CHEESE.

Every dairyman has heard of the Plymouth factory and its high prices. Its success has well nigh excited the envy of the factories throughout the State. Aware of this fact, we set out, in company with Dr. Wright and his cheesemaker, Mr. Gates, on the 11th, to ascertain, if possible,

The Secret of Success.

We reached the factory in the morning before the curds were ready to cut, and watched the process until some of them were ready to go to press. We concluded the secret lies in good judgment and efficient management. We inquired into the mode of receiving milk, and every detail of manufacture. The milk is not all delivered twice a day, but all has to come in good condition, and the cream on what is delivered at night is prevented from rising by the use of an agitator. We give the

Rules and Regulations.

1. Resolved, That each and every patron, after having delivered his milk at the company's factory, places it beyond his control, in care of the company, to manufacture into cheese; and that the cheese, after it is manufactured, properly cured and ready for market, is wholly under and in the control of the sale committee, and subject to their action in every instance.

2. Resolved, That all milk brought to the company's factory shall be accepted and taken by the company, when in a pure condition; if it is brought otherwise it shall not be by the company accepted; and any patron who shall bring milk that is unstrained when put into the cans, shall forfeit therefrom from 5 to 25 per cent. of the actual weight of his milk, according to the amount of filth.

3. Resolved, That the trustees shall keep a full set of instruments for testing milk to the nicest degree of accuracy; and that they shall appoint some competent person to attend to the testing of milk during the season; and if any patron's milk, after a fair and impartial test by the instruments, shall be found in any way adulterated, either skimmed in part or the whole, watered, or in ony other way, it shall be sufficient proof thereof, without any other evidence than the instruments, to punish the guilty patron to the full extent of the law, and exclude said patron from patronizing the factory forever after.

4. Resolved, That all patrons bringing their milk to the company's factory shall keep their cans under cover, and properly sheltered from rain, during the milking time and during the night time, so that no more water shall fall into the cans than what will get into said cans in conveying the milk from the farm to the factory.

5. Resolved, That all cans must be properly ventilated, by inserting a tube in the cover or otherwise, and so ventilated that the animal odor of the milk can pass off, when the milk is being transported to the factory.

6. Resolved, That any and all patrons who commence to bring their milk to the Plymouth Cheesemaking Company's factory in the fore part of the cheesemaking season, shall so continue to bring or send the same until the season closes, and the factory stops operations in the fall of the year, unless permitted or ordered not to bring the same by a majority of the directors.

7. Resolved, That the Plymouth Cheesemaking Company will manufacture milk delivered at their factory into cheese through the season of 1873 and following, furnishing all staples, sell and deliver the same, make dividends and pay the same to the patrons, at a stated price per 100 pounds of solid cheese; and the trustees of said corporation shall have power to establish the price per 100 pounds of cheese, for manufacturing and furnishing throughout the season, with full power to change the same from time to time, if deemed by them necessary.

8. Resolved, That no milk shall be taken from the milk spout, milk cans or milk vats after having been delivered at the factory, by any person or persons that may feel disposed so to do, either for the purpose of drinking, cooking or for any other use that may be made of the said milk, under the penalty of the law thus broken and violated.

9. Resolved, That the president and secretary of the milk patrons are duly required, and are hereby empowered to obtain suitable insurance on the cheese manufactured during the season, the cost of said insurance to be equally borne and shared by the patrons of the said Plymouth Cheesemaking Company's factory.

10. Resolved, That the said Plymouth Cheesemaking Company will not permit on the Sabbath their factory to become a public or private place of resort for persons lounging about the street, or for persons wishing to visit the same from idle curiosity; and the factory help are required to be quiet and peaceable on the Sabbath, and to keep out all intruders on that day, under the rule Positively no Admittance on Sabbath.

11. Resolved, That no patron's milk will be taken or accepted at the factory unless the said patron or patrons positively and legally agree to abide by the foregoing rules, *in toto*.

It will be seen by the foregoing that everything is strict and thorough, and done on

Business Principles.

Whatever is assigned anyone to do, he attends to, and there is no dictating or meddling; and whatever he does he is paid a fair price for. No one is expected to work or spend his time for nothing. Everything is kept in perfect repair, and all repairs are made at the earliest possible moment.

Conveniences, &c.

Many factories have conveniences which the Plymouth has not. Nearly all the operations are performed just as they were nine years ago, when the factory started. This year, however, for the first time, steam is introduced, self-heaters having previously been used; but it makes no difference in the character of the cheese. The steam is used with water. The temperature of the cold water run around the milk at night is 40°, and it is pumped from a well by the engine directly into the pipes that supply the vats without the use of a reservoir. The common screw press is used, and the cheeses are pressed as long as they can be and get the hoops empty for the next day's curd.—There has never been a curd-mill in the factory. Milk is received through conductors, instead of by dumping, as is now almost universal. The cheeses are set on benches, made of boards as wide as required for a cheese to set on. The boards are placed wide apart—a foot or more—so that the cheeses have plenty of room. No extra provisions are made for ventilation, but the factory is airy, clean and sweet, and stands in a clean neighborhood.—The day we were present the factory received 16,0 0 pounds of milk, which was made into 24 cheeses, weighing about 70 pounds each.—This was the milk of 750 cows.

