

feeding than if put up lean. The same rule holds good with high-bred cattle. In this is the greater profit of having pure-bred stock or good grades.

Begin to feed the animals on roots early in the season. Let their daily feed of turnips not be large. Accustom them to them by degrees. After some time their full allowance will be about 50 lbs. per head daily. In finishing for the shambles some additional food will be required if they be intended for a good market and to bring the highest price. Oil cake, linseed meal and bean meal are fed by English feeders. The time is coming when linseed will be an important product of our Canadian farms. Meantime one or two pounds daily of corn meal will be profitably used in finishing the fattening process.

Railways and Agricultural Progress.

There has been no little grumbling from time to time on account of the heavy burdens imposed on the country by the construction of railways, but there are few, if any of the grumblers, who would prefer the work that has been done to be undone, if that were possible, even though the undoing of the work were to be accompanied with the refunding of the moneys expended. They who were settlers in the country before the great lines of railway existed can form some opinion of what Canada would now be without those means of communication and transit. Their great advantage to every class of the community, and more than others to farmers, is now again more fully brought before us by the great improvements in the vast tract of country which the Intercolonial Railway and other lines have effected in the Maritime Provinces and Quebec. Rich tracts of land that by their isolation were almost worthless, are by the railway brought within a few days' or hours' travel of the great markets of the world, and are exchanging for those luxuries that have become the necessities of civilized life the rich stores of produce that awaited the labor of the industrious tiller of the soil. The inhabitants of the few sparsely scattered settlements are enabled to enjoy the society of those hundreds of miles apart, for hundreds of miles are but a few hours' journey by rail. The accessibility to seaports invites colonization, and offers an inducement for the clearing of the bush-land and growing breadstuffs and feeding cattle on land that had ever been a wilderness. The dwellers in these backwoods now deem economy of time and a reduction of the expenses of transit necessary. There seems to be an infusion of greater vigor from the introduction of the steam horse into their country. Were proof necessary of the estimation in which the opening up the country by railways is held, that proof is given in the readiness of communities to impose heavy taxes upon themselves for their construction, and their eagerness to secure as high to themselves as possible the coveted boon. Every new line, though but a short connecting branch, increases the value of land in its vicinity, as affording a more speedy access to the market for its produce, and rightly so. Had we not a ready market for our wheat and barley, our beef and mutton, we would only cultivate land enough for our own immediate supplies. A convenient market induces more extensive and improved agriculture for its supply.

The good work done by the Intercolonial Railway, and the greater work still doing, supplies us with another illustration of the benefits that must accrue to a country from such undertakings. Colonization has received a new impetus; agriculturists see a prospect of remuneration for their labors; provinces totally isolated from each other are brought within easy access, and united by the rail in a consolidated Dominion. And efforts are being made to render Canada by this means commercially

independent of other countries, by making Halifax her winter port, affording her under any circumstances a Canadian outlet for her products and a free mode of communication with Europe. The Intercolonial now carries flour from Toronto to Halifax at 40 cents per barrel, and other commodities at proportionate rates, so that Ontario farmers can conveniently supply the markets that had been hitherto supplied almost entirely from the United States.

The Centennial Exhibition.

This Exhibition, which is now drawing to a close, has been a grand success. The greatest good must result in after years, owing to the opening of trade, the friendly intercourse established, and the spread of knowledge, which have all been attended to.

We have in a previous number advised all to go that could afford the journey. We have never seen one who has regretted the expense; all are pleased and enlightened that have been there. No one can give but a very faint idea of its magnificence and utility, even after having been there.

The last cheap excursion that we have heard of will leave Hamilton on the 4th November; fare \$9.

Far better accommodation is to be had at thousands of private houses at from \$1 to \$1.50 per day than can be had at the crowded hotels at twice and thrice those amounts.

We shall publish the list of Canadian honors gained as soon as we receive it complete. We shall in future numbers refer to various things in regard to this Exhibition.

We attempted to procure some spring wheat for trial from some of the northern countries, but as yet none can be had. There will be an opportunity for our Commissioners to exchange with other countries; the fine winter wheats raised in other parts have not succeeded well when we have tried them. We have spoke to the Commissioners regarding this, and attempts will be made to secure a change.

Poultry Yard.

Keeping Poultry.

In regard to poultry houses, the windows should be made in such a way that they can be taken out or opened easily, and slats or wire substituted in hot weather.

It does not matter how cool a house may be built, our summers are too hot for it to be shut up. While the fowls are roosting they require all the air they can get—it would be better for their health if they could sleep in trees. I have looked into the coolest of houses on hot nights, and found the birds suffering severely for want of more air.

