

standard at 1000; cream 1012 to 1019, and good milk 1.0320; the temperature being always 62° Fahr.

The following results were obtained:—

	Specific gravity.	Per cent. of cream in bulk.
Pure milk at 62° Fahr.	1.0320	11 1/2
" " and 10 per cent. of water.	1.0315	10
" " " 21 "	1.0305	9
" " " 30 "	1.0290	8
" " " 40 "	1.0190	6
" " " 50 "	1.0160	5

Experiments made upon milk after being skimmed gave the following:—

	Specific gravity.
Skim milk.	1.0350
" " with 10 per cent. of water.	1.0321
" " " 20 "	1.0285
" " " 30 "	1.0248
" " " 40 "	1.0210
" " " 50 "	1.0180

From these investigations it appears:—

1. That good new milk has a specific gravity of about 1.030.
2. That skim milk is a little more dense, being about 1.034.
3. That milk which has a specific gravity of 1.025 or less, is either mixed with water, or is naturally very poor.
4. That when milk is deprived of about 10 per cent. of cream, and the original volume is made up by 10 per cent. of water, the specific gravity of such skimmed and watered milk is about the same as that of good new milk; this circumstance, however, does not constitute any serious objection to the hydrometer or "lactometer," as milk skimmed to that extent cannot be mixed with water without becoming so blue and transparent, that no instrument would be required to detect the adulteration.
5. That when unskimmed milk is mixed with only 20 per cent. of water, the admixture is indicated at once, by the specific gravity of about 1.025.
6. That for these reasons the hydrometer or "lactometer," which gives the specific gravity of milk, is well adapted for detecting the admixture of water, or to show an unusually poor quality of the unadulterated milk.

Cheddar Cheese.

CHEDDAR CHEESE made in Morris, Otsego county, by F. W. Collins, was exhibited at the State Fair at Rochester, and was awarded a first premium, and pronounced by gentlemen familiar with English Cheddar in every respect equal to the very best. We believe Mr. Collins is the only extensive manufacturer in this country, and finds a ready market at 40 cents per lb. This cheese, known in market as Cheddar cheese, is made in Morris, Otsego county, N. Y., after the plan of English Cheddar.

Process of Manufacture.—Warm all the milk at all seasons to about 90 degrees before introducing the rennet. A curd is thus produced of proper consistency to make one cheese at that heat. Use calves' rennet, soaked in cold water, with plenty of salt to preserve it. When the curd becomes solid, and the whey commences to separate, cut the curd each way with a long knife, leaving it in blocks of an inch square, then leave it half an hour for the whey to separate and the curd to toughen; then break the curd carefully with the hand, so as to help the separation of the curd from the whey, gently moving it for twenty minutes, and increasing the heat to 96 degrees. The process of drawing off the whey now begins. The milk is heated by steam and the same degree of heat through the season. Keep the curd gently moving in order to retain all the cream or richness in the curd. In from one to two hours the curd will be sufficiently dry to receive the salt, which is an ounce to every five pounds of curd. It is mixed in the vat, and when sufficiently cool lift it into large hoops, and put it under press for half an hour; it is then removed and ground (in a mill for that purpose) into particles as fine as Indian corn; it is then put into small hoops and pressed two days, turning them once in the time. When taken from the hoops they are inserted into scalding brine to form a rind which is impervious to flies. If the curd is sufficiently cool it obviates the difficulty of the sticking to the stringer. The weight to be applied is 1,000 lbs. to every 20 lbs. of curd. Anato is used for colouring inside and out, and is mixed with butter for the outside. This cheese is sold in market at wholesale for 40 cents per lb.; size of the dairy 30 cows, and will produce about 250 lbs. each.—*Journal of the N. Y. State Ag. Soc.*

A Fine Herd of Ayrshires.

Our readers will remember that the State Agricultural College and Mr. E. S. Moore, of Three Rivers, have recently purchased some fine Ayrshire stock from the herd of Mr. Peters, of Southboro', Mass. We give below some statements concerning Mr. Peters' herd, which we clip from the *Rural Advertiser*:—

Mr. Peters has twenty-seven pure Ayrshire cows, and weighed the milk yielded daily by several of them from the 15th to the 25th of June, ten days. The produce of six was as follows:—Jean Armour, six years old, calved May 20th, an average weight of 54 pounds. Her milk was set separately for three days, and the cream from it produced upwards of six pounds of butter of the finest quality. Corslet, five years old, calved June 3rd, an average weight of 38 pounds per day. Duchess, five years old, 35 pounds per day. Miss Miller, six years old, calved April 7th, 36 pounds per day. Queen, eight years old, calved February 1st, 31 pounds per day. Nineteen cows, whose ages range from two to eight years, and whose period of calving extended from December to June, averaged 32 pounds each. The milk from eighteen set for one day, gave twenty pounds of butter. Most of the milk is usually sold at the farm. None of the cows were milked more than twice a day, and all, with the exception of three, travelled a mile and a half to pasture and back again every day. Excepting the first named, which had two quarts of corn and cob meal per day, none of them had anything in addition to pasture feed. Mr. Peters has recently sold two two-year old heifers and a cow, at \$150 to \$200 each. They are the first females which he has allowed to leave his herd.—*Western Rural.*

COWS MILKING THEMSELVES.—I know for a certainty that cows sometimes do suck themselves. The proper remedy—the one used in the Vale of Black Moor, in the county of Dorset—is a headstall with spikes in the nose-band.—W. F. RADCLYFFE, Rushton, in *Coltage Gardener*.

THE BITER BIT.—A shopkeeper purchased of an Irish woman a quantity of butter, the lumps of which, intended for pounds, he weighed in the balance and found wanting. "Sure it's your own fault, if they are light," said Biddy in reply to the complaints of the buyer; "it's your own fault, Sir; for wasn't it with a pound of your own soap I bought here that I weighed them with?"

