

is a matter of incalculable moment. No man is likely to breed dairy cows properly before he is able to appreciate in some degree their true value. To bring this antecedent knowledge home to every understanding I will notice some facts bearing on the subject.

1. A good cow can secrete forty pounds of rich milk a day for many days in succession.

2. She cannot form anything like *one pound* of flesh per day for any great length of time; for if so, she would weigh when six years old as many pounds as there are days in six years—2,190 pounds.

3. Two pounds of milk fairly dried, give as much dry matter as one pound of lean meat will yield when equally dried, showing that the milk-forming value of a good cow is about *twenty times* the value of her muscular and meat-forming system. Lean-meat (muscle) loses about 75 per cent. in weight by perfect drying, and milk 87½ per cent.

4. Elements valueless to-day as common air, water, and salts in the earth, may be in three days organized into grass; in two days more, the grass will appear as milk in large quantities in a first rate dairy; and in two days thereafter, this milk may appear in the brain and thoughts of man, and in the bone and muscle of his noblest industry. Does not the intelligent reader see in these few facts not only the marvelous powers of the vital principles in grass and in the cow, but also the handy-work of Infinite Wisdom?

It is practical knowledge of the highest value, to know how to transform water, air, and earth into grass and human flesh in the most direct, expeditious, safe, and profitable manner. Disseminate this knowledge universally, and the denizens of the federal metropolises will not have to pay as they now do, fifteen cents a quart for all the milk they purchase; nor will the citizens of Knoxville, Tenn., be compelled to give a dollar a pound for cheese, as they did in May last, when I left my family there and walked 200 miles over to Lexington, Ky. There is not a cheese-dairy in Tennessee, nor in a dozen other States that I might name, and I doubt if one can be found in Maryland. The demand for first rate dairy stock for breeding purposes, is soon to be beyond all precedent. The right way to meet these demands is one of the points which I aim to illustrate. How can the country make the most of the good dairy-blood which it now contains?

Certainly not by allowing it to be deteriorated in any herd whatever. But deterioration is unavoidable unless all can judge wisely of the intrinsic value of parental blood for extending and improving itself in future generations, in reference to the speciality of transforming vegetable substances into milk. Whatever of virtue and merit there may be in hereditary endowments, are elements in the physiological problem. If the birth of an animal, or its conception, were the beginning of the vital influences affecting its functions and organic structure, breeding would be one of the simplest of all arts. But all life comes from older life, and it is impossible to have really good off-spring from bad blood in parents. Now, as worthless blood greatly predominates, its gradual extinction, and the far greater diffusion of blood infinitely superior to it, are the honorable and profitable labour which American husbandmen have to perform. If I fail to aid them in the work indicated, they can hardly do less than accept the will for the deed."

ALDERNEY OR JERSEY CATTLE.

The cattle of the Channel Islands possess certain marked peculiarities which distinguish them from the breeds of Great Britain, and show their kinship to those of the Continent, particularly to the cattle of Normandy and northern France, near which coast the islands are situated. On the islands of Jersey and Alderney, there has been for many years little or no importation of cattle from the mainland, and as these islands are small, the breed has become very distinctly marked. The Guernsey cattle approach much more nearly those of Normandy, and though of larger size than the little graceful Alderneys, and greater milkers perhaps, they are not so highly esteemed, and have not been so purely or carefully bred. The Agricultural Society of Jersey and many private breeders, have of late years taken great pains to improve the stock. For this reason, and because all the most prized importations are from this island, the name "Jersey" is often applied to the breed which was originally recognized as the "Alderney."

The breeding is fast improving in all good points, retaining at the same time its high character for richness of milk. Its characteristics are a peculiarly deer-like head, neck and legs, a soft coat and pliable skin, often of a rich, almost golden flesh-colored tint. The prevailing colors are white, black and dun, inclining to grey and red, with "mealy muzzles," and the backs usually dusted with grey, in the dark colored animals. The muzzles are black, usually, and often the entire interior of the mouth is of the same color. Neither cows nor bulls can be considered well shaped, yet the cows are very pretty, though small. They are exceedingly gentle, and feed well at a tether, ingeniously extricating themselves if they get into trouble. Their value is as milkers, and not for the quantity but for the richness and color of the milk, cream, and butter. In this they are not excelled by any known breed of kine. The milk is as yellow as most cream, and the cream itself is proportionately high colored, the butter being fine, waxy and of a beautiful golden yellow. The quantity made from the milk of the Alderney, is generally admitted to be greater than can be made from cows of any other breed, and certainly the color, flavor and general appearance mark it as so superior to most, that it always brings a higher price in markets where it is known. The cows, when dry or spayed, and the steers, fatten with great ease, and make most excellent beef.—The bulls are apt to be fractious and ugly, and their dispositions contrast strongly with the truly feminine qualities of the cows.—*Condensed from American Agriculturist.*

TORMENTIL OR SHEPHERD'S KNOT.

The Tormentil or Shepherd's knot, is a well known plant in Britain, but has not hitherto been recorded as a native of the new world. It grows abundantly however, on the ridge of lofty hills lying between the Great Bras d'Or and St. Ann's Bay, in Cape Breton Island, where it was observed in August last.

This plant is one of the most powerful

vegetable astringents; it has been long used to tan leather, and to furnish a red dye, and the farmers of Europe find it very efficacious in the dysenteries to which cattle are liable. Cows, goats, and sheep readily eat it. In sheep-diseases, especially scouring, it is regarded as an effectual remedy, and the sheep themselves seek it out in the pastures to which they have access. Although a rare plant in Nova Scotia, being probably confined to the Bras d'Or locality, it is obviously suitable to our climate, and may be easily introduced to sheep pastures throughout the Province. Johnston observes: "The Cheviot herds call the Tormentil the Ewe Daisy. In the Lammermoors the root is called the Shepherd's Knot, and is used when boiled in milk, for the cure of diarrhoea. The plant itself, under the name flesh-and-blood, is a popular astringent medicine for children. Blood root is another name; both are obviously derived from the disease it is administered to cure, viz., the dysentery. It is also given to sheep to cure them of the braxy, and of a singular disease called the loupin-ill, from one of its most obvious symptoms; for when a person goes up to a sheep affected with it, the animal leaps into the air as if suddenly surprised, and falls down exhausted and apparently dead."

HOW TO MAKE UP A SPRING HOT BED.

For raising early Lettuces, Cucumbers, Melons, and Tomatoes, and especially for preparing young plants of Cabbages for garden or field culture, a hot bed is absolutely necessary. We therefore furnish, at this suitable season, the following plain instructions for making a hot bed frame and preparing the manure, which we find in the Almanack and Garden Manual of Messrs. Buist of Philadelphia:

HOT BED FRAME.—In order to secure a supply of early vegetables, a hot-bed frame is indispensable. It can be constructed by any handy man, at a very small cost; it consists of a wooden frame, generally six feet wide, and from six to eighteen feet long, according to the supply of early vegetables required; one side to be at least six inches higher than the other,—the frame to be subdivided by cross-bars, and each division covered by a glazed sash, the sides and ends should be joined by hooks and staples, to admit of its being taken apart, and stored away when not required. After completion, place it on the manure bed, prepared in the following manner. The frame should face the south, or south-east; fill in about ten inches of rich pulverized soil, and allow it to stand a few days, giving it air by slightly raising the sashes, so that the fiery vapour, or steam, may escape. The seeds of Cabbage, Cauliflower, Egg Plant, Peppers, Tomatoes, and many other varieties may be sown, and the plants planted out as soon as the frosty weather is over.