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1877.

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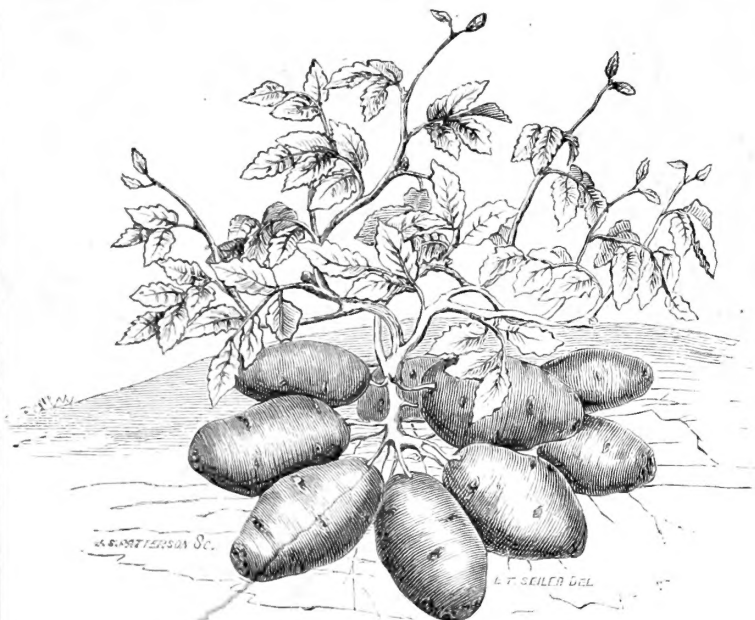
ILLUSTRATED ^{AND} DESCRIPTIVE

CATALOGUE

—OF—

Potatoes for Seed.

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SNOWFLAKE.—Showing habit of growth in the hill.

FOR SALE BY

B. K. BLISS & SONS,

—AT THEIR—

Seed and Horticultural Warehouse,

NO. 34 BARCLAY STREET,

(P. O. Box 5,712.)

NEW YORK.

PRICE, 10 CENTS.

FOUR GRAND PRIZE MEDALS, WITH DIPLOMAS,

Awarded to B. K. BLISS & SONS,

FOR THEIR EXHIBITION OF ROOTS, VEGETABLES, POTATOES AND GARDEN REQUISITES, AT THE CENTENNIAL EXHIBITION, 1876.



ILLUSTRATED AND DESCRIPTIVE

CATALOGUE

—OF—

POTATOES FOR SEED,

FOR SALE BY

B. K. BLISS & SONS,

At their Seed and Horticultural Warehouse,

No. 34 BARCLAY STREET,

P. O. Box 5,712.

New York.

THE POTATO.

This valuable and well-known esculent, now so widely cultivated, is a native of the mountainous parts of tropical America, and was taken to Spain and Italy by early adventurers in the sixteenth century, for we read of its cultivation in those countries in the year 1550. The usual size of the potato in its wild state is rarely more than an inch in diameter, and the flavor very insipid and almost unpalatable.

When first introduced into Europe it created great excitement, of a similar nature to that caused by the introduction of tobacco and coffee; for many years it was only to be found on the tables of the opulent, where it was used as a dessert either in the form of a sweetmeat or as a fruit. The first varieties grown in the United States were brought from Europe. The quality was very poor, and not a variety then in use would at the present time be deemed fit for the table. It is only within a comparatively recent period that it has found its way into both continents as a general article of food for man and beast, or has received attention from agriculturists. Many of our most practical and foremost gardeners are now directing their attention and energies to its improvement and propagation.

In the year 1814, the disease known as the rot appeared and nearly destroyed the whole crop. About this time a few persons, among others the late C. E. Goodrich, of Utica, imported a lot of the wild varieties directly from South America, and proceeded to raise seedlings by crossing with the various kinds then in use. Many thousand seedlings were then produced, but few of them were ever brought to any state of perfection.

One of the principal sorts saved was the Garnet Chili, which had a great reputation, and is the parent of many of our new sorts which are now attracting so much attention. Twenty-five years ago, a farmer who raised one hundred bushels of potatoes was looked upon as having an enormous stock; while to-day, many growers in the vicinity of our large cities raise from ten to twenty thousand bushels, without exciting any unusual attention. Within this period nearly all the numerous varieties with which we are now acquainted have been brought to notice, and every year adds its score of new seedlings to the already overgrown lists. Hundreds of millions of bushels are now raised annually in this country, and the demand is always greater than the supply—the crop of this State alone being twenty-five million bushels, raised on a little over two hundred and fifty thousand acres of land.

The uses of this tuber are numerous, aside from their principal use as an article of food. Thousands of bushels are annually manufactured into starch, and alcohol is distilled from its juices. Even sugar has been made; but with so much competition in this line, it has never proved a great success. Too much cannot be said in favor of this valuable staple, and we shall endeavor to instruct our readers in these few pages as to the methods used to increase the supply, without increasing the expense of its cultivation.

CULTIVATION.

The soil acknowledged to be the best for the potato is a rich loam, sandy, and neither too wet or too dry. A cool, moist soil will produce larger potatoes, but the danger of too much wet is so great that a warmer soil is preferable in this climate. Early potatoes reach their maturity sooner in a quick, light soil, and present a brighter and cleaner appearance, than when dug from that which is heavier. A calcareous formation generally yields a sure crop.

Old sod land, well turned under in the fall, and lightly plowed and harrowed in the Spring, will produce a sound crop, and often an astonishingly large one. Clover sod for this purpose is excellent, and furnishes a large amount of vegetable substance to the ground. When turned under in August or September it will rot by the following Spring, and only a top-dressing of some well-established fertilizer will be required to carry through the crop. Wet land produces a coarse, unpalatable article, and one of little value even as food for cattle. Barnyard manures are of little benefit to such land. Lands should never be plowed while wet and heavy; it injures the soil and does more harm than the manure can offset. Prepare the ground as carefully and thoroughly for potatoes as for any other crop. Attention in this particular well repays the farmer.

Land intended for potatoes requires but little manure, and that should be old and well rotted. By many, spreading the manure before plowing in the Spring is thought to be the best mode. At the time of planting, bone-dust, ashes, plaster, marl and like fertilizers can be used to great advantage with this crop, as they are of a dry or absorbent nature. On wet soils they are very beneficial, as they prevent disease as well as promote the growth of the tubers. On warm, dry, light land, muck compost may advantageously be used; decayed leaves are excellent. In seasons of disease among potatoes, fields where ashes have been used have suffered but little from the rot.

Potatoes are usually planted in drills or hills, the latter being the more common method in this country. Some varieties require more space than others. For drills, two and a half feet by three is ample; while, when planted in hills, three to three and a half feet is the usual distance. The latter method has some advantages, as the cultivator or horse-hoe can be used both ways of the field. Some of the earlier varieties may be planted closer without loss to the crop. Cover about four inches in light soil, and not so deep in the heavier. Cultivation should be commenced soon after the shoots appear above the ground, and weeds should be kept down with as much care as in a carrot-bed. The earth should be drawn a little towards the hill at each hoeing, that the rootlets may gain strength and nutriment from the surrounding earth. When the blossoms appear, hoeing should be discontinued, and in fact is rarely necessary, as the vines then cover the ground and discourage the growth of weeds. An excellent plan is to go over the field occasionally and remove carefully any weeds that appear in the hill, for they draw largely from the sustenance required for the developing tubers.

Many farmers still continue to plant three to five eyes to the hill. In our opinion this is a mistake, and the last few years' experience confirms our views. Potatoes cut *carefully* to a single eye, the hills, perhaps, a trifle closer, will yield a larger crop than the careless way of throwing in seed by wholesale. We all know the effects of too close a growth of carrots, turnips and such roots on the crop, and we think the same rule applies equally to potatoes. Two good eyes to the hill, with a proper proportion of the flesh to each eye, will produce a far larger crop of merchantable tubers than two whole ones; will yield from one-third to one-half more in weight—an item of no small consequence—to say nothing of the saving of nearly one-half the seed. Any intelligent farmer who is up with the times and reads the leading agricultural papers will corroborate this statement.

In order to secure an early crop, the seed must be planted as soon as the ground is in proper working order. This time differs in the various parts of our extended country, so that no set time can well be given. The earliest varieties can be marketed in sixty-five to seventy days from planting, thus competing successfully with Southern crops of the more common kinds. A second crop can thus be planted, as described elsewhere, allowed to thoroughly mature, and thus have good seed for another year and a sound article of food for Winter use. The yield of the first planting will give a handsome profit, for *early* potatoes always command a high price when near a city or town. The later varieties do better when planted some weeks after the early kinds; and the farmer has this advantage, he can get the former well started and cultivated before he turns his labor and attention to the latter.

A common method of forcing potatoes is to select whole, sound tubers of some early variety of medium size, placing them close together in a moderately heated bed, composed of either light loam or partially decayed leaves. This should be done several weeks—say three or four—before the time of planting. By that time the tubers will have started sufficiently to be set out. Cut the potatoes into pieces as has been directed, and use care not to injure the young shoots. Plant three inches deep, apply a little horse manure to the bottom of each hill, to afford warmth and to urge forward and nourish the young starting tubers.

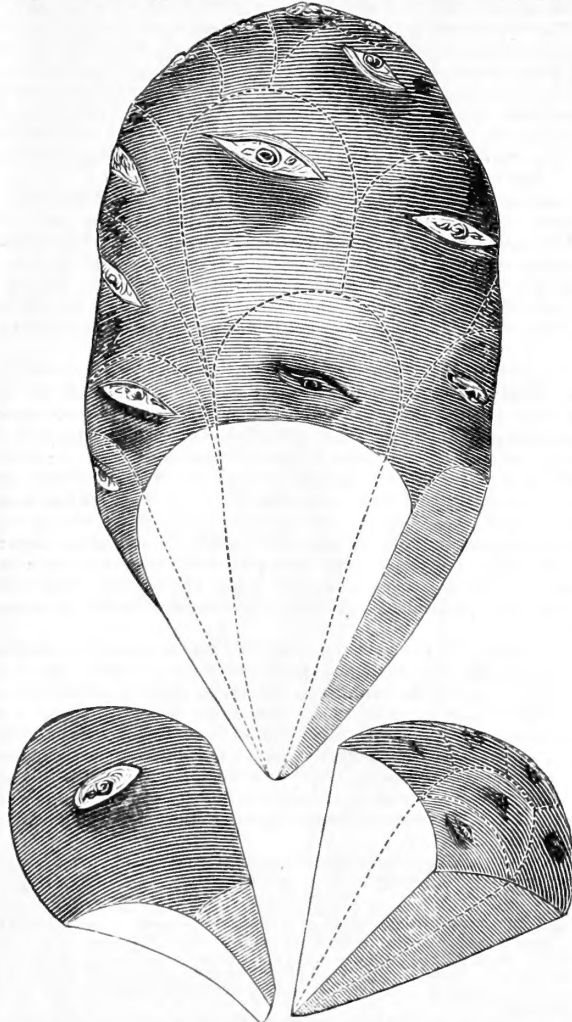
The decay of the tops indicate the maturity of the roots. The later kinds often continue to grow till checked by autumn frosts. They should, however, be dug before the ground is touched by frost at night.

HOW TO CUT TO A SINGLE EYE.

Take any potato and hold before you, with the stem end (the place where it was joined to the vine) down. It will then be noticed that the eyes are arranged around the tuber in regular ascending rotation from the bottom to the top, similar to the thread of a corkscrew, each eye being a little above and further around the side than the one next below it. Now take the potato in the left hand, with the stem end down, keeping it in a perpendicular position throughout the entire cutting. Take a sharp, thin-bladed knife and remove the first eye, by placing the knife about equally

distant between it and the eye next in rotation above it, sloping it to the indenture left by the stem (see dotted lines in center cut), removing the flesh with it. When the first eye is removed, turn the potato around in the hand until the next eye above appears. Remove this one in the same manner, and keep on turning the potato, removing each eye as it appears in exact rotation, always sloping the knife to the stem. After three or four eyes are thus removed, the bottom part of the tuber will have a somewhat pyramidal form (see center cut). It will be noticed that each eye removed has a similar form to that represented by the cut on the left, and has its proportionate share of the flesh attached.

