GARDEN AND ORCHARD.

HOW TO MAKE A HOT-BED.

L. Purdy, in the *Ohio Farmer*, gives the following concise directions for making a hot-bed, that indispensable requisite to an early garden:

"Some gardeners make hot-beds by building a mound of manure on top of the ground, but I prefer a pit, as I think it holds moisture better Select a place where the ground lies fair to the sun and slopes to the south and east. The north side of the garden, if the ground lies right, is a very good place. The fence opposite the hot-bed should be six feet high and made tight to keep the cold wind off. The pit should be three feet wide, fifteen inches deep, and as long as the needs of the gardener may require. After the pit is dug it should be filled full of fresh horse manure well mixed with straw, or, better still, forest leaves, which should be put under the horses and tramped well into the manure. In filling, shake the manure up well as it is forked into the pit, and then tramp solid as soon as you have six inches deep in the pit; continue in this way until you have the manure several inches above the level of the ground, then make a frame of inch boards, three feet wide and ten inches deep on the front side and sixteen inches on the back side; set the frame over the manure, and fill up outside with the dirt taken out of the pit, nearly to the top of the frame all around. Then if the manure was pretty dry, pour on several pails of warm water and cover with the glass right away, and leave it two or three days, till the heat begins to subside, then cover with soil six inches deep. This soil should be rich and mellow and dry enough to crumble easily. Then in a few hours, if the sun shines, your bed will be ready to plant.

"If any one wishes to make his own sash, he can do so by following these directions:

"Take a strip of soft wood two inches wide, cut the side pieces six feet long and the cross pieces three feet long, groove the cross pieces with a small groove plane on both edges, so as to hold the glass, have the ends of the cross pieces so as to fit down on the side pieces; then with some inch screws fasten on one end piece, then put in one row of glass and fasten on the next cross piece, and so on until it is finished. By this method the glasses are held firmly in their places and can be removed by simply loosening one screw in each cross piece.

"I will now tell you what to plant in hot beds, and when to plant it. If you have a large hot-bed you may begin by sowing lettuce and radishes and some other hardy plants, as early as the 10th of March, or earlier if the weather is moderate. Cabbage and cauliflower may also be sown at the same time, but should be transplanted into a cold frame by the middle of April. If you wish, you can sow beet seed as soon as the 25th of March, and transplant the same as cabbage. Tomatoes and other tender plants should not be sown till about six weeks before it is safe to transplant to the open ground. If you wish to raise sweet potato plants, the tubers should be covered with a mixture of garden soil and sand to the depth of an inch or so, and in a few days the plants will begin to show. They should not be planted much before the first of April, or the plants will get too large before it is safe to transplant them."

MAKE AN ASPARAGUS BED.

Asparagus is as easily raised as anything that grows in the garden, and yet it is comparatively rare to find it upon the farmer's table. The reason may be that much nonsense has been published about the difficulties of raising it, and that we have to wait two or three years for the full maturity of the plant. It is true that a full crop will not be given in less than three years, but when the bed is once made the job is done for a dozen or twenty years. If made this fall there will be one year the less to wait. Any good, well-drained soil that will bear corn is suitable for asparagus. Put in half a cord of manure to every four square rods of ground. Work it in thoroughly. Set out one-year-old plants in rows four feet apart and two feet in the row. (Too far apart for a family bed, one foot by two is plenty far enough.) They can be kept clean with the harrow or cultivator. It should have cultivation once in two weeks through the growing season. Cover the beds with manure in the fall, and fork it under in the spring. Cultivate thoroughly through the second season and top-dress as before. The second season a few stalks may be cut in April or May, but there should be no close cutting until the third year, and this should not be continued later than the middle of June. The plant must have time to grow and recuperate in midsummer or the bed will soon fail. The secret of large fine, asparagus is abundant manure, applied in the fall every season, thorough cultivation until the tops prevent, and stopping the cutting by the middle of June. The blanched asparagus that is so popular in some markets is secured by covering the beds with sea-weed, straw, or other mulch. It is poor stuff in comparison with the long, green, tender shoots that have had the full benefit of the sunlight or a rich soil.—*Fruit Recorder.*

COMPOST FOR PLANTS.

