from it for the beginning. It is easy to enlarge the business when the foundation is laid.

The kind of sheep most profitable are what are known in the Albany or Buffalo market as Canada sheep, grades of Cotswold, Leicester and other heavy sheep, and the best breed to use for crossing for market lambs is the Shropshire, its black face and legs being very popular in the markets.

The income from 100 sheep would probably be as follows: 600 lbs. of wool; 75 lambs, ought to sell for $5 per head, and the sheep should net $7 per head when sold, and should be bought for $5 per head. Each sheep would then return for its cost and keep $7 80. They would consume 180 bushels of grain, 45 or 50 tons of hay, and an acre of mangolds, which would be worth for feeding say $3.90, thus giving a return of 100 per cent. profit on their feed. The manure ought to be worth the labor, as one man will be sufficient to care for the flock, with help at shearing.

These estimates are put as unfavorably as possible both ways. For instance, I never had less than over 100 per cent. of lambs when raising them for market; and such sheep as those mentioned gave a fraction over 8 lbs. of wool per head; while my crops for feeding averaged almost double as much as the estimate above given. But much depends upon the land. If it is in poor condition, and the crops are small, there will be sufficient time to know this before the sheep are purchased, and the size of the flock may be matched with the amount of feed. Again, a careless feeder will waste as much feed as is eaten, while with care none need be wasted. So that the man is also an important item in the calculation.

Finally, it may be said that rearing lambs for market and fattening the ewes as soon as the lambs are sold, is the most profitable business that can be undertaken under the circumstances described. The soil and character of the land are exactly suited for sheep; sheep are the most productive of of farm animals, and no others will improve and enrich the land so much as they will.

A good many useful hints will be found in the Shepherd's Manual. H. S.

Bran—Linseed—Hurdle-Feeding.

INCREASING PRODUCTION.

EDS. COUNTRY GENTLEMAN—I have "Feeding Animals," and I have read most of it through many times. In estimating value of wheat bran, does he mean roller or the old kind? A Cleveland firm advertised linseed meal as worth eight times as much as bran. I can buy one for $8.50 the other for $21 a ton. Which is cheaper? If bran is worth $8.50, what is linseed meal worth? (1)

I was also much interested in plan of hurdling sheep, but it does not tell us how to make a cheap hurdle. (2)

I built a 60-foot octagon bank barn, according to directions in book—9-foot basement, 28-foot posts, circular hay track, manure gutter and all, at a cost of $3,300.

I am raising a calf according to directions in "Feeding Animals." He is 11 months old and weighs 800 lbs. I shall gradually introduce soiling, commencing this year. I have 200 acres, and keep 25 horses (20 of these brood mares) 25 cows and steers, 5 hogs and 80 sheep. I wish to keep my sheep in two lots, in hurdles. I wish to double the stock kept on the farm. (3)

Cloverdale, Ind. L. A. S.

L. A. S. in asking the comparative value of wheat bran and linseed meal, presents a question which we have answered so frequently. We cannot consider a single food as having an absolute value, unless it be a food which contains all the elements required in the right proportion.

1. The first edition of "Feeding Animals" treated foods as they then existed. The roller process was not then generally in use, and in recent editions the digestible nutrients of wheat bran have been modified, increasing the albuminoids and decreasing the carbohydrates. But still it is true of every food that its value consists in its effect in balancing a ration. The best linseed meal has about two and a half times as much albuminoids as wheat bran, and perhaps this one element is as good as any single element to determine relative values, and if wheat bran is worth $8.50 then for the purpose of balancing a ration where albuminoids are deficient, linseed meal would be worth about $21, so that S. will see that the market price of the two foods is about right. Yet in many cases the difference between the two would not be so great, because the carbohydrates in the bran would be worth more than the carbohydrates in the linseed meal.

2. The economical use of hurdles for feeding off a green crop with sheep or swine, requires a sufficient number of straight, movable hurdles to stretch across the field in two rows. These hurdles can be quickly set by making holes with a bar and driving down the hurdle, placed end to end along the outside line of the field. This hurdle, as usually made, consists of three stakes about 5½ feet long, with the lower end sharpened, with four cross rails about 14 inches apart, pinned or bolted to the stakes, with a brace running diagonally from the upper rail on one side, to the lower rail on the other side, to hold the section in position. This brace is fastened to each stake. These sections of hurdles may be 16½ feet long, or shorter, as is most convenient. These horizontal bars or rails extend beyond the outside stakes about 10 inches.

In case a field 40 rods wide had a permanent straight fence on each side, it would require only sections enough of this movable hurdle to stretch through the centre, and then the field could be fed off on either side of the centre by the use of rolling hurdles across the strip to be fed. We will now describe the last kind of hurdle: Take a stout pole, say 4 inches thick, bored with two series of 1½-inch holes, 12 inches apart; one series is bored in one direction, and the other at right angles with this. Now round stakes, or split ones rounded, 6 feet long, are put through both the series of holes, and the project 3 feet on each side of the pole, and the end view of this hurdle is like the letter **X**. These hurdles are moved by rolling on the ends of these stakes. There are two rows of this hurdle, placed end to end, stretching across the strip of field to be fed. The sheep are to be kept between these two cross lines of hurdles.

Let us suppose that there is a thick growth of clover to be fed off by the sheep. We commence at one end; a line of cross hurdles is placed from 10 to 15 feet from the end, according to the number of sheep to be fed. The second row of cross hurdles is placed at the end of the strip. The sheep having eaten the green food on this strip, the forward row of hurdles is rolled forward for enough to include another day's food, and the rear line brought up.

We proceed in this way to the other end of the field, and then, if there are two strips of field, the sheep are placed on the other strip and eat across that in the same way, when they may be brought back and feed over the first strip again, and so continue through the season. But if the land requires an extra amount of fertilization, extra food, such as wheat bran, middlings, oil meal, &c., may be given in racks. It often happens that wheat bran may be purchased at a price which it is worth simply as a fertilizer. Thus the field may be fertilized and the sheep kept without extra expense. Whenever there is an extensive demand for hurdles, they will