

ronized. I only saw the last, the Hackney show, which continued two days. The results were a sweeping victory for the produce of the Scottish-owned sire Mathias 6473—owned by Robert Scott, of Thornhome, Carlisle. His son King's Proctor 11102, a former London champion was the winner of the Produce-group prize for stallions. He was himself winner of the Produce-group prizes for both mares and harness shows. Some very fine harness horses were exhibited after him, and there are a sufficient number of enthusiasts to keep the Hackney flag flying in spite of adverse conditions. Death has of late been very busy among agriculturists. John Marshall, the head of the noted implement firm of Alexander Jack & Sons, (Ltd.), Maybole, has passed away. So also has Wm. Bone,

Shellock Park, Gervain, in the same section of Ayrshire, one of the most enterprising farmers in a district where such are not few. I. Arres Mather an exceptionally capable farmer in Nairn and Inverness, died after a singularly honorable career, and finally there may be named George Hendry, Secretary to the North of Scotland College of Agriculture and formerly Agricultural reporter on the Aberdeen Free Press. Mr. Hendry was a very capable and discriminating critic of Aberdeen-Angus and Shorthorn cattle, and a recognized and trusted judge of the former. He was a favorite in the brotherhood of journalists, and will be greatly missed in the agricultural life of the north of Scotland. SCOTLAND YET.

Fewer Ticks and More Sheep.

Would you kindly inform me through the columns of your paper what would be a good solution to destroy ticks on sheep and lambs and how and when should they be dipped? I thought of dipping immediately after shearing, and as I am only a beginner in the sheep business, I should appreciate some advice regarding what to use and how to use it.

Middlesex County, Ont.

SHEPHERD.

The need of this country to-day is for fewer ticks and more sheep. Mutton, lamb and wool sell readily at handsome prices, as all market quotations show, but the supply is not equal to the demand. The woolled tribe has decreased in numbers in the last decade, and shepherds who have retained their breeding animals find themselves in possession of a very remunerative class of live stock. Many of these shepherds, however, fail to put into practice methods that will still further increase their revenues and maintain the good quality of their flocks. Body pests, to which sheep are subject, still persist, and the almost universally-known sheep tick is perhaps most common of them all. Lice and scab are not unknown, but the tick itself effects sufficient loss to warrant remedial measures being taken with greater vigilance. Not only is the thrift of the flock affected unfavorably, but the clip of wool lacks in strength of fibre and in weight of fleece, when the body upon which it grows is tormented by ticks and lice. The remedy is simple and within the reach of every shepherd. The first requirement is a desire supported by a determination to treat the sheep for pests. The material and equipment are easily obtained and can be applied with little inconvenience, when once the owner of a flock, large or small, makes up his mind to practice the precautionary measures that will save him dollars and increase the quality of his sheep and their products. Dipping the sheep and lambs in a specially prepared liquid is the remedial and preventive treatment practiced in all countries. Let us study a few of the details connected therewith.

As for the dip itself, or the basis of the mixture, there are several makes now on the market. Any proprietary dip that has an established reputation for this purpose is satisfactory. Formerly, mixtures were prepared at home from lime and sulphur, and other substances, but the most successful shepherds of this decade advise against anything but the proprietary dip which can be purchased from most druggists and dealers at a reasonable price, and which is effective while not injurious. Directions for its use are printed on the container, and in such plain language that no one need go wrong.

Equipment.

