

erected in his shed a two-stand plant with $1\frac{1}{2}$ h.p. engine at a cost of from £110 (engine £50, plant £60), and if short of ready cash he can obtain most liberal terms. With £10 worth of extra wool (at present prices) from his first clip with the machine, and prices 55 per cent. over those received for the 1913-14 season, upon an 8 lb. to 9 lb. clip he will have more than half paid for his machine the first season. A larger engine than a $1\frac{1}{2}$ h.p. would, however, be desirable, even for a small number of sheep. A light engine is equal to driving the machines, but with, say, a $2\frac{1}{2}$ h.p. engine at about £70, or even a 4 h.p. engine at about £90, the extra expense would in most cases well repay the owner. There is nothing more useful about a farm than cheap and effective motive power, and either of the stronger engines, preferably the 4 h.p., can be used for chaff-cutting, wood-sawing, pumping water, &c. The crux of the matter is that in the present crisis it is our duty to avail ourselves of every method which will assist towards national efficiency, and in this unequalled pastoral country, with its twenty-five million sheep, the shearing-machine must play a very important part.

SEED-BED METHOD OF RAISING MANGELS, ETC.

IN districts with an abundant rainfall weeds are a great source of trouble and expense in connection with the growing of mangels. A practice sometimes followed with advantage under such conditions is to sow early in a seed-bed. The main paddock is prepared by occasional cultivation, during which the manure is drilled in and cross-drilled—this practically acting more or less as a harrowing. The land is kept cultivated, and therefore free of weeds, until the plants in the seed-bed are of a size to transplant, when furrows about 28 in. apart are run in the paddock, the plants laid on the edge of the furrow, and the earth returned by the plough. The paddock may then be rolled if necessary. The ground is thus kept clean until the plants have got possession, when the balance of the work between the drills can be done with the horse-hoe as usual. Much tiresome thinning and hand-weeding is avoided by this method, and few gaps occur through failure. The same method can also be adopted in the growing of other crops, such as kales, chou moellier, cabbages, &c. Very few losses occur if a kerosene-tin a quarter full of cow-dung and filled up with water is taken along the row and the roots of each plant dipped in the mixture before being laid in the furrow.—*G. de S. Baylis, Fields Supervisor, Napier.*