-444444444444444 NORMANDIES,

A General Purpose Breed of Cows Little Known In America.

The annual report of the bureau of animal industry contains a chapter on Normandy cattle, which, says the writer, are natives of the departments of Eure, Manche, Calvados and Orne, in France, and are there esteemed for their dairy qualities. They appear, however, to lack a fixity of type and are a coarse, rough race from which close selections must be made to get animals which are at all attractive.

A few were brought to America and taken to Illinois in 1885, others to New York in 1886 and to Massachusetts in 1887. Another importation was made in 1895, and these are owned in New York, New Jersey and Vermont.

In size they may be classed with the large breeds, mature bulls ranging from 1,800 to 2,200 pounds in weight and cows from 1,000 to 1,500 pounds. The animals are generally brindled and sometimes spotted, the coloring being red and reddish brown, shading dark and almost black. The head is



coarse and rather long, with a large muzzle and mouth. The horns are long and extremely irregular, but with a tendency forward and downward, twisting in all directions on different specimens of the tribe. The body is long, deep and irregular in outline, with narrow quarters, and covered with a thick, heavy skin. They have large, pendulent udders, prominent and tortuous milk veins and long, widespread teats. They are believed to be particularly hardy and free from disease, and their generally rough appearance may be partly accounted for by the custom of the French farmers of never housing their cattle or giving more protection than is afforded by they know it or not, dirt is dangeropen sheds. These cattle are there almost entirely cared for by women and are very quiet and easily managed: They are hearty feeders and not dainty

about their food The Normandies are claimed to belong to the "general purpose" class of cattle, being as good for beef as for the dairy. Large milk yields are reported from them, 7,000 to 8,000 pounds a year per cow, producing over 300 pounds of butter. Records made in this country show yearly yields of

Sour Apples For Cows.

We have had cows running in a pas-

ture where there were seedling apple trees whose fruit was only fit for cider and scarcely for that, says The American Cultivator, and when the apples were large enough to attract the attention of the cows we always found a falling off in the milk yield. We have seen similar results when a cow broke into the orchard and ate too heavily of the fruit that had fallen off. We ascribed this at first to the fact that green, hard apples did not digest well, and while they might not produce a colic in the cow, as they would in the small boy, they would do her more injury than good. Later we noticed that the cows in a pasture where there were apple trees did not feed on grass, but were inclined to spend their time in seeking for apples, which they seemed to like better. Nor would they eat hay or corn fodder when they came to the barn. Their teeth were made sore by the acid of

the apples. Later on we tried the experiment of feeding cider apples to them at the barn, giving but a few at first and increasing gradually, preferring sweet apples when we had them and avoiding the very hard and sour ones, and we found that a cow would eat a peck of apples twice a day, and they seemed to do her as much good and to be relished as well by her as the same amount of potatoes or other roots. We think cider apples, nearly ripe and mellow, are worth more to feed to cows than they can be sold for at the cider mill, if they are fed in small amounts at first and not too liberally at Municipal Milk Regulations.

The Boston board of health requires that all milk produced in that city shall be strained, cooled or stored as soon as it is drawn from the cow, all milk dealers being also forbidden to use in any way a milk vessel for other substances than milk, any person violating this regulation being liable to forfeiture of license. Further, everybody engaged in the production storage, transportation, sale, delivery or distribution of milk is required, immediately on the occurrence of a case of infectious disease in his family or among his employees or within the building or premises where milk is stored, sold or distributed, to notify the board and at the same time suspend the sale and distribution of milk until authorized to resume by the officials. The statement which the board specifies to be filed during the month of May must include the name of the premises, town, state, whom supplied by and to whom for sale in the city of Boston, the condition of the stable the number of cows kept, the approximate air space for them, the condition of the milk and its location; also the condition of the cows, with the date of the last examination of them and by

DENMARK METHODS.