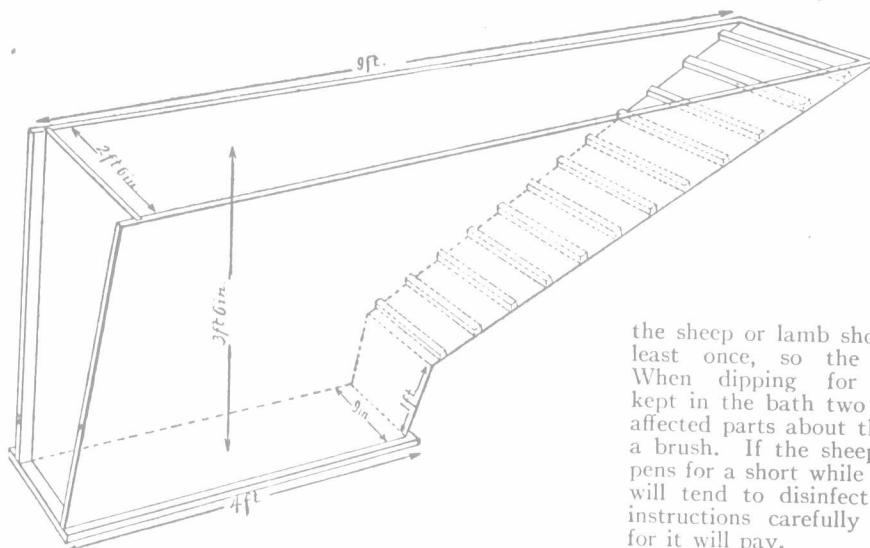
The matter of providing suitable means of dipping the sheep is not so easily settled as is that regarding the dip itself. However, a little ingenuity will quickly conquer any obstacles in this direction. A small flock of 8 or 10 sheep and their lambs could be treated quite successfully in a large tub, such as half a hoghead. These can often be procured from a grocer or any dealer selling molasses. They should be spoken for some time ahead, in order to obtain one in good time. This method is rather tedious, but the labor connected with such a flock as mentioned above would not disturb or dampen the ardor of a good shepherd. Two men are, of course, required. The sheep should be lifted and placed on her back in the dip, while her legs and head should be entirely immersed once, at least. For lice or ticks, one complete immersion is usually sufficient. For scab the sheep, all except her head, should be left immersed for at least two minutes. In order to conserve the material, so far as possible, a dripping board should be arranged at one side of the tub on which the sheep or lamb can be placed when taken from the dip. When dipping on a modest scale, it would be practicable for one operator to rub some of the liquid from the animal with his hand, and thus maintain the material as near as possible to full measure. This system of dipping is also quite applicable for lambs or for sheep that may be introduced into the flock from time to time. One of the most fertile sources of infestation and disease is through the incoming of rams or sheep purchased from ill-managed flocks. A tub or small vat can be used effectively to surmount this obstacle.

For a flock of 25 sheep or more, it will pay to purchase a dipping vat or construct one according to the plans described herein. Metal dipping tanks are now supplied to the trade, and they can be used with great efficiency. However, if the proper lumber is available, and the shepherd is handy with tools he can build a tank. It would be well in any case to get prices on the metal vats and then decide, after considering the labor in constructing one, and the probable relative values of the manufactured tank and the one built at home. In the accompanying illustration is shown a vat that

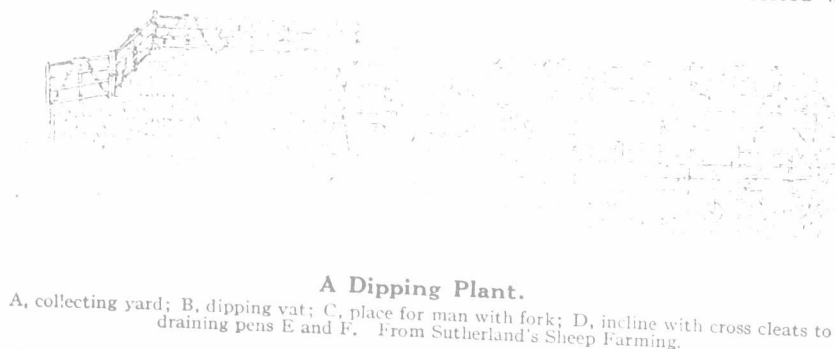
will answer the purpose very well. The dimensions, say, 9 inches wide at the bottom, 2 feet 6 inches at the top and 3 feet 6 inches deep. It is narrowed at the bottom in order that a smaller quantity of dip will suffice. At the perpendicular end of the tank a chute should be attached and kept well greased so the animal can be forced gradually down until it drops or is plunged into the liquid. It will at once climb up the gangway at the other end, where a gate could be hung, leading into a small dripping pen. This should be so attached to the vat that the drippings may run back into the



Dipping Sheep in a Tub.
From Stewart's Shepherd's Manual.



A Small Portable Dipping Vat.
From U. S. Bulletin.



A Dipping Plant.

A, collecting yard; B, dipping vat; C, place for man with fork; D, incline with cross cleats to draining pens E and F. From Sutherland's Sheep Farming.

tank. A second gate at the other end of the pen will liberate the dipped sheep and another can take its place. An even more extensive plant will permit of several sheep being retained in the same dipping pen, such as is depicted in another illustration accompanying the article, but for small farm flocks the modestly arranged equipment will be sufficient.

