

piece of rape for the different sexes, we find it answers a good purpose, as they will come in good shape for the winter. With shearing ewes, wethers and lambs intended for the Fat Stock Show there is no let-up, but we push them on for all they will stand, and find if they have been well cared for at the fall shows they will gain more in one month after than two of the preceding months. This, to some extent, we attribute to cool weather.

Wellington Co., Ont.

W. WHITELAW.

#### Treatment of Fitted Brood Sows After the Shows.

To the Editor FARMER'S ADVOCATE:

On getting my sows that were in pig home from the shows they were turned into a grass field with a spring creek running through it, so they were sure of plenty of water. I gave them no feed till one or two days before farrowing, then I gave them a little slop made principally of bran and water with a little shorts added till after farrowing. Then they were fed very sparingly with about two-thirds bran and one-third shorts made into slop with water for a few days. After the third or fourth day I increase the shorts in their feed, but am careful not to give too much for at least a week after farrowing. After that time some meal might be added. I generally feed barley meal, but I suppose almost any kind would answer the purpose. I have had three sows farrow since the Industrial Fair at Toronto, and have not lost a pig, and they are all doing splendidly now, both sows and pigs. I know a great many people would say the change is too sudden after feeding heavy before the shows. However, I have pursued that course for some years, and have never lost a sow farrowing, nor had any trouble with her afterwards. Sows not in farrow, that I intend for breeders, are treated similarly; that is, turned out on either grass or rape and not given any other feed. Young pigs I would treat differently; would turn them out during the day on grass or rape, and feed night and morning rather sparingly. I might mention that the three sows that farrowed since the Fair were two of them under a year and one under two years of age.

York Co., Ont.

THOMAS TEASDALE.

#### "Rest" After the Shows.

To the Editor FARMER'S ADVOCATE:

When the cattle are brought home after some weeks' showing, where they have been kept on their feet most of the day by the persuasion of umbrellas or walking canes in the hands of curious or thoughtless visitors, and when travelling by train are nearly dashed to pieces by careless trainmen who knock the cars together, forgetful of (or not caring) what the poor brutes tied in the cars suffer from such usage, what can they enjoy more than rest for a day or two? Then if the weather is fine they should be turned out during the day on short pasture for a few days until they get used to the change of feed, as there is nothing more dangerous than too sudden a change. The quantity of grain should now be lessened gradually, but not withheld altogether. By following this plan the cattle go into their winter quarters with their blood cooled and ready to respond to a liberal allowance of rougher food than they were accustomed to before the shows, not forgetting to give them plenty of roots. This plan we follow with cattle of all ages, calves as well as grown stock. But those intended for the butcher must be handled differently, as no time nor flesh should be lost; and as their life will be short they must be pushed along and fed all they will take. Cattle with good constitutions will stand a lot of showing, as we call it.

Wellington Co., Ont.

W. B. WATT.

#### Care of Young Dairy Stock.

To the Editor FARMER'S ADVOCATE:

It is our aim in fitting young stock for exhibition not to force them or have them become too fat, so that when the shows are over it is not necessary to put them on a starvation ration, although in some cases we do slack up and feed lighter. I prefer, however, to give more exercise. Our calves are not allowed to grass the first summer, but are turned out at nights in a bare lot to exercise. After the shows in the fall we turn out all old enough to do without milk to grass in the daytime. My idea in caring for dairy heifers is to keep them growing right along and develop by regular and generous ration their digestive organs, and fix in them a habit so that they may assimilate and digest their food; to have, in fact, the largest possible constitutional vigor. Cows do not make their milk out of nothing. In feeding cows, there is the food for support, then the more above this we can train the cow to eat and digest, the larger is our profit. Constitution is the main thing in a cow. Without this all other so-called "points in a dairy cow" are useless. While I believe it is possible to injure a dairy heifer by feeding too heavy, thus giving them a habit of putting their food to fat, I am sure to one overfed there are ten, perhaps one hundred, underfed. Alternate starving and stuffing is bad for man or beast. Those fine heifers we showed had skim milk after three weeks old, with flaxseed jelly added; bran, oat chop and hay as their appetites grew.

Oxford Co., Ont.

GEO. RICE.

E. J. DUFFY, Wentworth Co., Ont.:—"I appreciate your efforts to make the FARMER'S ADVOCATE the leading agricultural paper of Canada."

