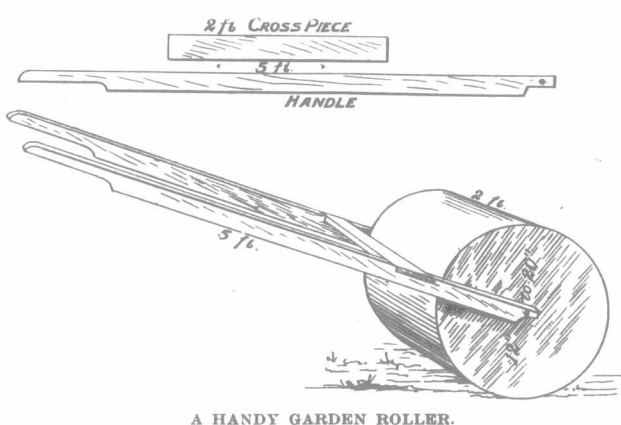


GARDEN AND ORCHARD.

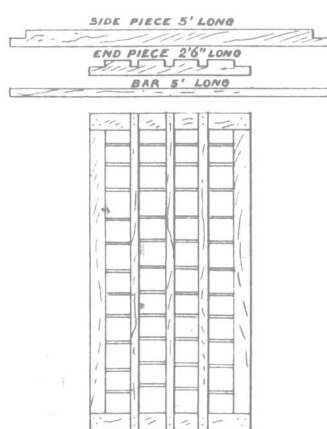
Preparing for Spring.

There are many things that can be done and planned for during the winter months, when time is not so precious as later on in the spring, to extend the growing season and help to make gardening a success. One way is to make a plan of the garden, allotting the parts found most suitable for certain crops the previous season, as though planning out the ground instead of on paper. I have found this to be a great help to me the past four years, as it saves me a lot of worry later on and I know fairly well how much seed, fertilizer and time it would take to prepare and plant the garden. Another useful thing to do is to study up the subject as much as possible and select from the catalogues the varieties you propose planting, and send for the seed required as soon after January as you can, before the spring rush commences. But the preparation of tools and adjuncts for garden work is the subject I will call your attention to. These two useful and cheap homemade contrivances, namely,



A HANDY GARDEN ROLLER.

a hotbed sash and hand roller, are made on a plan that I practice but have not seen published before. A hotbed sash comes very expensive, comparatively, when ordered ready made, but by this plan a very effective sash can be made in spare hours by anyone that can handle tools. It may be a rough job, but for strength and utility is all right. All material should be well planed and joined. Take a two-inch pine plank and rip it up in pieces three inches wide; halve the ends and join them, using wire nails, well clinched. When the four pieces are nailed together and squared, divide the end pieces for the bars. The bars can be an inch square, ripped out of pine board. Cut three slots in the end pieces, an inch wide and chisel them out; then bed the bars, making them so they will fit tight; nail them in with wire shingle-nails, when the sash will look something like the following sketch. Then rip a couple of laths in two and plane them and tack on the center of the bars on the opposite side from which they are inserted; this is to keep the glass apart. Give the sash a coat or two of paint, and it is ready for the glass. I find that waste glass and strips such as you can get at any hardware or paint shop for little or nothing, when cut to the proper width and set in, is quite satisfactory and the loss from breakage is not felt so much as larger-sized glass would be. Small brads can be used to hold the glass, or glazier's points and putty. All the material for the sash ought not to cost more than 25 or 30



SASH COMPLETED, SHOWING HOW BARS ARE LET IN.

cents, except paint and putty. The roller here shown is a very handy implement for firming the ground after the seed is sown, so as to hold the moisture till the seeds are up. Two pieces of 1 1/2 board or plank cut in the shape shown make the handles. The roller can be cut off a round log over a foot (two feet is better) in thickness. Peel off the bark, and smooth it as much as possible, using the plane to take off all lumps and straighten it. Two large wire spikes are then procured, and holes bored in the end of the handles; the spikes are then driven through the holes into the center of the roller. A piece of planed board can then be nailed across the handles, close enough to the roller to knock off any

lumps of clay that would likely stick to it, and the roller is finished, except for painting; a dark color is most suitable. Indian red or brown stone are good colors for sashes or tools. These two ways of making articles are not for the benefit of the man who farms for fun and has plenty of means, but to the everyday working farmer, gardener or amateur I trust this description may be of some value. I may contribute something on two other homemade appliances in the near future if the editor will bear with me as he has with my former contributions.

