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MAY, 1889.

A. I. ROOT'S CATALOGUE OF
SEEDS FOR THE GREENHOUSE, GARDEN, AND FARM,
AND ESPECIALLY FOR BEE-KEEPERS.
EIGHTH EDITION.

PRICE 5 CTS. PER PAPER; 10 PAPERS, 40 CTS.; 100 PAPERS, \$3.50.

Seeds of new or rare vegetables and novelties, we include at the uniform price of 5 cents per package; but, of course, we are obliged to put a smaller number of seeds into such packages. This will be noticed with the White-Plume Celery and Snowball Cauliflower, etc. Now, these 5-ct. papers are all sent by mail postpaid; but when you order seeds BY THE OZ., or LB., you must pay 9 cts. extra for postage and packing on each and every pound of seeds ordered. Peas and beans by the pint and quart, must also have 8c per pint, or 15c per quart, added for postage; on corn, add 12c per quart for postage. One-fourth lb., lb., or peck will be sold at lb. or peck rates.

ASPARACUS.

Conover's Colossal. Oz. 5c; lb. 35c.
Asparagus, Palmetto. Oz. 10c; lb. \$1.50.
We have given this new variety a trial beside the Colossal, and it is certainly a stronger and more robust plant.
Asparagus Roots. Palmetto, 10 for 10c; 75c per 100; \$6.10 per 1000. By mail, add 5c for 10, or 20c per 100.

BEANS.

Dwarf German Wax, or Butter Beans. Pt. 10c; pk. \$1.50. The earliest snap-short variety.
Golden Wax. Pt. 10c; pk. \$1.50.
A staple snap-short bean.
Kidney Wax Bean. See Novelties.
White Kidney, Large. Pt. 10c; pk. \$1.00. Bu., \$3.25.
One of the best to use shelled, when green or ripe. We sell bushels of these at 15c a pint, shelled green. We market them in new pint strawberry-boxes.

POLE BEANS.

Extra-Early Lima Beans. These are fully equal to the old Lima beans, and are fully as productive, and from ten days to two weeks earlier. We consider it an acquisition. Price 20c per pint, or \$2.50 a peck.
King of the Garden Lima. ½ pt. 15c; qt. 50c; peck, \$2.75.
These are fully as good as the common lima, but the pods are considerably larger, saving time in picking and shelling, as well as increasing the yield. We get 20 cents per pint for these, when green, shelled. See White Kidney bean above.

The above beans will be furnished in 5-cent packages; but where they are to go by mail, postpaid, of course the above packages will have to be quite small. If wanted by mail, add 8c per pint or 15c per quart for postage.

Henderson's New Bush Lima Bean. For description, see Novelties.

BEETS.

Eclipse. Oz. 5c; lb. 60c.
These have given us the best satisfaction of any thing we ever raised in the way of beets. They are a very quick grower, of excellent quality, and the appearance of the bright smooth scarlet bulbs is fully equal to any thing that has been pictured in the colored plates of our catalogues. In order to get a fancy price for them, start them in the greenhouse, and transplant when of the size of peas, or a little larger. They bear transplanting well, and are exceedingly hardy.

Philadelphia Turnip. Oz. 5c; lb. 50c.
This is a little later and larger than the above, and is a novelty because of its alternate rings of dark and light pink.

Lane's Improved Sugar. Oz. 5c; lb. 35c.
The best variety for stock-feeding. It showed a larger per cent of sugar at the Experiment Station than any other analyzed. It is so sweet, that, when small, they are nice to eat raw. Has yielded as high as 20 tons to the acre.

Long Red Mangel. Oz. 5c; lb. 30c.
Yields enormously, but not so sweet as Lane's Improved.

CABBAGE.

Select, Very Early Jersey Wakefield.
Oz. 20c; lb. \$2.50.

Our cabbage seed this year is raised by H. A. March, Fidalgo Bay, near Puget Sound, Washington Territory. Thousands of sample packages were sent out by us in 1888, and Friend March's seeds ought to be pretty well known. The Early Jersey Wakefield, of the best selected strain, is fully as early as any other cabbage known, and greatly superior in quality. We have sold single heads at retail at 30c each, raised from plants started in the greenhouse in February.

Henderson's Early Summer. Oz. 15c; lb. \$2.00.
This comes next to the Jersey Wakefield; and although it is an early cabbage, under very favorable conditions it produces large heads of most excellent quality.

Winningsstadt. Oz. 10c; lb. \$1.50.

Much like the Jersey Wakefield, but later and larger. The heads are round, and some of them are so hard as to seem almost like bullets. Our customers, many of them, greatly prefer these and Henderson's Early Summer cabbage to the later flat cabbages.

Louisville Drumhead. Oz. 10c; lb. \$1.50.

One of the most uniform and surest-heading sorts tried at the Ohio Experiment Station. It is a little earlier than Flat Dutch, hence may be planted later; just the kind to plant after early crops.

"Newark" Flat Dutch. Oz. 10c; lb. \$1.50.

This is an improvement on the old standard Flat Dutch, and earlier. Pronounced by Brill "extra fine."

Perfection Drumhead Savoy. Oz. 10c; lb. \$1.50.

The Savoy cabbage is handsome in appearance, and richer and finer in quality, than any of the other varieties. In taste it nearly approaches the cauliflower.

Large Red Drumhead. Oz. 10c; lb. \$1.50.

This is a red cabbage for pickling. The bright red, by way of contrast, will make a load or lot of cabbages attract attention, and there is always more or less demand for red cabbage for pickles.

CARROTS.**Early French Forcing.** Oz. 10c; lb. \$1.00.

These are small, but very early, and often bring a good price, because they are the first that make their appearance in the market. Bunched up with early radishes, they are very taking in appearance.

Orange Danvers, Half-Long. Oz. 5c; lb. 60c.

Yields well, and is easy to dig. The best sort known.

CAULIFLOWER.**Henderson's Early Snowball.** Raised by H. A. March. $\frac{1}{4}$ oz. 75c; oz. \$2.50.

Nice specimens of early cauliflower often bring extravagant prices, and it pays well to start them in the greenhouse, and use hand-glasses to forward them before the hot weather comes on.

CELERY.**Henderson's White Plume.** $\frac{1}{4}$ oz. 10c; oz. 35c. lb., \$4.50.

We place this at the head of the list, and especially for early celery. During the past season we had fine stalks on the market in July, and it sold readily at 10c each. We are planning to have celery this year in the market in the month of June. The seed was started in the greenhouse about the middle of January. On account of its self-bleaching qualities it is better fitted for early celery than any other.

Golden Self-Blanching. See Novelties, p. 4.**Golden Dwarf.** Oz. 15c; lb. \$2.00.

One of the standard sorts for a later crop. The golden tint of the head stalks makes it a very handsome vegetable.

Boston Market. Oz. 10c; lb. \$1.50.

An old standard variety in and around Boston, and raised largely throughout the land.

CORN (FOR TABLE USE).**Ford's Early Sweet.**

Excellent in quality, and exceedingly early.

Cory's Extra Early.

Cory's corn this season has not only proved to be the earliest by ten days or two weeks, but the ears are surprisingly large and fine, and the quality, if cooked at once, as soon as picked, is almost equal to any sweet corn we have. It is quite an acquisition.