#### Reduce the Fat, but Retain the Vitality.

To the Editor FARMER'S ADVOCATE:

The best treatment of show sheep after the fairs will depend entirely upon the condition of the flock. If young sheep are not overdone but little more than ordinary attention will be required. Rams that are very fat, especially those that have been fitted without much exercise, in close stables, are often sluggish and refuse to work. These are often very annoying. In such cases I have found nothing better than to shear close, give plenty of exercise, and several doses of salts. Stop all oil cake and heating feed, but give in place thereof oats and bran. Try to reduce the internal fat by physic and exercise without reducing his strength or vitality. Lambs seldom require this treatment, reducing grain feed, and exercise, will be all that is necessary.

As to the ewe flock, the fat old ewes seldom pay to bother with; salts, exercise, and lessening the strong food being the course usually adopted. All changes must be gradual, and be careful in reducing the grain ration not to do it too suddenly so as to weaken the vital forces. Strong, healthy, vigorous lambs are produced by strong, healthy, vigorous parents.

RICHARD GIBSON.

"Belvoir Farm," Middlesex Co., Ont.

#### Dairy Stock Should Never be in High Flesh.

To the Editor FARMER'S ADVOCATE:

SIR,—As I am not a believer in having a dairy herd in high flesh, I do not have much difficulty in keeping the Maple Hill Holsteins in the thrifty condition in which they were shown at the large fairs. I make it a point to show at several of our local shows, and consequently try to carry my stock along nicely, so that they arrive in their winter quarters in fine condition. My bulls on arriving home are put in their winter quarters, and with a ration of oat chop and bran (slightly decreased from their show feeding) and clover hay, come along as nicely as could be desired. My calves are also stabled on arriving home, and with a generous amount of bran and skim milk, with nice clover hay by way of dessert, suffer no diminution in flesh. The cows, three-year-olds and two-year-olds, all being in milk, receive the same treatment. They are turned on good clover pasture during the day and are warmly stabled at night, receiving morning and night a ration consisting of two quarts of bran, two quarts of oat chops, and all the hay they can eat. Under this treatment they gain perceptibly in milk and make a slight gain in flesh. In winter ensilage is substituted for the hay in the cows' rations. The yearlings are gradually accustomed to the change from stable to pasture field, and in a week or two are doing finely without any grain ration. The treatment outlined above keeps the Maple Hill herd in such fine condition that visitors are delighted with the shapely animals that are contained in the gold medal herd of 1897.

Brant Co., Ont.

G. W. CLEMONS.

#### Sheep -- Cross-Breeding and Results.

(From an Institute paper by John Renton, Deloraine.)

It appears to me that a great deal that has been written and said on the subject of cross-breeding is based largely upon theory. Theory may be made to appear very plausible as theory, but when brought down to actual practice it is often found to be very disappointing. I am therefore not going to talk a great deal of theory, but to speak principally from my own experience and observation.

Sheep, like all the other domestic animals, have been very much improved within the past fifty or a hundred years. We have frequently heard it said that the man that causes two blades of grass to grow where formerly only one grew is a benefactor to his country. I think no less so is the man who, by his enterprise and sound judgment in selection and careful breeding, so improves the stock of his country that one animal is rendered of more value than two or three formerly were. I think there are few that will deny this statement. To Bakewell we are largely indebted for the great improvement made in Leicester sheep. How Bakewell brought about this improvement, or along what lines he worked to obtain his success, we are left somewhat in the dark. True, we are told that by selecting from the best sheep in his neighborhood and careful breeding he succeeded in raising the Leicester sheep up to a high state of excellence, but whatever means he took to attain this, about all we know is that Bakewell died, and the secret of his success died with him. This is in some respects unfortunate, for had it been known along what lines he had been working when he laid down the work, some others might have taken it up and still made further improvement.

Some years ago a number of our Canadian sheep breeders thought that they would improve upon Bakewell's work by crossing the Leicester sheep with some of the larger breeds, and by so doing get a larger sheep and more wool. The Leicester is not as large as some of the other breeds, but while it is not one of the largest sheep, it has many good points, being a good breeder and an excellent feeder, and the wool, though classed as coarse wool, is of a fine silky fiber, and therefore useful for several kinds of goods. Some of the breeders tried the Cotswold cross. This, I thought, was a mistake at the time, because it would be difficult to improve a breed with an inferior animal. The Cotswold, though a larger sheep and with more wool than the