How Milk For City Use Is Handled In

The Milk Supply association of Copenhagen, Denmark, requires each farmer supplying milk to bind himself to inquire about and truthfully report every case of infectious disease occurring on his premises or among persons in his employ, the association in return contracting to pay the highest price for such milk, although it is rejected. Every cow on farms supplying milk to the association is carefully examined fortnightly by skilled veterinary surgeons, as are also the stables, food, etc. Inspectors and experienced dairymaids also visit the farms to observe their management, cleanliness and methods of cooling the milk, regarding all of which there are strict regulations. The milk must immediately after milking be cooled to 41 deately after milking be cooled to 41 de-grees and must never be allowed to stand in the sun affood which will fia-vor the milk disagreeably such as turnips, must not be used, but car-rots and mangels may be fed in small quantities, mixed with large quanti-ties of corn. Stall feeding is not allowed in summer, when cows must be fed in the open air on grass and clover. On the arrival of the milk in Copenhagen it is at once sampled by experts, its temperature noted, placed in cans surrounded by ice and the next morning run out into filtration tanks, which have three layers of gravel separated by perforated trays, the upper layer being covered with six thick-nesses of fine cloth, the whole being kept in position by a pyramidal framework, which presses down the tin trays. As the milk rises to the tops of the tanks it passes into a large storage receptacle and thence to the bottling room, where it is bottled or canned, labeled, tied up with a thread, sealed with a leaden stamp seal and then taken to the carts for distribution, the

are scalded, steamed and sterilized daily, and the filter is boiled in hot water and steamed daily. in the mind of a great many careless and indifferent people all this talk about cleanliness in the dairy is sheer nonsense, says Hoard's Dairyman. They happen never to have seen any bad effects from their own dirtiness, or if they did see it they did not know it. But nevertheless, whether gerous to flavor and consequently dangerous to profit. Every one nearly has heard of cases of poisoning from milk ice cream or cheese. This poison is called tyrotoxicon and belongs to a family of poisons called ptomaines. Professor Vaughan of the Michigan university has studied and traced out

carts being so constructed as to pre-

vent tampering with the cans and the milkman being in uniform. The cans

the history, character and source of these poisons to a greater degree than any other living man. Consequently what he has found out ought to be of value to any man who knows enough to appreciate knowledge. Professor Vaughan found that the almost invariable source of such poison, when found in milk or the products of milk, was simply filth. The men or wo men who handled the milk were dirt in their ideas of milk handling and al lowed the surroundings to be dirty and the milk utensils to be badly cleaned Here is one of many cases or facts which will emphasize the value of this preachment for clean work in the dairy. For some time City Physician Nottingham of Lansing, Mich., has been at work urging those dairymen who supply the city with milk to take greater pains to keep their stables and utensils clean and sweet. The other night several families on the east side of the city were poisoned by using the milk which came from one of the

dairies which had been ordered clean-

ed. No doubt the owner of that dairy

thought in his wisdom that all this

talk about the necessity of rigid clean-

liness was all humbug. Now he stands

with a ruined business, all because he

would not post himself as to what is

the truth. How shall a man know the light who refuses to open his eyes? American butter sells for less in the Cuban market than butter from France, Holland and Denmark, says the Philadelphia Press, and yet Ameri-

can butter is generally better than that coming from the other countries. The trouble is that oleomargarine and other imitations are sold in Cuba as American butter. It is precisely the same dishonest methods which have so greatly injured the American butter trade in Europe. When our government stops this fraudulent trade, American butter and cheese will sell again in the markets of the world at prices as high as similar articles from other countries. This dishonest practice on the part of exporters not only disgraces the United States, but takes millions of dollars annually out of the farmers' pockets by depreciating the

value of their products. Cooling Milk. It is essential that milk be cooled as soon as possible after being drawn from the udder to a temperature below 50 degrees F. At this tempera ture the growth of bacteria will cease. These bacteria are really a low order of plant life, and any temperature that is best adapted to the growth of plants of the field will produce the rapid souring of milk and production of bad flavors. Milk in all cases should be removed at once from the stables to a place free from contaminating odors .-

Tennessee Farmer. Tuberculin Test. In the future all dairy and breeding cattle shipped into Illinois will first have to undergo the tuberculin test provided by the state live stock com-



MULCHING FOR WINTER.

