There are several species of Bears recognized and described by naturalists. The life-like illustration at the head of this article represents:—

1. The Brown Bear.—(*Ursus Arctos.*)

2. The Mosquaw, or Black Bear.—(*Ursus Americanus.*)

3. The Polar Bear.—(*Ursus maritimus.*)

1. The Brown Bear.—As may be supposed from the title of the animal, the colour of its fur is brown In some specimens the neck is encircled with a white band, which, in general, changes into brown after the second or third year; but in some instances, it remains during the whole life of the animal The Brown Bear is not such a formidable enemy to cattle as might be supposed from its well-known voracity If, however, the animal once acquires a taste for cattle stealing in a particular locality, there is no peace in that neighbourhood 'till Bruin is summarily ejected from it. This animal is particularly fond of vegetables of all kinds, fruits, and ripe corn. Even in captivity, it retains this weakness for garden produce.

During the autumn, the Bear becomes immensely fat, a condition which serves the double purpose of sustaining the creature during its long winter sleep and of supplying the body with carbon for the purpose of inducing the lethargy. "A curious phenomenon now takes place in the animal's digestive organs, which gives it the capability of remaining during the entire winter in this somnolent state without food, and yet without losing condition As the stomach is no longer supplied with nourishment, it soon becomes quite empty, and, together with the intestines, is contracted into a very small space. No food can now pass through the system, for a mechanical obstruction—technically called 'the tappen'—blocks up the passage, and remains in its position until the spring. The 'tappen' is almost entirely composed of pine-leaves, and the various substances which the bear scratches out of the ants nests."

The breeding season of the Brown Bear is about the end of January, or the early part of February,—the number of cubs produced varying from one to four It is a curious fact that although the mother has been deprived of food for nearly three months, she is able to afford adequate nourishment to her young till the spring, without impairing her own condition.

2. The Black Bear is found in many parts of this continent, and formerly existed in large numbers. It cares little for animal food, and unless pressed by hunger, confines itself to a vegetable diet. It is a magnificent climber, and possesses an insatiable appetite for honey. Its flesh is held in high esteem by hunters, and the hams, when cured after an approved recipe, form a welcome refection to the jaded stomach of the epicure."

"The chase of this Bear is an extremely dangerous one, and there are but few Bear-hunters, however dexterous they may be, who do not in the end succumb to the claws and teeth of this dangerous animal" The Indians pay great veneration to the intellectual powers of the Musquaw, and they endeavour to appease the manes of a slaughtered Bear by various solemn and time-honoured ceremonies. The head of the animal is grotesquely decorated with trinkets, and ostentatiously displayed on a new blanket. A few whiffs of tobacco smoke are blown into the breathless nostrils by the successful hunter, and "a deprecatory speech is made, in which the orator extols the courage of the defeated animal, pays a few supplementary compliments to its still living relations, regrets the necessity for its destruction, and expresses his hopes that his conduct has been, on the whole satisfactory to the dead Musquaw and its relations."

3. The Polar Bear is the largest, strongest, most powerful, and, with the single exception of the Grizzly Bear, the most ferocious of all the species. Its peculiar characteristics are, the "great length of its body as compared with its height; the length of the neck; the smallness of the external ears; the large size of the soles of the feet; the fineness and length of the hair; the straightness of the line of the forehead and the nose; the narrowness of its head, and the expansion of its muzzle." The colour of the animal is invariably a dingy white, except the top of the nose and the claws which are jet black. The size varies considerably some being described as over thirteen feet in length, but this is probably an exaggeration Captain Ross brought back a specimen measuring 7 ft 10 in and weighing, after losing thirty pounds of blood, 1131 lbs. Another specimen described by Captain Lyon measured 8ft. 7½ in. and weighed 1600 lbs Dr Kane in his "Artic Explorations" remarks that the animal is next to the Walrus, the staple diet of the North, and, excepting the Fox supplies the most important material of the wardrobe "The liver of the animal," he says, "is for some reason poisonous, though eaten with impunity by the dogs."

The domestic habits of this powerful animal are not well known, and it is not clearly ascertained whether it hybernates or not. Dr. Kane relates that she-bears with their cubs visited his winter quarters during the midnight darkness. It is purely maritime in its habits and its food, from necessity, is wholly animal. The flesh of the Polar Bear is highly esteemed by Artic voyagers.

# The Dairy.

## The Address at the Cheese Makers' Convention.

The following is a synopsis of some of the most important points in Mr. Willard's address at the late Cheese Makers' Convention at Utica:

