make more out of in the same length of time, and have no bother with the rest of the year?

I have replaced my small machine with a larger one, and remodelled my camp. I think more of "The Farmer's Advocate" than any other paper; have taken it for seven years, and have nearly every back number. Hoping to hear from others. FRONTENAC SUBSCRIBER.

Silo in Barn.

Editor "The Farmer's Advocate":

I built a silo in my barn last summer, 10 x 16, with the corners cut with a 12-in. board. The lining is ⅞-inch pine, tarred at joints, and inside studs 2 in. x 6 in., 18-in. centers, cribbed with two rings of 6 x 8 in., two 8 x 8 in., pine, with base set in cement. The silage is keeping very well, and I find is very handy inside, there being no freezing. There are quite a number of this kind of siloes in this county, and they are lasting well. Some have been in use 17 or 18 years, and are still giving good service. FRED LUCK.

Brant Co., Ont.

It is safe to say that one result of the Corn-growers' convention and exhibition, recently held in Essex, will be next season to invest the corn-field of every man who attended or carefully reads the proceedings with an interest which it never possessed before.

THE DAIRY.

Red-letter Days of Mrs. Dairy Cow—I.

Editor "The Farmer's Advocate":

Aside from actual carelessness or ignorance in the selection and grading of a dairy herd, there are a number of seemingly minor managerial details of which we read only too little. In the oversight and observation of a dairy herd—a herd kept up by buying, breeding and rigid selection—the writer has concluded that, although the "feed" clause comes last in that all-important dairyman's maxim, "Breed, weed and feed," that it is by no means least, and that, in general, it is the most neglected. To expand the idea slightly, let us consider "to feed" as embodying the treatment of the cow as an animal, and as a milk-machine. In the course of this treatment, there are certain periods during which extra thought and care must be given by her owner, and, largely by this care, and by doing the right thing at the right time, is the cow's success assured.

Of all the animals, in their various stages, about the farm, the calf seems the most abused and the least understood. This juvenile, as found on many farms, is an odd-looking little creature, that usually advertises its keeping quite unmistakably. It is pretty much all belly; it is stunted and hidebound; it looks like a very small, very old cow. Its days of milk-feeding were short; while skim milk was in vogue, it composed the whole menu, and shortly, at a very tender age, the calf finds itself on a grown-up ration—straw, hay, and maybe a few roots. In summer it is confined to some small pasture or paddock, where it fights flies, heat and an unkind providence. Its final metamorphosis is the 2,700-pound cow—2,700 pounds of milk in one year. And the cow-tester, knowing these things, makes neat epigrams, and shouts "Stop thief!" "Beware of pickpockets!" "Get rid of the boarders!" etc.

On the presumption that the farmer has at least been forced to sit up and think—by all this gratuitous advice—let us see how, other things being equal, he can rear animals that will be good citizens and profitable workers.

The calf, when weaned, is fed for ten days on whole milk; then, skim milk is added, a quarter of the quantity at a time, and three days between each dilution or addition. As the whole-milk constituent decreases, an increasing addition of flax-seed jelly should be made, until each calf receives, finally, in the pure skim milk, about a cupful to each feed. This jelly is simply made by stirring ground flaxseed into a pot of boiling water, until a jelly-like consistency is reached. If in winter, the calf or calves should now be placed in a box stall, not necessarily warm, but well ventilated, and, if possible, with a south window. By this time they will be noticed chewing solemnly and vigorously on one lonely straw, much like the pictures conjured up by the comic weeklies of their farmer-owner. So, then, a little rack should be plenished with the choicest morsels of hay, or a few handfuls of clover-tops, and placed in their manger. A mixture of oat [illegible] and bran given a little twice a day is [illegible] to round out their ration. Many [illegible] whole corn [illegible] but, while a little [illegible] and liberal use [illegible] The fat calf is not [illegible] heifers, spilt so that [illegible] cream, are most bene- [illegible] little fellows. [illegible] most important time in the calf's life is to strike the medium between stinting and overfeeding.