Crosby's Extra Early.

This is a great yielder, with soil suitable, although it comes a little later than Ford's.

Late Mammoth Sugar.

This is excellent in quality, and gives ears of mammoth size, and is a wonderful yielder. Our trade has been very large in this kind of corn for eight or ten years past.

Corn we sell at 5 cents for a half-pint package; but at this price purchasers must pay the postage, which is 3 cents for each half-pint. If wanted in larger quantities the price will be \$1.00 per peck, or \$3.50 per bushel.

CRESS, OR PEPPER GRASS.**Extra Curled.** Oz. 5c; lb. 50c.**CUCUMBER.****Early Frame.** Oz. 5c; lb. 50c.

The earliest cucumber.

Rawson's Improved Early White Spine. Oz. 25c; lb. \$3.50.

This is the kind he uses for raising in his greenhouse, and the cucumbers bring 50 to 75 cents each, even when he raises them by the thousands. Fine specimens are wonderfully handsome and taking, and they sometimes grow to a great size without getting yellow.

Nichols' Medium Green. Oz. 5c; lb. 60c.

This is the kind generally used for raising pickles for market.

KOHLRABI.**White Vienna.** Oz. 10c; lb. \$1.25.

This is a quick-growing vegetable, half way between turnip and cabbage. If the plants are started in the greenhouse, the vegetable may be put on the market at the same time with the very earliest cabbages; and where people once get

a taste of it, it is pretty sure to meet with a rapid sale at good prices.

LETTUCE.**Grand Rapids Lettuce.** $\frac{1}{4}$ oz., 10c; ounce, 35c; pound, \$4.50.

This is a new variety, developed in the vicinity of Grand Rapids, specially for greenhouse culture. It has been developed from the Black-seeded Simpson, by something like fifteen years of careful selection. It is superior and beautiful in appearance, a strong grower, very tender and crisp, and so far as known, free from rot, and will keep from wilting longer while exposed for sale than any other variety known. At least fifty large greenhouses are now engaged in raising this kind of lettuce for market, in the neighborhood of Grand Rapids, Mich. For further particulars, see our new book, "What to Do," etc.

Boston Market. Oz. 10c; lb. \$1.00.

The best variety of head lettuce for greenhouse culture, as the heads are small, but compact and handsome.

Landreth's Forcing. Oz. 15c; lb. \$2.50.

Excellent for hot-beds and cold-frames; exceedingly early. The heads are small, and may be sent to the table in their entire form, on the root.

Henderson's New York. Oz. 15c; lb. \$2.00.

We consider this the best head lettuce for outdoor culture known. Even the chickens have discovered that it is of superior quality. They will run over our beds and pick out every head of New York lettuce, without paying any attention to any other kind.

Hanson. Oz. 10c; lb. \$1.00.

An old standard variety, producing heads that sometimes weigh as much as 10 lbs.

MELONS, MUSK.**Extra Early Citron.** Oz. 10c; lb. \$1.00.

Always profitable because of its extreme earliness.

Casaba, or Persian Muskmelon. Oz. 5 cts.; lb. 60c.

A standard large variety.

Montreal Nutmeg. Oz. 5c; lb. 60c.

Large size, beautiful looking, very small cavity for seeds, and one of the very best.

Pine Apple. Oz. 5c; lb. 60.

Excellent in quality, and only medium in size.

Banana. Oz. 5c; lb. 75c.

I consider this one of the best muskmelons it has been my fortune to taste, judging from specimens we had last season. They are long like a rail, or like a banana, if you choose; but the color is strikingly like a banana, and what is more wonderful still, it has an odor also like the banana.

MELONS, WATER.**Phinney's Early.** Oz. 5c; lb. 60.

The quality is very good, but the size is not very large.

Landreth's Boss. Oz. 5c; lb. 60.

A melon that seems to combine more of the good qualities for a large late watermelon than any other.

ONION.**Mammoth Silver King Onion.** Pkt., 5c; oz., 20c; lb., \$2.50.

We first procured this seed from William Henry Maule. To get the onions early, the seeds are started in a box in a greenhouse. When about two inches high they are planted out as you would plant out cabbage or celery. During August and September we had onions larger than any body else had ever seen or heard of, grown in our locality; and as we sold them by the pound, many of them brought 10 cts. each. We regard them as an acquisition.

Extra Early Red. Oz. 15c; lb. \$2.00.

Medium size, red, and an excellent keeper.

Silverskin, or White Portugal. Oz. 25c; lb. \$3.50.

A standard variety for pickles, or for handsome bunch onions. Better flavored than the dark-skinned.

Yellow Globe Danvers. Oz. 15c; lb. \$1.75; 5 lbs., \$1.50 per lb.; 10 lbs., \$1.40.

A standard yellow variety. The best of all to grow from seed. It makes a wonderful difference, however, how the seed is grown. Some strains will give nearly double the crop that others will. Our seed for this year was grown by a near neighbor, the father of W. J. Green of the Experiment Station, Columbus, Ohio.

ONION SETS.

We have those of Yellow Danvers and Silverskin.

Prices, of yellow, 10c per pint; \$1.25 per peck, \$4.00 per bushel. Silverskin, one-half more than above prices. Large-size sets (often used for pickles), one-half the above prices. By mail, 8 c. per qt. added.

Winter, or Egyptian Onion Sets. Prices same as above.

This onion does not produce a bulb at all, or at least only a very inferior one. All it is raised for is its long succulent stalks, with a sort of root, or small bulb, on the lower end. It has such an inveterate habit of growing that it grows any time when in the ground or out of the ground; and, in fact, the only place to keep it is in the ground. During August and September the sets may be gathered and sown; but you can not keep them over winter. The sets grow in the form of little onions, on the top of the stalk, like the old-fashioned onion-sets we used to see when we were children. We gather these sets as soon as they are ripe, say about the middle of August; then we sprinkle them in a drill, about as we would peas, say from three to five inches apart.

PARSNIP.**Bloomsdale.** Oz. 5c; lb. 40c; 10 lbs., \$3.00.

This is the only kind we have, but we consider it equal to any.

PARSLEY.**Fine Curled or Double.** Oz. 5c; lb. 50c.**PEAS.****Landreth's Extra Early.** ½ pt. 5c; pk. \$1.50.

We consider this equal to any for the first peas of the season. It yields its crop in a very short time. Not equal in quality to the American Wonder.

Alaska Peas. ½ pt. 5c; peck, \$1.50.

This is the favorite early pea of the Rural New Yorker, and is with many taking the place of any other early pea.

American Wonder. ½ pt. 10c; pk. \$2.00.

This is a cross between the Champion and the Little Gem. The vine grows from 6 to 8 inches high. It is the first to ripen among the green wrinkled sorts. On account of its dwarf habits it can be grown very easily under glass.

Stratagem. Pt. 20c; ½ pt. 10c; pk. \$2.50.

This has made its way rapidly in public favor. It is not only of rare excellence in quality, but the pods and peas are so large, and fine looking they call attention at once from any thing else in the market. It has given us excellent satisfaction.

Champion of England. Pint, 15c; pk. \$1.50; bushel, \$5.50.