The following is an excellent compost for house plants:

1. Good garden mould.
2. Mould from decayed turf, from a pasture or field.
3. Decomposed stable or cow-yard manure.
4. Mould from decayed leaves.
5. Sea or river sand, free from salt.
6. Peat, from the meadows, that has been exposed to frost.
7. Coarse sand or gravel.
8. Broken flower-pots, charcoal, or oyster-shells.
9. Old mortar or plastering.

Garden mould will not be needed if there is a supply of fine, decayed turf mould. About one-fifth of the pot may be filled with the drainage materials, viz., broken bits of pots, charcoal or oyster-shells. If a little meadow moss is placed over these, it will prevent the earth washing through.

VALUE OF LIQUID MANURE.

Prof. Johnston says: "The urine of man and the animals he has domesticated is the most important and valuable, though the most neglected, and the most wasted." Prof. Dana declares: "The quantity of liquid manure produced by one cow annually is equal to fertilizing one and a quarter acres of ground, producing effects as durable as do the solid evacuations. A cord of loam saturated with urine is equal to a cord of the best rotted manure. . . . If the liquid and solid evacuations, including the litter, are kept separate, and the liquid is soaked up by the loam, it has been found they will manure land in proportion, by bulk, of seven liquid to six solid, while their actual value is as two to one." The *Journal of Chemistry* contains the following testimony in regard to the value of liquid excrement: "A cow under ordinary feeding, furnishes in a year twenty thousand pounds of solid excrement, and about eight thousand pounds of liquid. The comparative money value of the two is but slightly in favour of the solid. This statement has been verified as truth over and over again. The urine of herbivorous animals holds nearly all the secretions of the body which are capable of producing the rich nitrogenous compounds so essential as forcing or leaf-forming agents in the growth of plants. The solid holds the phosphoric acid, the lime and magnesia, which go to seeds principally; but the liquid, holding nitrogen, potash, and soda, is needed in forming the stalks and leaves. The two forms of plant nutriment should never be separated, or allowed to be wasted by neglect. The farmer who saves all the urine of his animals doubles his manurial resources every year."

A WORD FOR THE WATER-MELON.

For some reason there is a prejudice against the water-melon on the ground of its being unhealthy. By many it is regarded as a great green concern, full of colic, cholera-morbus and what not, and when a person has been made sick by eating water-melons little sympathy is expressed, for it is regarded as a case of suffering self inflicted with deliberation and full knowledge of the consequences. A writer in *Food and Health*, however, makes a plea for the water-melon and insists that, so far from being unhealthy, it will cure the sick and keep the well in good condition. He says: "I can imagine the horror of certain readers who fancy they are so peculiarly constituted that they can't eat fruit, and Water-melons. 'Mercy! I should have an attack of cholera-morbus, surely.' There is not, in my opinion, one such person in the world who would be troubled by water-melons, if taken after a fast day. It *might start the sluice-way*, in the case of a constipated person, who has been cloging up with bad food for days and weeks, and save life. If so, it would prove the best and safest physic in the world. Water-melon contains about ninety-five per cent. of the purest of water, and a trace of the purest sugar, and nothing has yet been discovered that furnishes so perfect and speedy a 'cure' for *summer complaint* as water-melon, and *nothing else*. Even when diarrhœa has been kept up by continued eating of ordinary food, until the disease has become chronic, this delicious *beverage*—for it is little more—water-melon, taken freely two or three times a day, has again and again been known to work wonders, and to 'cure' when all the usual remedies had failed."

ENRICHING ORCHARDS.

All young fruit trees, says the *Country Gentleman*, which do not make a growth of two feet for the longest shoots in a season need additional stimulating with manure. If the ground is clean and well cultivated, or if they stand in grass or happen to be encumbered with weeds, good mellow cultivation must be given them. This is the rule for young trees, and the best time, if manure is applied, is late in autumn or during winter, the earlier the better. But manure appears to do the most good on bearing trees, especially apple trees, often giving good annual crops where poor and biennial crops were previously borne. Bearing trees need not grow so rapidly as young trees, but if they do not make annual shoots at least a foot long they need more manure or both manure and cultivation. The manure may be spread broadcast in winter, covering the whole surface.

RASPBERRIES.

Prepare the soil as for strawberries. Unlike strawberries, raspberries are rather benefited by shade, if not too dense. In field culture, all but the "cap" varieties should be planted in rows five feet apart, and the plants three feet apart in the rows; the "caps" six by three and a half feet. In garden culture, plant "caps" five by three feet;