beauty, the liquor drawn off in the process of making potato starch, will clean silks woollens or cottons without damage to the texture or color. This root is also used as a cure and preventative of scurvy. Roasted potatoes have been administered with perfect success to sailors afflicted with this disorder, after other approved medicines have been given in vain.

Note.—We cannot agree with the essayist in his estimate of the *Peach Blow*. It is, we admit, when fully matured an excellent potato for table use, and it as well as the Early Rose, always brings a higher price in the market. It also sometimes is a good crop-bearer but the fact that it is so late in coming to maturity is an insuperable objection to its being placed in the first class. There is another objection to it:—The roots and tubers extend so far in every direction from the stalk, that the taking up of the crop costs much additional labor.

To the *application of new rank manure* for the potato, the objection of greatest weight is its causing the crop to be liable to disease. If manure be well prepared we have always found it to tend to increase. As a means of guarding against its tendency to increase the disease, we have manured the ground in the fall; a top dressing of ashesis also means of increasing the yield.

Pinching off the flower stems has been long advocated for the reason given above; and, on the other hand, it is said that the increased yield would not pay for the additional labor.

The average yield per acre of this root we would, from our own experience, place much higher than that estimated; 150 bushels, though the members of the Grange were agreed that the estimate was a fair one. If the ravages of the potato bug have in many cases increased, as their feeding ground has become a very extensive one, the yield of 75 bushels is so low that the crop can no longer be considered one of the best paying to the farmer. We should so improve our cultivation that the average yield would not be less than 200 bushels—a light crop, according to our experience. Judging from the average yield given above, many crops cannot yield more than 50 bushels to the acre.

An Essay on the Planting and Care of Apple Orchards.

Written by R. Stevens, Westminster, for the F. Advocate.

As I think it is the duty of every member of the Society to do the best he can for the general benefit. I have prepared the following brief essay on the cultivation of fruit. This being the subject chosen for me, I shall speak most of the cultivation of apples, as I consider them the staple of our fruit crop.

The apple will thrive well on most descriptions of good, dry loam; any land that will produce good crops of grain I consider good for an orchard.—After selecting a suitable piece of land, it then should be thoroughly fenced, not including more land than is intended to be planted, thus removing to some extent the temptation of putting in stock to consume the pasture. Stock running at large in young orchards are the cause of more trees being destroyed than all other causes put together. If the land is not rich and in good condition, I would prefer to wait a year and give it a good summer fallowing, and manure well. I think a good plan would be, if a person intends planting a large orchard and cannot prepare the whole of the land at once, to open a narrow band, say eight feet wide, in a direct line where the trees are to be set, by plowing and subsoiling, or otherwise plowing two furrows deep; then manure well with good rotten manure, leached ashes, and unleached, if they can be got. Afterwards plow back with a deep furrow. Now, gather it once more, and then you will have a good, deep soil, two water furrows, a ridge to plant your trees on sufficiently high and rounding to carry off all surplus water, thus preventing the land after heavy rains from becoming hard and baked, but remaining friable and loose.

Where the roots are likely to extend (which would not be for several years) beyond the prepared land, it would be easy to manure and add a few more furrows to each row of trees; by this means one could keep, at the least, a mound of land in the highest state of cultivation. I would put no crops of any kind on this ridge of land, but keep it clean and loose with a two-horse cultivator and a little hoeing immediately around the trees.

Now, in respect to the kinds of fruit. If for market, I think it is far better to limit our selection to a few kinds, say two, three or four of the leading sorts of marketable winter fruit. I would mention for this section, Rhode Island Greening, Baldwin and Golden Russett. It is a great mistake to have a great number of kinds, even if they are all good; dealers would be satisfied with even one good variety in one orchard.

Now, I believe that the production of a large supply of good fruit in this country would turn the attention of dealers to us, and increase the number of purchasers so that there would be a competition among the buyers that would secure to the grower good prices. It is very certain the best buyers will go where they can find the best and largest supply. I believe the London district is nearly, if not quite equal to any part of the Dominion for the production of most kinds of fruit, particularly apples, pears, plums and cherries, and even peaches can be grown to considerable extent by a little judicious management, such as protection from the north and west winds; when practicable, planting on high or hilly land, where, though it is somewhat strange, it appears the frost is not so severe by a number of degrees as on low land, and also much benefit can be derived by shortening in the limbs about the 15th or 20th of September; cut off about one-third of the present year's growth; by so doing the growth is checked, and the wood ripens and becomes hard before cold weather, and is not so likely to be killed by the severe frost in winter. Also, give the tree a close and compact head, preventing that straggling appearance of the branches which is often seen.

I have grown good peaches for several years in succession from trees growing among apple trees. At the great International Exhibition of fruit, held at Boston in 1873, Ontario took the second prize for peaches and for open-air grapes; Ontario took the first prize for the largest collection, and in plums Ontario distanced all competition and carried off the first prize, a silver medal; and in pears, although beat in numbers, still the judges were so well pleased that they awarded her a silver medal. Her total collection of fruit was so large and fine as to astonish every one, and the judges expressed their admiration of its beauty and excellency by bestowing another silver medal upon Ontario for her entire collection.