Halifax Co., N. S.

E. MACKINLAY.

Gardening Hints for February.

February is a month when little can be done in the way of preparation for the coming season of gardening work. Unless in very favorable localities, hotbeds cannot be started till well on in March, and except for making a few useful homemade contrivances, and studying up the various catalogues and books on gardening, which are of much benefit to the amateur, very little work is possible. A marker is a very great help in dividing up the garden into rows or beds, and in this month, when time is not so pressing, can be easily and cheaply made. It is so simple in construction that I will try and make the description of it as plain as I can without a sketch. Take a piece of 3x4 scantling, about three feet long or over, plane it on all sides, and divide the piece off into spaces four inches apart; bore, with a large-sized brace and bit or a small-sized auger, a number of holes through the scantling so as to make the holes four inches apart, three holes to the foot, or nine to the piece. Then take a round piece of hardwood the size of a broom handle, have it perfectly round so as to fit tightly in the holes, and cut into pieces eight to ten inches long, sharpening one end and insert each piece, or peg, tightly in place so as to make them even in appearance. After the pegs are in and well fitted, bore a hole in the center of the main piece, on a slant, using a larger auger and insert a round piece of hardwood about five or six feet long for the handle. The marker is now finished and is like a clumsy rake in appearance. To use it in a satisfactory way, have the plot of ground properly prepared, raked and ready for the seed or plants. Drive in a stake, tie a line to it and draw the other end taut to the end of the proposed row, and tie to another stake. When the line is in position, about three inches above the ground, adjust the pegs in the marker according to the distance apart you intend to plant the seed. If in a bed, four to eight inches is sufficient for certain seeds; if in rows, for hand culture, one to two feet is the usual distance required. If the marker is now taken and one end of it kept against the line, and drawn the length of the row or bed, as many parallel lines will be marked out as there are pegs in the marker, and all alike and the same distance from each other. If the ground is perfectly smooth and a weight is attached to the main piece, the marks will be sufficiently deep for most small seed, and running the roller over the ground after they are planted will cover them and firm the ground so that their chance of germination is surer. This may seem a complicated method to some, but in an ordinary garden, where seed drills and cultivators are not required, is a simple and expedient plan.

Another thing which can be done is the preparation of trellises or supports for tomato plants. There are many ways of making them. The hoop trellis is the best for a small number of plants, but when a large number is required, brush is a cheaper substitute. Take a barrel hoop, and nail three pieces of laths, sharpened at the end and of equal length, to the inside of the hoop so that the hoop will stand by itself as if on legs. One of these supports, when placed over the plant when it begins to run, supports the plant, keeps the fruit off the ground and increases the yield. The ladder trellis is also suitable for small gardens. It is made by nailing pieces of lath across two poles, each sharpened by stakes driven in the ground. There are other forms of supports, but these are the simplest and the ones I find to be the best for practical results. Care must be taken not to set the support till the plant really needs it. Some varieties are claimed to do well without any help, such as the Dwarf Champion, but the yield cannot compare with the other varieties; besides, they are the better of some support, as the wind and rain often breaks them. These supports can be made during this month and stored in a barn or outbuilding till needed. I have proved by experiment that supporting tomatoes nearly doubles the crop of perfect specimens, and the loss by rot, blight and worms is reduced to a minimum.