Leicester, has some defects. Perhaps I will be told that every breed has defects. While this may be true to some extent, I will point out some of the defects of the Cotswold, which has for a large, heavy sheep a light hind quarter. This is a very serious defect, for the leg of mutton is a very important part in the carcass of a sheep. Another: the mutton is said to be coarse and not very good in flavor; the wool is very coarse, and only fit to make into the coarsest material; but the most serious defect is that the Cotswold is a poor feeder. I do not say that they will not consume a large quantity of food, because they will, and if forced lambs can be made of immense size, but I do say that if turned out to rustle for a living in the summer, the same as other sheep, they soon get down poor. We are told that they do well in England. That may be true, but in Canada I have never known the Cotswold to do well without it was forced. I have known many that purchased high-priced Cotswolds, expecting that they were going to breed sheep just like them, but it was not long before they saw their mistake, and it was not long before they had a rather poor, weedy lot of sheep.

The Cotswold cross, when well fed, increased the size and the quantity of wool, but were harder to feed, and on the whole not a success. I could give many cases in proof of this, but will just give one—an old friend of mine, a very successful breeder and exhibitor of Leicester sheep. After crossing breeds he began to exhibit in the Leicester class, but found that he was not so successful. We are told that if we live in Rome we must do as the people of Rome do, so acting upon this principle he went to Guelph and purchased a Cotswold ram from F. W. Stone, paying \$90 for him, and used him upon his flock. A few years after he told me that had he thrown the \$90 into the stove instead of purchasing the Cotswold ram he would have been many \$90s in pocket. He was so thoroughly disappointed with the result of the cross that he cleared them all out and began again with a few old ewes.

Another cross that was tried was with the Lincoln; this was somewhat better than the Cotswold for the reason that the Lincoln and Leicester were more alike. I have seen some good sheep from this cross, but in nearly all cases they were coarse in the head; the most of the Lincolns have big, strong, coarse heads. Of course you can buy a sheep's head in any butcher shop for a York shilling, but a sheep's head in a butcher shop and a sheep's head on a sheep's body are two very different things; the head is an important part of any animal, and is generally the first point looked at, whether it is a horse, a cow, or a sheep. But though I have seen some good sheep from both the Cotswold and the Lincoln cross, neither was a success. But, you ask, how was it that the cross-bred sheep were allowed to exhibit in the Leicester class, and how was it, if the cross was not a success, that the cross-bred sheep took the prizes away from the pure-bred Leicesters? To the first question I would say that the sheep were not required to have pedigrees at that time; they could exhibit in any class the owners saw fit. To the second I would say that for a time there was a craze for size and wool, and public opinion ran so strongly in this direction that judges had to go with public opinion, and in many cases gave their decision contrary to their better judgment. We are told that the Leicester has done much in the past to improve the Cotswolds and the Lincolns, but it does not follow that the Cotswold or Lincoln will improve the Leicester.

I will now refer to the South or Sussex Down. We are told that they were found in the hilly or mountainous part of the county of Sussex, England; a rather indifferent breed of small sheep with dark or smutty faces and legs, and had horns, but that they were very much improved by John Ellman and others. But it was left for Jonas Webb and to some others to bring the Southdown up to that high state of excellence that we find to-day. Jonas Webb spared neither time nor money in improving the Southdown. I suppose that he had set up an ideal sheep and worked on towards that ideal until he made it a success. There is one point about his breeding that I wish to call attention to. We are often warned against what is called inbreeding; but, strange as it may appear, Jonas Webb never went outside of his own flock for sheep to breed from. True, he had a large flock to select from. But some of our Canadian breeders thought that they could improve upon his work, so they crossed the Southdown with the Hampshire. It proved a poor cross, and was soon discontinued. The cross-breds were larger than the pure Southdown, but they were coarse. A cross that has done well is a cross between the Southdown and Leicester. There is a theory in connection with this cross, but I think it is only theory, that to make this cross a success the female must be the largest. In this case it would be the Leicester ewe and the Southdown ram. Now, while I have seen some excellent sheep bred in this way, I have seen just as good, if not better, bred the other way; that is, the Southdown ewe and the Leicester ram.

As fine a flock of sheep as I ever saw for wool and mutton—and that, I think, is what most people breed sheep for—was bred in this way; they were of good size, with good wool, and always in condition. Another theory in connection with cross-breeding is, that it is all right for sheep to sell to the butcher. This I consider all rot, for the very flock of sheep that I have just mentioned bred very successfully, just as well as the pure-breds. The Shropshire is a good sheep for Mani-