

It is not very easy to say which of these is the best to feed, or to lay down any cast iron rule, as values vary greatly in different places and at different times; $5\frac{1}{2}$ lbs. of pea meal, $4\frac{1}{2}$ lbs. ground oats, 2 lbs. bran, 40 to 60 lbs. mangels or turnips and clover hay fed daily to a well-bred bullock will increase his weight at the rate of from 2 to $2\frac{1}{2}$ lbs daily. The meal and bran should be mixed and divided into three feeds, and when fed should again be mixed with cut straw or hay, mangels or turnips, fed morning and night, and all the hay that will be eaten at night. Roots are a great aid to digest more solid food, tending to keep the bowels regular and the bullock healthy. Regularity in feeding and watering is a great benefit. Cattle when fed at the same hour each day lie down quietly after each meal to rest, and as each feeding hour comes around they are up and at their feed with keen appetites; when the feeding is done irregularly, they are always uneasy; upon a door opening or hearing any one moving they become restless, as they expect to be fed, and so by their restlessness the natural waste is increased. While sufficient to satisfy the appetite should be given, anything like overfeeding should be guarded against, as the food is wasted, and an overfed beast takes several days to get into proper shape, thereby you are out of pocket, and the beast loses flesh. Every farmer should notice at every feeding hour how each bullock has disposed of the meal before, and increase or decrease the food if necessary. I believe they should be fed five times a day, the first at 6 in the morning and the last at 8 at night, and the other three at equal intervals during the day. They should be turned out before the noon feeding hour to good water, except in severe weather, and allowed a half an hour's exercise, as it prevents them from getting stiff or crippled and will keep them in good trim for shipping. Cleanliness is also important, as it promotes rest and quietness, and they will fatten much quicker, according to the amount of food consumed; with the hinder parts clothed with manure, and lice on their body, how can a bullock lie down at ease. When not feeding they will be on their feet licking and rubbing and trying to free themselves from that dirt, thereby causing a loss of flesh. Feed boxes should be kept clean, for if meal and other foods are allowed to gather and ferment, it taints the food, which is then refused. Warmth—If cattle in their stalls feel the effect of every chilling wind that blows, a large portion of the food consumed, which should be stored up as fat, goes to restore to their bodies the heat extracted by the cold surrounding air. It is much cheaper to have warm stables than to keep up heat with expensive food. Now then it is possible to have them too warm and badly ventilated. Ventilation—Animals require plenty of pure, fresh air to keep them healthy. Having warm stables the impure air should be allowed to escape and fresh air allowed to enter in such a way as to prevent a current of air from blowing directly on the cattle. Gentle treatment is necessary, as cattle subjected to kicks and blows are always more or less excited, which hinders them from fattening. A good feeder will soon gain the confidence of his cattle, as they learn to expect from his hands food and kind treatment, and fall into that quiet restful condition that is conducive to the laying on of flesh.

Mr. Martin's paper created a short but animated discussion. The leading objection raised against his views was the lack of proper distinction between bone and muscle forming foods and those designed to produce fat and heat. It was stated the feeding stuffs distinctly designed for producing bone and flesh were oilcake, bran, and peas, while corn was specially a fat producer, oats being a medium between these extremes. Some members objected to feeding five times per day on the ground that it made too much labor, while others held that there was little or no extra labor or expense where the farmer had stock enough to engage the exclusive attention of himself or his hands. Feeding four or five times a day was not objected to on any other grounds save that of labor and consequent ex-

pense. The paper was unanimously received, and the writer was congratulated upon the general soundness of his views.

FENCES OR HERD LAWS?

Vice-President Anderson read the following paper on the above subject, the discussion of which was the programme of the day:

In the July number of the ADVOCATE there was an estimate, taken from a report of the Fruit Growers' Association, of the cost of fences, by which it was calculated that the average annual cost per acre of fencing a 100-acre farm into 10-acre fields, would be for a straight post and rail fence, \$1.87, and for a common snake rail fence, \$2.10 per acre.

This was evidently an extravagant estimate, and the editor reduced the cost by a calculation in the same article to about one third of their figures, that is, 78 cents per acre per annum to make and maintain a common rail fence.

By my calculation, a first-class post and board fence, or a wire fence with six wires and iron posts and braces, can be built and kept up for considerably less than his estimate for a rail fence. The owner of a 100-acre farm would have to make 820 rods of fence, with the owners of the adjoining lands making half of the line fences, to divide his land into nine fields, which is all that would be required, and far more than is generally used.

