

bulls—the breed he is using—until he produces animals that will have characteristics as firmly fixed as the Short-horn or any other breed has. But they will not be full blooded Short-horns, for they will have other blood in them. He can call them by some other name, but they will always be grade Short-horns, so far as he may wish to call them Short-horn. —*Philadelphia Stock Journal.*

Probably the largest apple tree in the world is to be seen on the farm of Delos Hotchkiss, in Marion, Conn., U. S. A., the exact measurements of which are as follows:—

Circumference of trunk near the ground	15 ft. 3 in.
" " 3 ft. from ground	13 " 9 "
" " at the forks	10 " 2 "
" two main branches, from 10 ft. 4 in. and 8 " 8 "	
" of nine smaller branches, from 4 ft. to 6 ft. each.	
Height of tree	60 feet.
Diameter of tree-top	104 "

A peculiarity of this tree is that it is what is termed "an alternate bearer," five limbs bearing one year and four the next. The usual yield from the five limbs is about 85 bushels, although in a single instance it reached 110 bushels; and the four limbs vary from 35 to 40 bushels. The fruit is said to be excellent for winter use, though on this point I can only speak from hearsay. The age of this venerable Apple tree is estimated at about 175 to 180 years. Curiously enough the patriotic old tree marked the centennial year by bearing fruit on all its branches, the first time it has been known to do so in its life, and it has continued to do so down to the present time. Some of the limbs are now dying, others are broken down, signs of decay appear in many places, and it is thought that this noble specimen of *Pyrus communis* will soon be numbered among the things of the past.—*Rev. C. H. Howey, in "Scientific American."*

[There must be some large and historically interesting apple and pear trees, and cherry trees too, in Nova Scotia. We hope some of our readers, especially in Kings and Annapolis, will take the trouble to look around their neighborhood, and send us an account of such trees, and the stories they have to tell. The writing of a short essay, embracing the history and description of an antique apple tree, is about as good a literary exercise as a young man can get at an agricultural college.—Ed. J. A.]

THE following excellent hints on the care of cows at calving time are from the *Country Gentleman*, and are well worthy the consideration of breeders:

In a state of nature cows give milk only for a limited time, and this time has been much extended by man's art. But by forcing nature we have produced an animal which is more liable to disease and accidents, and as a result the care

and treatment must be improved in proportion. In nature few if any accidents or diseases are attendant upon parturition. If we have improved upon nature in some respects, we must see to it that we make like improvements in all essential connecting points. Different animals of the same breed give milk for different lengths of time naturally, and just how near to parturition a cow should be milked before drying off is an unsettled question. We keep cows for profit, and the longer we can induce them, limitedly, to hold out in their milk the better we are satisfied. In order that the cow may give milk, and at the same time support an increasing foetus, the feed and care must be proportionately generous. My own practice and opinion is that a cow to be profitable should hold out her milk, and be milked to within six weeks, or two months at most, of calving. I have had them give milk to within four weeks without apparent detriment to dam or offspring, and with only ordinary treatment and care. A cow which is kept in good but not high condition will hold out in milk longer than one in poor condition, and will parturition with much less risk.

Commencing say six weeks before time for calving a change in feed should generally be adopted, slight at first and greater at the approach of parturition. It is natural for pregnant animals to become costive as the period of delivery approaches, and the feed should be given with reference to such tendency. The object is to keep the bowels open and in a normal state; this result is attained by feeding a few roots—potatoes are the best, I think—commencing with about one quart per day, and gradually increasing to ten, twelve, or even more. Other roots may be substituted, or even a pail of slops—bran, middlings or the like, in water, say one to three quarts in a pail of scalding hot water—in the absence of roots. Most of the roots may be omitted if the cow runs in pasture with flush feed, or can have a good feed once or twice a day of green succulent food, like ensilage, if sweet and good. All these are preventatives of constipation.

About a week before calving, the cow, if kept up, should have a box stall or pen sufficiently large for convenience, so that she may not be worried by other stock. She should not be disturbed any more than is necessary for feeding and watering; still one should keep an eye over her as the time approaches for calving. I have never yet seen the necessity for administering any medicine before calving; neither do I believe there is any, where the cow is healthy and properly cared for. The cow should have moderate exercise daily, and should never be worried. If at pasture she will get

natural exercise. Her stall should be always dry and kept well cleaned. I do not recommend any interference, or the presence of any individual in her sight at calving, but the herdsman may be in proximity, unseen by the cow, but where he can observe her movements. I consider even this as unnecessary, where previous conditions are normal. Where one foot or leg only appears, and the other is doubled back, often a little assistance by pushing the calf back just at the right time and straightening out the other leg will result in good, and may be done by any one of good judgment. Anything further than this belongs to the veterinary surgeon.

If the cow is in health, the placenta will come away naturally, in the course of a few hours at most. Let the cow get at and lick the calf all she wishes. If the placenta comes away immediately put it out of sight. After the cow has licked the calf, let it suck what it will, and when satisfied strip out any remaining milk and give it to the cow to drink, adding a little (say an equal quantity, if the whole does not make over a pailful) warm water, stirring in about one quart of rye meal or shorts. Such a mess will be all the medicine necessary in ordinary cases. Let the calf and cow remain together for twenty-four or forty-eight hours, giving the cow water slightly warmed. Then they may be separated—the cow put in her stall or to pasture, and the calf put into a small, clean and dry pen. After the calf is twenty-four or forty-eight hours old, if the cow's bag is caked or hard, twice a day is sufficient for the calf to suck. When the cow feels inclined to eat, she should be given some sweet, fine rowen, or, if at grass, may graze as usual. She is better if fed as long as she and the calf are together. Her drink for a few days should be slightly warmed. What she needs is quiet and rest with nourishing food—not stimulating drugs and medicines.

Should the cow's bag be caked or hard, fomenting with warm water and working thoroughly but carefully, by hand, will very likely soon reduce it to normal conditions. Feed the cow generously with good hay or grass, giving nothing of a heating nature like corn or oil meal for two weeks after calving, after which she may be gradually returned to her usual feed with the herd. There is nothing gained by "coddling;" natural food, treatment and conditions are better, while nature restores and asserts itself. If the cow receives the foregoing treatment and care, with no undue exposure to cold and storms, there is no apprehension of future trouble from any natural cause. When the calf is 48 to 72 hours old it may be taught to drink from a pail, instead of sucking.