### DRAINAGE.

The total length of new drainage ditches constructed during the year was 5 miles 69 chains, and the total length of the drains constructed in connection with the Hauraki Plains scheme to date is 608 miles. A summary of the subsidiary drainage construction and maintenance carried out during the year is shown in the following schedule:—

-	Excavation.		
		Cub. yd.	M. ch.
Drains cleaned	 		156 78
Drains widened and deepened	 	92,402	44 65
New drains constructed by manual labour	 	15,090	5 36
New drains constructed by machinery	 	7,260	0 33
Drains widened and deepened by machinery	 	6,660	1 33
Stop-bank improvements	 	13,960	4 04

# BRIDGES, BUILDINGS, AND OTHER STRUCTURES.

One 36-ft.-span and two 25-ft.-span road-bridges were built, also 10 access bridges of 20 ft. to 25 ft. span. Several bridges were repaired, and minor repairs carried out to wharves. One 3-ft.-pipe culvert with flood-gate was constructed at Ngatea, and one large two-barrel ferro-concrete outlet culvert with flood-gates and sluice-gates on the Awaiti Canal. A new shed, 40 ft. by 20 ft., was built at Kerepeehi for storage of material and plant, also huts for accommodation of workmen.

# PLANT, MACHINERY, AND STORES.

A considerable amount of maintenance and repairs to plant has been carried out in the Department's workshops. The principal items of plant are ten dredges and excavators, seven launches, steam-tug, two metal punts, four general-service barges, six tractors, and large road-construction plant (comprising ploughs, graders, scoops, disks, wagons, drays, roller, tramway material, two rail tractors, and about fifty tip trucks). The central depot at Kerepeehi includes well-equipped stores, blacksmith's, engineering, and carpenter's shops, and slipway for docking dredges. Practically all stores and materials required for construction are received at the Kerepeehi stores depot for distribution to the various works.

#### SURVEYS.

Engineering and hydrographic surveys carried out during the year required  $7\frac{1}{2}$  miles of theodolite and  $14\frac{1}{2}$  miles of compass survey and  $129\frac{1}{2}$  miles of levelling. Much routine work is necessary in connection with the preparation of plans and quantities for contracts, monthly measurements of quantities excavated by dredges, and setting out works. Over 200 cross-sections of streams and canals were taken, and some of these at the mouth of the Piako River are of considerable length. Some 385 borings, varying in depth from 3 ft. to 28 ft., were made for determining the subsurface conditions of the swamp. Investigations in connection with flood control and drainage have also been carried out in adjoining districts.

## FLAX LEASES.

Some nine flax leases are in operation, covering a total area of 3,095 acres, on which the annual rental totals £1,377 15s. 6d. The actual revenue received for the year amounted to £1,140 16s.

#### GRAZING AREAS.

The area leased for grazing purposes under temporary tenancies is 9,422 acres, divided into forty-eight holdings. The annual rentals total £755, and £586 8s. 1d. was collected during the period under review.

# ARTESIAN-WELL BORES.

No new artesian wells were sunk during the year, but to date 219 wells have been completed at a cost of £7,185 6s. 8d. The greater portion of this amount has been, or is, recoverable from settlers. Interest is charged on outstanding amounts. During the year £94 10s. 6d. was collected—viz.: principal, £49 5s. 6d.; interest, £45 5s.

# Works Expenditure.

The total expenditure was £47,009 14s. 8d., of which £27,858 12s. 2d. was paid from Thames Imprest Account. Day labour amounted to £27,814 9s. 7d., and fifty-five piecework contracts were completed entailing an expenditure of £5,305 9s. 1d. The drainage rate struck for the rating-year 1927–28 totalled £7,871 14s. 9d., for which 554 rate notices were issued. The sum of £7,071 6s. 7d. was collected during the year.