After the first two eyes are removed no further trouble will be found until the seed end is reached, and only a little extra care will be required to remove these closely clustered eyes. The cut on the right represents what remains of the potato after all but the small eyes are removed, while the dotted lines show how to separate each of these. It will be noticed that the base retains the same form throughout, and by sloping the knife each time, and cutting down to the apex of this inverted pyramid (which is the center



of the tuber), each eye will be supported by an equal amount of the flesh which is to start it into a strong, healthy growth. With common varieties, where seed is cheap, many will think this manner of cutting too troublesome. But if every farmer should save one-half his seed, as he easily could do (for it will only require two barrels of sets for an acre, instead of four, as is usually planted, the increase being equal), thousands of bushels would annually be saved, worth many thousands of dollars. But to those who wish to obtain a large increase from a small quantity of seed, as is necessary to those who buy the new and valuable varieties, this manner of cutting so that every eye is saved will prove invaluable.

CUTTING.

This is one of the most important subjects to be considered in the propagation of potatoes, and there is such a diversity of opinion regarding the manner and method of cutting, that many pages could be filled in giving the different experiences of the professors in this art. While we do not attempt to decide this question to the satisfaction of every one, we shall give our own views, and claim that in our method an enormous quantity of the tubers now annually planted may be thrown into the market, causing a reduction in the prices charged for this common and necessary crop. Without discussing the respective merits of planting whole potatoes, or half a dozen pieces, each piece containing three and four eyes, in a hill, we shall state, what has been proven by so many cultivators, that two good eyes are ample for one hill, and the yield of large, marketable potatoes is larger than when more are planted. With the aid of the cut and remarks on page 3, we trust our readers may be enabled to understand our method.

HOW TO RAISE FROM CUTTINGS.

For this purpose any ordinary hot-bed may be used. About the 1st of March take the potatoes to be propagated, dividing them lengthwise, and laying these pieces with the cut side down upon the soil of the hot-bed. Keep them perfectly dry until the cut part has healed over and the sprouts have commenced to start. When the sprouts reach the height of three or four inches, cut them off about half an inch above the eye, and insert the end of the cuttings thus obtained into the soil of the hot-bed. Shade them from the sun, and water carefully until they are well rooted and the leaves begin to develop. The old pieces of the potato will continue to throw up shoots to an almost incredible number, and these are all to be removed as soon as strong enough in the same manner as the first ones. In order to increase the crop still more, as soon as these cuttings have reached the height of eight inches, their tops may also be removed and planted in the same manner as the slips from the potato. As soon as the ground becomes warm and can be worked, prepare it as is usual in planting the tubers, and set out these young plants. It is best to transplant them on some cloudy day or towards evening, as the hot sun withers them and destroys many if planted in the hot part of the day. These plants will be found to grow very rapidly, and can be propagated indefinitely from cuttings of the older plants. No cuttings should be taken after the 1st of August, as they will likely be destroyed by the cold weather before the crop is matured. The immense increase of stock by the use of this method may be illustrated as follows: A pound usually contains four medium-sized potatoes, and there are from twelve to twenty eyes on each tuber. When cut and sprouted they will give, at least, five hundred plants. From each of these plants *three* cuttings may be taken, which gives a total of two thousand plants to be set in the ground. With the ordinary yield, each hill, at the lowest estimate, would give one and one-half pounds, or three thousand pounds; in all making about eighteen barrels of good, sound potatoes, or a year's supply for a large family. We do not claim that this is either profitable or advisable with the common sorts of potatoes; but with the many new and high-priced varieties which are now being disseminated at the prices of one, two, or three dollars a pound, it is almost invaluable, as for a slight expenditure a large stock may be obtained, paying to the propagator a thousand-fold. This is no new experiment, but has been practiced by the initiated for the last few years, and has ever proved a success. It is not confined to hot-beds, but many of our most prominent nurserymen have devoted whole greenhouses to this use, and we would confidently recommend it to our readers.

TWO CROPS A YEAR.

Take good, sound, early potatoes, and cut them into single eyes, as is shown in the article on cutting. Allow these pieces to dry for a day or two, and then plant as early as the ground can be worked (a slight frost will not injure the potato after being well planted). With ordinarily favorable weather the new crop of tubers will mature in from eight to ten weeks. As soon as they are ripe, dig them, and after remaining a day or two in some dry and warm place, proceed to cut them into single eyes as before. Place the pieces thus obtained into pans or boxes containing dry plaster or gypsum. This absorbs the abundant moisture, which would otherwise greatly check the growth if it did not destroy the sets entirely. Allow them to remain in the plaster for ten or twelve days, or until the eyes commence to start, when they are to be taken out and planted as before. In the latitude of New York this is only applicable to early varieties, like the famous Early Rose, or Extra Early Vermont, which are of quick growth, and early maturity; but in many parts of the South, where the growing season is long, it may be practiced indiscriminately upon all varieties. A gentleman has raised *two* crops of Early Rose, a short time since, in this vicinity,

the two crops yielding an aggregate weight of twenty-five hundred pounds. He planted his pound, cut into single eyes, early in March, and dug his first crop about the middle of May. These were then treated as above described and planted the 10th of June, and the second crop dug the 1st of September. The yield from the one pound at the first digging was fifty pounds, and the second crop of this increase was twenty-five hundred pounds, or over forty bushels. This method is within the reach of all, and there is no extra expense incurred for hot-bed sashes or any other forcing requisites.

HOW TO RAISE SEEDLINGS.

Save any well-ripened seed-balls from a good variety, and plant in early Spring, in well-drained boxes of sandy loam. Sow the seed on the surface, and sift fine soil over them to the depth of one-quarter to one-half an inch; water sparingly, and when the seedlings are three inches high, remove them from the seed box without disturbing the earth around them more than is necessary, and plant in more roomy quarters. Many successful growers, however, prefer sowing the seed in open ground, when a partially shaded spot may be selected, and the seeds may be sown in drills about ten inches apart; cover with half an inch of soil. When the plants are strong enough, transplant in rows three feet apart, two feet in the rows, and keep down the weeds until the tubers ripen. Some few strong growing varieties, will form tubers weighing from six to eight ounces the first year. As a general rule they will be about the size of a walnut. The seed we offer this season, "**Pringle's hybrid**," is far in advance of any hitherto offered, as will be seen by referring to the description on page 21. Store the tubers carefully until the next season, keeping them as cool as may be without freezing, when they may be planted in the same manner as any mature potato.

It usually takes three years to ascertain the true value of a seedling, and if a person is favored by finding one really good variety among the many seedlings, he may feel well repaid for his time and trouble. Many new varieties are raised by hybridization, which is a more difficult method, although it generally secures a greater number of good varieties. The manner of procedure is as follows: Remove all flowers excepting those you wish to hybridize, then with a pair of sharp scissors remove all the anthers from the stamens in the flowers to be impregnated, just before they commence to discharge their pollen. When the flowers are dry, shake the flower containing the stamens of the variety which you wish to cross with it, being careful to do it when they are ready to discharge their pollen. Fit a piece of fine netting over the impregnated flower, to prevent the bee and other insects from leaving the pollen of other varieties upon the exposed pistil. The covering may be removed after two or three days. Do not disturb them again until the seed-ball has ripened, when the treatment as given in the first part of this article may be applied.

Instances have been known, though rare, where one potato would produce two distinct sorts from its different buds or eyes. The White Peachblow, for example, has been found growing on the same stalk with the Jersey Peachblow. As so much interest is now excited in the growth and propagation of new seedlings, and many of the new varieties command such high prices—it behooves our farmers and amateur gardeners to avail themselves of the latest and, by actual tests, the best method of producing new varieties.

HOW TO STORE AND KEEP.

It is a matter of no small importance to the farmer to be able to keep his crop of potatoes in good condition through our long Winters, and to present them for sale, free from blemish or mildew, in the Spring. A well-kept potato brings three or four times its value in market in early Spring than the same stock will if sold in the Fall, paying an extra profit over and above the cost of storing, handling and care required.

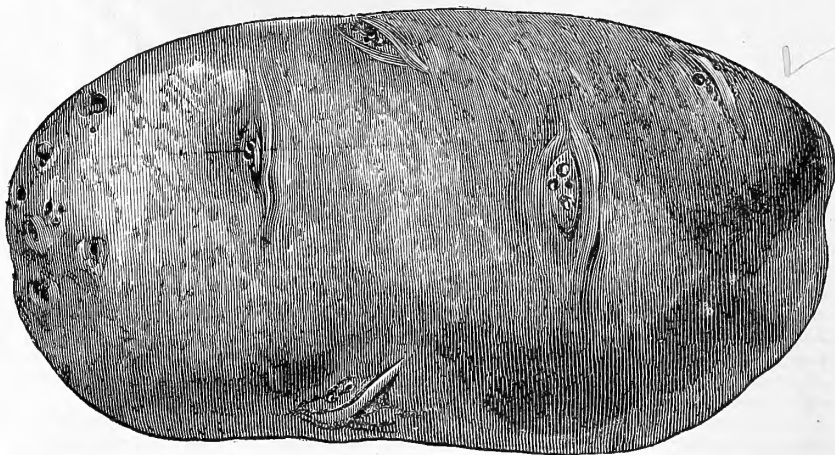
Of the three methods of storing in general use, each has its champions. They are: storing in barrels, bins, or heaps or pits. The advantage of placing in barrels is, they can be easily handled, do not suffer from abrasion, can be readily looked over, and if *disease presents itself* it can be checked or removed.

When thousands of bushels are raised on one farm, this method cannot be followed on account of the time and expense involved. Bins are largely used by our fore-handed farmers, especially those near large cities, as the roots can at any time be reached and got ready for market. A dry, cool, well-ventilated cellar, with the light excluded, is the best place to store potatoes. It has been found very advantageous in preventing decay to sprinkle lime in the barrels or bin at the rate, say, of one pound to each barrel. It acts as an absorbent and neutralizes the earthy odors, thus directly acting as a preventive of decay to the roots.

The importance of excluding light from potatoes and keeping them as cool as possible, cannot be over-estimated as means of preserving the crop.

New Varieties for 1877.

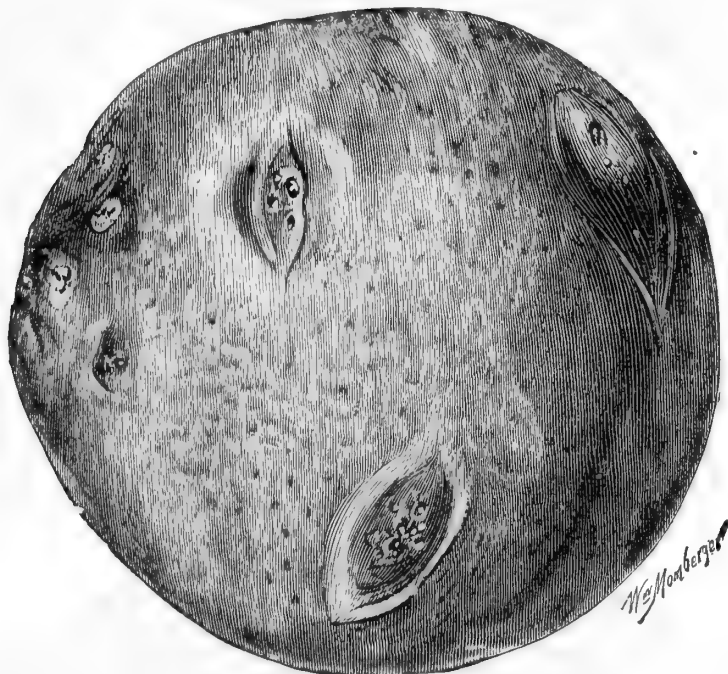
The great popularity of the new varieties of Potatoes, which have been sent out from our establishment within the last eight years, among which are the **Early Rose**, **Late Rose**, **King of the Earlies**, **Bresee's Prolific**, **Peerless**, **Climax**, **Extra Early Vermont**, **Compton's Surprise**, **Brownell's Beauty**, **Eureka**, **Snowflake**, **Alpha** and **Ruby**, have induced many growers in various sections of the country to experiment in raising seedlings, a large number of which, considered by the originators as the very choicest in their collections, (some of which embraced several hundred varieties,) were grown in our trial ground the past season. Notwithstanding the great heat and drought which prevailed over such a large portion of the North-eastern States the past season, several varieties show a decided superiority, from which we have selected for the present season, the **Centennial**, **Improved Peachblow** and **Superior**, which we are confident will prove exceedingly valuable for cultivation. Several other promising varieties are on trial from which we expect favorable reports the coming season.



