Two Auckland
Farmers Show How

## CONCRETE CULVERTS CAN BE MADE ON THE FARM

With a little time, expense and labour, the farmer can construct permanent concrete crossings to bridge open drains or small streams.

THERE are few farms which do not have at least some open drains or small streams, and on many there are a considerable number over which good permanent crossings are essential for the efficient working of the farm. Every farmer knows to his cost the manifold deficiencies of the common pattern of wooden crossing, and just as concrete is replacing timber in bridge construction on the roads, so are its very real advantages becoming apparent for crossings on the farm.

Under ordinary farm conditions, the crossing may be constructed from a number of concrete pipes, or it may take the form of a miniature arched bridge. Both types are easy to construct, and both will carry heavy loads. From the viewpoint of general adaptability and utility, the pipe type is probably best suited for the average farm, and it can be particularly recommended where extensive subdivision entails the provision of a considerable number of water troughs. If a good supply of these home-made pipes are on hand. they can be readily used for culverts or can be easily converted into useful drinking troughs wherever they are required.

The farm owned by Messrs. Barr Bros. at Glorit, like many farms in the

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North, is intersected by numerous large open drains, and in order to provide safe and convenient access to the various fields, good, wide crossings are necessary. Although improvised wooden crossings had served as a makeshift in the past, frequent trouble and inconvenience resulted when heavy loads of fertiliser had to be transported for topdressing. To avoid further trouble, Messrs. Barr decided that wherever an old crossing

was in need of repair or a new one was being constructed the work would in future be done in concrete. They decided, also, that for conditions on their farm the most satisfactory solution would be achieved by some simple method of manufacturing plenty of cheap, standardised concrete pipes of a size which would be generally best suited to their average size of drain.

## Mould Described

After some consideration they designed a mould shown in Fig. 1. The mould is constructed of heavy gauge galvanised sheet iron. The ends of the outside mould are fitted with angle irons, which are easily bolted together when erecting the mould. In order to facilitate the detachment of the inner section of the mould, the two ends are

