

editor of the *Gardeners' Magazine*, wrote to me, in the year 1874, saying he had several seedlings, growing in his garden at Stoke Newington, which had been sent him by a market gardener in poor circumstances, near Christchurch, Hants.

They had been planted by Mr. Shirley Hibberd partly to test their value, if any, and partly to try a new plan of growing potatoes on tiles buried in the soil, which Mr. Shirley Hibberd had himself been recently recommending as a means of preventing disease.

Mr. Shirley Hibberd begged me to come up and see the trial, as a matter of much interest at the time, and I accordingly went with my father, Mr. Martin Hope Sutton, who has a lively recollection of the visit.

We examined many rows of potatoes of different sorts planted over those tiles, and when we came to one row, not more than three yards long, Mr. Shirley Hibberd, who was actually using the fork himself, turned out an enormous crop of potatoes, far exceeding that of any of the rows alongside.

I said "If that potato is as good for eating as it is for cropping, it ought to be called 'Magnum Bonum'."

Mr. Hibberd replied: "Well, you can have it and call it Sutton's Magnum Bonum, if you like to buy the stock from the poor man who has sent it to me to try. It has no name at present, and he has asked me to introduce him to some firm who would purchase it, name it, and send it out to the public."

Mr. Shirley Hibberd immediately put me in communication with the late Mr. Clark, of Cranemoor, near Christchurch Hants. The purchase from him of the potato, with the right to name it "Sutton's Magnum Bonum," was duly effected, and in consequence of the extraordinary productiveness of the variety, sufficient stock had been produced for it to be sent out to the public in 1876.

On February 24th of the following year, Mr. Shirley Hibberd, in an editorial note in the *Gardeners' Magazine*, wrote—"Sutton's Magnum Bonum was selected by Mr. Martin Sutton from a set of seedlings. The entire stock was purchased by Messrs. Sutton. These facts will have some interest for those who are inquiring into the history of this useful variety."

And again, on September 5th, 1890, the *Times* published a long letter from Mr. Hibberd on "Disease-proof Potatoes," in which he said:—"The far famed Magnum Bonum was the first of this series, the original distribution of which, in the year 1876, we owe to Messrs. Sutton and Sons."

My firm has, from the first, mentioned Mr. Clark as the actual raiser of the seedling. He continued to grow potatoes for us, and raised other seedlings, until his death.

He was a man whom all who knew him respected highly, and many of his friends joined with us in raising a public money testimonial to him.

MARTIN J. SUTTON.

Kidmore Grange, Caversham, Oxon.
December 3rd, 1894.

P.S.—The fact that in this year of 1894 the true strain of Magnum Bonum retains the same wonderful power of resisting disease which it possessed twenty years ago probably accounts for the interest which has lately been evinced in its history.

M. J. S.

NORTHERN FRUIT CULTIVATION.

M. J. C. Chapais followed with an excellent paper on northern fruit cultivation, intended to teach fruit growers in the eastern section of the province the best species to cultivate, with a prospect of profit, as established by experiments at St. Denis, Kamouraska, ninety miles east of Quebec, in latitude 48° 30', where such varieties as the C. J. J. Tholer, Red Astrachan, Duchess of Oldenburg, Summer Arabka, Tetooka, Alexander, Anlonovka, Fameuse, Wealthy, Red McIntosh, Golden Russet, Grandmother, Whitney, etc., had been successfully grown.

PLUMS.

Professor Craig spoke next on the newer introduction of the plums of the American type. He said that a hardy variety a good shipper firm, productive and with buds well able to resist early spring frosts, was needed in the province of Quebec. The damson, small blue variety, common in the eastern portion of the province, was delicate, and the bud in the tree was, moreover, very subject to the disease known as 'black knot.' To kill this two cuttings a year were needed, say, in December and July. The New Orleans variety is subject to the same dangers, and is not very ready to take to all soils. The American plums, including the 'Prunus Americana,' were the better for this climate. The Chicago were not quite so hardy. The 'Prunus Hortulana' too, was of little value in the north. The first group deserves most attention, on account of hardiness, vigor of tree and productiveness. Its chief objections were that it was a rambling grower, had sometimes a defective flower and was inclined to be soft, the pit being sometimes large. The varieties of the 'Prunus Americana' recommended for commercial purposes were the Desoto, Hawkeye, Stoddard, Wogant, Wolf and Weaver. The description of the plums was interesting and instructive, and their propagation was next discussed. For market purposes they should be done up in very small packages. The photographs of the different varieties were extremely interesting.

TREE PRUNING.

The Hon. Mr. Joly spoke on the proper pruning of trees. Instances of both good and defective pruning were shown, forming admirable object lessons on the folly of leaving long exposed parts of branches which it was desired to remove. These result in bringing ruin and rot to the very heart of the trunk of the tree. For good pruning the cut should be made so as to leave the tree quite smooth, even if the wound be larger. The object is to allow it to heal as rapidly as possible. The address was one of the most thorough and practical of the evening. Mr. Joly also showed excellent photographs of his collection, and a resolution was adopted recommending the insertion of a reduced form of the photograph, as a plate in the society's report. It was also recommended that the educational department have plates of the photographs made and distributed in the schools, accompanied by suitable directions and explanations.