Either a wire fence with six wires and iron posts, or a board fence with cedar posts, can be built for \$1 per rod, and it is safe to assume that either of these fences would last for at least 25 years. An annual payment of \$64.15 would repay the whole first cost, \$820, with six percent per annum interest in the 25 years, that is, 64.15 cents per acre per annum. And in my opinion, wire fences would be little worse at the end of the time. I may mention that I began putting wire fences on my farm about seven years ago, and as fast as the rail fences were done, I have been replacing them by wire ever since, and I am satisfied that a wire fence with six wires, iron posts and a bank underneath, is the best and most durable fence that has yet been introduced.

I have thus shown that to keep a farm well fenced into convenient fields, the cost would not exceed 65 cents per acre per annum, or \$65 for the farm. But how much of this we might save if we had a herd law strictly enforced is another question. To answer this, we may safely assume that if all boundary fences were removed, every farmer of 100 acres would certainly need enough movable fence to enclose two separate 10-acre fields, with more or less to fence a lane to the buildings, or to water—say 320 rods for the two fields and 80 rods for the lane, equal to 400 rods. The annual cost of making and maintaining 400 rods at the same price as a permanent fence, would be \$31 per annum, so that all that could be saved if the movable fence was as cheap as the other kind, would be \$34 per annum, while it is probable that a movable fence would cost more than a permanent one, and would not likely last half as long; so that I conclude that all the money we could save in fencing by a herd law, is scarcely worth taking into account, unless our farmers adopted the soiling system of feeding, and did without fences altogether, which they are not likely to do.

A correspondent in the November number of the ADVOCATE recommends the abolishing of road fences, not so much for the saving of expense as for improving the appearance of the country, and to prevent snow drifts that obstruct travel and smother crops by piling the snow by the fences, and freezes them by leaving the open fields bare. These, no doubt, are very important and desirable objects, but I believe they can be just as well secured by wire fences, as they are a complete preventative of snow drifts, and they can scarcely spoil the appearance of the country, as at a little distance they are invisible. I feel thankful that wire fences were invented, and that there is an inexhaustible supply of material, otherwise when timber became scarce, a herd law would have to be enforced by a necessity it would be impossible to evade—we should have nothing to make fences with.

We know by experience that it is useless to pass laws interfering with individuals' business

or habits, until by common consent they are considered necessary, and are supported by the general opinion of the public. In the township of Westminster, and I believe in most other townships of Ontario, we have had for many years a stringent law forbidding all kinds of live stock from running at large on the roads, and making their owners liable for any damage they may do, whether the premises were fenced or not. But in three wards out of the four in Westminster it has almost been a dead letter. As long as animals on the roads did no harm, they were not disturbed. Farmers had to keep up fences for their own stock, and if it was any benefit to a tradesman or a poor person to keep a cow on the road, they were welcome to it. But in the other ward that includes London South, where nine tenths of the people have no cattle and where animals running at large did a great deal of damage to gardens and sidewalks, there it was felt to be a necessity, was supported by a large majority, and has been strictly enforced.

Circumstances alter cases. In cities and towns no doubt it is expedient and necessary to confine cattle and abolish fences, and the plan is said to work well on the wide prairies of the West; but in my opinion, the farmers of Ontario will have to continue fencing as they are doing at present, as the vast majority would consider that the trouble of shifting movable fences and the loss of pastures in the stubbles would more than counterbalance the small saving effected by dispensing with road and line fences.

DISCUSSION.

A MEMBER.—Mr. Anderson forgot to mention the value of the road to the farmer when brought under cultivation or planted to trees. The correspondent referred to by Mr. Anderson mentions that the State law of New York permitted the farmer to cultivate the road and grow crops on it just the same as if it were his own land, which would be an immense gain, especially to the owners of corner lots. This would check the growth of weeds on the road sides.

In answer to an inquirer, Mr. Anderson here explained our herd law, and said that township councils had the power to pass laws regulating the roaming of stock on the highways. It was not necessary to pound the stock, for the owner could be fined before a magistrate after giving due notice.

JOHN KENNEDY.—It is the experience of farmers in my neighborhood that wire fences ruin horses and colts, and many are opposed to the construction of such fences. Where wire fences are found, the snow piles up in the middle of the road, instead of remaining in banks on the road sides, as in places where other fences are constructed.

J. K. LITTLE.—My observations coincide with Mr. Kennedy's; but I am of opinion that the time must come, sooner or later, when our fences must be abolished, and the soiling system established.

HENRY ANDERSON.—Wire fences leave the snow level all over the country, and it is only found piled on the road when the snow-fall is heavy. I believe in building wire fences with high banks under them. In my neighborhood I only remember hearing of one mare that got hurt by a wire fence, which happened when she was playing with other horses.

SHOULD OATS BE GROUND FOR STOCK.

A member stated that he was waiting for an opportunity of referring to the portion of Mr. Martin's paper which spoke of feeding "ground oats." He would like to know the opinions of members of the Council as to whether oats should be ground or not.

The practice and opinions of members differed on this question; but the idea was generally con-