SUPERIOR. (Brownell.)

The parentage of this variety is the same as that of the "Centennial." It was produced in 1873, from a seed ball of Brownell's Beauty, fertilized with Peachblow. The yield of this new seedling Potato is enormous; six hundred and seventy-three pounds were grown from one pound of seed, during a season of unprecedented drouth, when many older varieties did not yield enough to pay for the digging. Its tubers are medium to large, elongated oval or cylindrical, of a peculiar dark copper color, and very uniform and handsome in appearance. Skin very fine and smooth, eyes few and small. The vines are strong and healthy, and the growth of the roots and tubers, close around the stalks. It ripens second early or medium late; keeps well during Winter, and retains its mealiness and excellent table qualities through the entire season. A certificate of merit was awarded to this variety at the great International Potato Exhibition at London, last September.

Price, \$1.00 per pound; 3 lbs., \$2.50, by mail to one address, postpaid. By express or freight, charges to be paid by purchaser, ½ peck, \$3.00; 1 peck, \$5.00.



CENTENNIAL. (Brownell.)

This new seedling was raised by E. S. Brownell, the originator of that well-known and favorite variety "Brownell's Beauty." It was produced in 1874, by fertilizing the blossoms of the Brownell's Beauty with pollen from the White Peachblow. The vines are upright, stout, vigorous and of medium height; foliage dark green, strongly resembling the leaves of a Raspberry; very healthy. The tubers are compactly clustered around the base of the stalks, consequently easy to dig; are of a good medium and uniform size; shape nearly round, somewhat flattened, very symmetrical, remarkably uniform and handsome, never rough or prongy, eyes few and quite small, and but slightly depressed near the seed end; stem set in a shallow, round basin; skin of a deep red color, smooth and uniform in coloring; season second early or medium. Its flesh is of exceedingly fine grain, white, and when boiled or baked of a lightness and porosity seldom equaled; cook through evenly without any hard or watery core.

During the past two seasons it has proved to be one of the most productive varieties; its tubers were perfect in every respect, never hollow or false hearted; and their excellent and delicate flavor places them in the first ranks of our best table potatoes.

Per lb., \$1.00; 3 lbs. to one address, \$2.50, by mail, prepaid. By express or freight, charges paid by the purchaser, ¼ peck, \$3.00; 1 peck, \$5.00.

Collections of Kitchen Garden Seeds by Mail.

A Complete Assortment of Vegetable Seeds for One Year's Supply for a Large or Small Garden.

The following Collections are made up in the most liberal manner, care being taken to give a sufficient quantity of all the finest varieties and most useful sorts of Vegetables required in the Kitchen Garden.

- Assortment No. 5—Contains 55 varieties, - - - - - \$3 50
- Assortment No. 6—Contains 33 varieties, - - - - - 2 00
- Assortment No. 7—Contains 18 varieties, - - - - - 1 00

Larger Collections, which can be safely sent by express (freight paid by purchaser) to any part of the country, as follows: No. 1, \$20.00; No. 2, \$15.00; No. 3, \$10.00; No. 4, \$5.00. For a list of the contents of each Collection; see Guide to the Flower and Kitchen Garden.



IMPROVED PEACHBLOW.

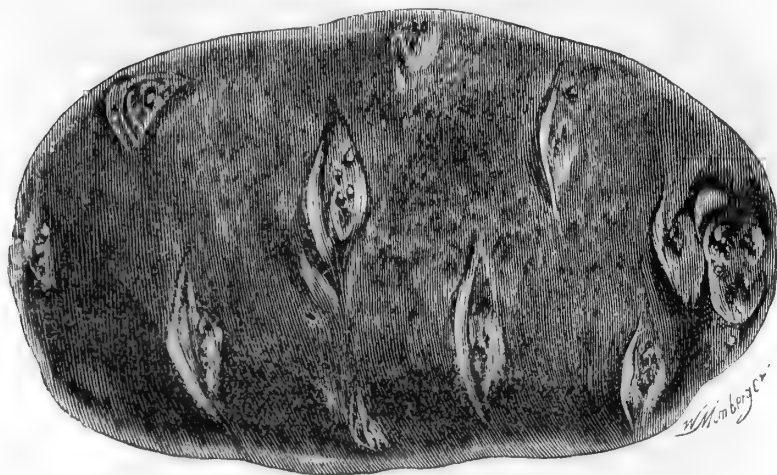
A cross between the "Jersey Peachblow" and "Excelsior," grown in 1873 by an experienced hybridizer of Vermont, who has devoted many years in experimenting with the Potato. It partakes some characteristics of each of its parents, the vines and leaves having the appearance of the "Excelsior," while its tubers resemble the "Peachblow." The form of the tubers, however, is more round and regular than that of the "Peachblow." While in quality it fully equals that old standard market sort, in productiveness it far excels the same, yielding nearly double as much per acre. Its season of ripening is somewhat earlier than that of the "Peachblow," and the growth of its tubers is more compact and closer in the hills. Taking all its points together, it may be considered a rejuvenated and reinvigorated "Peachblow," combining all the best qualities of that general favorite, in its best days, with the additional advantages of earlier ripening and compacter growth.

Price, \$1.00 per lb.; 3 lbs. for \$2.50, by mail, to one address, postpaid. By express or freight, charges to be paid by the purchaser, ½ peck, \$3.00; 1 peck, \$5.00.

Bliss's Improved Long Orange Carrot.

This superior variety is the result of a careful selection, for successive years, of the best formed, largest and deepest colored roots of the Improved Long Orange Carrot, by which it has attained a perfection hitherto unknown in this useful vegetable, being larger, better flavored, and of a deeper orange color, and more sure to produce a crop. Butter makers will find this variety very useful in giving to their butter a rich, deep yellow color. We unhesitatingly pronounce it the best variety in the market, and one which will not fail to give satisfaction to the purchaser. *One ounce, 15 cents; four ounces, 40 cents; one lb., \$1.25; by mail, postpaid.*

Varieties of 1875 and 1876.



RUBY. (Pringle.)

1,982 lbs. (33 bushels) grown from one pound of Seed.

A new red kidney-shaped Potato of superior quality, raised in 1871 from the Early Rose hybridized with the White Peachblow. Its hybrid origin is quite apparent. The shape is oblong, slightly flattened, resembling that of the Early Rose. In its coloring the red of the latter variety is deepened by the carmine which shows in the blotches of the White Peachblow. The eyes, which are but slightly sunken, are carmine like those of this variety. The flesh possesses much the character of the Peachblows, being white, fine-grained, firm, and of excellent flavor. The tubers are of approved medium size; and are clustered close about the foot of the stalks. These are short and stout, with foliage broad, thick, and of a very dark green color. The time of maturity is the same as that of the Early Rose, and it is equally productive.

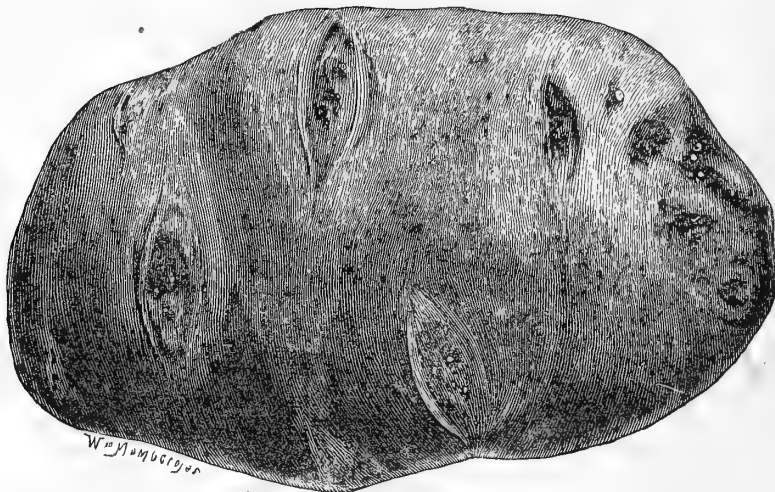
In short, we believe this variety combines in a rare manner the good points of its parents; and to those with whom the Peachblows are favorites we can recommend it with confidence as an early variety of the Peachblows without any of their faults. At the recent International Potato Exhibition held in the Alexandra Palace, London, in September, this seedling, in common with a few others sent by us, received a certificate of merit. To those who prefer a red-skin Potato, we can confidently recommend this excellent variety.

The following extract from the report of the committee who selected the premiums offered by us for this variety, gives their opinion of its merits:

"The Ruby, although not presenting as striking characteristics as the *Alpha*, has proved to be a valuable introduction. It is declared to be a 'No. 1 Potato in every particular,' and seems to be especially valued for its remarkable exemption from rot. Although there was so much rain in some of the Western States, that Potatoes generally failed to grow, and those that grew generally rotted, yet no rotten ones were found among these, and their quality was excellent. Its large yield and very handsome appearance, combined with excellent quality, make it a valuable market variety, where red-skinned Potatoes are in demand." In Europe it has likewise succeeded exceedingly well. Mr. P. Robertson of Scotland, says: "they were pronounced of excellent quality by every person who has tried them."

For further information see the reports of the successful growers in the following pages:

Per lb., 75 cts.; 3 lbs. to one address, \$2.00, by mail, prepaid. By express or freight, charges paid by the purchaser, 1 peck, \$2.00, ½ bush., \$3.00, bush., \$5.00, bbl., \$12.00.



ALPHA. (Pringle.)

The Earliest Variety in Cultivation. 1,707 lbs. (28 1-4 bush.) grown from one pound of Seed.

Raised in 1870, from seed borne on Early Rose and impregnated by pollen of Sebec. A very early variety for farm and garden culture, also for forcing under glass; fit for the table ten or fifteen days before the Early Rose. Tubers of medium size, oblong, somewhat flattened, with eyes but slightly depressed; color a clear white, with the slightest tinge of red about the eyes; flesh very white, fine grained, dry and firm, and possessed of a decided and excellent flavor; stalks short and close jointed, seldom exceeding a foot in height; leaf broad, light green and shining above; tubers clustered about the base of the stalk; quality of the highest excellence. A first-class certificate was awarded by the Royal Horticultural Society, of London, in 1874. A silver medal was also awarded by the Massachusetts Horticultural Society. It has been thoroughly tested the past season in various sections of this country, and has given perfect satisfaction. We can recommend this with the greatest confidence as the *very best early variety in cultivation.*

(From the Report of the Royal Horticultural Society of London.)

ALPHA—(B. K. BLISS & SONS.)—Haulm compact, about 12 inches long; ripening off very early, stem pale green, leaflets broad, flat, very pale green; tuber medium size, half round, flat; eyes large, skin smooth, very clear, pale straw-colored; flesh firm, white, of excellent quality for early use. Moderate cropper; one of the very earliest of potatoes. *First-class certificate.*

The committee who awarded the premiums offered by us last Spring, after examining the various communications received from competitors for premiums, report as follows:

"The Alpha has by many growers been declared "much the earliest of any seedlings." It was found to be "fit for use, in sixty days from the day of planting," "of excellent quality when cooked in any way, and gaining steadily in quality and yield." In this latter respect the Alpha differs from most new seedlings. But few improve after the third year, while many deteriorate rapidly. The Alpha, when first brought to notice, was below medium size, and so delicate that it was thought only suitable for garden culture. But gradually we found it increasing in size and productiveness, while it retains its earliness and excellent quality. That it will henceforth rank as the earliest Potato for the field as well as the garden, and that it yields enormous crops, even under ordinary culture, has been sufficiently proved by Mr. Clute's 1,535 pounds, grown without manure whatever." For further information respecting this variety, see the reports of the successful competitors in the following pages.

Per lb., 75 cents; 3 lbs. to one address, \$2.00, by mail, prepaid. By express or freight, charges paid by the purchaser, 1 peck, \$2.00; ½ bushel, \$3.00; 1 bushel, \$5.00; 1 barrel, \$12.00; a few barrels, of small size, —\$4.00 per bushel, \$10.00 per barrel.

