

when of large size. For this class of trees we should prefer those not more than six feet high for ultimate effect, and in planting any class we should much rather discard a tree altogether, than plant one cut to a bare pole.—*Western Rural.*

PROPAGATING SHRUBS BY SEEDS.

Many shrubs are best propagated by seeds, and some can hardly be increased in any other way. All shrubs that are simple species and not florist's varieties can be raised in this way provided they bear seed, which most of them do. Thus, if you want a hedge of hawthorn, you are sure of getting one by sowing seed, for the common white hawthorn, being a natural species, will produce a seedling like the parent. But if you sow the seed of one of the colored or double hawthorns, which are the florist's varieties, and hope to see an offspring like the parent you will probably be disappointed. So with the fancy varieties of the Weigelia—they will not exactly reproduce themselves from seed, though the offspring will bear a certain resemblance to the parent, just as a child usually does to the father or mother. This variation from seed is one of the most curious subjects in horticulture, and it is by means of it that nearly all improvements in the varieties of fruits, flowers and vegetables have been produced. Leaving out, then, the fancy varieties—unless, indeed, we wish to experiment with them for the production of new ones—we have remaining the greater number, including many of the best of our ornamental shrubs. Some of these cannot be raised from cuttings or even from layers, and at the same time are difficult to bud or graft, but can be raised very easily from seed. Such, for example, is the Virginian Fringe (*Chionanthus*).

Now, with respect to the management of the seed. It should be sown as soon as possible after ripening, as it then germinates much more quickly and surely. It may be sown in a cold frame in a light soil well enriched with leaf mould and very old pulverized manure. This soil should be at least two feet deep and well drained. If not naturally very light, sand should be added to it. When these seeds are small they may be dropped in rows on the surface or scattered over it broadcast and then pressed (not too hard) with the flat of a spade, after which light soil should be sifted over them to a depth not exceeding half an inch. If the seeds are large they should be sown in drills at a depth not exceeding an inch. Supposing this to be done in the autumn, which is the best time, nothing remains but to cover the frame with boards or shutters for the winter. Remove them in the spring and the seedlings will appear if it is their nature to come up the first season. The same processes may be conducted on a smaller scale in pots and boxes, which should be wintered in a cellar or cold frame.

The seeds of shrubs like other seeds differ much in the period of germination. Some—such as the seed of cytisus and Tartarian honey-suckles—germinate almost immediately. Others, like the hawthorns, require a full year. The habits of the Virginian Fringe, already alluded to, are very curious in this respect. Sow the seeds in the autumn and they do not appear above the ground before the second succeeding spring, but during the summer, when they are at all appearance dormant, they throw out a root without the least development of the seed-leaves.—*English Journal of Horticulture.*

Mossy trees in an orchard generally indicate too much moisture in the soil—that is, that the soil needs drainage and the trees require stimulating. Give the ground under the trees a good top-dressing of muck and ashes, drain the ground thoroughly, scrape off the moss from the trees with a hoe, and wash the trunks and large branches with strong soap-suds. But we should perhaps observe that while mossy trees generally indicate too much moisture, it is not always the case; for trees on sandy soils are often mossy, and sandy soils are covered with the same species of moss. Moss, therefore, often indicates poverty of soil, or uncongenial conditions in some way; it may be a want of moisture as well as too much. Stimulate the growth at any rate, as we have above suggested, whether the soil is dry or wet.—*New York Farmer.*

W. H. near Madison, Wis., has for years used with very good success as a wash for fruit trees a compound of clay, cow manure and ashes: mixed with soap suds and applied with a bush to the trunk and branches as high as can be reached. He finds it drives away bark lice, and cleans the tree of moss, &c.

FRUIT CROPS.—The prospects for fruit growers this year are very discouraging.—Grapes are very generally killed in Ohio, and blackberries in the Eastern States. The strawberries here were dried up by the drought, and prices hardly averaged ten to twelve cents per quart. Pears were badly cut by late frosts.—Mr. Batcham writes from Ohio:—"Our apples will be a very short crop, as well as the smaller fruits generally. I have never seen so poor prospects for fruit growers."—*Horticulturist.*

PREPARING SLIPS FOR PLANTING.—The *Gazette des Campagnes* recommends to dip the extremities of the slip in collodion, containing twice as much cotton as the ordinary material used in photography. Let the first coat dry and then dip again. After planting the slip, the development of the roots will take place very promptly. This method is said to be particularly efficacious in woody slips, and to succeed well in scions of the geranium, fuschia, and smaller plants.

Let those who wish to make willow hedges procure large cuttings, none less than an inch in diameter, and fifteen inches in length. Plow a deep furrow on the line for your hedge; set your cuttings in the furrow four inches apart, and angling lengthwise of your row; drive them into the ground so that when you plow a furrow on each side they will be nearly covered, cultivate well for two years, the third spring cut off three feet from the ground, and two years thereafter cut off four and one-half feet high, and it will do to "turn out."—*Home-stead.*

Many of the largest elms in Milford, Mass., have not a single green leaf upon them, so thorough has been the work of the canker worm.