So well known as to need no recommend here.

Marrowfat. ½ pt. 5c; pk. 75c; bu. \$2.50.

One of the most desirable and well-known late sorts.

*Peas by mail will be at same rate of beans for postage.***PEPPERS.****Spanish Pepper.** Oz. 25c; lb. \$3.00.

A new variety, so large that the natives of warm climates slice them up and fry, as an article of food.

Bullnose. Oz. 25c; lb. \$3.00.

A larger variety than the above, but in every other respect the same.

Cayenne Pepper. Oz. 25c; lb. \$3.00.

Much called for, for seasoning soups, pickles, etc.

POTATOES.**Early Ohio.**

The Experiment Station, Columbus, O., says there is nothing earlier.

Early Pearl.

The Experiment Station finds this about as early as the Early Ohio, and perhaps yields a little better.

Lee's Favorite.

This is a few days later than the foregoing, but yields better still. In our locality during the past season it has given enormous yields of extra fine potatoes. Prices, same as Early Ohio.

Empire State.

This, the Experiment Station considers as good a late or medium late potato as any before the public. They decide that the above four varieties are the cream of the list.

Beauty of Hebron.

This is preferred by Perry because it gives as good, or better yield than any other, and comes off early enough to admit of getting in wheat in good time. It is a standard early sort.

Any of the above potatoes sold as follows: 1 lb., by mail, 15 cts.; 3 lbs., 40 cts.; 1 lb., by express or freight, 7c; 1 peck by express or freight, 35 cts.; 1 bushel, \$1.00.

PUMPKIN.**Connecticut Field.** ½ pint, 5c; quart, 15c; peck, 75c; bushel, \$2.00. If wanted by mail, add at the rate of 16c per quart for postage.**RADISHES.****Early Scarlet Globe.** Pkt. 5c; oz. 10c; lb. \$1.00.

This is the radish that Vick gives such a beautiful chromo of in his catalogue for 1888, and for forcing in the greenhouse, it is ahead of any other in the way of forcing radishes. They begin to form a bulb almost as soon as the second leaves come out. They are very hardy, and of exceedingly rapid growth.

White-tipped Scarlet Turnip. Oz. 5c; lb. 60c

A fancy variety of the scarlet bulb with white bottom; very showy.

Lady Finger. Oz. 10c; lb. \$1.25.

One of the standard long radishes. Sometimes it grows as large as a parsnip, and yet is of excellent quality.

Eeckert's Chartier Radish. Oz. 5c; lb. 50c.

A novelty, and one that has given us the greatest satisfaction; of rapid growth and good size, both at the bottom and top. In favorable soil it will grow to a large size, and still be excellent in quality. They are remarkably certain to make a good bulb.

RHUBARB.

Either Victoria or Linneus. Oz., 10c; lb., \$1.50.

SALSIFY, OR OYSTER PLANT.

A vegetable that is sure to be called for, where it is once introduced. Oz. 10c; lb. \$1.50.

New Mammoth. See Novelties.**PINACH.****Bloomsdale Extra Curled.** Oz. 5c; lb. 35c.

It combines as many of the good qualities as any other.

SQUASH.**SUMMER VARIETIES.****Early White Bush, or Patty Pan.** Oz. 5c; lb. 60c.

Not surpassed by the Golden Summer Crookneck. One of the old staples.

Golden Summer Crookneck. Oz. 5c; lb. 50c.

The standard summer squash.

WINTER VARIETIES.**Perfect Gem.** Oz. 5c; lb. 50c.

A round squash, about 6 inches in diameter. The quality is excellent, and it will keep till spring.

Hubbard. Oz. 5c; lb. 60c.

Too well known to need comment.

Boston Marrow. Oz. 5c; lb. 60c.

An old standard staple, especially in and around Boston.

TOMATO.**Dwarf Champion.** See Novelties.**Golden Queen Tomato.** Pkt., 5c; oz., 25c; lb., \$3.00.

This is no special novelty, that I know of, over other tomatoes, except its beautiful golden yellow color; but at the same time the tomato is good-sized, and remarkably smooth and regular. The quality is equal to any. Many specimens of the fruit have a rosy tint toward the blossom end, giving it something the appearance of a beautiful yellow peach with a slight blush of red.

Ignotum Tomato. For description, see Novelties.**Mikado.** Oz. 25c; lb. \$3.00.

We still give the Mikado the preference for an ALL-PURPOSE tomato. You can prepare them quicker for the table or canning, and get more bushels of nice tomatoes than from any other kind. We marketed bushels of them that weighed from one pound to a pound and a half apiece.

Acme. Oz. 20c; lb. \$2.00c.

Too well known to need comment.

Trophy. Oz. 20c; lb. \$2.00.

A companion to the Acme.

Livingston's Beauty. Oz. 25c; lb. \$3.00.

This is a production of the same Livingston who brought out the Acme, Trophy, Favorite, and Perfection; but he pronounces this superior to them all. They are better shaped and smoother, than the Mikado, but not so large.

Pear-Shaped Tomatoes. Oz. 20c; \$3.00.

These are handsome for pickles and preserves. We have them of two colors—red and yellow. They are immense bearers, and of good quality.

TURNIP.**Extra-Early Turnips.**

We have tested some of these which are advertised in the different seed catalogues; and while we find them as represented, much earlier than the staple turnips, they are, so far as we have tested them, inferior in quality, very strong in taste, and sometimes bitter. Last season we had beautiful turnips in June, on our market-wagon. They were Bloomsdale Early; but no one who bought them wanted any the second time. It seems the Ohio Agricultural Experiment Station at Columbus have had the same experience. Below is a letter from Prof. Green:

Mr. Root:—Early Milan and Early Purple Top Munich were the earliest purple-top turnips that we tested, but both were of very poor quality. I do not know a good variety of this description better than the common Purple Top Strap Leaf. White Egg from Gregory was the best early variety that we had, and Early White Flat Dutch ranked next. White egg is as early as any, and the quality is excellent. W. J. GREEN.
Ohio Agricultural Experiment Station, Columbus, Dec. 31, '88.

In view of the above we have omitted from our price list all early turnips; but if any of our readers have an early turnip of good quality, we shall be glad to receive some of the seeds for trial, and you may also send a specimen to friend Green, as above. Our experience is, that the White Egg and Purple Top Globe are both quite early, and excellent in quality. They may be, perhaps, ten days or two weeks later than some of the extra early.

White Egg. Oz. 5c; lb. 40c.

Very showy and handsome, as well as quite early.

Yellow Aberdeen. Oz. 5c; lb. 40c.

We consider this the best table turnip grown. When cooked it is so yellow that it will sometimes be mistaken for squash.

Purple-top White-globe Turnip. Oz. 5 c.; lb. 40 c.

This turnip has given us the best results of any thing we tried; the quality seems to be unusually fine for table use, especially when they are about as large as fair-sized apples. They probably grow as quick as any turnip known, and are very handsome. When washed they are almost as white as an egg, with a beautiful purple around the top. They are smooth and round.

Bloomsdale Swede. Oz. 5c; lb. 50c.

Perhaps the best of the Rutabaga varieties.