An important matter for considera tion is the mulching of trees, shrubs and plants for the winter, and such excellent authority as Joseph Meehan has the following to say about it in Gardening:

The mulch which we apply in autumn is to accomplish a different purpose from our spring mulching. What we do now is mainly to prevent the soil freezing about the plants, to some extent at least. To newly planted trees and shrubs the mulching is almost essential, as unquestionably they are very much the better for having their roots in unfrozen soil, and when there are cases of doubtful hardiness shrubs or trees which are known to suffer in hard winters just mulch them and see how much better they will thrive. In my own experience I have been able to carry many such a plant through the winter by the aid of a good mulch. In the cases of such things as have

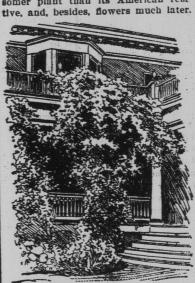
been recently transplanted many more will be alive and flourishing when spring comes if mulched at this time. There is such a check from the transplanting that they need help, and this the mulch gives by providing unfrozen ground for the roots. Manure is per-haps the best of materials to use because it accomplishes two objects-enriching the ground as well as protecting the roots. Aside from this, forest leaves are the best of all. They are easily handled, and it takes very few to keep out a great deal of frost. With zero temperature the soil would be open that was under five to six inches of leaves. But less thickness than this will answer, as it does not matter if a little freezing does occur.

A prominent and successful land-scape gardener whom I have in mind had a way of mulcuing large trees set in the fall which answers well. His plan was to procure a half cartload of soil, and this much was mounded up about each tree. Not only did this keep out the frost, but it kept the tree steadily in place, and better success
than he had could not be wished for It is the swaying about of large trees of this character that causes so many of them to fall. There is not the close contact between root and soil that there must be to insure success. spring comes, all mulchings except that of manure are to be removed. Manure will usually have pretty well disappeared by that time.

Referring again to partly tender shrubs, although the rhododendron is not so counted here, it is one vastly benefited by a mulching to keep frost from its roots. The great lot of foliage it carries calls for the supply of mois ture by the roots to make good what it loses in cold, windy weather, and these calls can be the better met when no frost is about their roots.

A Beautiful Japanese Vine. What would flower lovers do without Japan? New and beautiful things from that country are looked for as regularly each year as the Fourth of July or Christmas day. The present pretty climbing plant Clematis paniculata has long been known to botanists, but it has been only of recent date that it has come into cultivation. Thunberg says it is closely related to the American Clematis virginiana. It is, however, in every way a hand-

somer plant than its American rela-



Thunberg says that in Japan it flowers during August and September, and it has retained this character in its new

American home. Meehan's Monthly concludes the foregoing illustrated mention of this good thing, which has only recently become really well known, by noting the proper pronunciation of clematis. The accent is on the first syllable, clem-atis. It is a word of Grecian origin and simply means a ropelike branch to bind with.

Emma peach, which originated in Georgia and ripens later than the El- Yorker.

Paul Rose, originator of the muskmelon of that name, writes to Rural New Yorker that this melon and Petoskey are the same, and he would prefer that it be called Petoskey. The melon is a cross between Osage and Netted Gem.

American Agriculturist's earefully compiled report on the apple crop gives a final estimate of a merchantable crop of approximately 35,000,000 /barrels, which is a gain over last year, but only. shout one-half of the big crop of 1894.

PASTEURIZED BUTTER.

