

not the only evil attendant on bad milking. Some milkers seize the foot of the teat between the thumb and forefinger, and then drag it till it slips in its grasp. In this way teat and udder are subjected to severe traction for an indefinite number of times, and in rude hands, are often severely injured.

The proper mode of milking is to take the teat in the entire hand after pressing it upward that it may be well filled from the capacious milk reservoir above, to compress it first at the base between the thumb and fore-finger, then successively by each of the three succeeding fingers until completely emptied. The teat is at the same time gently drawn upon, but any severe action is altogether unnecessary, and highly injurious. These remarks on milking, and those on milking clean, are of more moment than many at first suppose, and in some localities more cows are ruined from faults of this kind than from all other causes which act especially on the udder.

A Request.

We should be pleased if our Canadian readers and cheese factors would favor us with practical hints and information that would be of value to the country in regard to the Dairy business, or on any other subject. We clip the following from the *National Live-Stock Journal*:

ADDRESS ON DAIRY FARMING.

The following address, delivered by Prof. Rodney Welch, of the *Prairie Farmer*, before the Northwestern Dairymen's Association, the fourth annual meeting, held at Kenosha, Wis., on Wednesday afternoon, February 9, 1870, will be found highly interesting to those in any manner connected with this department:

The year that has just passed has been verily one of good cheer to American dairymen; and it is not too much to say that there has been no branch of productive industry, certainly no department of Agricultural industry, that can compare with dairying in the liberality of its profits. Providence has kept from us that terrible scourge which has destroyed so many of the dairy cattle of the old world, and we have been enabled to enjoy the benefits that have resulted from the misfortunes of others. Our herds have fed upon "green pastures beside the still waters;" and though lowering skies, frequent rains, and early frosts have destroyed the hopes of so many farmers, we have experienced the singular good fortune, so unusual in most things, of having abundant products and at the same time, excellent prices. Seldom have the ears of golden corn been so few; never have the rolls of golden butter been so plenty. Not for long years has the price of wheat ruled so low; seldom has the price of cheese, as compared with other products, been better.

Never, perhaps, in the history of the world has any business advanced in importance so rapidly as has dairying in this country. The co-operative factory system has accomplished for cheese-making what the cotton-gin did for cotton-raising, the horse-harvester for grain-raising, the power-loom for weaving cloth, or the locomotive for transportation. The dairy products of this country for the year 1860, were valued at \$50,000,000, of our present currency. Commissioner Wells estimated that the sales of butter and cheese for the year 1869, will amount \$400,000,000,—increase of 800 per cent, in nine years. The value of the wheat is estimated at \$375,000,000; hay, \$250,000,000; corn \$450,000,000; cotton, \$303,750,000. If cotton is king, what title shall be bestowed upon the milkmaid!

I deem it a fitting time for rejoicing by all who are interested in dairying, that this business, which has never been fostered by Government, as many other things have, has thus come to occupy so conspicuous a place among the great interests of the nation. A few years ago the manufacture of butter and cheese was conducted, apart from furnishing the family with these necessary articles, almost solely with the view of providing the housewife with a little pin-money; to-day there are few branches of industry that engage the attention of men of greater culture, enterprise, or business capacity.

Nor are dairymen the only persons who should rejoice at this prosperity of a business that so

recently was classed among the minor pursuits. The breeding and management of milk cows, and the conversion of their milk into butter and cheese, exercise a most important beneficial influence on the prosperity of any people. I heard the remark attributed to De Bow, of South Carolina, one of the ablest statisticians this country ever had, that the small number of milk cows in the South would interfere very greatly with the Southern States obtaining their independence, since cows had always proved themselves of great value to a nation that was carrying on a protracted war. It showed wisdom in some of the early Spanish conquerors of America that they took cows with them to supply their little armies with milk. Highland cows nourished the Covenanters when their fields were laid waste; goats' milk fed the brave Swiss when they were obliged to retreat to their mountain fastnesses; and in the terrible siege of Leyden, where thousands died from starvation, when women ate the cherished pets of the household, and men devoured the vermin of the gutters, they spared the cows, since they were able to produce milk from substances that could not be used as man food.