THE SNOWFLAKE. (Pringle.)

1,417 lbs. (23 6-10 bushels,) grown from 1 pound Seed.

This new variety, first sent out by us in the Spring of 1873, has been thoroughly tested, both in this country and in Europe the past two seasons, and we have yet to learn of the first instance where it has failed to give entire satisfaction. The superior quality claimed by the originator, when first offered, has been confirmed in every case as far as heard from.

It is one of the earliest varieties, ripening about the same time as the Early Rose. The tubers are of a good medium and uniform size; shape elongated oval, compressed, exceedingly symmetrical and remarkably uniform; eyes few, entirely flat on the base and body of the tuber, and but slightly and sharply depressed near the seed end; skin white with a russet tinge, and somewhat roughish and tessellated. Its flesh is of exceedingly fine grain, snow-white when boiled, and of a lightness and porosity almost approaching a snowflake. In quality, we do not hesitate to say nothing can surpass this new variety; its mealiness, its pure, delicate flavor, and the evenness with which it cooks through, have never been eclipsed by any Potato. As a baking Potato, it is equally valuable, and as such is distinguished for its pure starchy texture, and delicate nutty flavor. The tubers have attained the full development of their quality as soon as they are fit to dig, and do not lose it during Winter; samples kept till the first of June, did not show the least deterioration. The vines are of medium height, stout and vigorous; leaves medium, and of dark green color. The tubers are compactly clustered around the base of the stalks,—an important consideration in digging the crop. The variety has been tested on widely varying soils—sand, gravel, loam, as well as heavy clay—and has, in every case, given the same favorable results, and often produced a yield of from 300 to 400 bushels per acre. In every case it has proved healthy and hardy, while other varieties alongside of it failed to give satisfactory results.

We could fill quite a volume with the many letters of commendation that have been received from various growers throughout the country in favor of this fine variety, but for want of room we publish those only which have been received from the successful competitors for the prizes offered by us last Spring. These will be found in the report of the Committee in the last pages of this Catalogue.

We take pleasure in submitting the following extract of that report to our friends, which cannot but satisfy the most incredulous of its superiority.

"The Snowflake has received more and higher praise than has probably ever been bestowed upon any Potato. There is no dissenting voice among the whole list of reports, nearly every one of which contains '*It is the best Potato I ever saw.*' Its quality and uniformity of size are especially commended. In many cases, 25 to 40 perfect Potatoes were found in every hill planted, and 'tubers of two and three pounds each cooked readily and completely through.' Mr. Perkins could select 1000 tubers weighing 1000 pounds from a gross product of 1304 pounds, and finds them preferable to any Potato out of over a hundred varieties he grew. Mr. Salter 'never saw so fine a Potato; beautiful in color and shape, firm in texture, flesh white; luscious cooked in any way; it stands unrivalled.' There is certainly within our knowledge no variety which combines all the essential points of a Potato in as high a degree as the Snowflake. Quality, shape, size, color, yield, are all that can be desired, and it is difficult to perceive in what direction further improvement can be obtained."

By mail postpaid, per pound, 60 cents; two pounds, \$1.00. By express or freight, charges paid by the purchaser, 1 peck, \$1.50; $\frac{1}{2}$ bushel, \$2.50; 1 bushel, \$4.00; 1 barrel, \$8.00.

THE BEST YELLOW TOMATO.

"THE GOLDEN TROPHY."

This new and beautiful yellow Tomato originated in 1871, with Mr. A. M. Halstead, an experienced horticulturist of this State. It is a sport from the well-known "Trophy," but is a stronger and more rapid grower, and much more productive, and ripens a week earlier, continuing until frost. The fruit is almost an exact counterpart of the Trophy in form and size, of a beautiful light yellow or straw color, occasionally faintly streaked with red; the flesh is very firm and solid, containing but few seeds. This variety has given unusual satisfaction for the past ten years wherever it has been tested, and is particularly adapted for the Southern States.

A desirable acquisition for preserving as well as for the table, as its rich golden color contrasts beautifully with the red varieties; its mild flavor commends it to all lovers of this valuable fruit.

PRICE:—25 cents a packet; 5 packets for \$1.00.



Mr. Burnett's Crop of Snowflakes from One Pound of Seed.

SKANEATELES, N. Y., September 27, 1875.

Messrs. B. K. BLISS & SONS:—Accompanying this please find Stereoscopic view of the **Snowflake Potato** as grown in my garden the past Summer. It exhibits the product of one pound of seed purchased of you last Spring. The earth was carefully removed, leaving each potato attached to the root *exactly as it grew*. They were grown in good garden soil, without extra manure, and had the same cultivation as the other potatoes. No one could have been more surprised than I at the wonderful production. I had them on exhibition all one day, and a large number of farmers and amateur gardeners called to see them. For size and quantity all admitted they had never seen its equal. At the nearest end of the row, as shown in the picture, the yield was affected by a shade tree, but at the other end they were very large and in one solid mass—in fact, there was no room for a jack-knife between them. It makes quite a pretty picture, with rose bushes, geraniums and tuberoses on the left and my boy "Frank" and the grapevines for a background. I have created no little excitement by exhibiting the Snowflakes at our Town Fair.

Yours respectfully,

JOSEPH H. BURNETT.

A Trial of the Snowflake in June.

In order to show the wonderful keeping properties of the Snowflake Potato, we annex a letter from the well-known horticulturist, Chas. Downing, Esq., to whom a sample grown in 1874, was sent in June for trial.

NEWBURGH, June 28, '75.

Messrs. B. K. BLISS & SONS—*Dear Sirs*: The box of potatoes was received in due time. The quality is equal and I think superior to any potato I ever ate so late in the season, and being of good size and so smooth and regular in form, it will be an acquisition if the production is sufficiently good.

Please accept my best thanks for your kindness, and for the opportunity to test them.

Very respectfully,

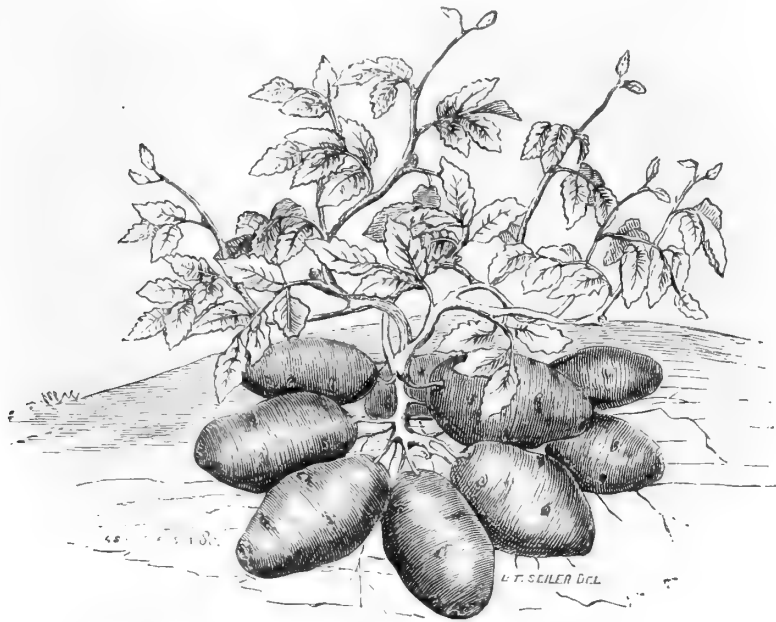
CHAS. DOWNING.

From Nash & Crook, proprietors of the well-known and popular restaurant in the *Times* building, opposite the new post-office on Park Row:

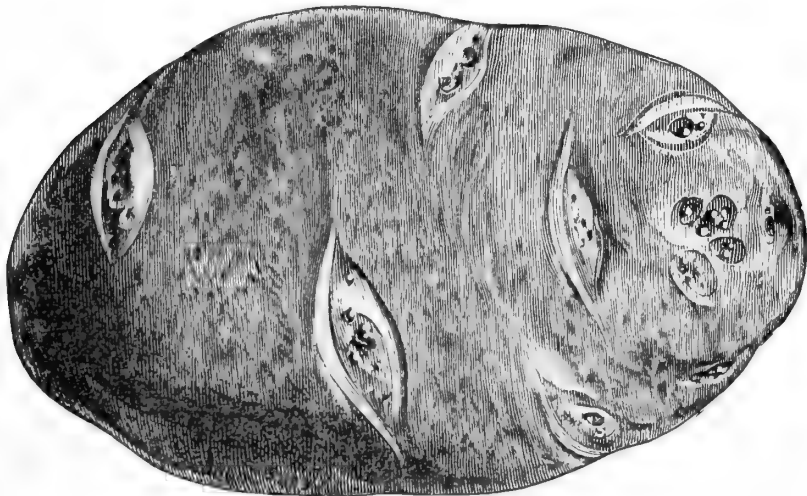
NEW YORK, July 1, 1875.

Messrs. B. K. BLISS & SONS:—We have been using the Snowflake potatoes, supplied by you in our restaurant for the past month, and find them superior in every respect to the Bermuda or any other early variety in the market. They cook dry and mealy, and are of excellent quality; and on account of the eyes being so nearly even with the surface, there is but little or no waste in peeling. They give general satisfaction to our customers. We have no hesitation in pronouncing them the best potato we ever used in our business at this time of the year.

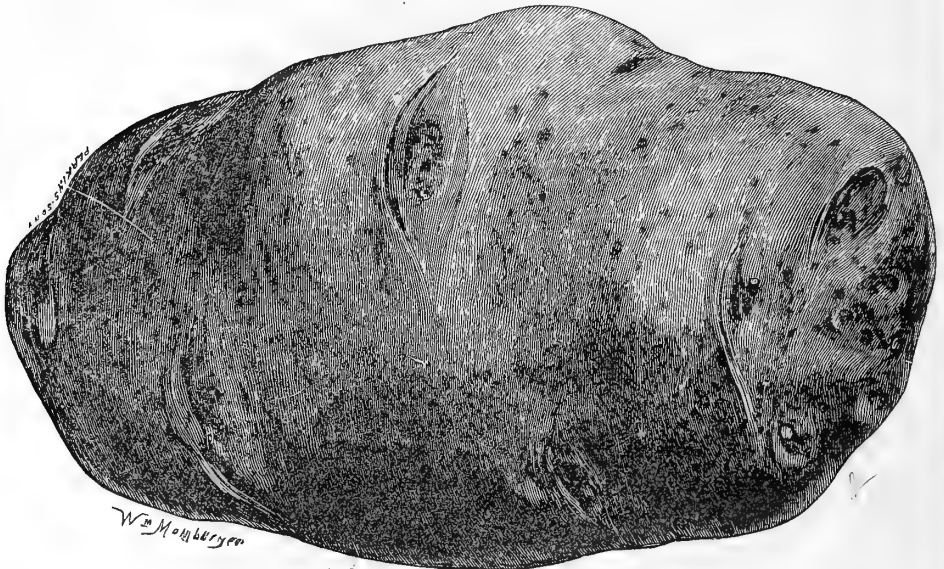
NASH & CROOK.



SNOWFLAKE.—Showing Habit of growth in Hill.



SNOWFLAKE. (Pringle.) Page 11.



V EUREKA. (Brownell.)

This seedling resulted from a seed-ball grown on an Excelsior potato-vine blossom fertilized with pollen from the White Peachblow; vines of strong and vigorous growth; tubers of a good medium and uniform size; shape, elongated oval, somewhat flattened, very symmetrical and uniformly handsome in appearance; eyes few, exceedingly small, and very nearly level and flat; skin white and fair; season, second early, medium, or between very early and medium late. It is one of the most productive in cultivation, besides being an excellent keeper. Its flesh is exceedingly fine-grained, white, and when boiled or baked, mealy and of excellent flavor, cooking through uniformly without any fault at the center. Certainly an acquisition among the white varieties, well worthy of further trial in different sections. A silver medal was awarded to this variety by the Massachusetts Horticultural Society in 1874.