FRUIT PRESERVING.

Mr. R. W. Shepherd, jr., Montreal, read the report of the visit made by him to Ontario and the United States

with the object of studying the canned and desiccated fruit industry. This commission was undertaken at the request of the Hon. Louis Beaubien, Commissioner of Agriculture, and the result is a very interesting document of great value. The same gentleman also read a paper, on the lessons learned from marketing the apple crop of the season.

Witness.

HOW TO GROW GOOD BARLEY.

If we first make due allowance for seasons, there are certain rules which, in the long run, will give a fair modicum of success. As insisted upon in the letter already alluded to, a light, porous, well tilled soil is of the utmost importance. As to tith, no words can over-rate the importance of a uniformly fine and not too deep seed-bed. It may be the result of one or of two ploughings, followed by rolling and repeated harrowings, all done in suitable weather. Next comes the important question of seed, and we cannot escape from the conclusion that the pedigree seed sold by our first-rate growers (whose several names we do not wish to particularise) is worthy of our best attention. The price per bushel is high, and perhaps may appear exorbitant, but the cost is, after all, not so great, because the amount necessary to seed an acre is so much less. Only once have we been disappointed, and that was in the disastrous season of 1893.

EARLY SOWING.

There is no doubt as to the advantage of early sowing.

MANURING BARLEY.

A practical question of great importance is how far manurial dressings influence the quality of barley? There are plenty of barley manures on the market, and testimonials are produced in numbers to show that their application has been followed with both quantity and improved quality. There is, however, a want of scientific evidence to show that any special manure can be relied upon to secure uniformly good quality. Agricultural chemistry is strangely silent upon this point, for most experimental results deal rather with the number of bushels per acre, than the quality of the produce. I am not aware that any special manure for barley is composed of ingredients beyond the ordinary range of phosphates and nitrates, with a dash of potash. If there are any occult and little known elements of fertility beyond those which exert an influence upon weight per bushel, colour, and quality, I can only regret that they appear not in the pages of Rothamsted results or in any accredited work on the chemistry of the farm. They must, therefore, exist as a trade secret in the heads of their manufacturers. It may be that the success of such special manures is due to the proportion and combining of the phosphates, nitrates, ammonia salts, and potash salts of which they are, we suppose, composed, and this may be the case. If their application has been followed by marked success, and a prize at an exhibition of malting barley, no one can grudge the manufacturer his triumph. After all, success is the true test of merit, but it must be shown to be fairly constant in order to secure a favourable reception by the farming public. For myself I look upon such special manures

as being good, if not too dear, but not as necessarily better than an application of superphosphates and nitrate of soda, applied together or separately. I am indeed open to conviction upon a sufficient array of evidence, and will go even further. It would be highly satisfactory to all barley-growers if a good special manure, capable of securing quality as well as quantity of produce, could be proved to be uniformly reliable.

FOLDING WITH SHEEP.

A good sample and heavy crop of barley are often grown after folding. It is, however, necessary that the fold should be regularly shifted and the land uniformly manured. Shepherds are accountable for much thin barley, due to irregular folding, and their bad habit of leaving the sheep troughs too long in one place. On the whole wheat or oats are safer crops after roots. It is, however, certain that many a good sample of barley has been grown after folding with sheep; and the practice of so growing it is backed up with all the authority of the famous Norfolk rotation.

ODDS AND ENDS.

Here is a point in feeding which every farmer ought to know, but which all do not so carefully attend to as they might, with advantage, do. It is from the Maine Farmer: "An experienced feeder claims that ground grain is the cheapest form in which nutriment can be given to the working teams; but to secure the best results it should be mixed with cut hay in order to make it more porous in the stomach, and in this way more easily digested" (1).

In the early days of petroleum products, we were careful to cross the street before we got too near to the kerosene oil store. Yet that abominable oil was sold for fifty cents a gallon, while we are now buying oil as limpid and scentless as water, for five cents! Rockefeller may have handled his competitors ruthlessly; but no one can deny that he has been a great public benefactor; and he has also been very generous with his money in a number of beneficent ways.

An exchange remarks with truth, as every gardener will recognize, that the one great difficulty in growing onions is to get good seed. Put your onion seed in a pan of water, and reject all that will not sink after being thoroughly wet. And as for another grievance of the garden, the Onion Worm, the best protection is to sift unleached wood ashes on the plants as soon as they are up, and while the dew is on, or right after a rain. It will not hurt the plants seriously, and it is a death to the worms. Kerosene emulsion, made with strong soap-suds and kerosene, well shaken together, will also kill the onion worms, but as there are several broods of these "cusses" these remedies should be repeated until the plants are well under way.

Wm. Housman in London Live-Stock Journal says: "Let certain breeds be bred for beef and certain breeds for milk, by all means; but, for all that, we want and we will have a

(1) No good stableman in England ever gives oats, or oats and beans, without chaff; $\frac{1}{2}$ hay and $\frac{1}{2}$ straw.—Ed.