

surprise, when it bore fruit it was of the largest and most perfectly developed—and the tree thrifty. I find the Beurre d'Anjou on strong soil is a rapid grower; on thin soil it will starve. I re-grafted one over that stood still on high thin soil with Beurre Clairgeau, and it was very thrifty. The Doyenne du Comice I find does far better on thin soil than on strong. The Golden Beurre of Bilboa is a very poor grower on thin soil, and rapid on strong. Had I left my orchard as I first planted it, one half would have been worthless as on these principles do the whole or greatest success of fruit growing depend—on putting varieties where the soil will produce a thrifty tree and good fruit. I have never seen any very perceptible benefit from leached or other ashes when applied to the pear; but all varieties of apples are greatly benefitted.—*The Gardener's Monthly*.

GRAPE CULTURE.

A correspondent, whose locality is some three miles above Washington, on the Potomac river, communicates the following to the Department of Agriculture. One thousand vines were planted in the spring of 1866—one half Concord, and the balance other sorts:—

"I procured first class vines, and planted them with great care, as follows:—Selected ground sloping to the southeast and east; plowed it from eight to ten inches deep, harrowed it fine, and planted in rows eight feet apart both ways; set an eight-foot stake at each plant, and mixed with the soil, about the roots, one quart of ground bone and a shovelful of old well decomposed stable manure; pruned all the roots, also cut the top or vine back to three or four buds, and when the buds had grown from one to two inches, rubbed off all but one, the strongest; trained that to the stake by tying, and pinched off at second leaf all lateral shoots, thus concentrating the growth in the one cane; gave them clean cultivation.

"The next February, when there was no frost in the wood, I cut it back to three or four buds of that year's growth, and let only two buds grow; trained and managed these two canes the same as the one the year before. During the following February I cut the two canes back to three and a-half feet long, removed the stakes, and built a trellis over each row, in the following manner:—I set eight-foot cedar posts half way between each vine, commencing with one set four feet from each end of the rows, and nailed to these posts white pine strips full one inch thick by four inches wide, the first one foot above the ground, and the second four feet above that from lower edge to upper edge; then nailed to these strips good white pine laths, nine inches apart. I then tied the canes, on the two-arm system, to the lower bar; trained and tied the shoots from these canes to the trellis.

"Each shoot bore this year from three to four bunches of grapes; pinched each shoot off at from three to four leaves above the last bunch of grapes, and as it grew again, pinched it off at second leaf, and so on to the top of the trellis. When the clusters ripened, I was well repaid by the beautiful sight they presented. Both bunches and grapes were very large and perfectly formed. Some of the vines yielded fifteen pounds each, and as beautiful and perfect as those grown under glass. The Concord surpassed all other varieties in all the desirable qualities.

The soil and sub-soil prove to be perfectly adapted to the growth of the grape, being composed of about equal parts of sand, loam and clay, and containing considerable quantities of mica, with a sub-soil of rotten rock, into which the grape roots penetrate several feet. It is also just porous enough to absorb the rains, consequently no draining is required.—*Horticulturist*.

PROTECTING SHRUBS AND VINES.

We find in an English magazine the following remarks concerning the protection of such shrubs and vines as are injured by the extreme rigors of the winter. Some of our readers may be glad to profit by them, though to many the methods advised may be already quite familiar. We might add to what our English friend suggests, the fact that coarse evergreen boughs, stuck in the ground around the more tender and valuable evergreens, will guard them against their most formidable enemies, the cold, sharp winds, and the bright morning sun shining upon the frosted foliage:—*"There are few good gardens which do not*

contain small shrubs that require a slight winter protection. Rhododendrons, Roses, and a few of the more delicate evergreens are the plants generally protected. The usual method of doing this is to tie them up with long, straight straw, drawing the branches in close together, forming a conical bundle that sheds rain or snow. In cities and their suburbs one can see thousands of plants done up in this kind of 'strait jacket' every winter; and I have known a good many to come out in the spring as dry as pipe-stems, and of course dead. Such straw jackets may answer very well for deciduous shrubs, but the leaves of evergreens require moisture even in winter; and a far better plan of protection is to place several stakes about the plants and put straw or hay in loosely about the branches and stem. The stakes may be set leaning in towards the stem, forming an open, loose cone that admits rain, but does not retain a large quantity of snow. All that is required for such plants is a slight shading and something to ward off the cold and drying wind; but there is no use attempting to prevent freezing. All tender deciduous shrubs I protect by laying them down and covering with soil; and evergreens by surrounding with straw or hay, held in place by stakes or loose bands.