NOVELTIES FOR 1889.**Henderson's New Bush Lima Bean.**

The most important novelty for the year 1889, in the whole business of vegetable gardening, is Henderson's New Bush Lima Bean. For years people have asked, "Does anybody know of a lima bean that grows on bushes, and does not need poles?" But until the present time no one has been able to answer. On account of the trouble of procuring poles and making frames run up them, a good many have decided that lima beans are too much bother; but after a year or two, when the neighbors had a supply of this delicious vegetable, and they hadn't, they have gone back to the poles again. Now, however, Peter Henderson all of a sudden astonishes us by announcing a genuine lima bean that not only shows no tendency to run, but bears immense crops; and, more wonderful than all, they are a great deal earlier than the pole lima beans. During the year 1888 he took good care to have them tested by many prominent men; and although we have never yet tried them on our own ground, there is no question but that they are all he has claimed for them. The only thing I can discover wherein the pole beans have the advantage is the smallness in size of the New Bush, and more labor in consequence, in shelling. We have made a purchase of 1000 packages; and while we have been obliged to sign a contract not to sell them for less than the established price, 25 cents a package, we are at liberty to offer them as premiums for subscriptions to our journal. Every one who sends us a new subscription to GLEANINGS can have a 25-cent packet of the new lima beans free. If you do not want to be bothered to hunt up a subscriber, just send us the cash for GLEANINGS for yourself for a year, after your present subscription expires. Or we are at liberty to send you one packet for 25 cents; five packets for \$1.00, or twelve packets for \$2.00. Peter Henderson says that "twelve packages will plant five rows fifty feet long, which is ample for a family." Now let me whisper in your ear, that the demand for these lima beans next year will probably be enormous, and we expect to plant every one of the 1000 packets that are not disposed of by June 1. Do you know how many made a big investment on the new Japanese buckwheat when it first came out? We shall, without doubt, have the same thing repeated, but probably on a larger scale, with the New Bush lima beans. We might mention here the friend who invested 75 cts. in Grand Rapids lettuce seed, and received from us \$50.00 in cash for the crop of the seed he secured from his investment of 75 cents.

Ignotum Tomato.

During the past year we have explained several times that the Ignotum tomato was selected by the Michigan Agricultural college, from over 100 different varieties. It was an accidental sport from a package of seed received from a foreign country. A few seeds were furnished us to try, and from these we have the first Ignotum tomato seed ever offered for sale in

the United States, and probably in the world. We do not offer this seed for sale, but we will send a packet, containing about 25 seeds, to every subscriber to our journal, GLEANINGS IN BEE CULTURE.

Dwarf Champion. Oz. 50c; lb. \$6.00.

This is a great acquisition for an EARLY tomato. It is not only very early, but the shape is equal to any of our best kinds, and it stands up without staking, on account of its strong stalk. They are smooth and handsome, and ripen all over nicely, quite a little ahead of the Mikado.

Tomato Seed Saved from the First Specimens to Ripen.

For two years back we have been saving seed from the first and largest good-shaped tomatoes that ripened, and will now offer such seed, so saved, from the Mikado and Dwarf Champion (see description of these above and on page 3), at 5 cts. per packet of about 25 seeds to any who may want them. This will enable you to grow a few plants from our FIRST and BEST selection for a comparatively small outlay.

Kidney Wax Bean.

This is an improvement on the ordinary Golden Wax Bean, in giving us larger pods, more perfectly free from rust; and last, but not least, if you can not sell all of them for snap-short beans you have a shell bean that is fully equal in size and quality to the larger white kidney bean; and if you do not sell them all shelled, you have a good crop of dry White Kidney beans. We consider it quite an acquisition. Price 10 cents per ½ pint; \$2.00 per peck.

Golden Self-Blanching Celery. ¼ oz., 15 cts.; oz., 50c; lb., \$7.00.

This celery was raised by us for the first time during the past season. It is different from all others we have seen, in being not only more dwarf—i.e., shorter, but it is also thicker; in fact, the plant, when fully matured, is so thick and stumpy as to create surprise. The variety is also excellent, and the labor of hanking up is not more than that of the White Plume. As to the keeping qualities, our experience indicates that it is a rather early celery, and should be used soon after approaching maturity. We shall test this year side by side with the White Plume for our very earliest.

Salsify, New Mammoth. Oz., 10 cts.; lb., \$2.50.

We have grown this side by side during the past season with the common salsify, and we find the roots larger, better shaped, and equally good in other respects; they are, therefore, without question an improvement. A very little improvement in such a matter is worthy of adoption; for when we once start with the improved kind it is just as easy to use it as the old or inferior kind. This was introduced from the Sandwich Islands.

VEGETABLE PLANTS.

These are one of our great specialties, and we are prepared to furnish cabbage and lettuce plants from the first of February till the first of August; celery-plants from the first of March till the first of September; tomato-plants from the first of April till the first of August.

PRICES AND VARIETIES.**ASPARAGUS PLANTS.**

HENDERSON'S PALMETTO plants, 1 year old, 10c for 10; 75c per 100, or \$6.00 per 1000.

CABBAGE-PLANTS.

We keep in stock during the months of Feb., March, April, May, June, and July, varieties as below:

SELECT VERY EARLY JERSEY WAKEFIELD, HENDERSON'S EARLY SUMMER, and WINNINGSTADT. 5c per 10; 100, 40c; 1000, \$3.00; 10,000, \$25.00. During May, June, and July, FLAT DUTCH, LOUISVILLE DRUMHEAD, prices same as above. PERFECTION DRUMHEAD SAVOY CABBAGE, and LARGE RED DRUMHEAD ready in May, June, and July, 8c per 10; 60c per 100, or \$5.00 per 1000.

Extra-strong, twice-transplanted plants, double above prices. If these are to be shipped by express, the expressage will be extra, on account of the great weight of the large plants.

COLD-FRAME CABBAGE-PLANTS.

When we have these they will be double the price of the plants raised in the greenhouse. During the present season we have only one kind of cold-frame cabbage-plants; viz., extra selected JERSEY WAKEFIELD.

CAULIFLOWER.

We have confined our attention to the one kind—HENDERSON'S EARLY SNOWBALL. Price of plants, 10c for 10; 75c per 100, \$6.00 per 1000. These will be ready in March, April, May, and June.

LETTUCE-PLANTS.

We can furnish BOSTON MARKET, GRAND RAPIDS, and HENDERSON'S NEW YORK. Prices, 5 cts. per 10; 40 cts. per 100; \$2.50 per 1000, except the Grand Rapids, which will be double the above prices.

TOMATO-PLANTS.

These will be ready from April first till August first. We have the following varieties:

Any of the above plants will be taken directly from the seed-bed, without having been transplanted at all, at half the above prices.

PRICE 5 CENTS PER PAPER 10 PAPERS, 40 CENTS; 100 PAPERS, \$3.50.

ACME, LIVINGSTON'S BEAUTY, MIKADO, and DWARF CHAMPION. The three former will be 10c for 10; 75c per 100; \$6.00 per 1000; or \$50.00 per 10,000.

The DWARF CHAMPION will be double the above prices. The difference in foliage readily distinguishes it from the common tomato.