System In Successful Operation In Foreign Countries. The department of agriculture in New South Wales has been endeavoring to impress upon dairy farmers and butter producers generally the large commercial value of the pasteurization of the cream used in butter making. The minister, Mr. Cook, is a strong advocate of the system and holds that if it were universally adopted in connection with the manufacture of butter intended for export the net profit to the producer would be sub- when the buyer opens a tub, he finds stantially increased by reason of the enhanced prices the product would command to the retail market. The the circle, he is more apt to make a opinions held by him receive confirmation from no less a reliable source than the manager of the Maypole Dairy company, a concern which has a capital of \$5,000,000 and conducts over 200 retail shops in different parts of England. In a recent letter to the department the manager writes that the company contemplates taking up the sale of Australian butter next winter. He then dwells on the value of pasteurization and adds: "We would not under any circumstances cease pasteurising our cream, as there is no doubt that pasteurized butter is far more regular in quality. In Denmark 95 per cent of the dairies now pasteurize, and we have a man at our Copenhagen office who does nothing else but test butter to see if it has been pasteurized, as we at once reject any dairy which ceases pasteuriza-

Dairy Points.
The dairy division of the United States bureau of animal industry gives

tion." In order to popularize the sys-

tem. Mr. Cook intends to offer some re-

cently imported improved pasteurizers

and coolers as prizes to be competed

in some of the principal dairying cen-



DIAGRAM OF COW, SHOWING POINTS. udder. 36. Teats. 37. Upper thigh. 38. Stiffe. 39. Twist. 40. Leg or gaskin. 41. Hock. 42. Shank. 43. Dewclaw.

nation showing the scale of points in use in this country for judging dairy breeds of cattle.

Swiss Cattle.

Switzerland has two distinct breeds of cattle, both noted as dairy breeds, and a few have been imported to this country, says The American Cultiva tor. Possibly there may be from 1,500 to 2,000 registered animals of these breeds here now, but they are mostly of the Brown Swiss or Schwytzer breed, as the Spotted Schwytzer seems to be less popular. In color and form they somewhat resemble some of the Jerseys, being of a dun or mouse color, fading to gray upon the back, with a gray or nearly white strip along the belly, but they usually are larger, attaining weights of 1,200 to 1,300 pounds per cow and 1,800 to 2,000 pounds for the bull. A good cow of this breed is claimed to average on grass and hay alone ten quarts per day for the year, or about 7,800 pounds of milk in the year. The milk is very rich, and a Swiss cow at a public test in Chicago a few years ago was reported as having produced 31/4 pounds of butter fat in one day and over nine pounds in three days, which by the usual computation would be at least 101/2 pounds of butter. The milk is highly valued by the condensing factories in Switzerland both because of its richness and the evenness of the amount and quality of the product through the season. They are reported as being very hardy and naturally adapted to a cold climate and a hilly district. The butter has an excellent nutty flavor. We think this breed is worthy of being better known by our breeders of fine stock.

Kindness and Exercise

We should treat a cow kindly, even with a touch of affection, for she will respond with affection and will yield willingly her daily tribute to a considerate master. She has a sensitive, nervous system-the better the cow, the more highly strung. The man or boy who kicks her should be made to blush with shame, for he is not a fit companion, much less a proper-caretaker of this friendly brute. must feed her well-not too well, but enough. Let us keep her quarters neat, clean and comfortable and give her sunlight and pure air. We must not tie her by the head all winter long, with no chance for exercise, but we It is said that Missouri growers will should allow her to tone up her physplant quite extensively next spring the ical condition by a judicious amount of liberty .- W. H. Jordan in Rural News

Short on Dairy Cows. The supply of milking cows, in the British islands is a matter of very serious moment to our country. fact that in so many instances it is the the heel grain raiser into a plane of custom with milk sellers to buy in milk as long as profitable and then consign to the butcher their cows has very much to do with this, as in such cases no breeding is going on, and the country is gradually being drained of the foundation for breeding this class of stock.-Farmer and Stockbreeder (England).

