

Fig. 7.—A suitable distributor for smaller herds; note the wide, strong wheels to carry 1 ton.

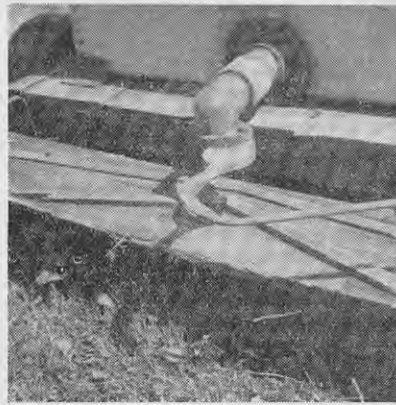


Fig. 8.—The type of spreader used when the tank is on a sledge.

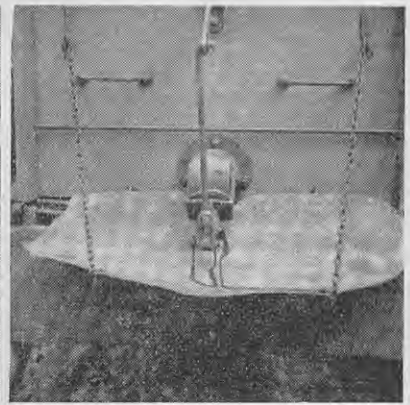


Fig. 9.—A useful spreader for use on a high vehicle. A sheet of iron is bent to give the spread.

his farm. It will not be out of place, therefore, to give in some detail the most practical methods which have been developed by dairy farmers in Taranaki for the easy collection and distribution on to the paddocks of the shed and yard manure.

### Collection of The Manure

It has been found that the manure put on the pastures or on to cropping areas in the liquid form so that it will run freely from a tap gives much quicker and better results than where only the rotted and rain-washed solid manure is collected for distribution. Further, the liquid manure, although dilute, can be handled and distributed quicker and easier than the solid manure. There is no shovelling to be done, and there is little or no loss of manurial value. The dung and urine is washed into a drain leading to a sump to hold the cleanings for several days or into a distributor which is emptied every day.

Whether a sump or the distributor is used to collect the material, the drain should be wide enough to take the shed broom, and should have 6in. to 9in. sides at any rate near the entrance to prevent the manure sloping over the edges. Such a drain is illustrated in Fig. 2.

In Fig. 3 the method of softening the solid manure for easy washing down the drain is shown. The water is held at the entrance of the drain until the shed and yard is washed down, and the solid manure breaks down ready to go down the drain. This is of practical importance in the summer time.

It is estimated that about two gallons of water per cow is used to wash

down the average shed and yard adjoining, and in this the dung and urine are collected. For 60 cows, then, about 120 to 130 gallons of liquid manure would be produced each day. This is mentioned to give a rough idea only of the capacity of the sump or distributing tank required.

### Pumps and Sumps

Wherever possible, the use of a pump to lift the manure from the sump to the distributor should be

avoided. Although there are pumps which will handle this manure quite well, they cost money and there is always the possibility of blockage by hair from the cows' tails, by sand or gravel carried into the yards, and so on. However, where the land is flat it is not possible to wash the manure directly into the distributor, and a sump and pump must be used.

Wherever possible use should be made on undulating country of gravity flow to fill and empty the sump or to fill the distributor where no sump

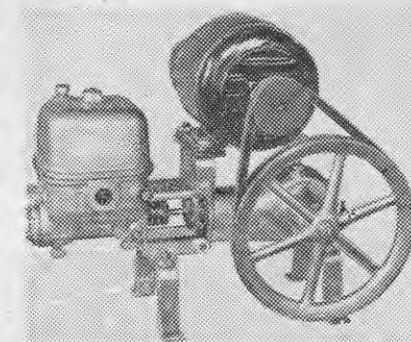
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