The Committee for awarding the Premiums offered by us, last Spring, for this variety, after having examined the reports of the competitors, report as follows:

"The EUREKA, having had nearly as extensive a trial as the Snowflake, has likewise received many favorable notices. Some growers value it as much even as the preceding. Its main value, however, seems to consist in its immense productiveness. Two hills yielded 56 pounds in one case, and in another instance 970 pounds grew from 52 hills, being an average of nearly 19 pounds per hill and 677 bushels per acre. There are cases reported where three tubers from one hill weighed nine pounds; and one grower reports one single tuber weighing *five pounds*." [This is the heaviest weight of one single tuber we have ever heard of, and if a heavier Potato of any kind, was ever grown, we should be much pleased to have it reported as a matter of record.]

Price, one pound, 60 cents; two pounds, \$1.00; by mail, postpaid. By express or freight, charges to be paid by the purchaser, 1 peck, \$1.50; $\frac{1}{2}$ bushel, \$2.50; 1 bushel, \$4.00; 1 barrel, \$8.00.

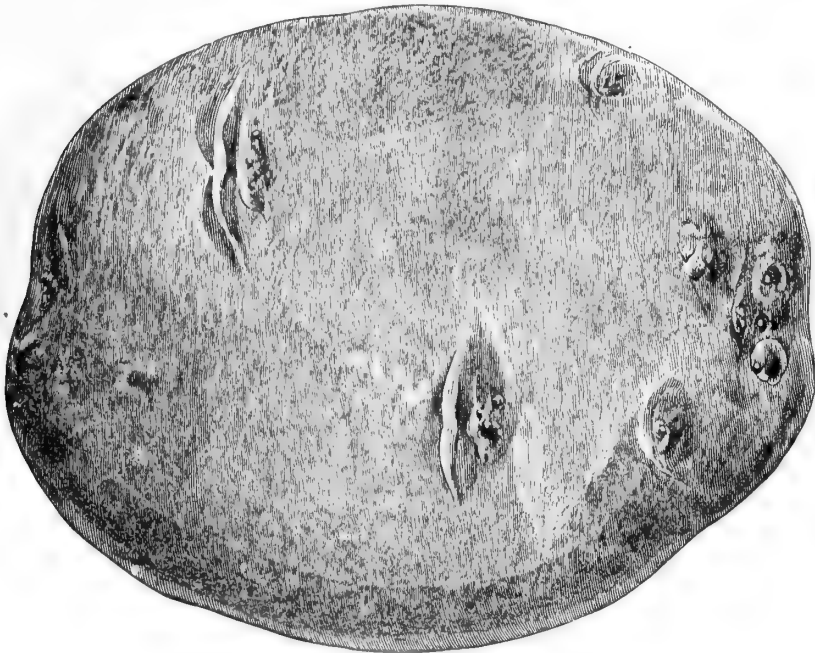
English Varieties.

Sutton's Red Skin Flour Ball.—One of the most popular of the English varieties, resembles our Garnet Chili in many respects; remarkable for its extraordinary freedom from disease, as well as its superior cooking qualities. Very productive and of fine flavor; an excellent keeper. On account of its late keeping qualities, it should not be used for the table until February.

Price, one pound, 60 cents; two pounds, \$1.00 by mail; by express, freight paid by purchaser, 1 peck, \$1.00; 1 bush., \$2.50; 1 bbl., \$6.00.

Sutton's New Hundred Fold Fluke.—Messrs. Sutton & Co. describe this variety as follows: "This valuable Potato was sent out by us in 1872, and those who have tried it describe it as the best Kidney Potato they have ever seen. It is perfectly distinct from any other variety, of most handsome shape, pale yellow skin, with a beautiful and distinct crimson band. It is also a remarkably fine cooking Potato, and has been free from disease when other varieties, grown by its side, have been completely destroyed. We cannot too strongly recommend it for either garden or farm cultivation."

Price, one pound, 60 cents; two pounds, \$1.00 by mail; by express, freight paid by purchaser, 1 peck, \$1.00; 1 bush., \$2.50; 1 bbl., \$6.00.



✓ BROWNELL'S BEAUTY. (Brownell.)

This is another of the varieties first sent out by us in the Spring of 1873, the beauty and superior keeping qualities of which, together with its fine quality as a table variety and productive-ness, places it in the front rank of those recommended for general cultivation. We know of no varieties whose good qualities can be retained for the entire year, as this has done. Potatoes of the crops of 1873 and 1874 have been exhibited side by side at several State and County exhibitions, those of 1873 having been kept in an ordinary cellar without any especial care, being equally fair and sound as those of this year's growth. Samples were sent in 1873 to the gardens of the Royal Horticultural Society of London, where they received a *first-class certificate*, and have also received many premiums at various Agricultural Fairs in this country. Size, medium to large, growing very fair and smooth. Eyes few and small, nearly even with the surface; shape oval, somewhat flattened; skin reddish, or a deep flesh color; flesh white, fine-grained and very delicate. For the table, they cook either by baking or boiling equal to the very best, and with ordinary boiling they cook through to the center evenly, dry and mealy, and are never hard, hollow, watery, or discolored at the center; flavor unexceptionable. Vine of medium growth; foliage deep green, and very healthy in all respects. The tubers grow compactly in the hill and are easily dug, ripening in about three months from time of planting, though suitable for cooking about two weeks later than the Early Rose, with the same culture. They are very productive, with but few small tubers. Its beautiful appearance, fine quality, extraordinary productiveness and remarkable keeping qualities render it a most valuable variety for the market.

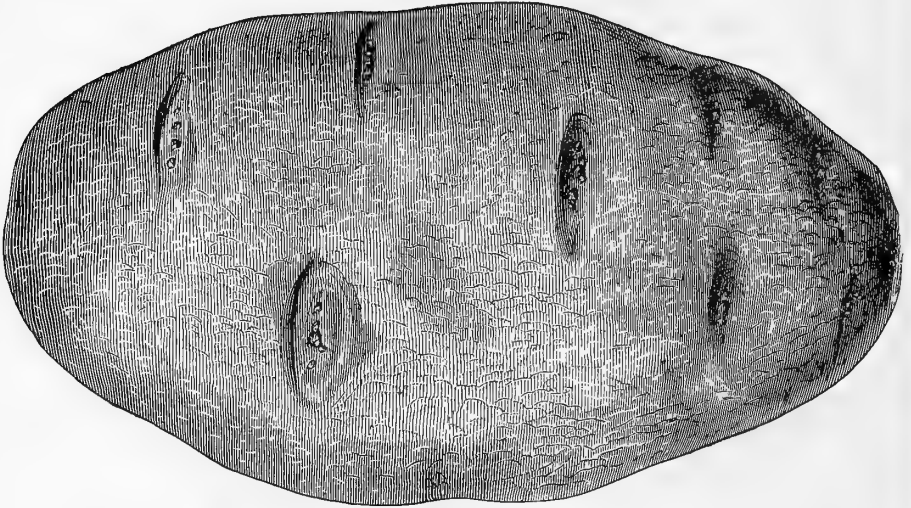
To show the wonderful productiveness of this favorite variety—are among the following from the successful competitors for the first prize offered by us in 1874.

[From H. C. Pearson, Pitcairn, St. Lawrence Co., N. Y.]

I hereby certify that I ordered of you, March 25, 1874, 1 lb. of Brownell's Beauty Potatoes; planted them May 16, and dug them September 28, and from the 1 lb. planted, I raised ten hundred eighteen pounds, (1018 lbs.) The soil was light loam, with some gravel, with a sand and gravel subsoil, not underdrained but having good natural drainage. The land is new, having produced only one crop before. Applied broadcast a two-horse load of barnyard manure three years old, plowing it under 7 inches deep; then went over the ground 3 times with a pulverizing harrow. Placed in each hill before planting, 2 quarts of a compost, composed of 10 bushels decayed manure, 2 bushels of ashes, 4 quarts salt, and 2 lbs. sulphur. Cut the tubers to single eyes, dividing some of the stronger into 3 pieces, making in all 112 pieces, and planted them in rows 3½ feet apart and 3 feet apart in the rows planting one set in each hill and covering them about 3 inches deep. They grew to an enormous size, 491 selected tubers weighing 500 lbs., and 37 fair sized tubers weighing 15 lbs., were dug from one hill. They are the most beautiful potato I ever saw. Have tested their quality by cooking them in various ways and find them dry and mealy, fine-grained, and of a flavor not surpassed by any potato I have ever tried. They matured about September 18.

(Signed,) H. C. PEARSON.

PRICE:—One pound, 60 cents; two pounds, \$1.00, by mail to one address, postpaid. By express or freight, charges to be paid by the purchaser, 1 peck, \$1.00; ½ bushel, \$1.50; 1 bushel, \$2.50; 1 barrel, \$6.00.



✓ EXTRA EARLY VERMONT.

The superior merits of this variety, first sent out by us in the Spring of 1872, may now be considered as fully established. It has been largely cultivated over every section of the country, the past two seasons, and fully sustains the high character given it by the committee for awarding the premium offered by us in 1873, in the following statement, after examining the reports of the various competitors:

"**The Early Vermont**, as proved by the numerous reports before us, more than sustained its previous reputation. *Nearly all the competitors declare it from one to two weeks earlier than the Early Rose, and many even more.* Its uniform and large size is recognized by every one. Mr. McLeod says: 'There are more than 100 in the amount I raised that would weigh from one to two pounds each;' and Mr. Salter raised one tuber that weighed **THREE POUNDS TWELVE OUNCES**. Its superior cooking and eating qualities are unanimously commended, as well as its compact growth in the hill and its freedom from disease, and with the thousands of cultivators who have grown it alongside the Early Rose, there seems to be no doubt left that in *quality, hardness, earliness and yield, it far surpasses that celebrated variety.*"

A first-class certificate was awarded this variety by the Royal Horticultural Society of London, 1873.

Caution.—In consequence of the great similarity between the **Extra Early Vermont** and the **Early Rose**, many of the latter will doubtless be offered by unprincipled persons as the **Early Vermont**. To avoid imposition, we caution purchasers to beware of itinerant peddlers, and purchase their stock of reliable parties only. We employ no peddlers or agents. Address all orders directly to our house.

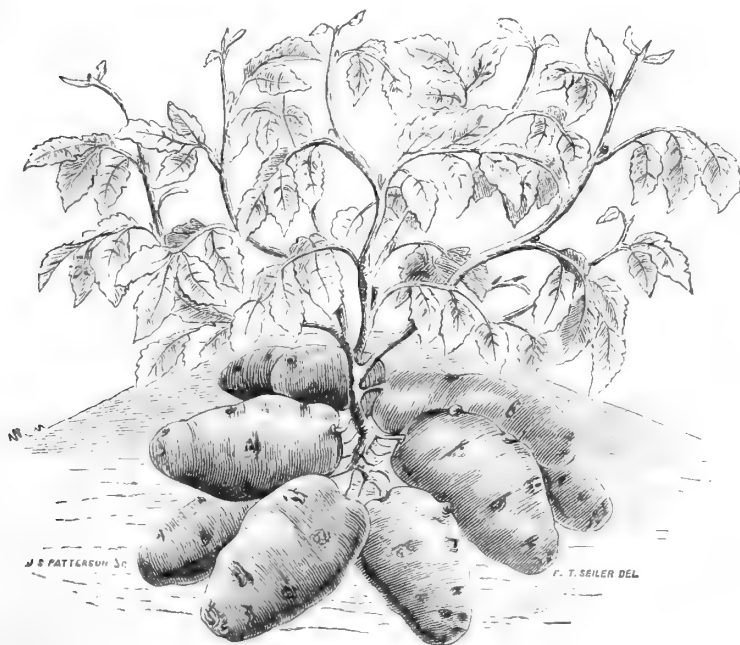
PRICE:—By mail, postpaid, one pound, 60 cents; two pounds, \$1.00. By express or freight, charges paid by purchaser, 1 peck, \$1.00; $\frac{1}{2}$ bushel, \$1.50; 1 bushel, \$2.50; 1 barrel, \$6.00.

Tomato "Little Gem" (the earliest variety known).