DAIRY HINTS.

ome of the Little Things That Count In Dollars and

The appearance of the butter has a called sweet ensilage. The distinction good deal to do with the sale of it. If the stenciling neatly done and every tub just alike on the outside, and if, the packing neatly done and the right quantity of salt evenly sprinkled over purchase, even if the flavor is not quite fore this point has been reached the as quick as another lot that has a slov-large, and when the material is put enly appearance. The question is often asked, "What

is close skimming for a separator?"
Until we had the Ohlson test bottle, writes G. B. Lawson in The Creamery Journal, testing the skimmilk was something like telling the temperature of the cream by sticking the finger into it to find out if the cream was cold enough for churning, as our grandmothers used to do. I remember the time when we used to churn and never thought about using a thermom-eter, but that was with a little dash churn on the farm, when we only made butter for home use. Now, with all the modern appliances, we can tell to a fraction of a hairbreadth how much butter fat we waste in the skimmilk and also in the buttermilk. When the separators first came into general use, it used to be considered close skimming if only two-tenths were left in the skimmilk, and that was a great for at agricultural shows to be held saving in butter fat from the old style of deep setting by the gravity system unless you had plenty of ice to use in the water. But after the dairy school was started the professors found out that with a loss of two-tenths per cent of butter fat in the skimmilk when a creamery received 10,000 pounds of milk a day the annual loss would be more than the price of the best separator on the market, and that was too much for the patrons of the creamery to lose. Now, with the improved separators, the butter maker who cannot run them and leave not more than a trace of butter fat in the neck of the Ohlson test bottle is not running the separators as they should be run and as they can be if they are properly operated. In doing close skimming there are three things that must be motion that does the skimming, the higher the speed the better the skimming will be up to the rated speed of the separator. Of course they can be speeded too high, but I find it is a good plan to run them up to the full speed of the manufacturer's guarantee and keep them at that speed all the

time the milk is running through them. Most makes of separators will do the best work if the milk is at about 80 degrees, and at this time of the year, when you have the most strippers' milk, it is better to be higher than low er. If you want to do close work, it is better not to feed too fast. Not many separators will skim clean up to their rated capacity. It is better to keep under than to go over their rated capacity. I saw some skimmilk tested lately that only showed one-third of a gauge on the Ohlson test bottle. As each gauge on the test bottle represents one-twentieth of 1 per cent, that is skimming about as close as can be done with almost any kind of separa tor. The speed of the separator at the time was 5,000 pounds per minute, temperature of milk 80 degrees, and it was run through at the rate of 2,000

pounds per hour.

Professor Marshall of the Michigan Agricultural college has just returned from a three months' visit to Denmark. He says, after alluding to the high reputation which Danish butter has in England, "The high quality of Denmark's butter is dependent upon (1) cleanliness in milking and in all butter making operations; (2) pasteurization of the cream, which is at the present time practically universal; (3) the rational use of starters; (4) careful supervision of feeds for milk cows; (5) the adoption of scientific practices in the creameries; (6) the stimulus offered by their butter shows; (7) the favorable location of the country; (8) the absolute control of export trade." That last item, we think, is of no small importance, and if the butter and cheese sent from this country had all been inspected and the imitations and ladle packed butter and filled cheese had peen prohibited from exportation and only the best grades sent out our dairy product would now have had a good reputation fairly won on its merits.

What a Creamery Does. There are four creameries contiguous to Ackley, Ia., and The World of that place says of the benefit to a community of a creamery: The operation of a well conducted creamery in a community where it was before unknown works a revolution in all directions on the farm. It lightens the labors of the wife and daughter; it secures a month's certain cash income; restores impoverished acres; it neans more and better pigs, more and better calves, a more equal distribution of farm work all the year round. It will do more for a community than a new railroad and will without fail The lift a chattel mortgage and down at independence and comfort, while it and what naturally grows out of such a system of agriculture will vitalize his depleted soil and in a few years is neither theorizing nor fanciful speculation, but a plain statement of cause and effect. It has been done and is being done all over the west.