The Process of Manufacture

was the same as that practiced in many factories which do not grind the curds. The milk was heated to a temperature of 82°. Sufficient rennet was used to cause coagulation in 12 to 15 minutes, and make a curd ready to cut in 40 to 4 minutes. The cutting was done with a common perpendicular knife, the cross cutting being continued until the curd was quite fine. The heat was raised gradually to 100°. The stirring while heating was at first with the hands, and sufficient to prevent packing on the bottom. As soon as the curd began to have a little toughness, the curd-rake was introduced and the balance of the stirring done with this. After the required temperature was reached, very little stirring was done. The curd stood in the whey until nearly ready to dip, when the whey was drawn to the surface, where it was allowed to remain until the acid was sufficiently developed. It was then dipped into the curd-sink, and all hands turned in to stir and air it as the whey drained off. When the whey had ceased running freely and the curd was well broken up and loose, three pounds of Ashton salt— hey will use no other—was sprinkled on and stirred in for every 1,000 pounds of milk. When another vat is not crowding to be dipped, there is no hurry in getting the curd out of the sink. If the sink is wanted, the curd is considered ready for the hoops as soon as salted. The pressure is put on gradually, and finally the screws are put down as firmly as a man with a lever can do it. At intervals these screws are tightened. They are started the last thing on going to bed, and again in the morning as soon as the factory is opened. Then they stand until the presses are wanted again in the afternoon. All the hands are boarded in the factory, one end of which is fitted up for the purpose. We will now give what we consider

The Essential Points.

When the Plymouth factory was started in 1864, Miss Sternberg, who received her instructions at the Eagle factory in West Edmeston, was hired to run it. She has had charge of the factory ever since and runs it now. Her experience enables her to tell with exceeding closeness when a curd is fit to dip. Now and then she may vary a little, but her senses of taste and smell enable her to make a remarkably even lot of cheese. And she does not intend to make soft cheese, for the sake of getting it early to market, but works the curds down, spring, summer and fall, so as to make a good shipping article. Nothing less than 20 days old is allowed to go out of the factory.—Here is a hint to those who indulge in soft cheese, the effect of which is now, as we are credibly informed, seriously felt on the market, causing a depression.

Our factorymen must learn to make and sell only good shipping cheese, and stop sending off soft, green curd, if they want to make a good reputation and get uniformly good prices.

None but old rennets are used. They are mostly saved by the patrons, who have been taught how and are paid good prices for good rennets, none others being accepted. Some are dried on bows or sticks, and some are filled with salt; but all are clean and sweet, and are kept tied up in bags, in the factory. It is a rule to use no rennet less than a year old; if two or three years old, the better. With such rennets a better, firmer and finer curd can be made than with green rennets, and we think more cheese can be made from the same milk with the old rennet. If a change be made from old to new rennets, the difference in the curd will be apparent to the merest novice. The green rennet makes a softer, weaker and more slippery curd than old rennet does. The rennets are prepared at the Plymouth factory by soaking in pure whey; and common basket annatto, prepared with potash, is used for coloring.

The great secret in making fine cheese, where the milk and everything else are right, is in knowing when to dip the curd—when, to use the expression of the maker at the Old Fairfield factory, "the curd is tempered right."—This is an apt term to use. Almost everyone knows that the difference between a poor and a good cutting tool is often in the temper.—Both may be made from the same steel. Tempering is a very nice business and requires experience and a peculiar ability to determine by appearance the exact degree of heat. The same is true in regard to the amount of acid in making cheese. The cheese must be "tempered" right, or it will be too hard or too soft —*Utica Herald.*

SALE OF MR. WALTER GILBEY'S ALDERNEYS.

We learn from the *Mark Lane Express*, that a draft from the Hengrave herd was sold by Mr. Sworder, at Bishop's Stortford, on Thursday, when 20 lots of cows and heifers made an average of about £26; the highest price being 35 guineas, given by Mr. Beadle for Zoemaid, by Bandboy. It was stated in the catalogue that this bull's stock "on fresh imported cows show far superior frame and constitution to those bred in the Islands"; but the question is if the English bred ever retain the fine thoroughbred character of the Island cows. A few Jerseys, the property of Lord Rosslyn, were put up after the Hengrave sale, and most of these were sold at fair prices.

CARE OF SHEEP.

A few winters ago I weighed the hay for ten fine-wooled sheep and for an ordinary sized cow that was giving milk, and the cow consumed rather more than the sheep.

A few roots fed daily in winter, fed with hay, will keep a sheep in good condition to care for her lambs in the spring. The lambs need looking to the first few hours after birth; most of them, however, will not need it, but occasionally one will be found that will not be strong enough, or from some other cause will fail to obtain its natural supply of milk, and will require assistance.