He spoke of the immense waste that was suffered to go on annually in cheese making, and pointed out where it could be corrected. The waste was mostly in the oily particles of the milk. Vast quantities of this matter was allowed to pass off with the whey, and certain practices demand immediate correction.—The flavour of cheese had been improved in a large number of factories and private dairies during the past year, and this effort on the part of dairymen to make a better article has kept up prices. Efforts in this direction must be continued, and cheese made attractive to customers. People were fond of foods that were palatable and attractive, and would purchase them at high prices; but it was useless to try to force upon the home market, a poor, spongy and putrid lot of rubbish, such as was manufactured a few years ago. Such cheese could only be sold in limited quantities, at low rates, and to a certain class. He pointed out the manner in which cheese could be improved in flavour by manufacturing and in curing, giving the result of some new experiments which had been conducted on his dairy farm, as a test of this matter. In manufacturing, the first requisite to success was to have good, clean, healthy milk, upon which to commence operations. The nature of milk ferments was perfectly understood, and it was wonderful what a small quantity of ferment would taint a large quantity of milk Dairymen were negligent about cleaning pails and dairy utensils properly. They were often careless in allowing dirt and filth to drop in the milk while milking, or adding feverish and partly decomposed milk to that which was good. This bad practice tainted milk and caused trouble in securing high flavour. Ferments were often induced which it was difficult to control. These ferments were sometimes of such a bad character that the curds floated upon the surface of the whey before of proper texture for the press, often causing the loss of large quantities of cheese. He gave his views as to the manner of treating floating curds, and the best way of conducting operations so as to save the cheese. Ferments were more active at from 70 degrees to 100 degrees. Them could be checked in a measure by reducing temperature and by addition of salt The cheese should be cured in a low temperature. Milk was often tainted from the use of putrid rennet. The rennets obtained in large cities like Boston and New York, were mostly of a very bad character. The calves before they were killed were in a starved condition, and the stomach highly inflamed—then when saved were little better than putrid animal matter, and when used for cheese making, poisoned the cheese. Cases of poisoning from eating factory cheese had occurred during the past season, and there was good reason to believe that it was the result of using bad rennet. He did not believe any better flavoured cheese could be made by the "coarse curds" process than by the "fine curds" process, if a proper attention to the management of the acids was had in either process, but a larger quantity could be secured by the coarse curds process. He showed from analysis that a nice, mellow, palatable cheese was not chiefly due to the butter it contained, but, on the other hand, to a nice admixture of moisture among all its particles. The analysis of the finest English cheese—that which sold in the English market for 24@28 cts. per pound, in gold, contained much less butter and a higher per cent of moisture than the American cheese. The difference in moisture alone was seven pounds to the hundred weight, a very important loss to dairymen. The great point in the future manufacture of cheese was to produce a fine flavoured, mellow, rich tasting, high priced cheese from milk not particularly rich in butter. By the new system of manufacture it could be done, and immense sums in the aggregate saved annually to the dairy region. This point was new, and had not before been presented to American dairymen.

## Hints About Dairy Management.

BY A COUNTRY CLERGYMAN'S WIFE.

Since trying a very simple plan for raising the cream in winter, I have found that I can produce fully double the quantity of butter from the same amount of milk. In our Scotch climate the weather for eight months of the year is so much below the temperature requisite for the proper separation of the cream from the milk that any plan to obviate this is of importance.

My plan is simply this:—On receiving the milk I have ready dishes just dipped in boiling water. After straining the milk into these, I place them inside other basons containing a quantity of boiling water. I place them thus in the dairy, and at the end of 12 hours renew the boiling water in the outer dish. At the end of 36 hours the cream will astonish those who have been accustomed to the *cold* basin plan.

A friend to whom I lately showed a large basin of milk treated in the hot water way, placed a *copper* penny piece on the top of the cream, and there it remained *comfortably* until I removed it some time after No *cold* cream, after being even forty-eight hours on the milk, could bear the weight of even a *silver* penny.

The first week of my new plan gave me fully 4½ lbs. of butter. I had scarcely 2 lbs. the previous week when the basin was cold, and no outer one with boiling water in which to place it. The renewing the hot water, after twelve hours, could be prevented by a closer fitting box being used in which to place the milk dish. I am proposing to have round boxes made either of tin or wood, and after once having boiling water in these, the milk basin fitting exactly, will prevent the air getting in to cool the water before the cream has separated thoroughly from the milk. A small plug or "screw button," placed at the side of the box, would be a good plan for withdrawing the water when it cools quickly in extreme cold, and renewed boiling could easily be substituted without disturbing the milk.

Many Mistress McClarty managers of a dairy will say, that the trouble of this hot-water plan is far too great to be thought of. But surely what is worth doing, is worth doing *well*; and, now that cream and butter are so valuable, a little extra trouble should not be grudged to procure a double supply of both from the same quantity of milk.

By the hot water plan, however intense the frost, the cream thus produced is churned as speedily as in summer, and the quality is finer than when long-continued churning is necessary.—*The Farmer* (Scottish.)

Selecting a Cow.—It is sometimes the case that the best judges will be deceived. A cow of very unpromising appearance, coarse in the neck, large boned, and second or third rate milk marks generally, will now and then turn out to be first-rate, while another with these marks largely developed, fine in the head and neck, and promising every way, will prove unsatisfactory But a failure in this case is rare. Let the head be light, the forehead broad, the horn rather thin and clear, the eye clear and prominent, the neck thin, and the fore quarters rather light, the back straight, the hind quarters well developed, wide over the loins the carcase deep the udder coming forward and well-shaped, the skin soft to the touch, the teats well set, not too large or too small the tail long and thin like a whip-lash. Such a cow ought to be a good one.—*Rural N Y*