

DAIRY.

Parchment Lined Butter Tubs.

A New York butter dealer speaks very strongly as to the advantage of the use of parchment paper linings in butter tubs. "Why," said he, "we have more calls for paper-lined butter tubs than anything else. In fact, nearly all our buyers want the paper, and the chances are we would have a difficult task to retain their custom if we didn't give them paper-lined packages." While it is a fact that too many buttermakers do become careless in preparing paper-lined tubs, there are those whose butter arrives in lined packages in just as perfect condition as possible. The paper prevents to some extent the moisture of the butter from reaching the wood, and unless the tub is pretty well soaked it is apt to become dry, and perhaps under unfavorable conditions molds before it reaches a market. So it is always essential that tubs be well soaked, linings or no linings.

Causes of Mottled Butter.

A number of experiments have been carried out at the Maryland Agricultural Station in order to ascertain the cause of mottled butter, by Mr. C. F. Doane, Dairy Bacteriologist, who gives his conclusions as follows:—

- "1. The uneven distribution of salt is the cause of unevenly-colored butter.
- "2. Washing the butter with water below 40 degrees does not cause mottles. It does, however, make a little more working necessary to thoroughly distribute the salt.
- "3. The light-colored streaks or portions of mottled butter are not caused by an excess of casein; but mottles are evidently caused by some physical action of salt on the butter-fat, which causes it to admit more light.
- "4. Mottles can be prevented by working the butter sufficiently to thoroughly distribute the salt.
- "5. Butter washed with water at 40 degrees and under, and worked immediately, shows a better grain when sufficiently worked to ensure its being evenly colored than with any other treatment.
- "6. Washing butter with water at 40 degrees and under does not injure its firmness when subjected to higher temperature."

Cost of Butter Manufacture.

Wallace's Farmer (U. S.) says that the cost of the manufacture of a pound of butter in the creamery is almost entirely governed by the quantity of milk handled by that creamery, and a decrease in the cost, on account of the magnitude of the business, is followed by an increase of the price paid to farmers for butter-fat. One creamery in one of the dairy counties in Iowa manufactured 400,000 lbs. of butter at a cost of 1c. per lb.; another 539,000 lbs. of butter at a cost of 1.2c. In the smaller creameries the cost is reported at from 5c. to 7c. per lb., the average being 3c. In creameries handling not more than 2,250,000 lbs. of milk the average cost is 2.42c., and when 1,000,000 are added the cost falls to 2.2c., while in creameries receiving more than 3,500,000 lbs. of milk the average cost is 1.79c.

Where a creamery is established, every farmer who patronizes it or intends to patronize it should exert himself to the utmost to increase the supply of milk to the creamery. In so doing he will cheapen the cost of manufacture and thus advance the price of his own cream. The attitude of a few leading farmers is frequently the life or death of a struggling creamery. If these men throw their active support to the creamery they can increase the supply of milk and thus enable the creameryman to give an increased price. This increased price renders it comparatively easy to secure still further patronage, and, in time an industry profitable alike to the farmer and the creameryman will be built up; but if they withdraw their support and discourage their neighbors they decrease the amount of milk and decrease the price and frequently compel the creamery to close or become a mere skim station.

Prizes for Cheese at the Western Dairy-men's Convention.

The Dairyman's Association of Western Ontario offer cash prizes for cheese and butter, to be competed for at their annual convention, to be held in London, Jan. 15th to 18th, 1901. The classification is as follows:

Cheese made from August 15th to 31st			
	1st.	2nd.	3rd.
One white cheese	\$50.00	\$15.00	\$10.00
One colored cheese	50.00	15.00	10.00
Cheese made from October 15th to 30th			
	1st.	2nd.	3rd.
One white cheese	\$25.00	\$15.00	\$10.00
One colored cheese	25.00	15.00	10.00
Creamery butter—			
	1st.	2nd.	3rd.
Fifty-six Pound Boxes	\$25.00	\$15.00	\$10.00
Ten One-pound Prints	10.00	5.00	3.00

The August cheese to be shipped to the Superintendent of the Illustration and Experimental Station at Milverton not later than September 24th.