PEAR-SHAPED TOMATOES, for pickles and preserves. Plants, both red and yellow, 8c for 10; 75c per 100; or \$6.00 per 1000.

All the above plants are once transplanted, and are strong-rooted.

CELERY-PLANTS.

We keep in stock HENDERSON'S WHITE PLUME, GOLDEN DWARF, BOSTON MARKET, and GOLDEN SELF-BLANCHING. Prices, 5c per 10; 40c per 100; \$3.00 per 1000; or \$25.00 per 10,000.

Extra-strong, twice-transplanted plants, double above prices. If these are to be shipped by express, the expressage will be extra, on account of the great weight of the large plants.

PEPPER-PLANTS.

We expect to keep in stock BULLNOSE, CAYENNE, and SPANISH PEPPER. The price will be 15c for 10; \$1.25 per 100, or \$12.00 per 1000.

KOHLRABI.

During the summer of 1886 we had quite a nice trade in this vegetable, raised from plants started in the greenhouse. They were ready to use fully as soon as the earliest cabbages, and were preferred by many of our customers. The price of plants will be 10c for 10; 75c per 100; or \$6.00 per 1000.

We can send plants by mail if enough is added to cover postage and packing, which will be 5c for 10, or 25c per 100.

STRAWBERRIES.

May be you will think I am a little qucer, friends, but there are only three strawberries to which I feel like giving very much prominence. The first is our old friend the **SHARPLESS**. The second is the **JERSEY QUEEN**, introduced by Peter Henderson. This is the latest strawberry we have ever had any experience with. We can send you nice young plants of either variety, from the first of March until the first of December, inclusive, at 10 cts. for 10; 75 cts. per 100, or \$5.00 per 1000.

Last but not least I would recommend, is the new **JESSIE**. This is nearly as large as the Sharpless, much better in shape and color, and the fruit stands higher up on the stalk, out of the dirt. Besides, the plant is a wonderfully healthy, strong grower. Prices for Jessie, same as above. If wanted by mail, add 3c for 10, or 15 c per 100 for postage.

We can furnish strawberry plants, from March 1st until Dec. 1st, inclusive.

SEEDS OF HONEY-PLANTS.

I have for years had dreams of a honey farm, with acres of flowers of different colors, blooming at different seasons, and keeping the bees away from the stores and groceries when we have a dry spell in the fall. The dream has been partially realized with the Simpson honey-plant, Mollie (l. Large's spider plant, and the seven-top turnip, but I am pretty well satisfied it will not pay to cultivate these for honey alone. Mignonette, catnip, motherwort, borage, melilot, and some others, I have tested, but I am sure that none of them have ever paid, just for the honey.

For Alsike Clover, Buckwheat, White Dutch Clover, and Rape seeds, see our regular price list of bee-supplies, mailed on application.

BEE-BALM, OR MELISSA.—During the year 1887 this plant called forth considerable attention, not only for the amount of honey it produces, but for the enormous number of blossoms found on a single stalk. The introducer claims, in fact, that the large number of thirty thousand seeds have been counted on one stalk. It is also so prolific in seed that the introducer claims to have received a bushel of seed from 2100 plants. We can supply the seed. Per packet, 5 cts.; per ounce, 15 cts.; per pound, \$2.00. For further description, see **GLEANINGS** for November, 1887.

BORAGE.—A strong, hardy, rapidly growing plant, bearing a profusion of blue flowers. It may be sown any time, but will, perhaps, succeed best, at about corn planting time. As it grows tall, and branches out considerably, it should have plenty of room. I know that bees are very busy on it, all the day long, from July until Nov., but I do not know how much honey an acre of it would furnish. It is easily tried, because it grows so readily, and if sowed on the ground after early potatoes are dug, you will get a nice crop of fall bloom. Sow broad cast, or in hills like corn. Borage is also used as a salad, or cooked as spinach. Price 10c per oz., or 75c per lb. If wanted by mail, add 10c per lb. for postage.

CATNIP.—This has been very much talked about, and we have record of some experiments with an acre or more, but if I am correct, no one has ever yet seen a barrel of catnip honey. If you wish to try, we can furnish you good seed, that we have tested ourselves, for 10c per oz., or \$1.00 per lb.; 10c per lb. extra, if wanted by mail. Sow in the fall.

CHAPMAN HONEY-PLANT.—This is called, in European countries, "globe thistle." It was introduced by Mr. H. C. Chapman, of Versailles, N. Y., who cultivates it extensively for honey, and claims that it is a paying investment. His seed has been turned over to the government, and may be obtained free by any bee-keeper. Where it is more convenient to get it of us, however, we can furnish it in 5-cent packages, or at 25c per oz., or \$3.00 per lb.

DANDELIONS.—I presume every body can get dandelion seeds and roots without buying them, but for all that, I have much faith in an acre of cultivated dandelions. French thick-leaved, is superior for "greens," and by the way our bees take to our "patch" of it, I think it must be superior for honey. Price of seed, 5c per package, or 50 c. per oz.

FIGWORT, OR SIMPSON HONEY-PLANT.—This is a queer tall weed that grows in fields and woods, and bears little cups full of honey. It has produced so much honey under cultivation on our honey farm during the past two years, that I am much inclined to place it at the head of the list of honey-plants. It bears honey all the day long from July to October. Very hardy; blooms first year, and after that shoots up from the root every year, but needs planting anew, about every three years. The seed sometimes lies in the ground many months before germinating. If sprinkled on the top of damp leaf-mold, packed hard in a box, and rolled hard, being kept dark and damp in a warm place, they will sprout in a week or two. Thengive all the light and air possible, but not too much water. Price of seed, from cultivated plants, 20c per oz., \$2.00 per lb. If by mail, 10c per lb. extra, for postage.

HONEY PEA.—This is the stock pea of the South, and often yields much honey. It is also used for

food. Price, \$1.75 per bushel; \$1.00 per half-bushel; 60c per peck, packages included; per lb., 10c; by mail, 10c extra. A bushel weighs about 30 lbs.

HORSEMINT, the celebrated honey-plant of Texas. Per oz. 20c; per lb., \$2.00; postage, 10c per lb. extra.

CERULEA, bee clover. This latter blossoms in about six weeks after sowing, and bears a small blue flower.

Price of seed, 10c per oz., or 75c per lb.; if wanted by mail, add 10c for bag and postage.

LIPPIA NODIFLORA.—For description see Dec. '79 **GLEANINGS**. Per oz., \$1.00. Per pkt., 5c. Give hot-bod treatment.

MIGNONNETTE.—This is a great favorite with the bees, and also with those who are raising plants for their bees; but, although we have sold considerable of the seed for bee pasturage, I am not sure that any one has ever made it pay in dollars and cents, for the honey alone. It may pay to raise the seed, especially if the price keeps near what it is now. The tall varieties seem best suited to the bees, but are not as fragrant. It should be sown in the spring, and as the seed is small, it should have fine clean soil, and be covered lightly. This plant seems to have a rare capacity for standing frost, and bees may often be seen busy upon it clear into October.

The seed is 10c per oz., or \$1.00 per lb. If wanted by mail, add 10c for postage.