The calf must, in short, be fed a ration rich in protein and ash—the bone and muscle-formers—with sufficient carbonaceous material to supply the bodily needs. Where skim milk is fed, the common mistake is to substitute quantity for quality, in a mistaken attempt to compensate the loss of the fat. Such feeding is unprofitable, always injurious, and often disastrous to the calves. At six weeks of age, the dairy calf should receive not more than 20 pounds of skim milk per day.

During summer, the calf is ideally located in a small paddock, conveniently situated for feeding, where there are trees, and a small shed for shelter. Throughout the second winter the feeding of the calf must continue such as to favor growth of bone and tissue, but not the marked deposition of fat. Silage, plenty of roots, and clover or alfalfa hay, should be the staple foods. During all this time, too, the treatment of the calf will have much to do with its temperament as an adult. From the time it is a few weeks old, it should be subjected to frequent handling of the quarters, udder and teats. With such preparatory treatment, unless she is naturally vicious, the heifer, upon dropping her first calf, will prove quiet and docile.

During the six weeks prior to calving, the feed of the heifer should be increased, to insure her freshening in good condition. A light meal ration should be introduced, say, of bran and oat provender, while roots should be fed freely, as they most nearly approach the natural green food. With the first calf, no trouble is encountered, as a rule. Such maladies or affections as parturient apoplexy, mammitis or garget, or retention of the afterbirth are not common at this period. Particularly does this refer to partures is. Remembering that the heifer is now in an abnormal state—in a sense, an invalid—it is well to feed lightly for some ten days, bran mashes and roots being used freely; then, as the heifer regains her normal state, she may gradually be brought up to what is adjudged to be her limit of consumption for profitable production.

The next period at which a little attention is required is near the close of the heifer's first lactation period. Should she have proved a "milker," she will likely be dried off some two months or ten weeks before her second calf is due. Prior to this, her production will gradually lessen in quantity, and she will begin to take on fat. Her ration, accordingly, should be decreased little by little until, when dry, she is on what we may term the maintenance diet. For, here it may be noted, the owner of a forced-draft dairy herd has to contend with another problem. The dairy cow may often be taught the bad habit of selfishness in times of prosperity. She may unwittingly be induced to pamper her own needs, to array herself in a lustrous, sleek coat, and to suffer a slight mental aberration concerning the tentative milk pail; for, at certain periods, heavy feeding tends to promote fat deposition in animals not prone to the tendency under average conditions. Each season the cow will commence taking on fat a little earlier, until, eventually, it becomes, as it were, a habit, the cause thereof being, in nine cases out of ten, the continued feeding of a heavy ration or an overbalanced ration on a decreasing flow of milk. The owner, thinking to keep up this flow, continues the regular ration and quantities, whereas, usually, a decrease in feeding causes no corresponding decrease in milk flow. Especially, however, in the case of the heifer, is this point worthy of note.

Carleton Co., Ont. GEO. B. ROTHWELL.

Managers' Experience Wanted.

Editor "The Farmer's Advocate":

Being a reader of "The Farmer's Advocate," I notice the "whey" question is very much written up. The feeding value has been arrived at, but the cost of hauling it back to the farm has never been given. This item of expense is very important. It would be better if some of the managers of cheese factories would give their experience, and the cost of pasteurizing the whey during the past season. I would like to know the cost of equipment for heating, the necessary piping required, the cost per ton of cheese for fuel, the rate per cwt. of milk for hauling the whey back to the farm. The patrons of cheese factories would then be able to determine whether it will pay better to feed the whey at the factory or return it to the farm, the extra trouble and expense considered. If this question were ventilated through the columns of this valuable journal by those who have embarked into this new enterprise, I think the matter would reach the greatest majority of patrons. I trust you will invite contributions regarding this issue.

THOS. E. NIMMO (Cheesemaker).

Bruce Co., Ont.

[Note.—Contributions from makers and factory managers will certainly be welcome. Meantime, we refer our correspondent to the article entitled "Winter Fair Discussion on Pasteurized Whey," in "The Farmer's Advocate" of December 23rd, 1908. Editor.]