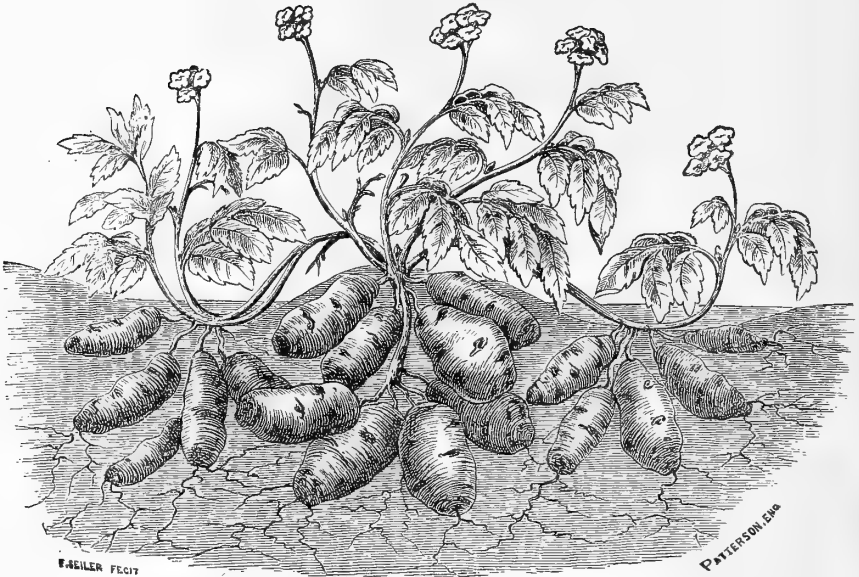
This new variety was raised by Mr. Pringle, the originator of the Conqueror Tomato, heretofore considered the earliest in cultivation, and is a combined hybrid or cross of that popular variety with two other unnamed early varieties of fine quality. The vines are of medium length, compact growth, and excessively loaded with bright red fruit of medium size, round and of uniform shape, varying from four to six inches in circumference, of superior quality flavor, either raw or cooked. Its bright glossy red color, uniform size, shape, and otherwise beautiful appearance, make a dish of **LITTLE GEMS** almost as tempting as a plate of Strawberries. It may be relied upon to yield several pickings, a week or ten days earlier than any other variety. *25 cts. per packet; five packets for \$1.00.*



POTATOES—EXTRA EARLY VERMONT.—Showing Habit of growth in the Hill.



BROWNELL'S BEAUTY.—Showing Habit of growth in the Hill. Page 15.



Compton's Surprise Potatoes.

Showing the growth from a single eye in the grounds of F. Seiler, Verona, New Jersey, who raised 384 lbs. from one lb. of the tubers, with ordinary culture.

Remarkable for its size, quality and productiveness. Its shape is oval-oblong, eyes sunken, brow prominent, skin smooth, color reddish-purple, flesh white; grows to a large size, and is invariably sound to the center. It retains its quality *perfectly* throughout the year, appearing on the table like a ball of flour. Remaining plump and free from sprouts when kept until June and never having that wilted appearance common to early sorts. Thousands have testified that they never ate a better Potato. Its uniform mealiness of grain, combined with the purest flavor and its snowy whiteness of flesh, which is not in the least affected by its blue skin, cannot fail to make it highly valuable.

The following extract from the report of the Committee awarding the premiums offered in 1873, confirms all that was claimed for them by the originator when first introduced.

"Compton's Surprise has received the unanimous verdict for the most prolific Potato cultivated at present. Yields of from twelve to twenty pounds to the hill are reported by the hundreds, and in one instance 28½ pounds were dug from one hill. As a rule, the most prolific varieties are not of the best eating quality, but to this, Compton's Surprise is an exception. Thousands have testified that they never ate a better Potato. Its uniform mealiness of grain, combined with the purest flavor, and its snowy whiteness of flesh, which is not in the least affected by its blue skin, cannot fail to make it highly valuable.

One pound, 60 cents; 3 pounds, \$1.25 by mail, prepaid; by express or freight, charges paid by the purchaser, 1 peck, \$1.00; ½ bushel, \$1.50; 1 bushel, \$2.50; 1 barrel, \$6.00.

Early Paragon.

A new early variety introduced last season, and said to be a few days earlier than the Early Rose. The vines are of dwarf habit, shape oblong, eyes very shallow, skin smooth and general appearance very attractive; productive and of good quality.

By mail, prepaid, one pound, 60 cents; 3 pounds, \$1.25; by express or freight, charges paid by the purchaser, 1 peck, \$1.00; 1 bushel, \$2.50; 1 barrel, \$6.00.

General Collection.

The severe drought of the past season, together with the ravages of the Colorado Beetle, have so reduced the crops of potatoes throughout the country that we have not been able to secure one-fourth of our ordinary supply of the following varieties. We quote prices at which we are now offering them—but they cannot be considered binding for any length of time.

Should prices advance, our customers may rely upon their orders being filled at lowest market prices—for the genuine variety.

Two pounds of either of the following varieties will be mailed, postpaid, to any address in the United States, upon receipt of \$1.00, or one pound for 60 cents.

Not less than one pound, or more than one variety in one package, will be mailed.

Early Rose.—This was the first of Mr. Bresee's Seedlings, offered by us in January, 1868, and has now become the standard variety for earliness, quality and productiveness. *Per peck, 75 cents; bush., \$2.00; bbl., \$5.00.*

Lady-finger.—An old but highly esteemed variety for baking, for which it is unsurpassed. Tubers long, slim, full of eyes, very productive and an excellent keeping variety. *Per peck, \$1.00; bush., \$2.50; bbl., \$6.00.*

Bresee's Prolific.—Vines of medium height, quite bushy, somewhat spreading. Tubers large, regular in shape, and very smooth, slightly oblong, somewhat flattened. Skin dull white, inclined to be russeted, eyes but little depressed and slightly pinkish, flesh white, cooks quickly, is very mealy and of excellent quality, yield very large, matures about three weeks later than the Early Rose; a valuable variety for field culture. *Per peck, \$1.00; bush., \$2.50; bbl., \$6.00.*

Climax.—Early; uniformly large; long, cylindrical; skin white; eyes sharp, shallow; flesh white and solid. This has been the most prolific early variety during the past season, and has proved hardy and healthy. *Per peck, \$1.00; bush., \$2.50; bbl., \$6.00.*

Late Rose.—This variety, first offered by us in the Fall of 1871, has been largely cultivated in various parts of the country, and has given universal satisfaction. It ripens two or three weeks later than the Early Rose, and has proved to be much more productive, hardier, healthier, and a better keeper, retaining its good quality till new potatoes come in. *Per peck, 75 cents; bush., \$2.00; bbl., \$5.00.*

Peerless (Bresee's No. 6.)—Skin dull white, occasionally russeted; eyes shallow; oblong, flesh white, mealy, grows to a large size, often weighing from one and a half to two pounds, and enormously productive, frequently producing from 100 to 150 barrels to the acre. Its great beauty, superior quality, and enormous productiveness, place it among the best varieties for general culture. *Per peck, 75 cents; bush., \$2.00; bbl., \$5.00.*

Lapstone Kidney.—Of English origin. Medium early; very long, kidney-shaped; skin very smooth and white; eyes small and entirely flat; flesh white, finely grained, sound and solid, and is not excelled in its qualities for baking or salad. *Per peck, 75 cents; bush., \$2.00; bbl., \$5.00.*

Jackson White.—A northern variety. Medium late; large; irregular, round to longish; skin white and smooth; eyes deep; flesh white, finely grained, and of good table quality; is a good keeper, and very productive in some localities. *Per peck, 75 cents; bush., \$2.00; bbl., \$5.00.*

White Peachblow.—A seedling of the old Peachblow. Very late; medium to large; round; skin white, with bright pink eyes; flesh white, cooks very dry and mealy. This variety has for years been the principal market potato in New York, and has proved a remunerative crop to the producers. *Per peck, 75 cents; bush., \$2.00; bbl., \$5.00.*

Peachblow (Jersey).—A well known variety, very productive, superior for the table, and one of the best for the market and shipping purposes. *Per peck, 75 cents; bush., \$2.00; bbl., \$5.00.*

Any other varieties not in our list will be furnished at lowest market prices.

GROUND OR CRUSHED BONE, BONE FLOUR AND MEAL, DISSOLVED BONE.

Highly recommended for vine borders, and for mixing with the soil in planting fruit-trees, potting plants, and various field crops.

Bone Dust, mixed with dry sifted loam or soil, and sown thickly broadcast (with after-rolling), forms an excellent ingredient in restoring and quickening the verdure of decaying grass-plots in gardens and pleasure grounds, etc.

Ground or Crushed Bones in bbls. of about 200 lbs., per single bbl., 2½ cents per lb.; less than 1 bbl., 4 cents per lb.; per ton of 2,000 lbs., \$38.00.

Dissolved Bones in bbls., per single bbl., 4 cents per lb.; per ton, \$53.00.

Bone Meal in bbls., per single bbl., 2½ cents per lb.; per ton, \$40.00.

Bone Flour or Dust, less than 1 bbl., 6 cents per lb.; per bbl., 3 cents per lb.; per ton, \$45.00.

Miscellaneous Varieties Selected from the Best European and American Sorts in Cultivation.

Albert,	Early Minnesota,	Noblow,
Alexandra,	Early Mohawk,	Nova Scotia,
Amazon,	Early Peachblow,	Ohio Mercer,
Andes,	Early Pinkeye,	Ohio Russet,
Ashleaf Kidney,	Early Prince,	Old Flesh-colored,
Ashleaf Fluke,	Early Purple,	Old Red,
Ashtop Fluke,	Early Queen,	Oneida,
Black Diamond,	Early Race-horse,	Orono,
Black Kidney,	Early Samaritan,	Patterson's Blue,
Black Mercer,	Early Scotch Cottage,	Patterson's Early White,
Blue Pinkeye,	Early Shaw,	Patterson's Golden Don,
Bresee's Prolific,	Early Snowball,	Patterson's Irish Blue,
British Queen,	Early Sovereign,	Patterson's Pinkeye,
Buckeye,	Early Stevens,	Patterson's Regent,
Bulkeley's Seedling,	Early Victor,	Penn. Searchwarrant,
Calico,	Early Wendell,	Philbrick's Early White,
California,	Early White,	Philadelphia,
California Mercer,	Early York,	Pigeon Eye,
Callao,	Fluke,	Pinkeye,
Campbell's Late Rose,	Forfarshire Red,	Pinkeye Rustycoat,
Carpenter,	Fox Seedling,	Prince Albert,
Carter,	Frankfort,	Prince of Wales,
Carter's Early Forcing,	Galva,	Purple Mercer,
Cascoe,	Gardner,	Raspberry-Leaved,
Cayuga,	Garnet Chili,	Red Streak,
Central City,	Granite State,	Rochester Seedling,
Chenango,	Great Britain,	Rough and Ready,
Chenery,	Grey Russet,	Sandy Brown,
Cherry Blow,	Great Western,	Scotch Blue,
Chili, No. 2,	Guernsey,	Sebec,
Circassian Kidney,	Hamburg,	Seedling Rock,
Cluster,	Harrison,	Six Weeks,
Colebrook,	Hollyhock,	Skerry Blue,
Colorado,	Idaho,	Snowball,
Concord,	Irish American,	State of Maine,
Coppermine,	Irish Cup,	Strawberry Mercer,
Cowhorn,	Jackson White,	Titicaca,
Cuzco,	Jones' Seedling,	Union,
Dagger,	Kearsarge,	Utica Pinkeye,
Dana's Seedling,	Ketchum's Seedling,	Vanderveer,
Davis' Seedling,	King of Potatoes,	Weeks' Seedling,
Delmahoy,	Lady Finger,	Western Chief,
Dover,	Late Pinkeye,	Western Red,
Dover Seedling,	Lincoln Red,	Wheeler's Milky White,
Duke of Cumberland,	London White,	Whig,
Dutch Pinkeye,	Long Pond,	Whipple's Seedling,
Dykeman,	Massachusetts White,	White Clinton,
Dyright,	Mercer,	White Monitor,
Early Black Kidney,	Mercer Seedling,	White Mountain,
Early California,	Merino,	White Pinkeye,
Early Cottage,	Mexican,	White Rock,
Early Dexter,	Mo. White,	White Rose,
Early Don,	Monitor,	White Sprouts,
Early Golden,	Multiply,	Willard,
Early Handsworth,	Nansemond,	Worcester Seedling,
Early Henry,	Napoleon,	York Seedling.
Early Indiana,	New Hartford,	
Early Manly,	New Kidney,	

One pound of any variety named in the above list, will be mailed, postage prepaid, to any post-office in the United States, upon receipt of 60 cents; 2 pounds, \$1.00.