To show what is already done in apples in the single county of Lincoln, I extract the following from the *Monetary Times*, by Mr. J. B. Osborn, of Beamsville:

'On enquiry, I find there have been shipped from Grimsby Station about 6,000 barrels; Beamsville, 1,000; Jordon, 1,500; Niagara, probably 2,000; in all, 30,000, valued at say $2 per barrel, amounts to $60,000.'

Besides apples, a large amount of other fruits were grown.

Mr. S., to illustrate the importance of fruit raising in America as a profitable branch of husbandry, read the following extract:

CHICAGO AS A FRUIT MARKET.

A correspondent writes from Chicago:—

"The importance of this city as a fruit market and of the extent of territory levied upon to supply the ever-increasing demand is not generally known. The season has been an unusually excellent one, and a few statistics showing the enormous extent of the trade in fruit will not prove uninteresting. The quantity of fruit received each day is enormous. During the month of September the following receipts were registered:—By lake, 374,672 baskets of peaches, each basket averaging fifteen pounds; by rail, 6,062,299 pounds of green fruits, making a total for September of 10,682,283 pounds, or enough to fill 534 freight cars, which would make a train of over four miles in length. But this was not all. In addition to the quantity mentioned, over 46,850 barrels of apples, and upward of 1,000,000 pounds of dried fruit were received during the same time. In one day during the same month, over 50,000 packages were received in Chicago. The magnitude of the trade is best shown by the statement that there were at least 250 dealers, and that one of these, in one day during the second week in October, received eighty-two full car-loads, or 12,270 barrels of green fruits, while his sales on Saturday of the same week were forty-six car-loads, or 6,900 barrels. The most of these fruit dealers are located in South Water street. This business thoroughfare is the great marketing street of the city. It is built up solidly and substantially, and for a distance of half a dozen blocks or squares, on both sides of the way, there are, with but two or three exceptions, no houses not handling fruit to a greater or less extent. The street is jammed with teams, and the sidewalk crowded with foot passengers, barrels and boxes from early in the morning till late in the afternoon. Indeed, I cannot call to mind any one street in New York city which equals it in busy appearance. Rents in this locality are higher than in any other portion of Chicago, each foot front, it is estimated, bringing an annual rental of not less than $160. Besides the many fruit dealers on South Water Street, there are a number of dealers on West Lake and on Kenzie streets.—Outside of the regular dealers there are nearly 100 sidewalk men, as they are termed in the parlance of the street. That is to say, there are that many persons who, with but little capital, buy of the regulars in small lots, rent so many feet front of sidewalk, and then resell to consumers. The capital of these sidewalk men varies from $5 to $100. Some of them pay as high as $365 per annum for a space of sidewalk ten feet long and four in width. It has been estimated by competent dealers that the average sales will amount to $61,000, or a total for a season of six months of a little more than $11,000,000. The sale of peaches alone, in one day during the present season, footed up over $27,500."

The reading of the essay led to much interesting and useful discussion on the subject.

Mr. Weld agreed with the advice to plant an orchard with but few varieties of apples. They could, he believed, be disposed of to greater advantage. He agreed also with him in the selection he had. He considered the R. I. Greenings, the Baldwins and the Golden Russetts very superior apples, and varieties that keep well. He differed from Mr. S. in his plan of growing no crops in the orchards, even when young, except the apples—He considered that root crops and small fruits might be grown with advantageous results. Their cultivation would keep the land free from weeds, and the profit from them would pay a rent for the ground.

In a reply to a query from one of the members, Mr. T. said he prefers planting apple trees thirty feet apart. He thinks they grow better than if planted closer.

Clover as a Shade to the Soil.

Of all the grasses permissible in an orchard, clover is the least objectionable and most beneficial, particularly as a shade. An enthusiastic argicultural writer argues that there is no other plant of so much value to farmers as this. "It furnishes the most perfect protection to the soil during the fierce dry heats of summer. Being a constantly deciduous plant, its leaves are perpetually falling, and soon form a delicate covering for shade, and easily penetrated at all points by the air, which is the great carrier to the worn-out soil of those atmospheric elements that are to enrich it. In this way the clover plant not only contributes directly to the fertilizing of the soil by giving its own substance to it, but it furnishes a protective covering to the entire ground, which encourages and stimulates those chemical processes by which the hungry and exhausted soil is recuperated from the vast supplies of nutriment that are held in the atmosphere. It becomes to the farmer the most valuable fertilizer in the world, as it imparts fertility to the entire soil." It should be added, by way of caution, that every two or three years it should be ploughed under and left for a year to rot in the soil; otherwise the ground may get too sod-bound, which is almost invariably injurious to fruit trees.