more than a dead loss, because of the expense of the labour and materials required to cleanse the wool from it. Yet this worthless stuff has cost something. All animal secretions are derived from the food the animal eatz, and this oily matter in wool has come from the grass, hay, roots, and grain, which the sheep has eaten—in fact it was derived from the most valuable elements of the food. Besides this, it is well known that sheep which secrete the greatest amount of this malter, consume most food in propor-tion to their weight, and have the least tendency to fatten. There is as much trath as originally in John Journston's expression, that he could not fitten those Merinos which secrete something in their wool recembling gas tur

## Food and Shelter for Stock.

It will not do to argue that the sheltered animal will always eat less than an unsheltered one, but if he does eat as much, he will accomplate fut much fister. or will or exert the overplas of food in o fit, though in this cases out of every ten the sheltered animal will, other things being equal, consume the least food, supposing that in both cases the annual has as much as he will cat. The best and most renable experiment to prove that "shelter is equivalent to food," is that which was tried by Mr. Childers. He divided his flock of forty into two equal portions, as nearly fair to do justice to the experiment as possible, and kept one division of twenty in the open field during the three mouths of January, February and March, wi hout any shelter. The other twent, were placed under an open shed in a yard, but were not allowed to go out into the yard. Both lots were fed for to go out into the yard. Both lots were led for three months upon as many turnips as tary chose to cut, half a pint of linsced cake and half a pint of burley to each sheep. The sheep at the field consumed all the barley and linsced cake given to them each day as well as mineteen pounds of turnips. Those unfor the shed to ask much food as the others at first, but after the third week they cat two pounds less of turnips per head every day. At the end of the civilia with the about two pounds less of tess of turning per head every day. At the end of the eighth week the f again can two pounds less, or only factor points f they, they also cat one-third less of the Unseed take that the others. At the end of the third month both loss were weighed and it was found that those in the field had gained five hundred and twelve pounds, while in the same time and upon less food those in the 82rd had increased seven hundred and ninety pounds, or two hundred and seventy-eight pounds more than the others.

Another experiment of a similar nature was made by Mr. Morton, who took from his flock five sheep as nearly alike as possible. To one of these he gave no shelter, the second he confined in an open shed, the third in an open shed, but confined in a small crib, in order to prevent much exercise, the fourth was confined in a close dark shed, while the fifth was confined in a similar shed, but also in a small crib like the third. They were weighed November 18th, when put in, and again March 9th when taken out, with the

following result .

_	November 18.4.	
18:	tus	131.7
24		129.8
34		130.2
4th		132.4
5ta		131.3

They were fed with as many pounds of turnips as they would cat, 0. 2 pound of cass and a little hay each day. The following shows the increase compared with the amount of turnips consumed:

1zt				f turnips.
21	.27.8	1.594	44	٠, -
31	.02 2 4	** 1239	46	**
4;h				4.6
5:b	203 "	" 8\$¢	44	44

From this it would see a that a certain amount of exercise was needed to get the greatest amount of increase of weight from a given amount of food, for the third and fifth, weight were closely confined, increased less than those placed under the same circumstances but not confined. Their rate of increase for every one handred pounds of turnips consumed was as follows:

lst	 .1.2 lbs.
24	
3d	 1.8 "
4th	
5th	

From this we see that the animal confided in a close dark shed showed the greatest increase in proportion to the amount of food consumed, which is the great point arrived at by all slock feeders.

Aside from the various items of shelter, light and exercise, there are various other items which are very often considered of but little importance. One is regularity in feeding; all animals, especially sheep, seen become accustomed to having their food at a particular time, and if they do not get it become uneasy and restless. It does not seem to make so much culturist.

difference when the food is given as that when a par-ticular time is established, that it should be strictly adhered to.

