

panies the circumflex artery. The laminal plexus are situated on the laminal surface of the wall of the coffin bone, some of the branches passing into the circumflex and others joining the coronary. The superficial and deep-seated unite to form the plantar veins, which ascend in front of the plantar arteries; above the fetlock they unite and form an arch from which spring the metacarpal veins. The nerves of the foot are distributed similar to the arteries, but are not so numerous. Having now completed our account of the anatomy of the horse's foot, we shall in our next have something to say of the diseases to which it is liable.

Rural Architecture.

Convenient Buildings Needed.

To the Editor of THE CANADA FARMER:

SIR,—Having been raised on a farm, and being a practical farmer still, I beg leave through the medium of your very useful paper, THE CANADA FARMER, to make a few remarks on farm establishments and rural affairs in Canada. In most cases the family mansion seems to be comfortable, and is often somewhat gaudy; but there seems almost an utter want of out-houses. A big barn like a church perhaps is built, but where is the byre, or if that is not a classical word, a house to bind up, feed, and milk cattle in, the boiler house for boiling the roots, chaff, &c? Such houses are necessary about every farming establishment worthy of the name, not only as a means of preparing succulent food for stock during the winter months, but as a sure way of destroying the vitality of the seed of all weeds that have grown among the crops the preceding season. Every one acquainted with agriculture in other countries must have observed that weeds grow more plentifully both in the United States and Canada, than in Europe. And how can it be otherwise when all the weed seed is drawn out with the manure, or blown from the threshing machine in every direction by the wind. Another want your correspondent has observed in many cases, and that is a cart-house, to put under cover, waggons, carts, barrels, harrows, and other farm implements. For want of such a house, more farm tools are wasted by the weather than are worn out by wear. Moreover, no farming establishment can make any pretension to completeness without a milk-house, with proper fixtures: for of all modes of farming, your correspondent thinks we of Canada are farthest behind in the management and attention we pay to the dairy. Without live-stock housed and attended to in winter, we cannot have manure, and without manure we cannot continue to raise good crops; so that both stock and crops must be looked after in order to make farming profitable in any country. Some will say that all these erections on a farm are too expensive for most farmers to put up; but utility is the first thing to be thought of in farming as in other pursuits, so that your correspondent is one who would endeavour rather to have these fixtures on his farm, than to have a carriage standing at the house-end, or a carpet on the floor within.

I.

Willow Bank, Sandwich.

Plan of a Barn.

To the Editor of THE CANADA FARMER:

SIR,—In planning a barn it is desirable to get the most possible room adapted to a great variety of purposes, according to circumstances, at the least possible expense. Such was the aim in the planning of a barn recently erected by me, a description of which I propose to give to your readers. It is only suited to a side hill situation where the altitude is fifteen or more feet. The barn is 60 x 36 on the ground, and 33 feet high to the plate. It consists of basement seven feet high, first story twelve feet high, and second story fourteen feet high. Each of these three flats is divided into three spaces. The middle ones 36 x 24 feet, and two side spaces 36 x 18 ft. in each story. The middle space in the upper story is the driving floor. It is entered from a bridge by two doors, so that loads may be driven beside each of the mows. These mows extend downwards twelve feet below the floor when required. They may even be extended to the ground, thus making a total depth from the peak of 45 feet. The middle space of the first story consists of a floor 24 x 23, used principally for chaff storage, and

a granary 24 x 12, in front. The granary has six bins, 4 x 8, extending upwards to the next story; three being on each side of a passage 8 feet wide, extending from rear to front. The bins are usually filled from the floor above, and have spouts from which the bags are filled. The bags are slid down into the wagon or sleigh which stands on a level with the basement below. The middle space of the basement accommodates two rows of cattle, with their heads towards a passage five feet wide. In the rear of this passage is the well. The side spaces furnish room for horse stables, cow stables, sheds, root cellars, manure cellar, mow, &c., as may be required. They cannot, of course, serve for all these purposes at one time, but they serve for several of them.

The basement is of stone on three sides, and wood in front. The dividing partitions have posts six feet apart. Each story was framed separately. The building is furnished with side ventilators, and doors opposite the mows. The roof is steep, projects about two feet all around, and has wooden eave troughs to carry the water from the building. There is a driveway under the bridge to the uppermost floor, and on a level with the first story. Half of the upper floor may be used for mow purposes. Thirty or more tons of hay may be unloaded by simply rolling it off into the deep bays. From these bays it passes to the lower floor and through trap doors to the feeding places below. It will be perceived that in every movement of straw, chaff, or grain, gravity lends its aid; hence a great saving of labor at every step. Threshing will usually be done upon the upper floor, but the lower floor is also available, either for stails, horses, or machine. Cost, complete, \$600.

As my cow shed is not permanently finished, I should be glad to get the best specifications which your readers can furnish.

The present scarcity of fodder has given a great impetus to the construction of stables, and no doubt many others would be much benefited by having full directions

Hastings Co., C. W.

E. R. M.

The Apiary.

Burying Bees in Winter.