MOTHERWORT.—This is a near relative of the catnip and is probably equally valuable as a honey plant. Prices of the seed, same as for catnip. Sow any time.

MUSTARD.—The honey from this is said to be very light, equal to any in flavor, and to command the highest price in the market. We can furnish the common, (either white or black) for 10c per oz., or 25 c per lb. Add 10c per lb., if to be sent by mail.

PORTULACA.—Best mixed; A bed of portulaca, say a rod square, will show more bees in the working season, for the area, than any other plant I know of; furthermore, a bed of mixed portulacas, equivalent to a square rod, makes one of the handsomest, if not the handsomest sights, when in full bloom, the whole floral kingdom affords. It does not seem to me that any bee-keeper ought to be without a bed; and I might also say, no lover of flowers can well afford to forego the gorgeous spectacle of a bed of mixed portulacas, especially when the seed is only 5 cts. a paper. One paper will cover a square rod laid out in artistic beds and walks, if you choose.

RASPBERRY.—A pretty good honey-plant, too well known to need description. The Red Raspberries are thought to yield most honey, and of these the Turner and Cuthbert varieties are said to be best. Price of plants, per ten, 40c; per hundred, \$2.50. If wanted by mail, 3c each extra.

ROCKY MOUNTAIN BEE PLANT (*Cleome integrifolia*).—Is closely connected with the noted Spider Plant (*C. pungens*), these two being the only species of the *Cleome*. With us, it is much inferior to the Spider Plant as a honey producer. We have reports from some localities of its yielding large quantities of honey, hence, quite a demand for the seed is the result. Price per lb., \$1.25, postage 10c. extra. Per ounce, 15c.

SAGE, WHITE (*Salvia argentea*).—Is called the honey plant of California, and belongs to the Labiate or Mint family, the same as Rosemary, Balm, Hoarhound, &c. Price per ounce, 35c, per lb., \$4.00.

SWEET CLOVER (*Melilotus alba*, or *Melilot*).—This

has some valuable traits, as standing frost and drouth, but many times and seasons, the bees will hardly notice it at all. The statement has been made that an acre will support 20 colonies of bees, and afford from 500 to 1000 lb. of honey. Such statements, although they may be honestly given, I think should be received with due allowance; about four pounds of seed are needed for an acre; sow like Alsike. It will grow on almost any barren hillside, but it is a bad weed to exterminate; if, however, it is mown down to prevent seeding, the roots will soon die out. Sow in spring or fall. In the vicinity of Salt Lake, Utah, Sweet clover is the main honey plant, and the quality of the honey is equal, in my opinion, to any honey in the world. The plant lives through the dry summers in Utah.

Common Sweet Clover, per lb., 18c; 10 lbs., \$1.50; 100 lbs., \$12.00; if wanted by mail, add 10c for bag and postage. This is sold with the hulls on; the Bokhara is hulled.

Bokhara clover; 10c per oz., or 35c per lb.; 5 lb., \$3.00; 100 lbs., \$25.00. If by mail, add 10c per lb.

SUNFLOWER.—This plant is visited by the bees in great numbers in some seasons, while, in others, it is scarcely noticed; but, as the seeds usually pay all expenses of cultivation, it holds its place as a honey plant. The mammoth Russian bears by far the largest blossoms, as well as the largest seeds. Price of seed 5c per oz. or 10c per lb.; 10 lbs. or over, 8c; 100 lbs., 7½c. If wanted by mail, add 10c for bag and postage.

SPIDER PLANT.—This plant, under favorable circumstances, yields more honey than anything that ever before came under my observation.

In Oct., 1879, each floweret yielded drops so large that a bee had to make two or more journeys to get it all, and I succeeded in dipping the honey from the plant with a spoon, until I half filled a bottle with it, for experiment. As it only yields this honey early in the morning, and late in the evening, it will go nicely with the Simpson honey plant. I should think it quite probable that 5 acres of each of these plants would keep 100 colonies busy enough to be out of mischief during a dry fall, when bees are so apt to be robbing. For particulars concerning both plants, see A B C of Bee Culture.

The Spider plant is an annual, and should be sown every year. It grows most quickly with hotbed treatment, but will blossom in August if sown in the open ground in May.

Price of seed — per package, 5 c.; per oz., 20 c.; per lb., \$2.00. Postage 10c per lb. extra.

SEVEN-TOP TURNIP.—This plant, although not

equal to the spider plant and Simpson honey plant, is entitled to a place next to them, because it bears its crop of honey in the spring, between fruit blossoms and clover. It should be sown in Aug. and Sept. It bears no root like the ordinary turnip, but only foliage that is used for greens. Price of seed, 10c per oz., or 50c. per lb. If wanted by mail, 10 c. per lb. extra.

Any of the above seeds will be sent in 5c packages, to those who would like just a few to try.

OTHER HONEY PLANTS.

The following are recommended as honey plants, but I have not thought them worthy of a more extended notice for cultivation. Some of them have been tried on our grounds but either yielded no honey at all, or very little, and I have thought best to put them in here until we could give them a more extended trial. We keep the seed for sale in 5c. packages; if larger quantities are wanted, we will give prices on application.

CLOVERS, foreign.

ALFALFA, grown principally in the Pacific States. (This is virtually the same as Lucerne). Price per lb. 20c; peck, \$2.75; ½ bush., \$5.25; bushel, \$10.00.

ITALIAN OR SCARLET (*T. incarnatum*), introduced from Italy and France. The flowers are most beautiful, much resembling a large luscious strawberry. Blossoms first year.

LUCERNE OR FRENCH (*Medicago sativa*), best for sandy soils.

YELLOW TREFOIL (*Medicago lupulina*), a weed or pasture plant, in dry or sandy fields.

FRYSINITUM (False Wall Flower).—Belongs to the Cruciferae or Mustard family, and comprises but three species.

FULLER'S TEASEL (*Dipsacus fullonum*).—A variety of teasel, usually cultivated; is valuable for carding woolen cloth, as well as for honey.—See A B C.

MOLLIE HEATH honey plant, a species of acacia, having a most beautiful ornamental foliage, and called a very valuable honey-plant. We have got it to blossom here only by wintering over in the greenhouse, but the beauty of the plant pays for all trouble and expense.

SPRING VETCHES OR TARES (*Vicia sativa*).—Seems to be a cross between the Pea and Clover, partaking of the peculiarities of each, and belongs to the same family, Leguminosae. Does not yield honey with us.

MISCELLANEOUS IMPLEMENTS FOR GARDENERS, FARMERS, Etc.

TRANSPLANTING-BOXES FOR SEEDLINGS.

EMPTY SEED-BOX FOR EARLY PLANTS.

To give drainage and strength, we have the bottom made of slats only three or four inches wide, and only ¼ inch thick. They are nailed on crosswise, as you will notice. Such light stuff would not be strong enough if put on lengthwise of the box. The sides of the box are 1½ x ½ inch. These are very easy to carry about, and answer just as well for small plants. From one of these boxes, we, in the spring of 1886, got 7500 celery-plants. After the first leaf had formed they were taken up and planted into similar boxes, as shown below:

A BOX OF WHITE-PLUME CELERY-PLANTS AS IT APPEARS WHEN FIRST TRANSPLANTED.

