A NEW SHEEP-WEIGHING CAGE

E. D. CARTER*

I. INTRODUCTION

The essential features of a satisfactory sheep-weighing cage may be summarised as follows:

1. The cage must be easily operated by unskilled personnel and allow rapid identification and weighing of sheep without distress or injury to the sheep or the operator.
2. The cage should be as light as practicable commensurate with strength, suitability and cost of materials and be readily adaptable for use on a variety of scales.
3. The cage should have a reliable means of opening, closing and latching the gates to permit rapid caging without injury to the sheep.
4. The cage should be no larger than necessary, be as open on top as practicable and be free of sharp edges and corners. This allows easy and safe identification and rapid weighing.

A variety of sheep-weighing cages is available in Australia, but it is believed that none incorporates all these features. A new cage which embodies the above features is described below.

II. CONSTRUCTION OF CAGE

Figure 1 illustrates the general features of the new cage fitted to a beam-indicating platform scale where sheep are penned, caged and identified by one operator while weighing and recording are done by a second operator.

The important features of the cage are as follows:

1. The handles are multi-purpose for opening, closing, latching and unlatching the cage gates and also allow necessary leverage to separate two sheep attempting to enter the cage together or to ease a reluctant sheep into the cage. The spring-loaded gate catch is activated by a rod connecting the brass handle with the catch. Unlatching involves a slight turn of the wrist.
2. The gates are close-fitting at the bottom which means that it is impossible to jam a leg or foot of the sheep when closing the gate, providing there is a properly constructed ramp leading up to the cage.
3. The gates are robustly made, to allow latching above, yet giving sheep a clear view through the cage.
4. Identification of sheep in the cage is rapid because the two overhead rails allow easy sighting of tags and ear-marks. Where the caged sheep needs to be touched or held to aid identification there is negligible risk of injury to the operator’s hands as all interior surfaces of the cage are smooth and edges rounded.

Details of cage construction are shown in Figure 2. The internal dimensions of the cage (42 in. long, 17 in. wide, 33 in. high or 107 x 43 x 84 cm) are

*Waite Agricultural Research Institute, University of Adelaide
Fig. 1.-Showing the cage fitted to a platform scale. In this arrangement the operator who is caging and identifying sheep, faces the operator who weighs and records.

designed for accommodation of large-framed mature South Australian strongwool type merinos commonly weighing 70-80 kg. Some reduction in cage dimension could be desirable when smaller breeds or immature sheep are being handled regularly. Alternatively false sides may be fitted inside the cage to restrict movement of young sheep. The main framework of the cage is constructed from black steel piping, sheet and chequer plate with welded joints, the completed cage being sand-
Fig. 2.—Showing general cage construction with enlarged and detailed views of the catch.
blasted and treated with zinc silicate against corrosion. Construction from lighter materials may be necessary where interior and exterior taring devices are of limited capacity on platform scales.

III. PERFORMANCE OF CAGE

The new cage is suited to a range of farm and station beam-indicating or dial-indicating platform scales and the whole weighing operation may be carried out by either one or two persons depending on the position of the scale headwork. The cage has been thoroughly tested in South Australia where it is being manufactured. Although no experimental tests have been made, independent estimates, by research workers concurrently using the new cage and older cages, attribute about 30% improvement in weighing speed to the use of the new cage. If convenient yards and pens are available, two operators can pen, cage, identify, weigh and record at the rate of 150 sheep per hour when using this cage on a dial-indicating platform scale. However, the skill of the operators, the degree of training of the sheep and the flock size will greatly modify the rate of weighing.