Another item in which I perhaps differ from many readers of the Idegraph is, that I think as a general thing we feed too little grain, and that it is more economical to feed some grain at regular intervals to all our farm stock. The reader will remember that I refor to winter feeding only, and must not confound it with grass or summer feeding. It takes no more, if as much, to keep an animal after he is in good order than when he is poor. In by far too many cases our stock cattle (kept over winter on rough provender in order to latten on grass the next summer.) are kept stationary all winter, and in some instances retrograding. We do not generally commence to fasten our pigs until new corn comes, and very clear they are kept on very low diet until a few weeks before they are killed, and during these few weeks are fed largely on highly concentrated food. I have found by observation that it requires considerably less corn to keep a pig fat all the time than it does to let him get into poor condition and bring him up again. Again, by deferring the fattening process until cold weather, we lose a portion of our corn which is required to keep up the temperature of the system, which otherwise would be reduced by the cold air.

Many farmers will argue that salt has nothing to do with the winter care of stock. In this I differ with

them not only from theory but also from practice. I use the solid clear rock salt, which I have found to be most economical; the cattle have free access to it desires the salt. must economical; the cattle have free access to it during the whole year, and from a carefully kept record I find that they consume the most during the months of May and June, or when first turned out to pasture, and the amount used gradually decreases until October, when it again increases until the cattle are brought into the yard, when it falls off and remains stationary all winter. I have noticed that after a long wet spell during the time they are out on pasture, they consume much more than either before or force of the part of the par afterward. During the winter after a feed of turnips, mangolds or other roots they will consume double their daily allowance of salt. It is my opinion and practice that cattle should have free access to salt at all times and particularly when fed on succulent food. I have found that during the winter four head of breeding ewes will consume as much salt as a steer weighing fifteen hundred pounds, and if fed on tur-nips as many as they will eat once a day, two of them will consume as much as four without the turnips.

I think our practical farmers are not sufficiently aware of the benefit which will result to their stock from a change of their food occasionally; a turnip may be "all water and contain no nourishment," but if fed to stock once a week will produce a greater effect than any other kind of feed which can be given,

not even excepting corn meal.

Nothing has so good an effect upon the appearance of horses as a weekly feed of potatoes, at the rate of about three-quarters of a peck to each horse; they seem to keep the bowels loose, and give the animal arrest, clock coat. I would advise giving the roots a smooth, sleek coat; I would advise giving the roots instead of the regular feed sooner than not at all. There is no doubt but that it will pay as it has been PRACTICAL FARMER. proved by more than one

-In Germantown Telegraph.

## The Best Ring for a Bull.

The ring we here illustrate is far superior to the circular ring in common use. The circular part is placed in the nose and a strong strap is attached to the straight cross-piece. The ring should be about two inches in diameter, made of § iron bent into a bow, or U shape. In one end of the U, an eye is made, through which a steel bolt passes, having a screw head, and screwing through the other end of the U, in which a thread is cut. The circular portion should be faished perfectly smooth so get a cruss up should be finished perfectly smooth, so as to cause no irritation to the nose of the animal. The best way to insert the ring is, to lash the head of the bull to a



sh the head of the built to a strong post, or to a bar between two trees, or strong posts. (See last issue of C. F., page 52.) Then make a puncture with a white-hot, pointed iron as large as the ring, by thrusting it through the series of wall hetween the septum, or wall between the nostrils, and drawing it out again instantaneously. It will be easier for some, to use a large leather punch, or even an awl, to make the hole. Then insert the ring, screw in the bolt, which should turn in hard, with the strap attached. The

strap ought to be of the toughest harness leather and the lap riveted, and sewed besides.—American Agri-

## The Best Feed for Making Mutton.

A raw days ago we saw a small flock of the largest and fattest mutton sheep, in the stock market on 44th strest, that we have ever met with. The live weight of some of them was 350 or 400 pounds! They were so very fat that life really seemed to be a burden. Their shoulders and hind quarters swelled out with fat, as if some falal disease had produced a high inflammation throughout their entire bodies. They were said to be full blooded Cotswolds, and were four years old.