Price of seed-boxes, as shown, made complete, 15c each. Price of stuff in the flat, in lots of 10, 85c; 100 in the flat, \$8.00.

You will observe that there are 10 rows of plants, and 30 plants in a row, so it took 25 boxes, with 300 plants to a box, to contain just what grew in one single seed-box.

TRANSPLANTING-FRAME.

The above is made by stretching a piece of poultry-netting over an iron frame. This is then laid over one of the plant-boxes shown above, and the plants are put in the center of each mesh. Celery-plant seedlings we put two in each mesh—a plant in each sharp corner. This spaces them properly, without any effort, and lays out the work so that even a child may learn to transplant seedlings, and do it well and rapidly. Price of transplanting-frame, suitable for the above boxes, 25 cts.

We start cabbage, cauliflower, and celery plants, in the fore part of February; tomato-plants from the middle to the latter part. If they get too large

before the weather is suitable to set them out, shear off the tops and let them grow out again. This will have the effect of making a strong root.

TRANSPLANTING-TUBES.

A NEW THING IN MARKET GARDENING.

TIN TUBE FOR TRANSPLANTING.

These tubes are used for transplanting all kinds of vegetable plants and their use answers as a substitute for potting plants in transplanting strawberries. They are made of heavy tin. For a full explanation of the way in which they are used see our seed catalogue for 1888. Price of transplanting-tubes: 25 cts. for 10; \$2.25 per 100; \$23.00 per 1000. If shipped before the seam is locked together, they will pack in much smaller compass. In this shape we can send them for \$2.00 per 100, or \$15.00 per 1000. These transplanting-tubes are also excellent for transplanting single stalks of melons, cucumbers, or squashes, where cut-worms have destroyed an occasional hill.

NEST OF TRANSPLANTING-TUBES, MADE OF GALVANIZED IRON.

Where you wish to move a whole hill of melons, cucumbers, or squashes, or other large plants, transplanting-tubes made of galvanized iron, large enough to go around a whole hill, are used. To prevent the soil from dropping out, slip a spade or shovel under them while the hill is being moved. We can furnish a nest of these, comprising five different sizes, as shown above, for 50 cts.

PAPER SEED-BAGS.

Large size, to hold ounces, \$1.50 per 1000, or 20 cts. per 100. Medium size, to hold ordinary packets, \$1.35 per 1000, or 18 cts. per 100. Small size, for very expensive seeds, \$1.15 per 1000, or 15 cts. per 100. If wanted by mail, add for postage, 5, 8, and 10 cts. per 100 respectively. The same printed to order (not to exceed 50 words), 25 cts. per 100, or \$1.00 per 1000.

LABELING STAKES FOR THE GARDEN.

Now, the above-mentioned seed-bags, which are the same as we use for all our seeds, are stout water-proof manilla paper, and we find them the very best thing for labeling the seeds you have planted, that we have ever got hold of. Tack them on to a pine stake, like the one figured below; and after standing out all winter in the snow and rain, the print can be read just as easily as when first put on.

These stakes, as you observe, are made tapering, and thick enough at the large end so that, if you blunder over them, they may be kicked out of the ground, but can not be broken off. Price of stakes, one cent each; 10 for 8 cts.; per 100, 75 cts. These are too heavy to be sent by mail, unless you want just a sample. In that case, the postage will be 3 cts. extra.

BOXES FOR STARTING SQUASHES, MELONS, CUCUMBERS, ETC.

During my visit to Arlington, in July, 1886, I noticed that the squash-growers had a plan for getting Boston Marrow squashes on the market very early. It is by means of the boxes shown in the adjoining cut. These, as you notice, are made so as to nest one in the other, occupying but little room when stored

away, or drawn out on the wagon. An 8x10 glass slides in the top. These boxes can be used for putting over hills of early potatoes in March and April; and when the potatoes are out of danger the boxes will do good service in forwarding squashes, melons, and cucumbers. After all danger of frost is past, the glass may be drawn out, but the box is left on, as a protection against bugs. If the bugs are very bad, however, you will have to tuck on cheese cloth. The striped bug will *crawl through* mosquito bar. As the glass is to move loosely, it is not a very long job to slide them all back when the weather is mild, and close them up again at night, when frost comes. If the earth is banked around the lower edges, it makes quite a miniature cold frame. I was astonished while at Arlington to see squash-vines fully a month ahead of the usual time; but I was told these boxes were the explanation of it. Don't fail to have a big lot of good manure under every box (see our little book, "Gregory on Squashes"). Prices of these little boxes without glass, in the flat, 10 cts. each; 85 cts. for 10, \$7.50 per 100. Glass to match, \$2.50 per box of 50 square feet. There are about 90 lights in a box.

WOOD

WIRE

THE BUG-PROTECTOR, AND HOW TO MAKE IT.

After the season of frost is passed, we prefer, for a bug-protector, the wire-cloth basket shown above. They are made of pieces of wire-cloth 18 inches square, and the wooden form on the left of the cut shows how they are made. We can furnish these made up, for 5 cts. each; 48 cts. for 10; \$4.50 per 100. Smaller sizes, for single plants, 4 cts. each; 38 cts. for 10; or \$3.50 per 100. Small ones can be sent by mail in lots of 10, at 25 cts. for postage on the 10.

POTATO-BOXES.

(TERRY'S).

These are made of basswood, bound with galvanized iron. The galvanized iron gives strength, and the basswood strength and lightness. These hold exactly a bushel when level full, and may be piled one on top of another. Although they are made especially for potatoes, they can be used for fruit, vegetables, picking up stones on the farm, and a thousand other purposes. When piled one above the other, they protect the contents from the sun and rain; and from their shape a great many more bushels can be set into a wagon than where baskets are used. They are also much more substantial than baskets.

Price 25 c each; 10, \$2.25; 100, \$20.00. In the flat, including nails and galvanized iron, \$1.75 for 10; 100, \$16.50; 1000, \$150.

A CHEAPER POTATO-BOX MADE OF SLATS.

As the pieces of which the above are made are mostly from remnants of basswood used in making sections, we can furnish them nailed up for 20 cents; 10 boxes, nailed up, for \$1.85; 100 nailed up, \$16.00. Material in the flat, including nails, in packages

of 12 boxes each, at \$1.50 per package, and each package includes two of the twelve boxes nailed up, complete.

OUR

\$4 Dais' Wheelbarrow

Strongest and neatest
barrow made
for garden-
ers, merchants' delivery,
and general use. Has
steel wheel, axle, and
legs; steel springs with
adjustable bearings. El-
egantly painted and var-
nished. Will carry 500 lbs.

Two sizes, weighing 35 and 40 lbs. each. Price \$4 and \$4.25.

PYRETHRUM ROSEUM.

(Persian Insect-Powder.)

This is not only a pretty plant for the flower-garden, but the flowers, gathered and dried when in full bloom, and then finely powdered, furnish us the Persian insect-powder, of which so much has been said. This powder sells at from 50 cts. to \$1.00 a pound, and even then is often largely adulterated. With us it has been the surest thing to kill all sorts of small insects, laying them out dead in even a few minutes, of any thing we have ever got hold of. When used in the insect-powder bellows, shown below, but a very little of the powder is required.

