21 H.--20.

The oat crop was harvested in good condition, approximately 80 tons of sheaves being stacked, practically all of which has been cut into chaff. With the exception of 10 tons sold locally, this has all been used on the farm. Seventy-eight acres has been sown in oats, and promises to be an excellent crop.

The potato crop turned out satisfactory, and, in addition to providing an ample supply for the Institution, 18 tons was sold locally and  $11\frac{1}{4}$  tons forwarded to northern institutions. Sixteen acres

of potatoes has been planted this year and is looking well.

Approximately 8 acres of beach land on the freehold, which has been levelled up with material taken from the new drain, has been worked up and sown down in grass. Twenty-five acres of new ground in section 16, Corporation leasehold, was broken up and sown down in turnips. Trees were planted during the year in the blank spaces in existing shelter-belts.

The following works were carried out during the year:

In connection with the reclamation of the freehold area a large drain has been dug across the western boundary of the freehold with fall into Spey Street contour drain. The total length of drain dug along this boundary was 59 chains 15 yards, the average dimensions of the drain being 28 ft. by 8 ft. by  $4\frac{1}{2}$  ft. A further 40 chains of drain connecting with the western boundary drain, and also having a fall towards Spey Street, has been dug along the northern boundary of the freehold area, the average dimensions of this drain being 24 ft. by 6 ft. by 4 ft. The drain being completed for the whole length of the northern boundary of the freehold, the balance, however, being dug with a fall to the estuary, where the flood-gate was erected last year. Thirty chains of this drain, approximately 26 ft. by 6 ft. by 5 ft. has already been dug, and the work is being proceeded with. A concrete wall was erected across the front of this flood-gate to prevent water leaking in the tube when there are high tides.

Considerable difficulty is being experienced with these drains owing to the sand giving away and causing the sides to slip in. It has been found necessary to build up the sides with sods, and in places to peg them in with manuka stakes. Sixty-five chains of the drain has been built up in this

manner, approximately 50 cubic yards of material being used to the chain.

A bridge was built across the new drain on the western boundary of the freehold to give access to the Corporation leasehold sections, and  $9\frac{1}{2}$  chains of road formed, running from the bridge to connect with the existing road running west from the slaughterhouse. The result of the drainage work referred to above is already apparent on the Farm, and has also greatly relieved the electric pump for draining the freehold which has been operated as required during the year with successful results.

The spoil from the drains is mostly being used for filling in low-lying areas on the adjacent freehold, and a considerable amount of trucking out and levelling work has been carried out with consequent improvement to the land. Some of the spoil from the drain has been utilized in forming a new road on the northern boundary of the freehold, which, when completed, will give access to the property from Bay Road. This is one of the works required to be carried out in terms of our agreement with the Invercargill City Council. Sixteen chains of this road have been formed to a width of 22 yards.

The Spey Street contour drain has been deepened and the sides cut away in places to prevent

them slipping in.

A number of small drains have been dug and a great deal of labour expended in keeping existing

Extensive repairs have been carried out to the rifle-range bank, principally by cutting weiwei tufts and planting them six tiers high and filling up behind them with spoil.

A new Calco flood-gate was fixed at the end of the garden drain and a concrete dam built across

the garden drain on the west side of the ranch-house sewerage.

In terms of the agreement with the City Council the gravelling of Spey Street and Boundary Road has been completed, 1,245 cubic yards of gravel having been spread on Spey Street and 795 cubic yards on Boundary Road. The carting of this gravel was carried out by private contractors, the forming of the roads and spreading of the gravel being done with our own labour.

Necessary repairs have been carried out to the main buildings, ranch-house, dairy, and piggery during the year, including a great deal of painting and renovating work. A new stage and necessary accommodation alongside were erected in the gymnasium. The electric motor for pumping the farm water-supply has had to be replaced. A testing-room was fitted up at No. 1 dairy. A great deal of gravel has been carted out and spread on roads, gateways, and approaches to bridges.

In terms of the agreement with the City Council it is proposed to shortly commence the work of dredging of berths at the Invercargill Jetty, and with this object in view the dredge is now being put

in good running-order.

The garden and experimental area provided ample vegetables for Institution rations, the surplus being supplied to the Railway Refreshment Branch or sold in the local auction markets.

Firewood has been supplied to all Government Departments in Invercargill requiring same during the year, and, in addition, large quantities have been used in the Institution, and at the dairy and piggery, thus reducing the quantity of coal and lignite required to be purchased.

All blacksmith-work required by the Institution and farm has been very satisfactorily carried

out in the blacksmith's shop at the Institution.

The bootmaking industry, on a reduced scale, is still being carried on, the work consisting mainly of repairs and the making of boots for officers of the South Island institutions.