SAXON CHEESE.—The following method makes a wholesome and palatable cheese much used in Saxony:—Boil large white potatoes, remove the skin and mash them fine. Add a little salt. To five pounds of potatoes, add one pound of sour milk, and mix thoroughly; cover and let it stand undisturbed four or five days, according to the season. Knead it out into balls, and put in a cool, airy place to dry. They may be covered with a piece of old lace, or thin muslin, to keep them from insects, and admit the air.

COWS ROBBED OF THEIR MILK.—In reply to your correspondent "J. J. T.," and your answer to his query, I beg your insertion of the following fact:—About eight years since I had a cow which somewhat suddenly ceased to give more than the smallest quantity of milk. After nights and days of watching, we found she was regularly milked by two strong pigs, whose wonderful condition at the time was a mystery to us. I do not know anything about hedgehogs milking cows, and never heard of such a thing.—Trent, in *Coltage Gardener*.

EXTRAORDINARY TENACITY OF LIFE IN A COW.—A correspondent of an Australian paper writes:—"On the night of the 4th August last, a milking cow of mine, with a rope about ten yards long attached to her horns, suddenly disappeared from her young calf, and not returning within a day or two, it became quite evident that she must have got tied up by the rope in a certain treetop scrub where she calved. A search was instituted, and continued for fourteen days without success. On Monday the 10th September, however, I saw the cows with which the missing one usually ran, looking rather remarkably into one particular part of the scrub—the supposed prison of the missing cow. I at once penetrated the scrub, and, to my sudden surprise, discovered the long-lost cow tied up by the rope, as it was supposed; she was still living and standing, but a perfect skeleton. Thus she survived for thirty-nine days without a drop of water, as the spot where she stood did not even hold surface water and without food except the treetop, within her reach, which it seems she devoured—even the roots. The poor thing is, as may be expected, a miserable spectacle at present, but, I am glad to state, gradually recovering."

Sheep Husbandry.

Sheep Ailments.

SHEEP PULLING THEIR WOOL.—E. J. Keith of Cedar Rapids, Iowa, and Daniel M. Stevens of South Avon, N. Y., inquire what will cure this. Weak mercurial ointment rubbed in small quantities with the end of the finger on the skin in a few places where the wool is pulled, will put an end to the pulling. Take the common mercurial ointment of the druggist shops and rub it down with say five or six times as much lard, and then use a piece of the size of an ordinary chestnut at one dressing. If necessary repeat this after a week. This might be safe under any circumstances, yet in case of a winter rain, or a very severe storm of any kind—soon after applying the ointment, we would recommend that the sheep be kept under shelter.

As there is such a dread of the very name of mercury, we recommend experiments with the following applications:—1. Lard mixed say half and half with turpentine, and used in the same way, and considerably more freely than the mercurial ointment. 2. Sulphur and lard with or without turpentine. 3. Tobacco ointment, made by boiling fresh tobacco leaves cut fine in lard (at the rate of an ounce of the former to a pound of the latter) until it becomes friable. 4. A strong decoction of tobacco would doubtless answer the same purpose, but it would discolour the wool more than the preceding applications, and would, to a certain extent, wash out the yolk. Will some of our intelligent correspondents try these several remedies and report progress? We shall have them tried on our own sheep should occasion arise.

Dipping a sheep all over in a strong decoction of tobacco summarily cures them of wool pulling, as we know by experiment, but this would be rather an unsafe procedure in winter owing to the danger of taking cold—and would have a very disagreeable effect on the appearance of the whole fleece. This last result would not follow the necessary amount of tobacco ointment, and we have no doubt whatever that it would be found a certain remedy. It is also an excellent dressing for irritable ulcers: and we trust that quantities of it will be prepared and kept on hand for use by our sheep farmers when the tobacco crop reaches the proper condition next summer.—*Rural New Yorker.*

"STUFFLING, SNEEZING AND COUGHING."—Jane Crouch, Newton, Jasper Co., Iowa, wishes to know the "cause and cure" of the above symptoms in sheep. The cause is cold—caught by some unusual exposure. If the sheep is in good condition, and the cold is not very severe, it is not usual to do anything but take good care to guard it against further exposure by proper shelter. If the sheep is thin, or the animal attacked is a teg, the matter is more serious. The favourite prescription among farmers is to give it a tablespoonful of tar or daub its face and nose with tar; we can bear evidence to the efficacy of either remedy.

THOUSANDS OF SHEEP have been lost in Interior California from cold weather. They were sheared too late in the fall.

TWELVE SHEEP belonging to D. K. Chase, of Calais, Me., were killed by a dog one night last week. He had paid seven dollars each for them the day before.

A PROLIFIC EWE.—Mr. Chick, of Stratton, has a ewe which has just brought no less than six lambs, five of which were alive at the time, and four are now doing well. During the last four years this sheep has had no less than fifteen lambs, having brought threes in each previous year.—*Dorset Chronicle.*

CALVES WITH SHEEP.—It is well known, perhaps, to most of our agricultural readers, that late calves, when they come to the barn in the fall, will, if confined in yards with older animals, frequently sicken and become debilitated. Being weaker and small, they are usually shoved about, and deprived of their due share of food, and in consequence, fall away rapidly. Now I never allow animals of this description to associate or be confined with larger ones, but put them with my sheep, where there is no danger of their doing or receiving harm. Sick calves, I have observed, often pick up and devour with avidity the hay and straw from among the sheep dung. It is medicinal, and I know of no article that has a more immediate and salutary effect in restoring diseased calves to health than sheep dung. And I have practiced this usage for many years, and have never lost an animal, though I have had many sick when they came to the barn.—*Germantown Telegraph.*