"No class of plants are more easily protected in winter than climbers, and yet few persons seem to know how to do it. I have often seen large plants of Clematis and Honeysuckle inclosed in a straw or bastmat jacket, from the ground up to the topmost shoot, requiring an hour of time to each plant, when five minutes would be sufficient for giving a much better protection. The more tender sorts, as some of the choice varieties of the Clematis, may be coiled about the stakes close to the ground, then covered with earth or a little coarse manure or matting. I have protected scores of half-hardy climbers in this manner, and never lost a plant from the effects of cold. The half-hardy Clematises in particular are greatly benefited by this kind of protection, and their buds remain plump and healthy, and they bloom much more freely in consequence."—*Flower Garden*.

Agents Wanted.

We want a few FIRST-CLASS agents. To such men we will guarantee a good salary and steady work. We have had one agent working for us four years on salary. Now is the time. If you want only to work for us in the winter let us know, and we will make arrangements with you for that time. Send your name, previous business, references, &c., and if they are satisfactory and your canvassing ability good, you may be sure of a good berth. Address Agents' Department, FARMER'S ADVOCATE, London, Ont.

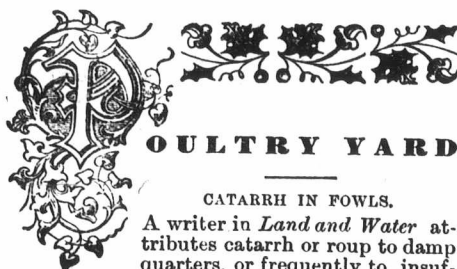
Hedges for Canada.

PRIZE OFFERED.

We will give a prize for the best article that is sent into our office on the subject of hedges suitable for Canada, and the best mode of cultivation; the article not to exceed one and a half columns, and to be in this office by the 20th of November.

To the Gentlemen in Canada who think Agriculture of more importance than Politics, or to those that wish Agricultural interests and influence to supersede such questions as "Pacific Scandals" and Agricultural scandals, or timber and electioneering scandals.

We wish to receive the services of the most independent and the best informed gentlemen to take charge of the different departments, namely:—Stock, Seed, Veterinary, the Dairy, Horticulture, Implement and general Agricultural management. We are now prepared to offer a better remuneration than ever to gentlemen engaging as regular correspondents, or to editors in the different departments. It is our intention to make this paper second to none in Ontario or in value to any agricultural paper in the Dominion. We have now the largest circulation in the British Colonies. We are on friendly terms with all American papers in our exchanges or have done business with them.



POULTRY YARD

CATARRH IN FOWLS.

A writer in *Land and Water* attributes catarrh or roup to damp quarters, or frequently to insufficient feeding.

Breeding in-and-in also occasions it sometimes, because such stock becomes physically weak.

Most forms of the disease will yield at the outset to good food and better care. Bread crusts soaked in spiced ale are recommended, but we suppose a rich and varied diet of anything which fowls relish will usually end in aggravated and dangerous symptoms. When the discharges become thick and clotted, the disease is certainly contagious. It is communicable through the water vessel, or from scratching over the same food. As to treatment in the advanced stages of the disease, it says:—

It is only with birds of value that attempts at cure should be made, which should be to purge out with a dose of castor oil first. Bathe the head and nostrils with a warm, weak solution of carbonic acid, keeping it from the bird's eyes. When the matter is free from the nostrils, slightly syringe (with a small ear syringe) some of the solution of the same. Dry well the feathers about the head and neck. Pills of the following parts should always be at hand, and one night and morning administered while the birds are ill: gr. oz. of camphor, gr. oz. of valerian, gr. oz. of cayenne pepper, gr. oz. of lobelia seed powder, gr. oz. of gum myrrh; make into forty-eight pills.—*Farmers' Union*.

HOW TO MANAGE POULTRY.

I am one of many who not only believe, but know from experience, that there is no stock kept by the farmer that will pay so large a return, for money expended, as a well-managed poultry yard. As we cannot compete with our western farmers in the production of pork, with grain at ten cents per bushel, let us devote some attention to poultry, that will pay us five hundred per cent more than pork; and as to manure, will produce for each bushel of food a much more valuable quality of manure. Small potatoes, beets, pumpkins, cabbages—in fact any crop usually fed to swine, can be profitably dealt to the fowls.

Now comes the question, how shall it be done? Without theorizing, I will give my method of keeping. Select 200 young fowls—Nov. 1st, in laying condition; place them in separate coops, from 12 to 15 in each; at night put one bushel of small potatoes, beets, or pumpkins in your boiler, which should be convenient to the coops, adding one quart of onions; boil fifteen minutes; then add four quarts of corn meal; after well mixing, cover the mess, and in the morning your fowls will enjoy a warm breakfast at a trifling expense. At noon feed oats, and at night corn, taking care that they are supplied with clean water and plenty of shells. Silt the mess occasionally, and once a week a little fresh beef is very beneficial.

A flock of 200 well-fed fowls can be kept at an expense of 75 to 80 cents per day. My winter eggs sell at the door at 40 to 50 cents per doz., therefore the price of two dozen eggs feeds my flock; and when I collect from eight to ten, the manure fully compensates for the cost of feeding, &c.