INSECT-POWDER BELLOW; PRICE \$1.00; SIZE 6x18 INCHES.

With the above instrument you can kill every fly in any room of the house, within an hour. Of course, the doors and windows of the room should all be closed; but where it is not practicable to do this, you can tumble the flies on their backs, even then; but you will have to use more of the powder. In painting new houses in the summer time, when flies are troublesome, the instrument is worth more than it costs, for this alone. It will kill even the green fly in our lettuce-greenhouses; for with the above bellows you can fill the room with such a dust that every insect of every description has got to die; and the strangest and best part of it all is, that it is not at all poisonous or injurious to human beings. It may make you sneeze right smart, but that is not half as unpleasant as it is to endure the flies. In the summer time the instrument and powder serve an excellent purpose in our type-room by laying out the flies that bother the printers by getting on their hands.

Price of the powder, all ready for use, half ounce, 5 cts.; $\frac{1}{4}$ lb., 25 cts.; 1 lb., 75 cts.; 10 lbs., \$7.00. Price of the seeds, one packet, 5 cts.; one ounce, 75 cts.; 1 lb., \$7.00.

SLUG SHOT.

We have used this for several seasons, and find it a pretty good remedy for cabbage-worms. It is also recommended particularly for potato-beetles, and every other kind of worm or insect. One pound, 6c; 5 lbs., 25c; 10 lbs., 45c; per barrel of 235 lbs. shipped from factory, 2 $\frac{1}{2}$ c per lb. The insect powder bellows is the best thing to apply it.

GOODS ESPECIALLY FOR POULTRY RAISERS.

PURE BONE MEAL.

Coarsely ground, expressly for poultry. Per lb., 5 cts.; 5 lbs., 3 cts. per lb.; 10 lbs., 2 $\frac{1}{2}$ cts. per lb.; 100 lbs., 2 $\frac{1}{2}$ cts. per lb.; by the barrel, shipped from factory, 2 cts. per lb. Fowls will eat this almost as greedily as corn; and it not only furnishes material for egg-shell, but it gives them considerable animal matter besides. Excellent for laying hens. It is sure cure for thin-shell eggs.

Bone meal ground fine, for gardening purposes, same price as the above.

Ground oyster-shells for poultry, half above price.

NEST-EGGS. 3 kinds, white glass, china, and polished wood, each 3 cts.; 10, 28 cts.; 100, \$2.50.

The china is too heavy to send by mail. Postage on the others is 3 cents each.

Sunflower Seed, Mammoth Russian, per lb., 10c.; 10 lbs., 80c; 100 lbs., \$7.50.

Smaller variety—just as good for poultry, one-half the above prices.

BOOKS ON GARDENING, HORTICULTURE, FARMING, ETC.

I have indicated my opinion of the books by characters as follows: Books that I approve I have marked with a*; those I especially approve, **.

5 | A B C of Carp Culture, ** 35

3 | A B C of Potato Culture, Terry** 35

This is T. B. Terry's first and most masterly work. The book has had an enormous sale, and has been reprinted in foreign languages. When we are thoroughly conversant with Terry's system of raising potatoes, we shall be ready to handle almost any farm crop successfully. It has 48 pages and 22 illustrations.

3 | An Egg Farm, Stoddard** 45

No matter whether you raise eggs on a large scale or a small scale, you can not afford to miss reading friend Stoddard's book. I do not know that I ever got hold of any piece of fiction—not even Robinson Crusoe, that so thoroughly fascinated me as these chapters in regard to raising poultry on a large scale. The work has 95 pages and 42 illustrations.

6 | Cranberry Culture, White's 1 15

10 | Fuller's Grape Culturist* 1 40

This is, perhaps, the most systematic, comprehensive, and thorough work on grape culture now in print; in fact, friend Fuller here tells us how, by easy steps, to make any grapevine come into the work, and make a pleasant, orderly appearance; and he makes it as attractive as a piece of fiction; and the best part of it is, that you get great crops of beautiful grapes during almost any kind of season. We have tested the system, and know whereof we speak.

10 | Farming for Boys* 1 15

This is one of Joseph Harris' happiest productions, and it seems to me that it ought to make farm-life fascinating to any boy who has any sort of taste for gardening.

7 | Farm, Gardening, and Seed Growing, by

Francis Brill* 90

This is by Francis Brill, the veteran seed-grower, and is the only book on gardening that I am aware of that tells how market-gardeners and seed-growers raise and harvest their own seeds. It has 166 pages.

10 | Gardening for Pleasure, Henderson* 1 40

While "Gardening for Profit" is written with a view of making gardening pay, it touches a good deal on the pleasure part; and "Gardening for Pleasure" takes up this matter of beautifying your homes and improving your grounds, without the special point in view of making money out of it. I think most of you will need this if you get "Gardening for Profit." This work has 246 pages and 134 illustrations.

12 | Gardening for Profit, new edition** 1 85

This is a late revision of Peter Henderson's celebrated work. Nothing that has ever before been put in print has done so much toward making market-gardening a science and a fascinating industry. Peter Henderson stands at the head, without question, although we have many other books on these rural employments. If you can get but one book, let it be the above. It has 376 pages and 138 cuts.

10 | Garden and Farm Topics, Henderson* 75

Gardening for Young and Old, Harris** 1 25

This is Joseph Harris' best and happiest effort. Although it goes over the same ground occupied by Peter Henderson, it particularly emphasizes thorough cultivation of the soil in preparing your ground; and this matter of adapting it to young people as well as to old is brought out in a most happy vein. If your children have any sort of fancy for gardening, it will pay you to make them a present of this book. It has 187 pages and 46 engravings.

5 | Gregory on Cabbages; paper* 25

5 | Gregory on Squashes; paper* 25

5 | Gregory on Onions; paper* 25

The above three books, by our friend Gregory, are all valuable. The book on squashes especially is good reading for almost anybody, whether they raise squashes or not. It strikes at the very foundation of success in almost any kind of business.

10 | Success in Market-Gardening* 90

This is new book by a real, live, enterprising, successful market-gardener who lives in Arlington, a suburb of Boston, Mass. Friend Rawson has been one of the foremost to make irrigation a practical success, and he now irrigates his grounds by means of a windmill and steam-engine whenever a drought threatens to injure the crops. The book has 208 pages, and is nicely illustrated with 110 engravings.

10 | Irrigation for the Farm, Garden, and Orchard, Stewart* 1 49

This book, so far as I am informed, is almost the only work on this matter that is attracting so much interest, especially recently. Using water from springs, brooks, or windmills, to take the place of rain, during our great droughts, is the great problem before us at the present day. The book has 274 pages and 142 cuts.

2 | Injurious Insects, Cook 25

8 | What to Do, and How to be Happy While

Doing It, by A. I. Root* 75

The above book is intended to solve the problem of finding occupation for those scattered all over our land, out of employment. The suggestions are principally about finding employment around your own homes. The book is principally upon market-gardening, fruit culture, poultry-raising, etc. I think it will be well worth the price, not only to those out of employment, but to any one who loves home and rural industries. Price in paper covers, 50 cts. Eight cents extra by mail.

A. I. ROOT, Medina, O.