There is now vandalism in dairy husbandry, as there is in some branches of farming that cut down forests and exhausts the soil by repeated croppings of grain. It does not imply moving West, when you have destroyed the fertility of one piece of land. Dairy farming means thrift, improvement of cattle, the high cultivation of the soil, and a permanent home. Dairy farming opens new fountains of living water, bores artesian wells, and drains the stagnant pestilential pools. Dairy farming encourages the showing of kindness to animals, fosters the study of chemistry and the other useful sciences, encourages the social element in society, and offers inducements for studying the laws of commerce and trade. Cleanliness, nicety, and care have a money value to the dairymen, whether they do to persons engaged in other branches of husbandry or not. The penalty for allowing foul weeds to spring up, for permitting the supplies of water for the cattle to become polluted, or for exposing his cattle to the inclemency of the weather, are so surely and so speedily inflicted on the dairy farmer, as to make him vigilant both in season and out of season, lest any of these things occur.

I think no man will controvert the statement that the portions of our country that have been devoted to dairy husbandry have advanced in prosperity more rapidly and to a much greater extent than those parts that have been employed for any other agricultural purpose. Fertile as was our virgin soil, and short as has been our history, we have lived to see the fattest fields of old colonial times rendered almost unproductive of the crops that once grew on them so luxuriantly. The life of one generation has generally proved long enough to destroy the fertility of land that was planted to cotton; while a single decade has often been of sufficient length to render it incapable of producing a paying crop of wheat. The tobacco-raiser has wrought his ruin quicker and more effectually than has the cotton-grower or the wheat-raiser. The effect of this impoverishment of land may be seen all over the Atlantic slope, over half the Mississippi Valley; and recent as has been the introduction of wheat-growing into California, the people there are already talking of worn-out lands.

Now let us see how differently dairy farming has affected the permanent prosperity of the regions where the cheese-press, and not the cotton-press or the tobacco-press, has been erected. Let us contrast the results produced by spattering of the churn-dasher, with those brought about by the clattering of the threshing-machine. No sudden increase of wealth has rewarded the labors of the dairyman. His gains, though sure, have ordinarily been slow. Owing to the somewhat perishable nature of his products, the enterprising gamblers of our boards of trade can not "get a corner" on them so readily as they can on the grain which the farmer produces. Accordingly the dairyman seldom becomes rich by a speculative rise in the price of the goods he has to dispose of. He, however, has less occasion to get in debt, because he can put his wares on the market as the politician advised his partisans to put their votes in the ballot-box, "both early and often." Rapid and extreme fluctuations in prices ordinarily result in making few rich and many poor; while prices that are more constant give stability to a business, and inspire confidence.

But in comparing the profits of dairying with those of most branches of farming, it is plain that we should not base our calculations

on the entries in the ledger and cash book alone. We must look to the improved or deteriorated condition of the land that has been carried on. It is not fair to estimate a man's profit in wheat-raising, by taking for a given number of years the excess of price of his grain over the cost of producing it, if during that time the product of his farm went down from thirty to thirteen, and finally to a less number of bushels to the acre, because here it is plain that the profits have swallowed up the capital—for he has killed the hen that laid the golden eggs.

Fortunately such instances do not occur in dairy husbandry; but on the other hand, dairy farms have been found, in almost every instance, to largely increase in fertility. Not only is the quantity of forage greater year by year, but the quality is better. To sum up the matter, we may safely say, that while the most productive portions of our land have been put in grain, cotton, and tobacco, the acres so planted have yielded less and less the longer they have been thus tilled. On the other hand, a much poorer soil was appropriated for dairy purposes; but so far from yielding less, its capacity for production has been increasing all the while. And so it has come about in the run of a few short years, that the rugged, rocky pastures on the western slopes of the Green and Adirondack Mountains have come to rival in productiveness the rich, sunny valleys of the Potomac and Savannah.

I am aware that there is more difficulty, from the want of proper data, in instituting comparisons between the profitableness of feeding cattle for beef or for milk, than there is in finding the relative profits of dairying and raising the crops I have spoken of. There are a great number of recorded experiments that show how many pounds of pork can be made from a bushel of corn, and there are a smaller number that show how much beef can be produced from an like amount of feed. Few, if any, however, in this country have tried the experiment of taking two cows, one dry and the other in full milk, feeding them for a given number of days with the same amount of food, and of the same value, and determining the worth of the beef obtained from the one and the value of the butter and cheese obtained from the milk of the other. The impression seems to be that the value of the beef will be greater than the value of the milk and its products.

One such experiment was tried in England, which showed that the food which would make a pound of beef would produce three and a third pounds of cheese. A similar experiment tried in France showed two and one fifth pounds of cheese to be the equivalent of a pound of beef. The fact that eighty-three out of every hundred calves in the dairy regions of New York, are killed as soon as the milk of their dams is fit to be used as human food, shows how general is the belief among experienced dairymen that milk pays better when manufactured into cheese than it does when converted into veal. In the opinion of most with whom I have conversed, or whose written statements I have read, it requires a gallon of milk to make a pound of veal, which will rarely sell for more than about half as much as a pound of cheese, which is the equivalent of this amount of milk.