Collections of 200 varieties, one tuber of each, correctly labelled, will be mailed, postage paid, for \$40.00; 100 varieties for \$25.00; 50 varieties, \$15.00; 25 varieties, \$8.00.

N. B. Orders for Potatoes, received during Winter, will be forwarded in Spring as soon as the weather will permit, which is usually about the first of April. They can be forwarded earlier, if desired, at the risk of the purchaser.

POTATOES.

ENGLISH AND FRENCH VARIETIES.

The following varieties, the very best cultivated in Europe, were in nearly all of winning stands at the International Potato Exhibition at the Alexandra Palace, London, for the past two years, and are highly recommended both for their extra fine quality and productiveness. One pound of the following-named varieties will be mailed postpaid for 75 cents. They are also offered in collections of one tuber each, as follows:

Collections of 5 varieties, 1 tuber each, \$1.50. | Collections of 20 varieties, 1 tuber each, \$5.00.
 " " 10 " 1 tuber " 2.75. | " " 40 " 1 tuber " 8.00.

Ashtop Fluke.
 Barrows' Perfection.
 Blanchard.
 Bountiful.
 Coldstream.
 Dawes' Matchless.
 Early Dimmick.
 Early Union.
 Excelsior Kidney.
 Fenn's White Kidney.
 Fenn's Early White.
 Fenn's Early Market.
 Fenn's Perfection.
 Hayes' Superb Kidney.
 Headley's Nonpareil.

Jersey Blue.
 King of Potatoes.
 Marceau.
 Marchioness of Lorne.
 Marjolin Cetard.
 McKinlay's Lady Webster.
 Model.
 Myatt's Prolific Ashleaf.
 Prince Arthur.
 Prince Teck.
 Prince of Wales Kidney.
 Patterson's Victoria.
 Patterson's "The Queen."
 Porter's Excelsior.
 President.

Quarantaine Violette.
 Rector of Woodstock.
 Red Emperor.
 Red Fluke.
 Rivers' Royal Ashleaf.
 Rogmon Rose.
 Sedila.
 Scotch Regent.
 Stanton's Premier.
 St. Helena.
 Sutton's Red Skin Flourball.
 Sutton's Exhibition Kidney.
 Sutton's New Hundredfold Fluke.
 Wonderful Red Kidney.
 Yorkshire Hero.

Pringle's Hybridized Potato Seed.

The extraordinary success which has attended Mr. Pringle in his attempts to improve this valuable esculent—which has resulted in the production of the **Snowflake and Alpha**, and last, though not least, the **Ruby**—has encouraged him to still greater efforts in his favorite pursuit of hybridization, and we have now the pleasure of offering a very choice strain of seed saved by him, which is the product of numerous hybridizations between the above named and many of the best new and old varieties in cultivation, both English and American, and includes every strain, which Mr. Pringle will himself sow the coming Spring. Full directions for sowing accompany each packet. Numerous testimonials have been received during the past season in favor of the superior quality of this seed, as well as of its extraordinary productiveness, 5 to 22 pounds of good sized potatoes having been grown by several parties from a single seed.

Directions for Cultivation.

Sow in pans or shallow boxes, of a mixture of leaf mold and loam, and place under glass or a gentle hot-bed; as the plants appear, they should be partially shaded from the full sunlight; if they begin to crowd, transplant, giving them ample room; when danger from frost is over, set them in the open ground, giving them the full space usually allowed to potatoes. With this treatment they will, with good attention attain to full size and maturity the first year.

The following letters are selected from a number received from our customers, who have given this seed a trial, showing its wonderful productiveness. Samples of the tubers were also sent us, which were marvels of beauty, and will be sure to create a sensation when they become known.

CHARLOTTE, VT.

From Pringle's Hybridized Potato Seed, purchased of you last Spring, I raised from one seed, 45 potatoes, weight seven and one-quarter pounds; from another, 95 potatoes, twenty-two and one-half pounds; from another, 115 potatoes, twenty-seven and one-half pounds.

O. H. ALEXANDER.

PITCAIRN, N. Y., September 28, 1876.

B. K. BLISS & SONS:—The packet of potato seeds I received from you the first of April last, were planted the 9th day of April, in boxes, transplanted the 13th day of May in rich soil; used some bone dust in each hill; the plants were under glass most of the time until June; hoed them often, and they grew fast; watered several times in July and August with liquid manure. The packet contained 29 seeds; 24 grew, and one was destroyed by worms; the largest product from a single hill was 9 5-16 pounds of handsome, smooth, red potatoes.

Yours truly,

H. C. PEARSON.

Price 25 cents per packet; 5 packets \$1.00.

REPORT OF COMMITTEE

For awarding **PREMIUMS** offered by **B. K. BLISS & SONS** to growers of the largest quantity of **RUBY** and **ALPHA** POTATOES, from one pound of Seed.

NEW YORK, January, 1877.

MESSRS. B. K. BLISS & SONS—GENTLEMEN:

In compliance with your request, the undersigned committee have met to-day, to award the premiums offered by you last Spring, for the largest yield of **Ruby** and **Alpha** Potatoes raised from one pound of tubers.

Mr. P. T. Quinn was called to the chair, and Dr. F. M. Hexamer acted as Secretary. The circular offering the prizes and stating the conditions for competitors, was read as follows:

Five Hundred Dollars in Premiums.

\$250 FOR RUBY.

For the largest quantity of Ruby Potatoes grown from one pound of seed,	- - -	\$100 00
For the second largest,	- - -	50 00
For the third largest,	- - -	40 00
For the fourth largest,	- - -	30 00
For the fifth largest,	- - -	20 00
For the sixth largest,	- - -	10 00

\$250 FOR ALPHA.

For the largest quantity of Alpha Potatoes grown from one pound of seed,	- - -	\$100 00
For the second largest,	- - -	50 00
For the third largest,	- - -	40 00
For the fourth largest,	- - -	30 00
For the fifth largest,	- - -	20 00
For the sixth largest,	- - -	10 00

Competitors for the prizes will be required to give the date on which they gave their order for the potatoes, date of planting, date of digging, with a written statement of their mode of culture, characteristics of the soil—whether clay, alluvial, sandy or loam—nature of the subsoil, whether underdrained or not; also, the kind and quantity of fertilizers used, how and when applied, the number of hills, and distance apart each way, with the weight of the crop when dug, and the number of square feet occupied by the crop, which must be witnessed and sworn to before a justice of the peace, notary, or any other one competent to administer the oath, and sent to our address before the first of November, 1876.

The seed in all cases must be purchased of us. The awards will be made by a committee composed of well-known agriculturists, and will be published in the leading Agricultural Papers, and a copy mailed to each competitor. The prizes will be awarded the first of January, 1877.

N. B.—To prevent misunderstanding, we wish it distinctly understood that no prizes will be awarded unless the above requirements are complied with in every particular. Competitors for premiums will be placed under no restrictions, as to their mode of culture, excepting that *they must not be grown from slips or forced by artificial heat*, our object being to ascertain their respective merits with such culture as is usually given to crops in a well-managed vegetable garden or farm. *Competitors can receive but one prize for each variety.*

THE AWARDS OF PRIZES ARE AS FOLLOWS:

For the largest quantity of ALPHA from one pound of Seed.

1st Prize to	H. C. Pearson, Pitcairn, St. Lawrence Co., N. Y.,	- -	1707 $\frac{1}{2}$ lbs.,	\$100 00
2d " "	J. I. Salter, St. Cloud, Minn.,	- - - -	1665 $\frac{3}{4}$ "	50 00
3d " "	L. G. Clute, Manchester, Del. Co., Iowa,	- - - -	1535 $\frac{1}{2}$ "	40 00
4th " "	P. C. Wood, Hillsboro', Ill.,	- - - -	1511 "	30 00
5th " "	John Tannahill, Patron, Butler Co., Neb.,	- - - -	1426 $\frac{1}{2}$ "	20 00
6th " "	Alfred Rose, Penn Yan, N. Y.,	- - - -	1280 "	10 00

For the largest quantity of RUBY from one pound of Seed.

1st Prize to	H. C. Pearson, Pitcairn, N. Y.,	- - - -	1982 lbs.,	\$100 00
2d " "	J. I. Salter, St. Cloud, Minn.,	- - - -	1694 "	50 00
3d " "	Alfred Rose, Penn Yan, N. Y.,	- - - -	1576 "	40 00
4th " "	P. C. Wood, Hillsboro, Ill.,	- - - -	1571 "	30 00
5th " "	Peter Robertson, Jedboro', Scotland,	- - - -	1534 "	20 00
6th " "	Milton M. Rose, Penn Yan, N. Y.,	- - - -	1353 "	10 00

REPORT.

Over more than one-half of the Potato-growing territory of the United States, the past season has been one of extraordinary severity. Throughout the Eastern and Middle States a severe and protracted drouth, combined with the ravages of the Colorado Potato Beetle, diminished the crop so much, that thousands of acres were considered not worth the digging. In several Western States, the Grasshoppers have caused considerable loss, while in others an unusually wet season has produced rot and small crops.

The astonishing results, obtained under so unfavorable conditions, make the study of these various reports especially interesting; they teach us the unmistakable lesson, that in farming as well as in other pursuits, knowledge, industry and perseverance will accomplish great results, even under the apparently most unpromising conditions. The recipients of these prizes may well be considered the Champion Potato Growers of the World. None of them are novices in their trade, and nearly all have received premiums at previous trials. They knew exactly how much they could accomplish, and have achieved the desired result.

Although it seems perfectly just that the best man should win, yet by awarding premiums to the same parties, year after year, much of the object of these competitive trials—the eliciting of new information about the cultivation of the potato—is lost. But few reports, showing yields below one thousand pounds, have been received. The largest yield from one pound is not always in proportion to the largest yield per acre; nor do these immense yields, produced by the lavish application of manures, regardless of expense, give a criterion of the profits of the crops, after deducting the premiums. Many growers, who have produced less than one thousand pounds from one. may have obtained larger profits per acre, than the successful competitors, but, fearing the competition of the Great Prize Winners, have not sent reports. Thus the present system of awards deprives the public of much valuable instruction, which might be obtained, by devising different systems of competition, from which, persons who have received premiums at former trials, should be excluded. With only three exceptions all the premiums had to be awarded to competitors who had been successful in previous years.

The Soil and Fertilizers used, the modes of planting and cultivating were in most instances the same as used and practiced previously. Several growers planted the same pieces of land, which produced the premium crops of last year.

The large quantities of Fertilizers used by most competitors is something astonishing, and may well serve to disprove the general belief that heavy manuring is injurious to potatoes. Mr. Pearson added to an already very rich soil, about 60 two-horseloads of manure, nearly 200 bushels of wood-ashes, and 24 bushels of lime, per acre, together with bone-dust and other fertilizers in smaller quantities. Mr. A. Rose, after covering his land three inches thick with rotten barn-yard manure, and three bushels of wood-ashes per square rod, applied in addition, a large shovel full of rotted hen manure, and two hands full of ashes to each hill, besides several surface dressings with other fertilizers. But all this must appear but a small attempt at enriching the land, to our Scotch friend, Mr. Robertson, who would not entrust his seed to a black sandy loam, four feet deep, underdrained and trenched, to probably the entire depth, before spading under a coat of *five inches* of well rotten cow-dung, and applying afterwards to the hills three cart-loads of wood-ashes, two of sheep droppings, and several other fertilizers.

The dissection of eyes has been still more increased. In one case a pound of potatoes was divided into 290 sets. These practical tests, of the feasibility of raising large crops from small sets, become of much importance in seasons of scarcity of seed potatoes. For it is shown here that, even without carrying the division of the eyes to extremes, nine-tenths of the seed may be saved.