Brantford.

MR. GEO. HATLEY, Secretary.

Bacteria.

My name is A. Bacterium.
This heat agrees with me;
Just let me work inside your milk
Some muggy day and see.
While other workers drop their tools,
And look around for shade,
I peel my coat and go to work.
For that's the way I'm made.
I sour the milk, I spoil the fruit,
I carry foul disease;
I dance for joy in filthiness,
I slip right through a freeze.
But boiling water knocks me out.
And cleanliness I hate;
I travel when I see them come,
And use my swiftest gait.

—Rural New-Yorker.

POULTRY.

Hens, Chickens, and Dogs.

Perhaps a few suggestions to the women folk who, like myself, are interested in poultry-raising may not be out of place. Now that the moulting period is over, and biddy is strutting around clad in a brand-new dress, we expect her to do her duty and get to work in earnest. The fowls are having quite a feast now, as there is so much grain in and around the barn. Plenty of wheat and buckwheat will make the hens lay well. There is ready sale for good chickens, but poor ones are not wanted at any price.

If your chickens do not thrive well—will not fatten, although they are well fed—there is something wrong. I'll tell you what to do. Just catch one at once and examine it closely. Now, don't get shocked when I tell you the plain, unvarnished truth: Your chickens are lousy, though you may never have suspected it. Now you have caught your chicken, turn up the feathers and you will probably see a little insect running for all it is worth (as the saying is). But, remember, this is not the only one; there are others, you may depend on that. Now take some insect powder or sulphur and dust well under the wings and around the neck of the chick. Give the whole flock the same treatment, and you will soon find that the hens will lay far better and the chickens will thrive and fatten. Now when you have gotten the poultry rid of these pests, keep them so. This can only be done by keeping the henhouse scrupulously clean. But, someone says, "It is a man's work to clean out the henhouse." Of course it is, but some men are such forgetful creatures, especially when one wants them to do a job they don't fancy. But this job must not be neglected. It will never do to endanger the health of our feathered families. If the men won't do it, then take a shovel and do it yourself. If the house is cleaned every day (as it should be if you have many hens), it will not be hard work. Spread clean sand or ashes on the floor, and kerosene the roosts sometimes. See that the house is well ventilated and that there is plenty of light and sunshine in it. Keep plenty of clean water before the poultry; it is surprising how much water they will drink. Again, if we want to succeed in poultry-raising we must get rid of all our mixed breeds and raise pure-bred Plymouth Rocks only. The buyers want Plymouth Rocks. Now is the time to fatten and sell the old hens, for it will never pay to winter them. Pullets will lay all winter if they have a warm house and are properly attended to. We shut up our chickens to fatten them in a movable coop. We only put in a few at a time, and when they are fat we take them out and kill them; then we put in some more. They do not take so long to fatten as if they were running around, and can be fed better.

If you notice a scarcity of eggs now when the hens are laying well, I would advise you to watch the dog. We have had a few months' experience in keeping dogs. Our boys bought two pups; they are about five months old now. I used to think it would be nice to have a dog, but I have changed my mind. We find the dogs a perfect nuisance. Dogs are very fond of eggs—at least ours are. I will tell you how we found it out. When our men were stowing the wheat in the barn loft, they found a hen sitting on twelve eggs. As she couldn't stay there, they brought in the eggs, and I broke one to see if they were good, for we didn't think she had been sitting long. I was much surprised to find a little white chick in it almost ready to be hatched. Then we took the eleven eggs and put them in a nest, caught the hen, put her on them, and put a board up temporarily to keep the hen in until she got used to the nest. We thought she would be all right there. Of course, we never imagined that the dogs were watching us, but it is likely they were. We went in the house, and after a little while we heard the dogs barking, and as the sound seemed to come from the vicinity of the hen's nest, we ran out to see what they were barking at. Imagine our surprise and disappointment when we found the nest empty—the hen and every egg were gone. The greedy dogs had broken into the nest, frightened the hen away, and gobbled up all the poor little chicks before they were out of the shell. Well, the dogs must go. We have to shut them up, for they eat every egg they can find. When they commence to eat eggs it is hard to make them give it up. Of course, pups are worse than grown-up dogs; two are twice as bad as one, but none at all is much preferable. The cattle and poultry will not thrive well if they are chased and frightened almost out of their lives by worthless barking dogs.

