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**MACHINE FOR STRIPPING LEAVES FROM  
FODDER TREES**

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Experiments designed to evaluate the nutritional quality of fodder trees under pen conditions always have the major difficulty of obtaining enough leaves of the tree to be studied. Hand stripping of leaves is both difficult and time consuming and, if many animals have to be fed, it is practically impossible to obtain enough leaf.

Staff at the Charleville Pastoral Laboratory were faced with this difficulty during the planning stages of a mulga feeding experiment. However, by modifying the design of a seed thresher, a machine was developed that quite successfully stripped the leaves from the branches of mulga trees.

The basic design of the machine is shown in figures 1 and 2. The exterior frame (5 cm angle iron) consists of a base with four upright supports. The rest of the framework is constructed from 14 SWG sheet. A 59 cm length of 30 cm bore casing was used to construct the threshing drum. The drum is fitted onto an axle which is attached to the frame of the machine by means of self aligning flanged ball bearing housings. There are 10 rows of stripping teeth on the drum. Each row contains 23 teeth each 2.5 cm high and 2.5 apart. The rows are 7.5 cm apart (figure 3).

The teeth were cut from 0.6 cm steel plate. The machine is bolted to the floor. However, a suitable alternative would be to extend the area of the base. The motor position is adjustable in the vertical direction (figure 1).

For stripping mulga a suitable drum speed was found to be 1 200 r.p.m., for example a 2.2 kW motor running at  $247 \text{ rad s}^{-1}$  with a 17 cm pulley on the motor and a 20 cm pulley on the drum.

The operator holds the branches and feeds these into the machine. For operator safety, gloves are worn and long branches are used. Covering of the drive belts is desirable for operator safety.

An approximate cost of materials and labour to construct this machine is \$700 (January 1974).

The machine has been used at Charleville to feed up to 30 sheep a day.

