flourishes in any spot where it has a chance to take root, makes perfec hedges, as secure against man or beast as a stone wall, and beautiful ornamental trees, to be found on every lawn. In this country the *Thorn* makes a beautiful, small tree, and is somewhat planted, but not as extensively as its merit deserves. The *White, Double White, Pink Flowering, Scarlet* and *Double Red* varieties, are valuable small trees, which we recommend to every one planting shrubs or trees. But we have little hopes that it will suc ced as a hedge, over a large extent of country. The borer attacks the plants and destroys many, and the *Aphis* injures the leaves, stops the growth, and by a little after midsummer, a Hawthorn hedge is a sorry sight indeed. Still, we know of some that do well."

THE BUCKTHORN.

This plant is a native of Northern Europe, Asia, and North America, and as it is found growing wild in Siberia might naturally be expected to have, what we in fact find it to pos s, a hardihood that will enable it to resist the most intense cold of our Canadian climate. Among its other very valuable qualities as a hedge plant, is the abundant supply of fibrous roots with which it is furnished, so that it is transplanted with the greatest ease, scarce one plant in five thousand failing to grow, and when once established it is very vigorous and thrifty. The leaves and bark are offensive to most insects, including the borer and Aphis; to cattle and to mice. The plants will thrive in all soils, and in all situations, in moist and springy places or dry and sterile spots, under the shade of trees or in the full sunshine; they are not liable to disease, no plant will bear shearing better, and with proper treatment will make a dense and long lived fence. The Buckthorn has not what can properly be called thorns, but the ends of the shoots are hard and spinous, and the number of these spines increases with age and continued clipping.

In forming a hedge, the plants should be set in a double row, not opposite to each other, but alternate, a foot apart in the row and six inches between the rows, and cut back so as to stand not more than two inches above the ground. For the first three years the soil should be kept loose and free from weeds. The next Spring after planting the hedge should be cut back to within six inches of the ground, but after this a foot of each season's growth may be left at each clipping until the hedge has attained the desired height.

Nothing is more ornamental on a farm than a live fence, and we hope that it will yet be seen that in the Buckthorn or Berberry, one or both of them, we have a plant with which the Canadian may hedge himself about at a reasonable outlay, and in time make our Canada homes and scenery as sweet and enticing as any of us have left on the other side of the Atlantic.

On Planting Apple Trees.

To the Editor of THE CANADA FARMER.

SIR,—There is room for great improvement in the mode of planting Apple Trees. It may be premised that in the greater part of the settled Townships of Canada, the land is no longer new, the soil is no longer fit to produce luxuriant crops of any kind, and in this, of course, must be included a crop of apple, or other fruit trees, without good culture and abundance of fertilizing matter.

In a large part of Canada the depth of the soil is limited. We come to hard, dry, cold soil, or stiff clay, and it is obvious that if we would not send the roots away down into this cold and ungenial region, we must plant shallow. Even if the size of the tree is such as to require a pretty deep aperture, rather let a small mound of good friable loam be made around each tree than have its roots put away down in the cold subsoil, where it so speedily becomes stunted, and ultimately dies. It is also necessary before planting, that the large tap root be closely pruned back and the side roots well spread out at somewhat more than an angle of forty five degrees, or rather precisely as the chicken sets down its foot, so that instead of having its roots directed right down, they branch out horizontally along the rich cultivated soil, where they can get air, and heat, and moisture, and plant food. This is nature's own method, and we should always imitate nature. Here, at least, we can neither reform nor improve. For even were the rich soil greatly deeper than it is, no tree or plant of any kind can thrive with its roots beyond the reach of atmospheric influences. Go into our natural forests and we see immense trees having their roots spread around, many quite on the surface, where in early growth they were simply mulched with leaves.

And not only is shallow planting a great desideratum, but heretofore the *distances* between trees have been far too great. It has been usual to plant out orchards with the trees 30 to 35, and even 40 feet apart; this takes from 35 to 50 trees per acre. It would be a great improvement to plant only 18 feet apart each way, and this takes 135 trees to the acre. If a man only wants to plant out 40 or 50 trees, he need not occupy an acre. He can do it quite as easily on a quarter or a third. But if good crops of fruit are wanted, it may safely be affirmed that *all* the fertility will be required for this purpose. If trees are intended to thrive and produce a remunerative crop, then the *entire soil* and *all* the manure that can be devoted to its enrichment must be reserved for *it alone*. A crop of weeds, of grass, or of cereals, simply divides the produce with the trees, and, as a rule, takes the lion's share. Root crops are less injurious; but even to grow roots in an orchard is the poorest possible economy. Let a quarter, a half, or a whole acre, as may be desired, be exclusively devoted to producing fruit, at the rate of 135 trees per acre, and at the end of twenty years it will have paid more than quadruple what could have been realized for all the different crops put together which could have been obtained from the same land with wide planting. Moreover, they will then be in the prime of luxuriant growth and fertility: whereas, according to the other method, visible signs of premature decay will be everywhere apparent. There are yet other strong reasons in favor of close planting. When only 18 in place of 30 to 40 feet apart, in a very few years the trees shelter one another; but not before fifteen to twenty years can there be any shelter in an orchard with trees 30 to 40 feet apart. Indeed none whatever until that shelter is useless. The trees are tossed about with tearing winds, and at the fruiting season much of it blown off, bruised and spoiled. This evil is almost entirely prevented by close planting. Again, after a few years planting, if the roots are not away down dwarfing and starving in the cold barren subsoil—they become so intersected and spread about that ploughing near them for any description of crop, bruises and tears them in all directions, and thereby inflicts incalculable injury upon the trees. It is true root pruning is beginning to be recommended in order to promote early fruiting, but this is very different from indiscriminately bruising and tearing up the roots. A root cut with a sharp knife will speedily produce fibrous rootlets in abundance—whereas tearing and bruising only causes speedy decay. For these reasons, I say let the ground planted be wholly devoted to the fruit crop—consequently a space of 18 feet apart each way is quite abundant. Should the branches threaten to obstruct, this can be guarded against and remedied by judicious pruning. Should it become necessary even cut out a tree occasionally altogether. By this method the crop per tree will be very much greater. Were there in maturity only three barrels in place of two, on each tree, and this is a very moderate estimate, the entire increase would be so obvious as to need no comment. Say for an acre:

By *old method*—
30 to 50 trees at 2 barrels each—60 to 100.
By *new method*—
135 trees at 3 barrels each—405.