Queen's Co., P.E.I.

Mrs. Annie Rodd.

APIARY.

How Do Bees Use the Comb?

The Colorado Experiment Station issues a bulletin dealing with apiary experiments recently carried out there. The chief experiment was on the use of artificial comb foundation furnished for bees for starting their combs. The point at issue was whether the bees used the starter wax to extend the comb, and whether they used the foundation to build cells walls, or left the foundation as furnished them. Wax colored with lamp-black was used, so that the changes made by bees could be traced. The following is a summary of the conclusions arrived at:—

1. Bees use freely the wax in foundation to extend both the midrib and the cell walls of honey-comb.
2. The heavier the foundation used, the heavier, as a rule, will be the comb built upon it.
3. If the midrib of a foundation is much lighter than that of natural comb, the bees are likely to strengthen it by adding wax to the bottom of the cells. (Possibly this is only done where there are actual perforations of the comb.)
4. If the midrib of the foundation is thicker than the midrib of natural comb, it will result in a comb with a midrib thicker than the natural. Or, to state it differently, the bees will not thin the midrib of a foundation down to the thickness of worker comb built in the natural way.
5. Midribs of foundation that are not more than .17 of a millimeter (.007 in.) in thickness are thinned little or none by the bees.
6. Drone comb has a thicker midrib and heavier cells walls than worker comb.
7. A foundation with a heavy midrib and very slight cells walls will still produce a comb with heavy cell walls.
8. Very high cell walls in foundation are not cut down to the thinness of cell walls in natural comb.
9. The thin and extra thin and the "1889" deep-cell foundations produce a comb that approximates very closely the lightness of that which is naturally made by the bees.
10. When heavy foundations are used, the extra weight of the comb built upon them is due more to the extra weight of the cell walls than to the heavier midrib.
11. When very light foundations are used, the somewhat heavier comb is due almost entirely to the midrib being heavier than that of natural comb.
12. When foundations containing an abundance of wax to build the entire comb are used, the bees still add much more wax, sometimes nearly enough to build the comb without the help of the wax foundation.
13. Wax seems to be given with the best economy when the midrib of the foundation is of the thickness of the midrib of natural comb, and when there is a small, or at most, a moderate amount of wax in the cell walls.
14. Poorly attached combs in sections seem to be more the result of weak colonies and poor honey flow than the kind of starter that is used, though large starters and strips of foundation in the bottom of the sections do help to strengthen the union of comb to the section.
15. Separators between the sections are essential to the best results in producing comb honey.
16. The thicker the comb, whether natural or artificial, the greater the proportion of honey to wax in it.
17. In natural worker comb one inch thick, the proportion of wax to honey is between one to twenty and one to twenty-five by weight.

VETERINARY.

Canker Sore Mouth of Young Pigs.

Many requests for information from swine breeders regarding this disease have been received at this Station. The exact cause of the trouble cannot at present be stated; the manner in which it spreads and its persistence in the hog pen indicate that it may be of germ origin. This disease invariably appears in young pigs from the time of birth to a few weeks old, and if not attended to promptly either stunts their growth permanently or they waste away and die.

The symptoms shown are as follows: Sore mouth, swelling of the jaws, with white, sometimes light brown, scabs, which later show deeper cracks. The scabs and cracks are found on the snout, extending over the head, and even to the body and limbs; in some cases an ulcer will form at the end of the snout and eat away part of the nose; in other cases the ears may be affected and drop off. There is dullness, loss of power in hind limbs, a tendency to walk on the fetlocks, disinclination to move, the pigs usually standing with their backs humped up. They either refuse to suck entirely or else do so in a half-hearted manner. If made to walk and move, will squeal as if in pain.

To be effective, the treatment must be prompt and thorough. The young pigs must first be attended to by dipping the entire head in one of the following solutions, being careful not to drown the pigs:

(A) Permanganate of potash, 1 ounce, dissolved in half a gallon of water. This solution is practi-