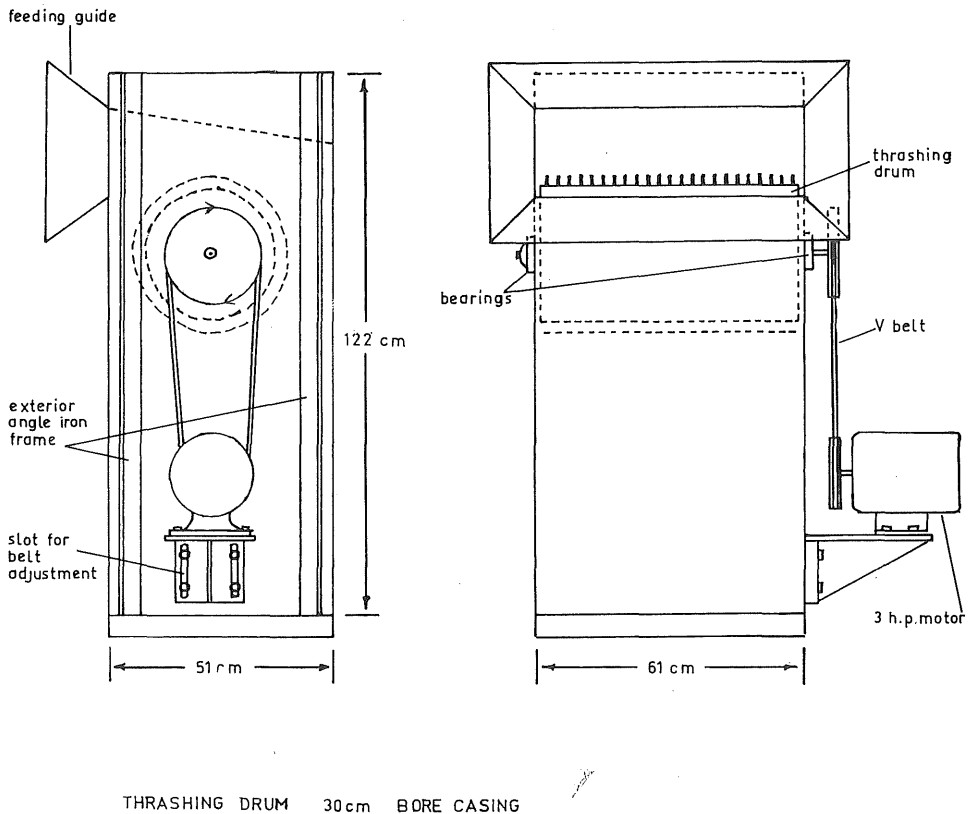
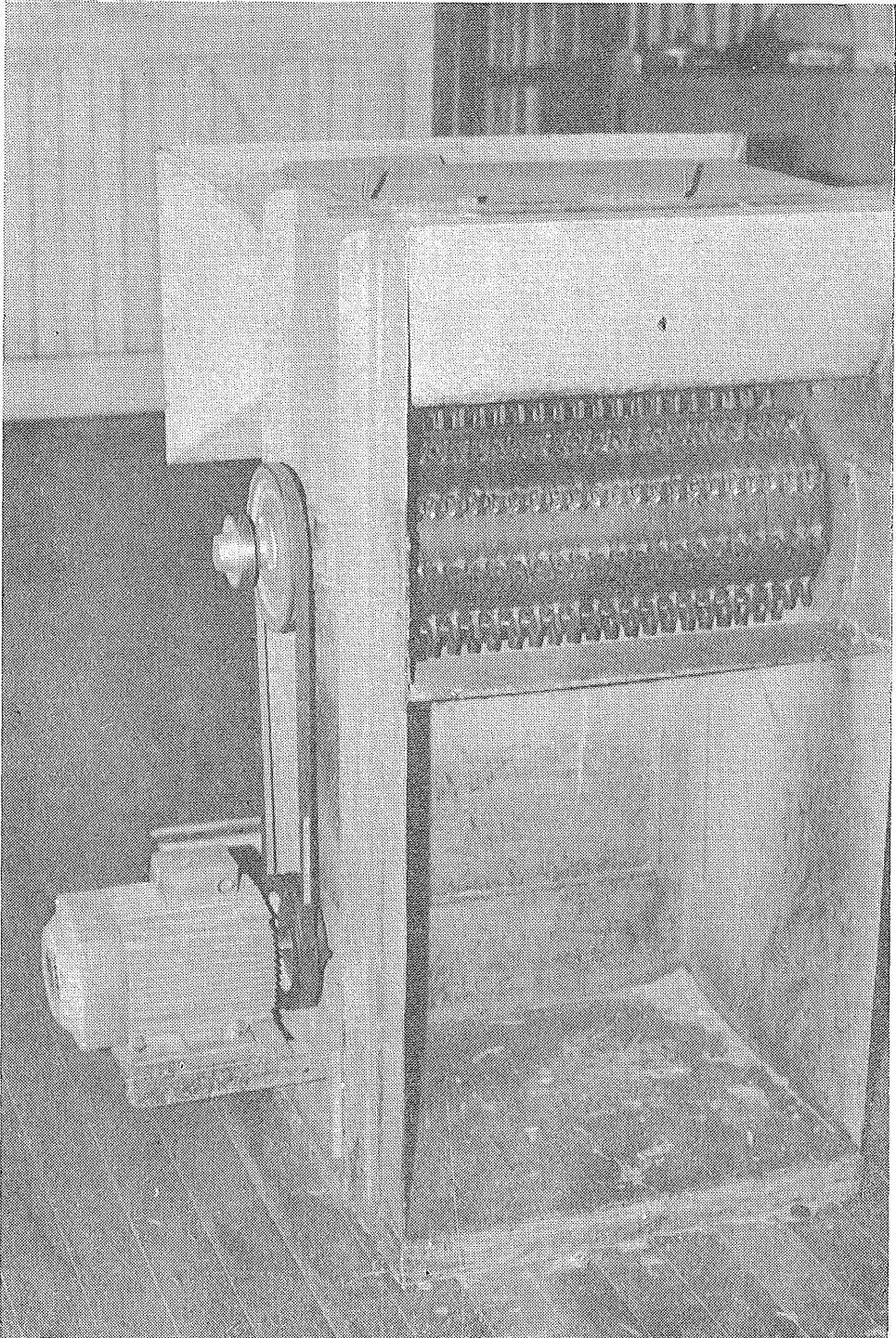
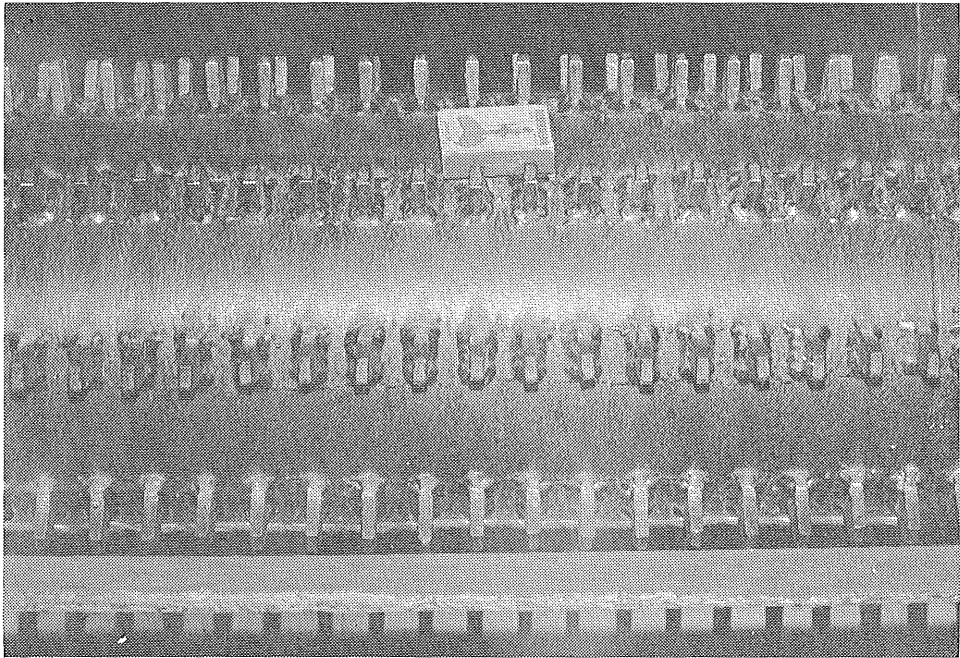


Fig. 1.—The basic design of the machine.



*Fig. 2.—The stripping machine.*



*Fig.3.—The stripping teeth and their construction.*

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