We inquired of the proprietor, who was an intelli-gent Canadian farmer: What has been your system of management with those sheep for developing such large frames, covered with such thick fat? His answer contained a volume in one short page:— "There is no difficulty in making such mutton sucep. There is no difficulty in making since mutton succept. I have more like them at home. I take a few like these to market every year. In the first place I secare a good breed; that is the most important point; the next thing is to keep them growing from the time they are weaned till they are taken to the the time they are weahed till they are taken to the slaughter house, never allowing them to grow poor at any season of the year. I have fed them all the hay, peas, and outs they will eat. Peas are better than Indian corn for matton. Outs furnish nitrogenous matter for the formation of the necessary muscle; peas produce move fat than the same number of pounds of cereal grain."

Do you feed any roots and straw?

Yes, each sheep gets not less than one or two pounds of turnips daily, with all the straw to cat and lie on that he wants; and a good shed is provided, with a supply of pure water, and salt to lick at placement.

How much do you expect to get for the largest of your flock?

Two handred dollars per head, or I ship them from this market!

The next day we learned they were taken at that price for Christmas mutton.—New York Independent.

Agr. of Good Metrox, -Mutton must have age in order to be good. In this respect it is different from beef. Five years is the time held in 'Europe to be the best -an age which our wethers seldom attain. It is all lamb with us, and young mutton. We can taste of nothing better than well-matured sheep, in which case the muscle is tender and solid, the succulent juices all in perfection.

Oak Knors Good For Hoan Knows-Hiram Holt, of Windham Co., Conn., writes, that he has been in the habit of using the great black knotly excrescences which grow often on the black oak, and are vulgarly called "nigger-heads," for making horn knobs, and thinks they are much better than if made of any of the woods mentioned on page 13. He saws out rectangular blocks of the right size, turns out the knobs and applies them about as we directed. The knobs outlast the lives of the animals.—American Agriculturist

FEEDING OF SHEEP.-The experiments of Messrs. Lawes and Gilbert shew that where sheep are liberally fed upon cake or corn, a little hay, or straw chaff with roots, they will yield, over a considerable period of time, 1 part of increase in live weight for from 8 to 10 parts of the dry substance of such mixed food. Sheep fattening for the butcher on a good mixed diet, such as the above, will seldom carry off more than 3 per cent. of the consumed mineral matter, less than 5 per cent of the consumed nitrogen, if the food be per cent of the consumed introgen, it the food be comparatively rich, and more than this, if poor in nitrogen. They should store up ten parts of fat for every 100 parts of non-nitrogenous substances consumed. When fed under cover, a sheep will increase in weight at the rate of about 2 lb; per week for each 100 lb. of live weight. It takes to make 100 lbs of live weight 2 cwt. of oileake, the same weight of corn or hay, and about 2 tons (or in some cases 13 tons) of roots. As a rule, the cost of the food required to produce a certain degree of weight is more than to produce a certain degree of weight is more than the value of the weight, the difference being made up by the value of the manure. The number of sheep to feed down a crop of turnips, at 30 tons to the acre, has been thus stated:—"16 young and 8 old Leicester sheep, and 20 young and 10 old blackfaced sheep." ter sheep, and 20 young and 10 old blackfaced sheep."
The claborate experiments of Mr. Lawes in the feeding of sheep brought, out the following amidst a number of valuable facts:—Sheep well fed under cover increase for every 100 lb. of live weight from 13 to 2 lb. per week. To give an increase of live weight of 100 lb.; 21 cwt. of olicake.or.com.will have to be consumed, 21 cwt. of olicake.or.com.will have to be consumed, 22 cwt. of hay chaff, and 11 to 13 tons of roots. For every 8 or 9 lb. of the dry substance of food consumed, sheep increase 1 lb. in live weight.—Rarmer and Gardener's Almanack. reight.—Farmer and Gardener's Almanack.