(To be continued.)

For the Farmer's Advocate.

A Few Thoughts.

CLUSTER NO. 1.—CHARITY.

We hear a good deal said about Charity. In fact, nearly all we know about Charity is from hearsay, for we hear a great deal more about it than we see of it.

I had purposed to write a little about it when I sat down and took my pen in hand, but all at once a very serious difficulty presented itself to me, viz.—What did I know about it? and, consequently, what could I say about it? But not being willing to give up I kept on thinking, and thought as follows:—

Charity is a remarkably good thing. The world would be better if it had more of it.—We are told that "Charity covereth a multitude of sins," and this being the case, there is plenty of work now-a-days for a great amount of charity. But there are different kinds of charity, or else different ways of bestowing it. But don't understand me to be talking about giving; not at all. But some people think that to be charitable you must never say a word against the conduct of any one, however bad it may be. Now, that class of people and

I don't agree in our opinions; so we must be allowed to differ. Slander and backbiting, of course, should never be heard; but when the conduct of any one is disgraceful to themselves and to society, I say every one who loves virtue and truth should show their abhorrence and disgust at it, instead of trying to smooth it over and make it appear right. This is the ruin of society, and whenever I hear people trying to excuse conduct for which there is no excuse, I always conclude that they are licensing themselves to do the same. Men and women of conscience and good principle don't do it; and that is why the real genuine men and women of the day are said to be uncharitable. The world is bad enough, but it would be infinitely worse were it not for the few of this class of people it can boast of.

In conclusion I would say, don't ever countenance vice or try to excuse wrong, for fear that by denouncing it you will be reproaching yourself also. What you are not guilty of (no matter about relations) you ought not to be afraid to condemn. Society will never be what it should be, till people are willing to cry down the wrong and uphold the right.

JAMES LAWSON.

CLUSTER NO. 2.—SCHOOL TEACHING.

Of all the numerous occupations in which mankind are engaged, I should say school teaching is the one most desirable—to be avoided. If you want peace of mind, if you want the good will of your neighbors, if you want your character let alone, if you don't want to get your mind distracted, I would advise you at once to engage in anything but school teaching. There is one advantage, however, in school teaching (saying nothing of its effectiveness as a remedy for corpulency, or a preventative against the same)—a school teacher is sure to gain popularity! He is "thought more of," and talked more about than anybody else in the neighborhood. He actually outstrips the minister himself; and if there happens to be an editor in the vicinity, he is but a very weak rival of the school teacher.

The wisest man in the world doesn't know half enough to teach school. If Solomon was here he couldn't teach some of our common schools, especially those situated several miles back from the frontiers, where two or three of the trustees can't write their names! and everybody else in the section equally well educated! If Job was here his patience would "run ashore" before he had taught school three weeks.

A school teacher should have no conscience, for the more conscientious he is in the discharge of his duty, the more blame will be heaped upon him. He should have no feelings, for if he has they will soon become crystallized or paralyzed by the slander and abuse which is sure to be hurled at him. A school teacher is always partial; for, if he serves all alike, he must illuse some in order to give others what they deserve; and if he doesn't serve all alike, why of course he is partial—and of course it must be so.

A teacher's salary ought to be about \$2,000 per annum, at least: one thousand to pay him for what he does, i.e., his labor; and the other thousand to pay him for what he gets, i.e., abuse.

JAMES LAWSON.

Elginburg, Ont., Sept., 1870.

Mr. Lawson will please accept our thanks for his communications. We hope he may continue them monthly, as they are useful and interesting. Send on the Clusters!—Ed.

SURFACE MANURING.—A practical farmer writes: "Many farmers, in the hurry of spring business, or, if not, short of time or short of means to get manure, are tempted to put in crops sometimes in land which is not as rich as it should be. Sometimes they are able to remedy this in a few weeks, but then think it is too late. When it is suggested that they spread the manure on the surface, they think of the great amount lost by evaporation. But figures have shown that instead of loss there is gain by surface manuring. There is a small loss; but the grain is made up by the increase advantages which the roots gather from manure when at the surface. When low down in the earth, and excluded from the air, manure is of very little service to plants. It needs the action of the atmosphere to prepare it for plant food, and this is the great compensation for the small loss which escapes into the atmosphere on a dry or windy day."