Here is what three did last season:—They lambed in March, one had three, the others two each, seven in all; sold five of them in June for $25; the two kept if sold at the same time with the others would have brought $11, making $36; sold 12 lbs. of wool for $6; total, lambs and wool, $42, which will be called a good return by most of your readers, I think. But perhaps some of them have sheep that have done better. These lambs were not sold for any fancy price, but at regular rates to the butcher.—*Peterboro, N. H., Transcript.*

FEEDING COWS AND YOUNG STOCK.

We are feeding our own cows chaffed cornstalks and straw, with a quart of corn-meal to a bushel of chaff. Those that are giving milk get in addition a pint of corn meal and a quart of bran stirred into a pailful of water, twice a day. Keep the stable clean, warm and well ventilated. All cows are better for being corded—those that are stalled especially need it. If the cows leave any of the cut stalks and straw, remove them from the mangers and sprinkle a little salt water over them. They will then eat the most of them.

Young stock should be fed liberally. They are growing and cannot be kept healthy unless they have enough nutriment to provide for their natural growth. A bushel of chaffed straw or stalks, a bushel of clover hay, half a peck of fine bran, and a quart of chaffed corn meal mixed together form a cheap and excellent food. Let them have all they will eat of it. If they have any, give it to the older cattle.

The stock growing interest of the West is every day becoming more and more important, and yet there is no department of our agricultural pursuits that is more susceptible of improvement. In fact, with very few exceptions, the whole business is done upon the very old fogy plan of "rough and tumble," that is, cattle allowed to run at large and wild in the summer, and out in the storm and cold in the winter. With such wild grass as they can find, either good or bad, and often scant at that—with sometimes water and sometimes not, and not unfrequently stagnant and unhealthy in the former case—with shock or ear corn in the latter.

Correspondence.

NOTES FROM MY GARDEN.

DEAR SIR,—

Being fond of trying experiments, and knowing that their value is lost if not recorded, I wish to make the FARMERS' ADVOCATE the medium through which I may relate my successes and failures, hoping that they may aid some of my brother subscribers.

Don't you think, Mr. Editor, that more of our friends ought to send in reports of what they have been doing, for the benefit of the rest of us. I know for one that I have spent time and money trying experiments which would have been unnecessary if others who had previously tried them had reported as to their utility.

Buckwheat to drive away the Potato Bugs.

The papers last year were full of advice as to how to defeat our enemy, the potato bug, and among other ideas, the sowing of buckwheat among the potatoes was suggested. I tried it this spring fully. I sowed buckwheat all around and through my potatoes, and find to my sorrow, that the bugs have not the slightest respect for my precautions. In fact, they appear to think that the buckwheat was put there for their especial benefit, and made use of it to lay their eggs on. This proceeding rather disgusted me, and I now pronounce the buckwheat cure a failure.

Hilling up Potatoes.

I have for some years been trying which was the best for potatoes, much or little hilling, and the result is that I believe we have been in the habit of hilling them up too much. It is all very well in a damp climate like that of Great Britain, or when we plant in a low wet place, but in our ordinary loam great hills raised around potatoes only serve to dry out the soil and greatly injure the crop.

Potato Sets.

There appears to be great difference of opinion as to what kind of sets we should use.—Some use the seed or rose end of the potato alone; others use the whole potato, and others again use only single eyes and will not use the rose end under any consideration. All seem to be agreed that very small potatoes are not good for seed. I am trying all the different ways this year and hope to be able to report satisfactorily. Can any one who has tried the experiments tell me what was their result? I am satisfied of one thing about potato sets, and that is that our potatoes for seed should not be allowed to become dead ripe. Did you never notice that the best seed was always that from potatoes which were sown too late to ripen thoroughly? It is from the use of over-ripe seed that our potatoes so soon degenerate.

Hanson Lettuce.

I am a great lover of good lettuce, so as soon as I knew you had some of this new seed, I determined to give it a good trial. I sowed it in a pot and then transplanted it into the ground when large enough. I have now some of the very finest lettuce I ever saw or heard of, beautifully crisp, white heads, slightly curled and large enough to completely fill a peck measure and leave some sticking out. I mean to make this my standard lettuce, and will raise none other.

Flowers.

My seeds which I obtained from you have all grown well excepting where my own mismanagement has spoiled them. I am satisfied from my experiments this year that watering is not the thing for delicate flower seeds. My way after this will be, after sowing the seed, to place boards over it and thereby retain whatever dampness there is in the ground, but in no instance will I water, for this only forms a hard crust on the surface through which the delicate plants cannot thrust themselves. Some of my flower seed I sowed too early, and the ground was so damp and cold that the seed rotted.

Some other time I will send you some more notes from my garden.

Yours respectfully,

PROGRESS.

Editor Farmers' Advocate.

The ADVOCATE for July to hand. Mr. Christie seemed inclined to carry matters with a high hand respecting the selection of judges for the Durham cattle. I think his conduct is insulting to the farmers of Ontario, as if a sufficient number of honest and capable judges of cattle could not be found amongst them.

The only sure remedy for the onion maggot is a liberal supply of dry salt as often as may be required; to be applied dry, but never pickle, as I have seen that cut the tops to pieces when they were well grown.

I fear the English farmers, by treating their laborers as they are doing, will only prove the truth of the old adage: "Those whom God wishes to destroy he first makes mad." The