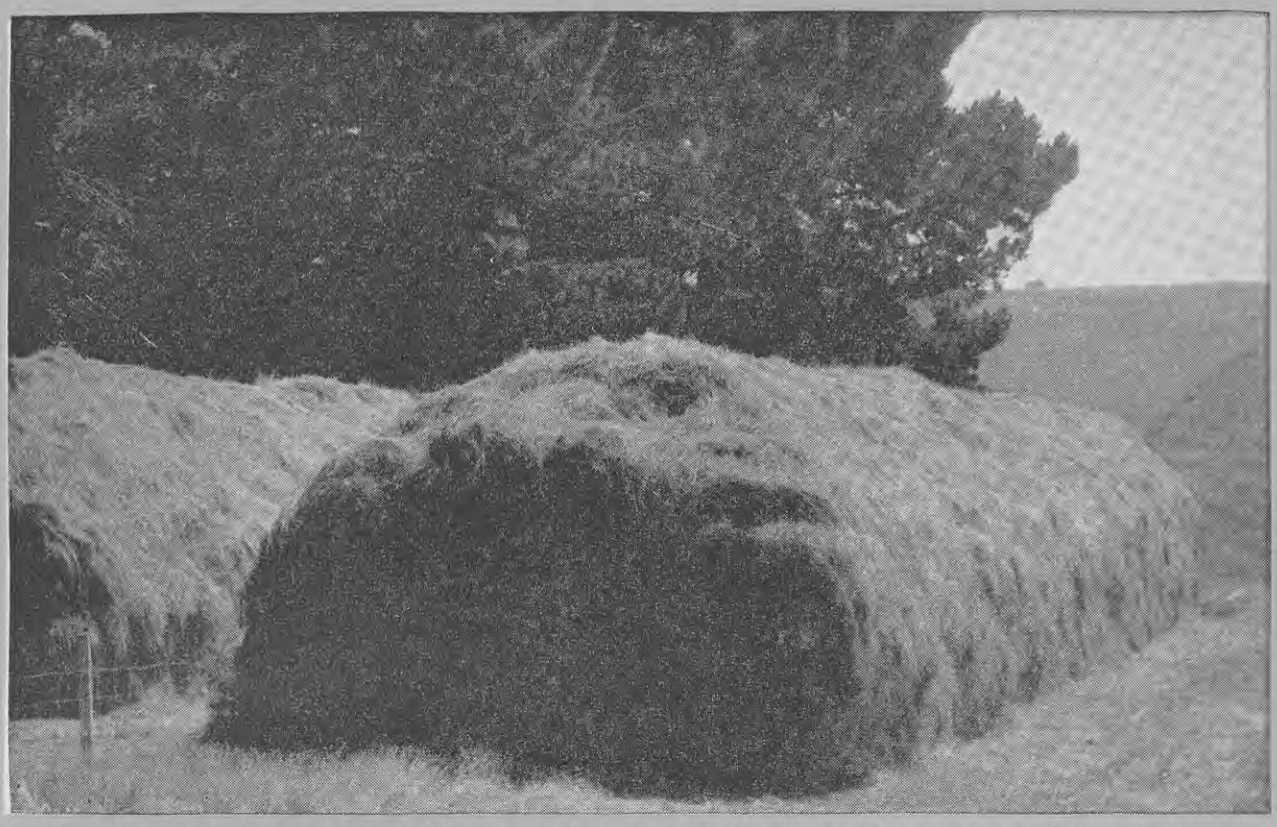

Two stacks in the lee of a shelter belt. The neat appearance and the thatching that turns the weather can be seen.

taining over 40 tons of hay. Other types of paddock loaders would probably require modification for low-density bales.

The low-density bale has a rough side which, when placed with the stems pointing down, forms a thatch. Moreover, the rough edges of the bales knit together, assisting this thatching action and causing the bales to hold together in the stack. This attribute has prompted many farmers to stack hay in the open or more usually in the lee of a shelter belt. Such stacks turn rain surprisingly well and only 2in. to 3in. of the exposed bales appear to deteriorate. It is also noticeable that stacks of these irregularly shaped bales are remarkably stable and do not require propping up as do all but the best-made stacks. In good seasons when surplus hay is conserved the success with which low-density bales can be stacked in the open would be of particular value.

Treatment before Baling

Tedding or turning of the hay once is advantageous for all but the lightest crops, but light crops should be raked, two rows into one, for ease of handling. Heavy crops should not be raked into double windrows, for this makes work difficult for tractor and driver and in addition results in large, uneven bales. Where single windrows are taken some bales may fall in the path of the tractor. In the illustration on page 593 a sledge is shown which slides the bales to one side, preventing this inconvenience.

Generally treatment before baling should aim at producing a windrow that is even and not too dense. If this is obtained, the bales will be of fairly even size and weight.

Description of Baler

The machine could be described as a "straight-through" baler because the bales are discharged side on instead of end on as is usual. A rotary steel pick-up lifts the hay to within reach of the packer arms. The hay is then pressed into a bundle rather like a sheaf, but with two strings tied around it. A rack at the bale outlet holds one or two bales against the bale chamber for the packing mechanism to work against.

The baler is driven by the power take-off, and a medium-sized tractor of about 25 belt horsepower is capable of the work. A constant-running, live power take-off on the tractor is preferable. On undulating ground a larger tractor may be necessary, though the baler itself weighs slightly less than 1 ton.

Only one model of this machine is readily available in New Zealand at present. It is German made and sells for about £500. There are three adjustments, the density screws, the tripping adjustment (which alters the breadth of the bale), and lastly the essential pick-up height adjustment. Though the first machines gave a little trouble, the model available at present is very reliable, stoppages and breakages being virtually unheard of, unless caused by crop conditions or an unexpected hazard in the paddock.

A rate of from 10 to 14 bales per minute is usual. The low rate may be necessary if the bales are stacked on a sledge; otherwise the man on this operation may be overtaxed. Generally a rate of 5 to 7 tons per hour can be expected.

Twine Costs

The low-density bale of 30lb. to 35lb. weight requires some 8ft. of twine