The Horse.

SPAVIN AND CURB.

A writer in the *Sportsman* makes some practical remarks on these ills to which horse flesh is heir, that some of our readers may peruse with interest:—

The hock of a horse is a most complex and important joint, and whenever this part is affected, or shows any predisposition to even the slightest of the many disorders to which it is subject, it is never good policy on the part of turf writers to recommend such animals as being likely to win great races. The hock-joint consists of six bones, and these are so closely united as to appear but one. This, of course, allows of but little motion between the bones, yet this little is useful in preventing jar and concussion, and by having such numerous points of contact the joint is rendered stronger. Almost every bone has peculiar bands of fibres, stretching from one to the other in every direction. One of the strongest of these ligaments passes around the back part of the hock, and it is the inflammation of this, in one particular part, that is the cause of curb. The "net-work," so to speak, of the fibres that pass over the inner side of the hock, is equally liable to sprain, and consequent inflammation, as the ligament which passes over the posterior part of the joint.

When portions of these ligaments become inflamed, either from sudden strain or hereditary causes, the effect is generally a case of bone-spavin, gradually hardening from a tender, crumbly substance, into bone, which interferes with the natural action of the joint—always from stiffness of the part—and frequently lameness, for which there is no cure. Blood spavin is an enlargement of the large vein, which any person of ordinary intelligence can perceive—particularly when the animal is heated from exertion—running down the inner side of the thigh to the hock. This enlargement consists of a small soft swelling in a different part of the inside of the hock to the seat of bone spavin, and is not nearly so injurious in its effects.

LOSS OF HORSES IN NEW YORK.

The wear and tear of horse-flesh in New York city is very great. In one year, from May 1, 1872, to May 1, 1873, there were received at the New York Rendering Company 7,753 dead and condemned horses. Of these 720 were farcied and 917 glandered; 5,130 horses were gathered from the streets, where they fell dead. We do not, as a general thing, take the best care of our horses. It is safe to say that the 7,753 animals received in a single year by the New York Rendering Company represented a money value of more than one million of dollars.

HORSES MAY BE TOO LARGE.—In an article strongly commending the increased attention paid in the West to breeding larger horses, the *Prairie Farmer* says:—"It is well enough, however, to bear in mind that if the form and temper are all right, 1,250 to 1,500 pounds is quite weight enough in the mature animal for any purpose. Above this weight there is rarely sufficient action or fine form."



GARDEN AND FARM.

HINTS FOR THE MONTH.

The *Garden* does not call for so much labor in September as in the preceding months, and now in the abundance of its fruits and vegetables, it amply repays us for the care and labor of the spring and summer. Strawberry plants may be set this month with reasonable expectation of success. The soil for them should have been well-prepared, and, if necessary, must be watered at planting. May is considered a better season for planting strawberries, but by planting them in September you may succeed equally well if the season be favorable, and you may have some fruit from them the next season. We speak from experience. Last September we planted a strawberry bed in well-prepared ground. As the winter drew nigh we mulched them with leaves from the forest. In spring we raked aside the covering and dug between the lines, the partially rotted leaves serving as manure, and in due time we had the pleasure of gathering some fruit of excellent quality, though not an abundant crop; and they gave excellent promise.

We repeat the old lesson, keep down the weeds.

One of the principal operations on the farm in September is the sowing of Fall Wheat. The uncertainty of the crop from the severity of our Canadian winters has prevented fall wheat being sowed so extensively as it would otherwise have been; but this year it has done much better than the wheat sown in spring, and it is probable many will, in consequence, be encouraged to sow this fall. In many instances, hitherto, the failure may in part be attributed to the land not being well prepared. The ground should be well ploughed to a good depth, and the seed-bed rich and mellow, so that the young plant may send forth good roots, catch a good hold, and strike deep into the soil. No water should be allowed to lie stagnant on the ground. The best seed should be procured; this is all important. It should be of the variety best suited to the climate, the soil, and the season of sowing. It should be entirely free from seeds of weeds, and, as far as possible, from inferior grains. There is an increasing attention given to the selection of seed, but still greater attention is needed. An additional outlay in procuring the best seed is sure to be well repaid. The *Dictionary of the Farm* says:—"If the farmer selects the best seeds, chooses the proper time for sowing them, and has them carefully distributed and properly covered with earth, as their nature requires for the most perfect germination, and thus also protects them from the voracity of the birds and insects, he will have a much greater prospect of success than if he were careless and negligent."