To the Editor of THE CANADA FARMER:

SIR,—I NOTICE in your issue of the 15th inst. an article on the wintering of Bees, giving the mode adopted by the writer, viz: burying them in a piece of dry ground. From observation for many years past, I am convinced that this mode is attended with an amount of risk, arising from various causes, sufficient to satisfy ordinary observers that it is not the best mode of wintering bees. A dry atmosphere and perfect ventilation are indispensable in winter as well as in the summer season. Every Apiarian is, or ought to be, aware of the importance of giving his bees a sufficient amount of air. There is not the slightest difficulty in the matter. If the bees have not sufficient ventilation, it will be observed that the vapor which ought to have escaped from the hive has condensed, and water is running out from the bottom of the hive. Where bees are exposed to the weather, this condensed air will freeze. The consequence is, the bees are destroyed, and the unfortunate parties who keep them are at a loss to understand the real cause of their misfortune.

The mode we have adopted with success is as follows:—We provide the hive with ample ventilation, and at the same time close the door, as well as the openings for ventilation, with a fine wire screen, this prevents the bees escaping from the hive, and at the same time, gives a free circulation of air. Hives made for the purpose of taking off the surplus honey in small boxes are most convenient in case it be found necessary to feed the bees. If the boxes be made uniform in size, you have but to place one of the boxes of honey in the hive you desire to feed. By adopting this course we have wintered some of our late swarms which otherwise would have been worthless.

Hives thus prepared we pack away in a room having double windows—where the temperature is a shade above freezing point. By this arrangement, you can have access to your bees at all times during winter, and thus be in a position to make any change in the arrangement which may be thought advisable. I may add, that notwithstanding the severity of our Canadian winters, by adopting the system to which I refer, bees can be wintered as safely in this as in any other part of the world.

AMOS WRIGHT

Richmond Hill, Nov. 30, 1864.



SHOVEL PLOUGH WANTED.—“A. G. Alport,” of Maple Grove, Muskoka, asks: “Can you inform me where I can get a Shovel Plough? It is used in stumpy land and is exceedingly serviceable for the purpose.”

ANS.—Parties having this implement for sale, will do well either to advertise, or address our correspondent by letter.

FAT HOGS IN MONTAGUE.—“David Wood,” of Montague, writes: “The common weight of hogs in this neighbourhood, when killed and dressed fit for market, is from 400 to 450 lbs. One of mine, this year, weighed 440 lbs., another 498 lbs.; their age was about eighteen months. A pig of mine six months old, weighed 215 lbs., and these, I think, are small to what might be raised by good feeding and care.”

LARGE BEET.—“John McDermott,” of Berne, writes: “As you are always willing to insert in your valuable paper, anything wonderful in the vegetable world, I beg to call your notice to what I think is quite worthy of your attention, viz: a gigantic blood beet which grew in my garden. Its dimensions are as follows: Length, 2 feet 7 inches; circumference, 16 inches; weight, 9½ lbs. Can any of your correspondents beat that?”

“ANONYMOUS.”—A correspondent signing himself thus, finds great fault with the awards made at the Markham Ploughing Match, and reflects upon the fairness of the judges. Of course, on these occasions, all are not likely to be satisfied, as it is not possible for all to have prizes awarded them. We cannot, however, give publicity to strictures unaccompanied by a responsible name. We have no doubt the judges tried to do their work impartially, but to please everybody on such occasions, is out of the question.

GRAFTING WAX.—“J. Simms” furnishes the following rule for making grafting wax of a superior quality:—“Take one pound of mutton tallow, one pound of beeswax, and four pounds of resin, or a smaller quantity in proportion. Put the tallow into a kettle, and when melted put in the beeswax and resin; let all simmer two hours, stirring well together every ten or fifteen minutes. Set the kettle off the fire, and when nearly cool, pour the wax into cold water. With hands well greased, pull and work the wax until quite white, when it is fit for use and will keep for years.

“The great fault in making grafting wax is that it is not well simmered and mixed together, consequently it is brittle.”

MILLET.—A correspondent makes certain enquiries about millet, some of which are met on page 131, Vol. I of this journal. The remainder we will now endeavour to answer. There are several varieties of millet. Of these the Chinese is on the whole, preferable. It is a plant of easy culture, but requires good soil, and is rather an exhaustive crop. Both hay and seed are valuable. It is impatient of cold, and must not be sown until all danger of frost is past. About twelve pounds per acre may be named as an average quantity of seed. The richer the land, the thicker it should be seeded, in order to get the hay as fine as possible. J. Fleming, & Co., have the seed for sale at \$2 25 per bushel.

GRINDING FLAXSEED.—On this subject, “A Farmer” writes from Lefroy: “I believe Linseed is ground in a Drug Mill, consisting of two large stones set on edge and turning round an upright shaft by means of an axle through their centres; or crushed by falling in a small stream between two metal rollers, (such as are used in breaking malt) only with the addition of a circular iron plate, placed edgewise between them, and revolving rapidly along with them.

The mucilage is contained in the outside shell, and may be extracted by steeping in warm water; the oil is contained in the kernel, and may be partly extracted by boiling. If the seed were ground it would be easy to obtain the full benefit of both. Perhaps it might be ground in an ordinary mill, if mixed with bran or grain, to absorb the oil and prevent clogging.”