Adulteration of Milk.

Editor "The Farmer's Advocate":

In regard to article headed "Skimming of factory milk illegal," in issue of November 5th, would like to ask why the farmer is not more fairly dealt with in regard to the matter? There are always two sides to a story, but said article appears to be a rather one-sided argument, as the dishonest farmer is the only culprit, with but small possibility of defending himself, even though he be more sinned against than sinning.

The writer of said article admits there is always a slight loss of butter-fat in the process of making the milk into cheese, due, to a certain extent, to the inefficiency of the cheesemaker. This is seemingly justified by the fact that the loss is "very slight."

Why should the cheesemaker not be compelled to come up to the standard, and prove himself capable of giving to the patrons, whose produce he is handling, the best satisfaction?

Again, if the patron who weighs his milk finds he is not paid for the full amount he is sending, he can mention the fact, and what does he profit by do doing? He will probably get a reply to the effect that his scales are not correct, or the milk may have spilled out on the way to the factory, and the defrauded party has to submit with as good grace as possible.

Then there is no mention made of the cheesemaker who will daily help himself to a pint or quart of milk from a patron's can for his own use. Of course it is a small amount, and who is the farmer stingy enough to object? He couldn't if he would, for when is he there to see? It is stated that the man who will appropriate any of the cream from his milk for his own use is robbing the other patrons of the factory. There is no allowance made (in this case) for the quantity used, be it ever so small, as the man who uses a cup of cream for his morning coffee (thinking of harming no one in so doing) lays himself just as liable to a fine, and to having his name published over the community as a thief, as the man who will skim off the whole cream for the purpose of making butter, or the one who adds water to his milk to make it weigh heavier, thus intentionally defrauding others.

Were the milk taken at the factory by test, instead of by weight, each patron would get what was due him—no more, no less—and that is what none get under the present system commonly in vogue. The inspector could then employ himself at some other business.

If, however, the inspectors are here to stay, in justice to the farmers, should the men thus employed not be reliable, truthful men, who, if they find it necessary to disclose their business secrets to disinterested parties, will at least tell the truth and nothing but the truth, as it seems very unfair that a man be compelled to allow another free access to his premises whenever he may choose, and then go away and circulate false reports. It certainly isn't pleasant, but under present conditions the men who furnish the material for the carrying on of this great industry are the men who have to put up with anything that may come their way. May the time soon come when the present system will be improved upon, and give better satisfaction to all concerned—unless it be the inspector, and some kind friend will no doubt find him a better job.

ONE WHO HAS BEEN WRONGLY ACCUSED.

[Note.—The above letter, duly accompanied by the writer's name and address, was received some weeks ago. Before publishing it we made it a point to investigate the facts of the case alluded to, and our correspondent's tone of injured innocence is scarcely justified in the light of the information to hand. The writer of the foregoing article was prosecuted in the courts for delivering deteriorated milk to a certain cheese factory, and fined $20.00. The evidence was quite conclusive, and plainly indicated not only skimming, but watering. Tests of his milk delivered to the factory had been made on two different days, one nearly two months after the other. In each case both the lactometer and Babcock tests were abnormally low, indicating skimming and watering, when compared with a fair test of the same patron's milk made at his farm and witnessed by patron himself, and also when compared with a subsequent test made at the factory (after the date of the prosecution). The defendant pleaded guilty to the charge of delivering deteriorated milk, offering certain inadequate explanations to account for the abnormal condition of the milk delivered. So much for the official records. . . As to the points in the article pleading justification and seeking to excuse adulteration on the ground that makers may not always be thoroughly competent, we have to observe, first, that one wrong does not right another; secondly, that lack of skill and deliberate adulteration are too entirely distinct and separate things. There are a great many patrons of cheese factories who, from lack of knowledge or zeal, are failing to deliver milk in as good and sweet condition as they might, thus reducing not only the quantity but the quality of the cheese. We have yet to hear of a patron prosecuted for such cause, but when it comes to a case of deliberate and systematic