FUTURE WORK.

Further work is required to determine (1) the effects of treatments upon the tubers, and (2) the detrimental effects of the disease upon the yield. With regard to (1), it may be stated that all tubers were kept after treatment, and the production of shoots noted. In all cases where the tubers had well-developed shoots these were killed back to the tuber; but in the course of a few days further shoots developed in abundance, save in those cases where the solutions used had been acidified with 2·5 per cent. hydrochloric acid. With these, delay of a fortnight was evident, and with tubers which had been cut prior to immersion death was not infrequent. It is hoped next season to be able to carry out an extensive series of field experiments, with a view to solving these two last problems.

The writer is indebted to Mr. J. C. Neill, of this Laboratory, for assistance rendered during the course of the experiments.

CONCRETE-WORK ON THE FARM.

A. W. HUDSON, B.Ag., Assistant Instructor in Agriculture, Christchurch.

THE advantages of concrete-structure on the farm are now generally recognized, but practical knowledge of the technique of the work is often lacking among farmers. In a series of articles—now commenced—the writer proposes to give sufficient detailed information to enable any handy man to undertake the simpler structures or operations. The present instalment deals (1) with the general subject of materials, and (2) with the making of concrete posts. In subsequent articles it is proposed to treat similarly some other uses to which concrete can be put on the farm.

1. MATERIALS AND THEIR PREPARATION.

The materials used in making concrete are the "aggregate," cement, and water.

The aggregate may be natural shingle, broken shingle, crushed rock, sand, or a combination of these. It should consist of well-graded material—that is, material of all sizes between the largest stones allowed and sand. The material most commonly used is pit, river-bed, or beach shingle, and great care must be taken that there is neither clay nor vegetable matter present. If the shingle contains any soil or plant debris it must be washed free of these. A convenient form of trough for this purpose is shown in Fig. 1. The aggregate is placed in the trough and stirred thoroughly while water is run through. The lighter clay or soil particles or vegetable matter are carried out at the overflow notch.

The maximum size of stones allowed in the aggregate will depend on the nature of the work. For ordinary fencing-posts and troughs the largest stones should pass through a $\frac{3}{4}$-in. mesh screen. For posts above 8 in. by 8 in. larger stones may be allowed, but should not be larger than will pass through a screen of $1\frac{1}{2}$ in. mesh. Floors and