A suitable tank used for dipping sheep can also be used for pigs or calves. A vat in use at the Central Experimental Farm, Ottawa, for some time was 34 inches deep, 30 inches wide, 10 feet 2 inches long at the top and 6 feet 5 inches at the bottom. It was constructed of two-inch pine plank, tongued and grooved, and held together by bolts running through the centre of the plank up and down the sides and across the

bottom. When building a plank tank, the seams between the boards should be smeared with hot tar or lead. For only a few sheep, a trough with a dripping board at one side might answer. When this is used, the sheep are laid on the board, the wool parted, and the liquid poured on. The lambs can be dipped in the trough. On Western ranches and in countries where scab is prevalent, the equipments are extensive, and demonstrate the importance attached to dipping by those who rear sheep in large numbers. In Utah, one plant alone had a capacity of two flocks per day, or 7,200 sheep in 12 hours.

When to Dip.

Generally speaking, the flock should be dipped twice each year. Once in the spring shortly after shearing, if the weather is warm, and once in the fall before turning into winter quarters. In-lamb ewes should not be dipped in the spring, as the plunge into the vat and the handling connected therewith is liable to cause abortion. If possible, it would be better to postpone the operation till all have lambed. A few days after shearing the ticks will be found mostly on the lambs, and a thorough drenching of the little fellows also will eradicate great numbers of the pest and cause the flock to thrive exceedingly, more than would be possible when tormented by these destroyers of the shepherd's profits. Another bath about 10 days later will insure the destruction of any vermin hatched from eggs since the first dip and guarantee a season's freedom from lice and ticks.

Throughout the winter many flocks become so infested with vermin that they fail to gain in weight and thrive, and they actually go back. During some warm winter days it might be practicable to part the fleeces and pour on the warm preparation, after which the sheep can be crowded together in a warm stall until they are dry. This, however, is not the proper method to pursue. The flock should be dipped before the weather becomes too cold and when it can be done thoroughly.

How to Dip.

Any good shepherd will dip his sheep properly, provided he has the conveniences and the preparation. As previously stated in this article, proprietary or commercially prepared dip will be most satisfactory. When a dip is used which is made from coal-tar products, and this can usually be detected by the odor, it is wise to use soft water. If this is not available, a little concentrated lye may be added. However, soft water can usually be obtained from off the roofs of the buildings during a shower or it can be drawn from a near-by creek, and it will be worth while. Attention should be paid to the directions on the container re mixing and applying, and the instructions should be followed to the letter.

Dips are usually more effective when applied warm. A temperature of 106 to 110 degrees Fahrenheit is about right. Hot stones or red-hot irons can be used to re-heat the dip after it has cooled, but the initial heating is usually more conveniently executed in a feed cooker or on the kitchen range.

When dipping for ticks only, the sheep or lamb should be put below the surface at least once, so the liquid will cover every part. When dipping for scab, the animal should be kept in the bath two minutes, by the watch, and the affected parts about the head should be scrubbed with a brush. If the sheep and lambs are fastened in the pens for a short while after being dipped, the drippings will tend to disinfect the surroundings. Follow the instructions carefully and do the work thoroughly, for it will pay.

Why All Should Dip.

Any successful cattle feeder never allows his animals to remain infested with vermin. He knows he cannot get gains under such conditions. Sheep are perhaps more subject to ticks than cattle are to lice, and the bad effects are quite as noticeable. Not only do the sheep fail to thrive and the lambs to grow, when tormented by such vermin, but the quality of the wool clip is very much impaired. Sheep will rub themselves against trees, fences, or anything solid, in order to obtain partial or temporary relief, and in doing so their wool is pulled out and injured, or becomes filled with foreign matter. When the health of the animal is not at its best, the yolk excreted by the body is not as abundant as it should be, and this results in a poor quality of wool. Furthermore, the staple of the fleece is not so uniformly strong when the health and vigor of the sheep varies from time to time. After shearing in the spring, the majority of the ticks take refuge on the lambs, and this unquestionably results in poorer gains to them. Dipping will eradicate the vermin and insure greater profits in all directions. Several enquiries came to this office during the past winter from shepherds who saw the necessity of treating their flocks for ticks. If this simple operation were conducted in the fall, no such expediency would be necessary during cold

weather. I have monished w advantages practicing t

EDITOR "T" I have ferring to w installed an

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