It is as necessary for the farmer to have a warm room to start his early chicks in, as a hot-bed is for his early vegetables. Now is the time to heat this room. Set every hen you can get, so that March 1st will find you with 200 or 300 chickens; the young cocks will bring \$1

each in June. Here comes in your profit, as the same cocks would not command higher prices if kept all summer for Thanksgiving, and your pullets will commence laying early in the fall, taking the place of the 200 hens, which will be found fat and ready for Thanksgiving market.

Having experimented with nearly every known breed, I unhesitatingly pronounce the Light Brahmas and the Patridge Cochins, as egg-producers and market fowls, far superior to all others.—*J. S. Ives, in Rural New Yorker*.

MEAT FOR FOWLS.

Adult fowls when moulting, and young ones when feathering on, need meat with their daily food. I am well satisfied, from my own experience, that Brahmas and other large breeds will do much better, and make far stronger and healthier fowls if so soon as they will eat it, a little cooked meat, chopped fine, be fed to them every day. Those who have never tried it will be surprised to see at how early an age and with what eagerness the chicks will eat the meat. It should be cooked and cut up fine, so they will have no difficulty in swallowing it. This season I have some of the finest Brahmas I ever raised. I fed them meat almost every day, from the time they were well feathered. If they had been on a grass run where they could have gathered insects, they would not have needed meat so much; but I think, under any circumstances, meat would have been beneficial. My experience has also taught me that it pays well to feed meat to hens that are laying, to keep them at it, and to those that are not laying to induce them to lay.

I am very confident that the fowls closely confined on small runs are greatly benefited by meat. Without it they are very apt to pluck off and eat their feathers, till they present anything but a fine appearance. Not long since I saw a pen of what might have been fine looking fowls if they had not plucked off each other's feathers till some of them were half naked. I asked the owner if he fed his fowls meat. A little meat fed daily to those fowls would have caused them to present a much better appearance.—*Poultry Record*.

PRESERVATIVE QUALITIES OF EGGS.

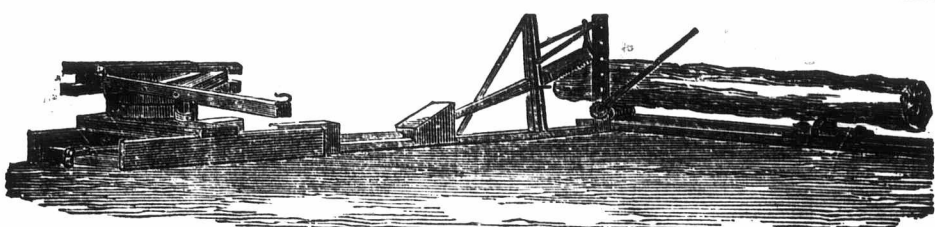
The eggs of the improved breeds keep better than those of common fowls. The keeping qualities depend upon a fine compact shell and thick living membrane. The eggs of common fowls are coarse and porous, and admit air too rapidly. The eggs of Guinea fowls keep better than hen's eggs. The color of the yolk also indicates the keeping qualities of eggs. An egg with a pale-colored yolk can be kept fresh longer than one with a rich orange-colored yolk. This rule applies to eggs when preserved in salt or lime. "Fat eggs," as the Germans term them, laid when insect food is abundant, cannot be preserved with any certainty. The albumen of eggs preserved in lime or salt deteriorates and is unfit for many purposes of the confectioner.

DYSENTERY IN CHICKENS.

Simple dysentery can be checked by giving them pulverized chalk mixed with a little boiled rice and milk; or mix alum with their drinking water, so that you can by tasting just perceive its presence in the water, and let the food be entirely dry for a day or two. The disease is caused in the first instance generally by feeding them with cold and too wet food.

LIME FOR FOWLS.

Domestic fowls need more lime than wild fowls because they lay more eggs. The wild fowl lays a "sitting" and then incubates, while the domestic lays on indefinitely. Crushed raw bones are among the very best articles for supplying lime. The pieces of bones found in patent fertilizer preparations cannot be recommended as healthful.—*Poultry World*.



We engaged an artist to engrave a few of the implements that were at the recent Exhibition, and which appeared to be improvements on old machines. The above we consider one. We are now preparing others; also, engravings of stock, &c., and they will appear in future numbers. This sawing machine appears to possess many advantages over the old ones, but we hope a public trial will take place to test the merits of each. We will give \$5 towards such a trial. Some of the manufacturers that consider their machines the best might make a donation, and a sawing machine trial would soon be arranged for. At the present time all consider their own the best. The above machine is manufactured by L. D. Sawyer & Co., of Hamilton, from whom particulars may be obtained. It is put out as a champion. It would be well for intending purchasers to send for circulars.