Another thing requires attention in some localities—that is, protection against thieves. Iron bars can be put on all windows, fastened to the frames, but not to the sashes, so that when the sashes are removed in summer the bars still remain useful—tire iron from old light wagon wheels will do, and can be had cheap in any country blacksmith shop.

Ventilation is one of the most important considerations in a building; that and cleanliness is of more consequence in keeping fowls than any other domestic animal, when a number are kept together, and why, is the great mystery, for it is a well-established fact (in spite of the marvelous accounts of the large number of breeds kept together we have in some poultry works) that a great number cannot be kept in health for a continued length of time in the same place without all the care is given, which experience shows to be imperative.

Make openings, with shutters to them, on two opposite sides of the house, quite up to the ceiling, that no foul air remains there, and so that a good current may pass through without blowing down upon the stock while roosting, which would be liable to give them cold. Of course the perches must not be up too high. On cold nights and very cold days, close the windward ventilators; but when it freezes hard in the house, the cold purifies the air in a degree, and rather than let the fowls

freeze their combs, shut up every opening. From these hints one must judge of the severity of the climate of that part of the country he lives in. Give all the air that common sense dictates, but not enough to do injury.

I once observed, on visiting an amateur, that he had his buildings on the top of a hill, in which he kept various breeds. He had latticed rooms on the north side of the houses and large doors opening into them. He had all the doors set open every winter's day (with the idea of ventilation). The biting wind howled through the building enough to chill a Polar bear. The birds inside were huddled together close to the glass (on the south side, to be sure), but its effect for warmth was more than neutralized by the doors open on the north, as the wretched appearance of the inmates plainly showed. It is needless to say that party voted pure-bred fowls a fraud. All his expensive arrangements were useless. The birds were blamed instead of the buildings and mismanagement.

Each domicile should have a small opening for the tenants to go in and out, near the ground. It is also useful to set a current of ventilation upward, and it should never be closed but in extreme cold weather. If there is danger of enemies entering by night through it, a grating can be placed before it instead of a close door. Also over the ventilators wire or slats should be placed to prevent fowls flying through them.

All fixtures should be so arranged that you can easily get at them for cleaning, such as nests, feed, hoppers, &c., and should be all moveable. Nest boxes can have one side higher than the other, when standing on a shelf, the high side turned to the next nest, answering a partition between without immoveable wood work. Such nests can be dipped into a tub of whitewash and turned over to drain. The liquid, by dipping, enters every part, makes a thorough job of it, and is done quickly. There are many such contrivances for economizing space in small places, which will be described in due time.

Perches should be flat and just wide enough for fowls to grip. Shingle laths, planed and the edges rounded a little, make good ones. Let them lie loose (without nailing) in notches cut for them in bearers, so that they can be lifted out to clean them. Do not let the ends touch the wall. A good way is to have posts set in the floor, on which fasten the notched bearers. On these lay the perches. Be sure to have them sufficiently far apart that the fowls do not touch each other, for this would soon spoil their plumage, making them worthless for exhibition. Anyone can judge from these general hints how to adapt the principles to his means and accommodation. They do not call for any more expense and will, in the end, save much by the success of the first arrangements, avoiding the mistakes and alterations which so many have to go through in their first building.

Feeding vessels, pans, &c., should always be so constructed that stock cannot step into them, especially when soft food is used in the houses during winter. Some persons have all the fowls diseased from allowing them to puddle through the soft food, then into the dirt on the floor, then back into the food until it is perfectly filthy; afterwards they wonder what ails the fowls.

Drinking vessels should be similarly protected. Numbers of contrivances have been described from time to time, and others will appear in due time.

Much controversy has arisen about the best flooring. All condemn wood; cement is strongly advocated; but I prefer the earth strewn thickly with ashes, removing the entire surface, once every autumn, to the depth of four or five inches, replacing fresh earth and ashes, besides the ordinary cleaning once a month.

A writer in the *London Field* states that poultry properly fed will acquire all the fatness needed for marketing purposes, in a fortnight or three weeks at most. Their diet should be Indian, oat or barley meal, scalded in milk or water—the former is the best, as it will expedite the fattening process. They should be fed early in the morning, at noon, and also in the evening, just before going to roost, and given a plentiful supply of pure fresh water, and plenty of gravel, sliced gravel or turnip tops. If the fowls are required to be very fat, some trimmings of fresh mutton suet may be chopped up and scalded with their other feed, or they may be boiled with milk alone and poured over the meal. This renders the flesh firmer than it otherwise would be. When fit to kill, feeding should be stopped for twelve hours or more, so that the intestines may become comparatively empty.