Four to one for one year! This continued for a series of years is surely conclusive as to the value of the suggested improvements—shallow and close planting—and of devoting the land *exclusively* to a fruit crop. I have *tried* these methods to some extent during the past five years and have no hesitation in recommending them to others.

I am, &c., W. S.

Woburn, Dec. 24, 1863.

NOTE BY THE EDITOR OF THE CANADA FARMER.—Such communications are always welcome. The *experience* of Fruit Growers in all the different sections is just what is needed to enable us to plant suitable varieties and in a proper manner. That trees planted 18 feet apart will yield more bushels per tree than if planted forty feet apart is a new idea to us. Yet it may all be true in Scarboro.' We commend the subject to the careful consideration of those residing in the colder sections particularly. Close planting may prove of great service in resisting the severities of the climate.

☞ It is stated that linens of a coarse kind are now manufactured in Ireland that are not only relatively but absolutely cheaper than cotton.

☞ COCHINEAL insects have been imported into England alive, and have been placed in the Horticultural Gardens in Kingston.

Poultry Yard.

Poultry-Keeping.

To the Editor of THE CANADA FARMER.

SIR:—Taking you at your word, let me trouble you with a few lines touching the subject of poultry. Not many years ago, a strange disease seized the public mind. It was a kind of mental hallucination or hen-on-the-brain. The patient who was afflicted with that disorder could be seen any sunshiny hour of the day, surrounded by strange looking bipeds, "Brahma pooh-poohs," "Shanghighs," &c., listening with a strange delight to a sound very unlike the clarion ring of the chanticleer. I can bear testimony that the disease was full of danger, having taken it myself, and received for the price of ten dollars, a "Patriarch" of the breed, a costly prescription, which in my case soon brought health. This creature could stand on the ground and eat grain with the greatest ease off the head of a flour barrel.

MY HEN HOUSE.

Convinced that poultry-keeping to be made profitable, must be gone about in a common sense way, I set my wits to work to devise a suitable structure for a fowl house. The result was a small building of rough lumber, which any farmer with a fair amount of mechanical skill, and half a dozen tools, could easily erect. I began by planting 4 feet deep 14 feet long cedar posts, 6 feet apart, so as to have a house 18 by 12 feet, with a plate of 6 by 2 inches, on which was placed rafters with a quarter pitch, boarded and shingled, having a foot projection, with a plain facia and water trough. The cedar posts were mortised on the outside, to receive 2 by 4 inch scantling horizontally round about the bottom and the centre. The plate served at top. To these, perpendicular 1 by 12 inch rough boards were nailed and the joints battened over with ½ by 3 inch stuff. The boards were nailed horizontally to the posts on the inside of the house, and the intervening space filled with ashes clay, and tan-bark; making a very comfortable domicile. The building has a water-table of 8 by 2 inch stuff, and a similar piece at top under the roof projection between which the inch boards were sawed to fit. The house contains four hinged windows, two in each end, set in a rough frame rebated The interior was equally divided by partition, with centre door, and two slide traps about 4 feet up from the ground on each side of this centre door, with ladders for hens to pass through from one division to the other, and a similar contrivance for egress and ingress to yard and garden together, with a narrow door at either end for a person to pass through the building. I had by this arrangement two apartments of 9 by 12 feet each; the one served for roosting, the other for feeding, laying, and hatching. The north half was divided into two roosting divisions, with a passage of 2 feet 6 inches wide between the poles for passing through and cleaning out the droppings. These poles were let into sockets 18 inches apart, made in the riders or strings, which were so placed on an inclined plane from the gable and plate to the centre partition, that a person could comfortably pass under and lift off any chicken required. The south half contained tiers of laying boxes, so constructed that the hens could pass behind, and secretly enter into any box; for privacy and darkness are an essential condition, both in laying and hatching. A feeding hopper is placed in this department, supplying standing room for 24 hens at a time while feeding, and holding 4 bushels of grain that supplied only just so fast as required, and without waste or loss by rats, mice, or chickens.

MY BIRDS.

Now for my hens! I have succeeded in rearing about 100 per annum of the pure blood Black Poland, with white top-knot. They present a very beautiful appearance after retiring for the evening, sitting on those roosting poles in an inclined plane, one against an other, with their rich black plumage, crowned with a royal head-gear of white. It is a sight to be proud of. These fowls lay a greater number of eggs in a season than any other I know of. It is a beautiful thin-shelled, pure white egg, with a light coloured yoke, extremely delicate for the table. But they will not sit and hatch their eggs well. Their flesh is delicate, white, tender, rich and juicy. This breed is superior to the Dorking, except in fullness of breast and hatching propensities. I improved my stock in three years by making a proper selection of the male bird, and by a judicious selection of the finest form and texture of eggs out of many hundreds. Too much cannot be said in favour of this method of improvement. In fact I scarcely know where the standard of excellence can be placed, for domestic fowls are just as susceptible of