Last, but not least, this is the time to send for seed catalogues from reliable firms, such as advertise in the "Advocate." Pick out the sorts considered most suitable in your locality. The most cracked-up novelty, until it has proved to be valuable, is often not as good as the standard sorts. Send an order to the firm, with the money enclosed, and, as is the case with small seeds, the

postage is paid by the seller. The advantage of this plan, which has now become popular, is great. First, the buyer knows what he is getting; he gets the quantity required; he gets the seed fresh, as the firm's reputation depends on its good treatment of customers, and if secured as early as possible, before the spring rush commences, it saves much worry and bother. The plan of running to the corner grocery or drug store, fumbling in a box of musty packages, and then, after planting them, if they do come up, sometimes find something you do not want, should not be tolerated by any gardener who wishes to be successful.

Halifax Co., N. S.

E. M.

POULTRY.

Promoting Health in Fowls in Winter.

BY JOHN B. PETTIT.

All poultrymen recognize the fact that without healthy, vigorous fowls it is impossible to have a profitable flock. Birds that are "enjoying poor health," as Samantha would put it, will lay no eggs, and a hen that does not lay is not a very good source of revenue for her owner. And the more keenly is this felt during the winter months, when most hens are "out on strike," and eggs are away up in price.

Many of the diseases that poultry fall a prey to are directly traceable to bad treatment and improper management, and it is in the winter time that such management is most prevalent and disease is more in evidence.

One of the surest promoters of disease in poultry is a damp house. To keep the best constructed poultry houses free from dampness is a problem that puzzles all poultry fanciers. But the average farm henhouse is not well constructed. Too often it has a poor, leaky roof, which allows the rain to come through whenever there is the slightest shower, and drip down on to the floor and form a pool, or to give the birds themselves a thorough drenching. Or it may be that a window glass is out and allows the rain and snowstorms to beat in upon the inhabitants of the building. The remedy for these evils does not have to be mentioned, but simple as it is, how often it is neglected! But in the best poultry houses the litter and ceiling and walls will soon get wet unless careful attention is given. The breath of the fowls during the night creates a steam which on cold nights adheres to the walls in the shape of frost. During a protracted spell of severe weather this coating would get quite thick if allowed to accumulate. To prevent this the building should have some of the windows open every day. Generally the interior of the building becomes warm enough in the day to melt this frost, and if the windows are open it will dry up as it melts, and thus the dampness is done away with, whereas if the building were kept closely shut up, the frost would melt, form into drops and run down into the litter and over the fowls and create a very unhealthy state of affairs. Then there are the cracks and knot holes in many buildings that allow drafts to blow in on the fowls and start colds, which often wind up with that dread disease, roup, sweeping away the whole flock.

The cleanliness of the house must also be looked after. The dropping-boards should be cleaned off at least twice per week, and sometimes three times would not be too often. Our main poultry house is 72 feet long, having six departments, and consequently six roosts, and these can all be cleaned in twenty minutes. So it can be seen that it doesn't take a great amount of time to do this work. After each cleaning sprinkle a little fine dirt, ashes or sawdust on the boards, and you will find that it saves more than half the time needed in cleaning, as well as assisting in keeping down bad odors.

Do not fail to supply lots of grit to poultry in winter. It must be remembered that it is by means of this and this only that fowls can grind up their food, and if the grain and other food is not properly masticated, disease will very soon be the result. Crushed oyster shell and fine gravel, secured by sifting through a sieve, or any such grit will do. But do not compel a hen to eat pieces of broken glass. There is danger of serious injury resulting from such a practice. In the summer you will notice that biddy at times relishes a bit of gravel as much as a grain of corn. But these are hidden under the snow in winter, and we have to supply her with something to take their place as best we can.

Care should be exercised in supplying drinking water. All that some fowls get in winter with which to quench their thirst is snow to eat or the drainings from the barnyard. Is it any wonder that "dung-hill" poultry are very often unhealthy? Poultry should have clean, fresh water every day, and plenty of it. It should be given in receptacles that they cannot get their feet into, and these vessels should be emptied every night. In very severe weather in winter the chill should be taken off the water when first given in the morning, to assist in warming the birds up.

Two other things which should be provided