waikanae Rivers in December, but no damage was done to the main lines.

On the telephone-line trouble was experienced at the Otaki River, one pole being washed out during the floods in December. Preparations are now well advanced for reconstruction of the telephone crossing and piling all poles.

*Khandallah-Melling*.—Two shut-downs were experienced on the line during the year.

The first, of 4 minutes, was due to a gorse fire under the line which caused a flashover. The second, of 3 minutes, was due to a fencing-wire which was being strained across a gully whipping up into contact with the line, and two men (non-departmental) received serious electrical burns.

*Mangaore-Bunnythorpe Duplicate Line*.—One fault occurred on the west line during the year, but was cleared without an interruption.

Two poles, one on each line, were shifted at Bunnythorpe Railway-station for railway-deviation works. A new 52 ft. pole was erected on the North bank of the Manawatu River where a deviation was made due to erosion of the river bank.

On the telephone-line, Victoria Hut, which was wrecked by a gale in February, 1936, was rebuilt.

*Bunnythorpe-Marton-Wanganui*.—The live-line gang has been working on this line during the latter part of the year. Pole-caps were fitted to all poles between Wanganui Substation and Turakina River.

*Wanganui-Hawera-Stratford*.—Two shut-downs occurred during the year. The first was due to a flashover caused by lightning, several insulators being shattered and one pole splintered. The second was due to a gorse fire near Wanganui, which caused two separate flashovers.

On the telephone-line several breaks were caused by external causes—viz., one due to the branch of a tree blown across the line during a gale, two breaks due to tree-felling operations, and a fourth due to a hay-stacker catching the line.

*Stratford-Pohokura*.—A lightning-storm occurred on this section on the 6th November. Several insulator units were shattered, and two 110 kv. bushings at Stratford damaged.

*Bunnythorpe-Woodville Duplicate Line*.—This line gave satisfactory operation during the year.

On the telephone-line an interruption occurred due to the breaking of a rata cross-arm. The interior had rotted completely, leaving a hard outer shell.

*Woodville-Mangamaire-Masterton*.—On the telephone-line one break occurred due to a tree blown on the line, and on Mount Bruce the top was broken off a pole. Another pole was washed out at the Mangatainoka River.

*Woodville-Dannevirke-Waipawa-Napier*.—The live-line gang completed the overhaul of this line during the year.

There was one shut-down on this line due to an unknown cause, but was assumed to be due to lightning near Napier.

Two poles were shifted, one to avoid a slip near Matamau, and the other on account of river erosion between Dannevirke and Woodville.

No trouble was experienced on the telephone-line.

*Napier-Tuairua Duplicate Line*.—The work of fitting vibration dampers on this line was delayed owing to the late arrival of material, but preparations are now well in hand to carry out this work.

(ii) 50 kv.

*Stratford-New Plymouth*.—One interruption occurred on this line due to a lightning-storm. Three poles were slightly scarred, and a conductor slightly pitted.

During this lightning-storm one telegraph-pole was burnt through.

*Tuairua-Gisborne*.—Two interruptions occurred on this line. The first is believed to have been due to the accumulation of snow on a cross-arm during a snowstorm causing a flashover. The second was due to a bad contact on one phase of the sectionalizing-switch at Tiniroto. Four short interruptions, of a total of 12 minutes were caused by the first fault, while a longer one of 4 hours 57 minutes was due to the second one.