

# An Efficient Rush Digger

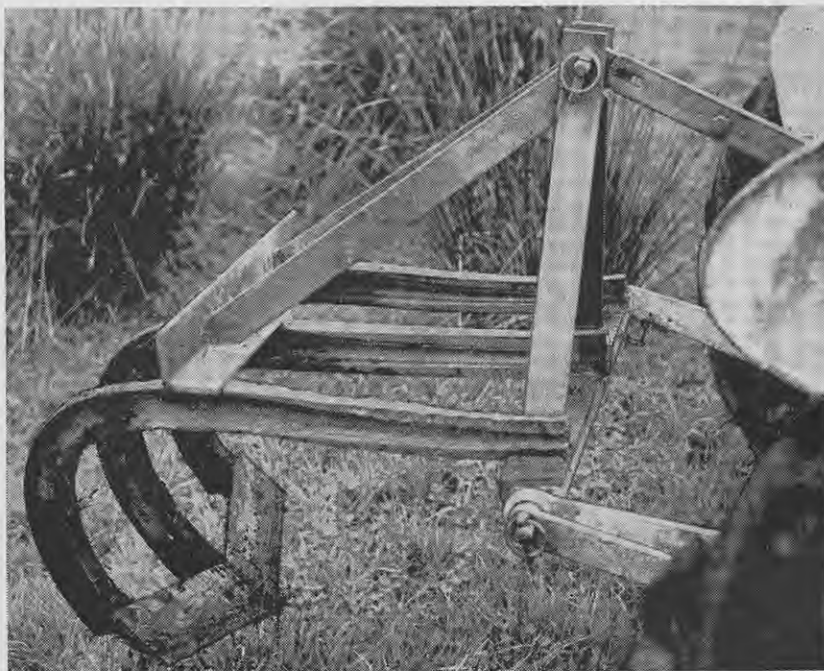
THE hand digging of rushes with a sharp spade has always been a laborious and unpopular task. A very efficient digger which has been designed and operated by Mr W. L. Johnston, Haurua Road, Otorohanga, for use on his tractor hydraulic system is described in this article by W. L. Osborn, Instructor in Agriculture, Department of Agriculture, Te Kuiti.

THE digger is built from three plough beams that have been connected together at 9 in. spacing by a V-shaped cutting blade as illustrated. The blade is shaped from 4 x  $\frac{3}{8}$  in. steel and the cutting edge is sharpened. Where no stones are present hardening of the blade is unnecessary. The unit is attached to the three-point linkage and the angle and operating adjustments are readily made on the top link and by hydraulic control. The completed implement cost less than £7 to build, but Mr Johnston had considerable difficulty in finding plough beams. He suggests that the two outside beams could have been made from heavy angle iron. The simple construction is illustrated.

To tackle large rushes or in heavy going the implement requires extra weight to give more bite. A sack of sand tied on to the framework gives more penetration. This weight could be built into the unit by using heavier beams. Also more ballast is required on the front end of small tractors to prevent rearing-up. Mr Johnston found that he did not require grippers fitted on the rear wheels, because the weight applied to the rear by the pulling action gave sufficient traction to stall the motor before the wheels could spin on dry land.

The paddock should be hard grazed by sheep, as long grass will tend to increase drag and clog the digger. One acre heavily infested with large rushes can be dealt with in about two hours, Mr Johnston using his small tractor. In time most of the pulled rushes rot and disintegrate. Some will root again, but no sign of regrowth from the remaining roots left in the ground after digging were found. Mr Johnston uses a buckrake to collect pulled rushes, and deposits them in low places. If the area is disced for a crop soon after digging, the dying rushes are soon chopped up by discs.

The implement is simple in design yet very effective and quick in action and could be easily adapted to the hydraulic systems and horsepower of different tractors.



The digger is very simply constructed.

▼ To give the digger more bite a weight or a sack of sand or shingle is placed on top of the beams.