In this country the old mode of sowing grain broadcast is that generally practised. To this mode there is the great objection—the uncertainty of having all the seed covered the same depth—some of it is buried deep in the soil, and some lying near the surface. By using the drill all the seed is deposited at one required depth. Another advantage of using the drill is the saving in the quantity of seed; this is, of itself, no inconsiderable item. To these may be added the facility afforded by drill-culture for a free circulation of air between the rows, and for the extirpation of weeds.

Fall ploughing must be attended to. The provident farmer labors not merely for the present; he looks forward and makes preparations for coming seasons and for future years. By doing in the fall as much as he can of the work that would add so greatly to his spring work, he "takes time by the forelock," and when the busy seeding time comes he is prepared to make the most of every favorable hour.

Now, is this the only benefit to be derived from fall ploughing? The soil turned up deep and rough before the winter sets in receives the full benefit of the frost and snow, and is sure to be in better tilth, cleaner, richer and mellow in spring.

Draw out compost heaps and any manure you have to spare on your meadows. Spread evenly, and, if necessary, harrow lightly and roll after spreading the manure. This top-dressing will afford you an opportunity for sowing a little fresh grass seeds on any bare

or thinly covered spots, and will not only enrich the meadow, encouraging an earlier and more luxuriant growth of grass, but will protect the crowns of the clover plants and more delicate grasses.

Keep up the condition of your live stock. For profitable and economical feeding in the winter it is necessary that cattle be in good condition when they are housed. It is much easier and cheaper to keep up good condition than to regain it if lost; and by this means you can finish off your fat stock early for the butcher, thus saving some weeks, or perhaps even months, feeding.—*Ass. Ed.*

The Apiary.

BEES ON A SMALL SCALE.

There are many householders whose means will not enable them to buy a cow or to provide keeping for her were they in possession of one. But they may be equal to the purchase of a colony of bees and to provide hives for the swarms resulting therefrom. Bees, like other stock, require pasturage, but, unlike horses, cattle and sheep, they are free commoners, ranging at will in search of stores, nor can they be arrested and punished for their intrusion upon premises alien to their owners. A single colony of bees, in good condition in the spring, may be counted upon to double or triple their numbers in a single season, securing ample stores for winter consumption, while supplying a gratifying surplus each autumn for household uses.—This accumulation will prove most acceptable in families especially, while the price of butter rules so high as to place it beyond the reach of those not blessed with elongated and plethoric purses. Try a colony of bees as an experiment.—*Farmers' Union.*

BEE KEEPING.

Bee-keeping used to be a very crude affair.—It was carried on with gums or straw hives, inside of which everything was fastly fixed and all a realm of mystery. The bees were left pretty much to themselves, until the close of the honey season, when they were brutally smothered with brimstone fumes; and the colony being thus exterminated, its stores were appropriated to the use and luxury of the owner.

Now we have the movable frame hive, which gives the bee-keeper access to the interior of the colony, perfect control over it, and liberty to take the surplus honey without killing the bees. With this form of hive the loss of swarms by their going off to the woods can be prevented, queens can be given to stocks that become destitute of them, and weak colonies can be strengthened by giving them comb, bees or honey.

The invention of the honey extractor, or as some American apiarians prefer to call it, the *melipult*, is another great step in advance. By the use of this contrivance the yield of honey in a single season can be doubled, and even trebled. By the application of centrifugal force the honey is thrown out of the comb, almost to the last drop, and on replacing the empty combs in the hive, the bees, as in duty bound, at once proceed to refill them. Often when they suspend work and will not put a drop of honey into a surplus box, though there is plenty of it in the field, they will replace the honey of which the extractor or melipult has deprived them. The reason of this is obvious. Instinct teaches them to fill the body of a hive with a store of sweet; but when that is done their task is accomplished, and they are not covetous, like man, who goes on laboriously accumulating even after he has enough. They have not only a craven instinct, but an instinct of satisfaction. The well-filled hive appeals to this latter instinct. They know how to rest and be thankful. Take away a portion of their stores and the craving instinct comes into play again, and drives them forth as busy workers to the fields for fresh supplies.

Another modern improvement in apiculture is the importation and breeding of superior bees. Bees, like larger stock, deteriorate by in-and-in breeding, and may be improved by crosses. There are inferior and superior breeds of bees, just as there are of poultry, swine, sheep, cattle and horses. For a few years past Italian bees have been largely imported, and though it may seem an extravagant thing to give five or ten dollars for a queen bee—a little insect only about an inch long, it is no more so than to give a hundred dollars for a superior bull calf or ram lamb. The Italian cross has greatly improved common black bees, by giving them a dash of fresh blood, as stock-breeders would express it, and by imparting to them desirable qualities. The Italians are a hardier race; "busier than the little bus bee" we have known from childhood; more prolific, more beautiful in appearance, and less inclined to sting.—*American Bee Journal.*

The muck heap is the farmer's bank, and everything should be added to it that will enlarge it, and increase at the same time its fertilizing properties.