THE SILO.

Changes In Its Contents Through Fermentation and Mold. The result of fermentation at different temperatures is that two distinct kinds of ensilage are formed, and, according to Voelcker, the dividing line is at 122 degrees. Below that point sour ensilage is formed, above it the so

mentation. The proper preservation of ensilage requires that the material, be it corn or some other fodder, has arrived at a certain state of maturity. In the corn-plant this is usually indicated by the glazing or denting of the kernel. Beamount of water in the corn is too into the silo the juice of the plant is pressed out by the weight and, settling to the bottom of the silo, prevents the

air from being admitted enough to allow the ensilage to heat, with a consequent formation of sour ensilage. On the other hand, if the corn is allowed to become too mature the water content decreases to such an extent that the cut corn will not wilt and pack together solidly. Under these conditions the air is allowed too free admittance, and in cases where the water content of the ensilage is low it becomes covered with a heavy growth of mold. In some cases the mold destroys a large percentage of the con-tents of the silo. The only way to pre-vent the molding is to wet the dry fodder thoroughly when it is put into the silo and, as such corn dries out rapidly, to cover the corn with cheap hay or straw a foot or so thick, trampled firmly and well watered. This will prevent the air from getting to the ensilage below and at the same time prevent any

drying out of the upper layers.

After the ensilage has passed through its first fermentation and has cooled somewhat, if it is well protected from the air, further fermentation is very slow, and if the conditions remain unchanged the contents of the silo can be kept several years without excessive loss. As soon as the silo is opened. however, and air is allowed to reach the ensilage immediate fermentation begins, as shown by a rapidly increasing temperature of the upper layers of ensilage. This heating is more pronounced when a summer silo is opened, the hot air of summer, which gains are cess to the ensilage, presenting the best possible conditions for a rapid starting up of acetic fermentation. This should taken into consideration—feed, speed and temperature. As it is centrifugal be guarded against by a covering of so as to keep the air away as much aspossible, thus keeping the new fermen-

tation down as much as possible.

If the sile is opened in cold weather; the surface of the ensilage is too co to permit acetic fermentation, but offers the best possible conditions for the growth of molds, and in consequence, if the silo is so large that a new surface cannot be exposed each day, a thick layer of mold will rapidly form on the ensilage, thus causing serious loss. As in the other case, much of this loss can be avoided by a judicious use of covers. So says a writer in The Country Gentleman in an extensive article; including the foregoing:

among its points. The Iron Mountain peach is, according to The Rural New Yorker, a large, late, white peach which originated in New Jersey several years ago and is: now fruiting in several states. The in-

ally frostproof peach yet introduced;: begins to bear when only 2 years oldi and bears good crops everywhere The Rural New Yorker says: It has

troducer claims extreme hardiness for

it, both in tree and bud; "the only re-



THE IBON MOUNTAIN PRACH.

we can indorse the appearance and quality of samples received by, us. A photograph of one is given, reduced in ize. The peaches were large, white and partly overspread with red; flesh thick, white and creamy; sweet, with a rich vinous flavor; a perfect freestone. We consider the variety well worth trial, judging from samples.

Cattle ranching on a big scale is a_ new departure under consideration for eastern Maine. According to local newspapers, Professor Lamson-Scribner is favorably impressed with the outlook for a large stock ranch. Others authorities say excellent grazing land

is available in that region. The New England Homestead tella of a second crop of tobacco grown, in Connecticut this year which was planted June 28, after the first crop had been destroyed by hail. The secon erop was ready for cutting in just 68:

days from planting. The twelfth census of agriculture will be taken on June 1, 1900, but the will be of the crops, produce, fruits, otc., of the calendar year 1899 only. The census bureau, in a circular, urges farmers to begin at once to prepare double its productive capacity. This written accounts showing the acreage, quantity and value of each crop raised by them in 1899 and the acreage and value of all their farm products fee