The fact that the largest yields were produced in the Eastern States, in regions which suffered from one of the severest drouths known, where the general crops failed almost entirely, induced us to investigate more closely the manner in which these premium potatoes were grown. As the result we find that all these competitors attribute their success to the judicious application of water during the dry season. One of the competitors had arranged an ingenious system of irrigation, by inserting six inches from each hill, two inch drain tiles, six inches deep and filling these with water, twice a week during the dry weather. In reply to a letter he writes: "I attribute my success the past season to the fertilizers applied, but more especially to the mode of applying water. I find that, even without manure, this plan gives great results. Give me drouth and this means of applying water, and I can grow a much larger crop than with the most favor-

able weather and no watering. This I have proved by two years experience." Many may not be so situated that they can apply as complete a system of irrigation, but thousands of farmers have running through their lands, brooks and streams which might, without much cost, be made to furnish nutriment to their parching crops. One acre of potatoes would in many cases pay for more than the entire expense of a permanent system of irrigation. The information about this important subject, derived from the accompanying reports, cannot but prove of the greatest value, to all cultivators of the soil.

The superior qualities of the **Alpha** and **Ruby**, are largely commented upon.

The **Alpha** has by many growers been declared "much the earliest of any seedlings." It was found to be "fit for use, in sixty days from the day of planting," "of excellent quality when cooked in any way, and gaining steadily in quality and yield." In this latter respect the *Alpha* differs from most new seedlings. But few improve after the third year, while many deteriorate rapidly. The *Alpha* when first brought to notice, was below medium size, and so delicate that it was thought only suitable for garden culture. But gradually we found it increasing in size and productiveness, while it retains its earliness and excellent quality. That it will henceforth rank as the earliest potato for the field as well as the garden, and that it yields enormous crops, even under ordinary culture, has been sufficiently proved by Mr. Clute's 1,535 pounds, grown without manure whatever.

The **Ruby**, although not presenting as striking characteristics as the *Alpha*, has proved to be a valuable introduction. It is declared to be a "No. 1 potato in every particular," and seems to be especially valued for its remarkable exemption from rot. "Although there was so much rain in some of the Western States that potatoes generally failed to grow, and those that grew generally rotted, yet no rotten ones were found among these, and their quality was excellent." Its large yield and very handsome appearance, combined with excellent quality, make it a valuable market variety, where red skinned potatoes are in demand. In Europe it has likewise succeeded exceedingly well. Mr. P. Robertson of Scotland, says: "they were pronounced of excellent quality by every person who has tried them."

Trusting that the increasing interest in Potato Culture, stimulated largely through these competitive trials, may be still more productive of information and progress in this important branch of Agriculture, I am yours respectfully,

F. M. HEXAMER, *Secretary.*

P. T. QUINN,
F. M. HEXAMER, } *Committee.*
GEORGE THURBER, }

Reports of the Successful Competitors.

The following reports have all been properly witnessed and sworn to before a Justice of the Peace—in their respective residences—they have also been carefully examined by the committee and found to conform to the rules prescribed in our offer for the Premiums.

(From H. C. Pearson.)

PITCAIRN, N. Y., October 4, 1876.

Messrs B. K. BLISS & SONS:—I ordered of you April 1st, 1876, one pound each of **Ruby** and **Alpha** Potatoes, and planted them May 10th, 1876, and dug them September 28th. The **Ruby** produced **1,982 pounds** and the **Alpha** produced **1,707 3-4 pounds**. The soil was light loam with some gravel with a sand and gravel subsoil not underdrained. The soil was very rich, and its fertility was increased in the fall of 1875, by spreading broadcast fifty-two horse loads of well rotted manure, three years old, and 150 bushels of ashes per acre, and plowed it under about eight inches deep; plowed and harrowed until perfectly pulverized eight inches deep last May. Placed in each hill before planting, two quarts of a compost, composed of thirty bushels of decayed manure, five bushels of ashes, three bushels slacked lime, eight quarts salt and four pounds of sulphur; the tubers were cut, some of the eyes divided into as many as seven and eight parts, planted one set in each hill, and covered them about three inches deep with soil mixed with some bone dust, making in all 195 hills of the **Ruby**, 210 of the **Alpha**; they were planted three and one-half feet apart each way, the number of square feet occupied by **Ruby**, was 2,364 feet, the number occupied by **Alpha**, was 2,546 feet. I hoed them three times, making very high, broad hills, watered them several times during July and August, with liquid manure, dug from one hill of **Rubys**, forty-three potatoes, weight **17 1-2 pounds**; used no slips or artificial heat. H. C. PEARSON.

(From J. I. Salter.)

ST. CLOUD, MINN., October 24, 1876.

Messrs. B. K. BLISS & SONS—Sirs:—On the 7th of April, 1876, I ordered of you, one pound each of the "**Ruby**," and "**Alpha**" Potatoes. Planted the **Ruby** on the 31st day of May. Prepared the ground as follows: I spread as evenly as I could on the sward, about equal parts of

hen and barn-yard manure, at the rate of five heaping garden wheelbarrowsful to the square rod, before plowing, then plowed, turning a furrow ten inches deep and ten inches wide. I then planted my sets after dividing every cluster of eyes into from three to twelve pieces, in rows four feet apart and as near as convenient, three and one-half feet apart in the rows, dropping but one piece in a place. I covered from two to three or four inches with loose earth. From the pound I made two hundred and ninety (290) sets, the space planted was sixty by seventy feet, (4,200 square feet); hoed but once, when the plants were about ten inches high, making a broad and continuous ridge flat on the top, and a little depressed in the center; covered the vines all but a very little of the top. Before hoeing I applied to each plant a large shovel full of fermenting hen manure; it was so hot that it would turn the leaves of plants black, and give them the appearance of being scalded, in less than a minute; I would manure three or four plants, and then cover as quickly as possible. The plants in a day or two began to grow and retained a dark green, almost black color until they were killed by the frost. I did nothing more in the way of cultivation.

On the 19th of August, I dug one hill of the "Ruby," and had ten and one-half (10½) pounds; on the 9th of October I dug of the **Ruby** eight hundred and twelve (812) pounds; on the 10th of October I finished digging the **Ruby**, digging eight hundred and seventy-one and one-half (871½) pounds, making a total of sixteen hundred and ninety-four (**1,694**) pounds. The "Alpha" was planted the same distance apart each way, had the same cultivation, manuring, etc., as the **Ruby**, except about fifty hills, that I covered the sets about four inches deep with coarse, unfermented horse manure, and applied no other manure afterward. I covered this manure with earth the same as I covered the hen manure. I did not get as many large potatoes from these so treated, but about the same in weight per hill; made two hundred and fifty sets. The ground occupied by the Alpha was the same as the **Ruby**, sixty feet by seventy, (4,200 square feet). I also planted two rows of this potato in hills four feet apart each way. The land in both cases, a black sandy loam, rich in decomposed vegetable matter, usually about two feet deep, under which is hard pan. On the 28th of August, I dug two hills of the **Alpha**, and had **15 3-4** pounds; on the 12th of October, I dug **1,010** pounds of the **Alpha**, and on the 13th of October, **640** pounds, making altogether (**1,665 3-4**) pounds.

These amounts I dug, were grown alone, from the one pound each of the above named varieties, purchased from you as I stated above, and without any sprouting or any other means being used, than as stated. The land was not drained in any way.

J. I. SALTER.

(From L. G. Clute.)

MANCHESTER, DELAWARE CO., IA., October 27, 1876.

Alpha. Sent order for seed potatoes April 22d, 1876; planted them May 10th, 1876, on new land grubbed out in the Fall of 1875. Was an old hog and calf pasture for ten or twelve years previous; land full plowed in Fall, and harrowed and plowed in Spring; furrowed out with plow in rows three and one-half feet apart, and planted two and one-half feet in row; was assisted in planting by William Henry Hartson, who also assisted in digging, weighing the same. Said potatoes were planted on a clay loam soil, were hoed twice, and plowed three times with a horse and double shovel plow, were hoed lightly at first hoeing, and hilled well up the last time; no manure of any kind was used in their cultivation; dug them September 1st, and October 12th, 1876. Took first premium on them at Dubuque North-Western Exposition for best new variety, and at State Fair of Iowa for best early variety of any sort, and at Delaware County Fair for best early variety; raised **1,535 1-2** pounds from the one pound of seed. Cut my pound of seed to single eyes, and divided the largest eyes to from two to six pieces, and planted one piece in a hill, covering from two to three inches deep. Plowed them first time when two inches high, covering them well up, and plowed again when three inches high, hoeing out clean, and plowing again when about a foot high, hilling well up and covering some of the longest vines to within three inches of the end. Limestone subsoil not underdrained.

L. G. CLUTE.

(From P. C. Wood.)

HILLSBORO, ILL., October, 1876.

Messrs. B. K. BLISS & SONS:—I ordered of you April 8th, 1876, one pound each of Alpha and Ruby Potatoes; planted them May 19th, 1876; cut them very small so as to make from (1) one to (7) seven, sets or pieces from each eye; planted one piece in each hill—on a small shovelful of well rotted chip manure, and covered with the same. The soil is deep black loam with stiff, red clay subsoil not underdrained, but well surface drained, enriched by two and one-half inches of well rotted barn-yard manure, two bushels of hen manure, and three bushels of wood-ashes to each square rod of land, plowed under in November, 1875. The soil was thoroughly pulverized fifteen inches deep, the hills four feet apart each way; when planted, used a small shovelful of the following mixture under each hill: one bushel lime, one peck salt, two bushels ashes, enough

water to slack the lime—also one spoonful plaster in each hill, and a handful, (two or three ounces) of bone dust mixed with the surrounding soil. Cultivated well one foot deep, stirring the soil frequently with shovel-plow and prong-hoe, hilling up well. The first week in June applied the following mixture, raking it well into the surface: good mold three hundred pounds, sulphate of ammonia twenty-five pounds, common salt twenty-five pounds, pearlsh seven pounds, sulphate soda seven pounds, bone dust fifty pounds, plaster fifty pounds, sulphuric acid two gallons. Repeated the application the first week in July, and again the last week in July. After young potatoes were one inch in diameter, ceased to stir the soil, except to rake over the surface from one-half inch to one inch deep; no slips, and no artificial heat was used, no forcing. The tract occupied by the Alpha was seventy-two by forty feet, 2,880 square feet; the tract occupied by the Ruby was forty feet by sixty-four feet, 2,660 feet. There was one hundred and seventy-eight hills of the Alpha, and one hundred and sixty hills of the Ruby. The plants were dusted with plaster twice each week during the months of June and July, one hundred and fifty pounds used. The weight of the crop when dug was **Alpha, 1,511 pounds; Ruby, 1,571 pounds;** the crop was dug October twenty-third, and October twenty-fifth, 1876. P. C. WOOD.

(From John Tannahill.)

PATRON, BUTLER CO., NEBRASKA, September 26, 1876.

I gave my order to B. K. Bliss & Sons for one pound each of Alpha and Ruby Potatoes, April 29th, 1876, and we planted them side by side, May 13th, 1876. Cut the eyes in from two to ten pieces. Plowed the ground about thirteen inches; in fact, it has been plowed that deep for two years, and pulverizing thoroughly with the harrow, marked the ground, by hand, about four feet each way, making the marks very light on the surface, making a place about four inches deep with hoe; then placed the small pieces, one in each place, covering from one-half to one inch in depth, and, as they began to come up, put a handful of wood-ashes in each hill: then covered again about two inches. The young sprouts were quite weak when they first appeared; when from two to three inches high, cut them off to within one-half inch of the ground; then they started more stocky. Cut the vines again when about four inches high, only taking off the tips. It caused them to sprout out all around the hill, and, in the latter part of the season, the vines completely covered the ground; think that they would have done better had they been given more room. May 25th, cultivated with five-tooth one-horse cultivator, hoeing and hilling as much as possible. July 5th, hilled nearly to the top of vines, keeping them spread and covering the lower parts all up.

We dug them on the 6th day of September, 1876, and, from the one pound of **Alpha**, I dug one thousand four hundred and twenty-six and one-half pounds (**1,426 1/2 lbs.**); and, from the one pound of **Ruby**, we dug one thousand three hundred and forty-eight pounds (**1,348 lbs.**), and I do certify that no forcing process was used whatever.

The soil is dark, rich, loamy, with some sand, to the depth of about four feet, underlaid with a gravelly clay, and is level bottom land, and not underdrained, and has been in cultivation for four years; a heavy crop of tomatoes was grown on the ground last season.

The number of feet occupied by each variety was: The Ruby 20 by 118, making 2,360 square feet, and the Alpha, 20 by 130, making 2,600 square feet. We dug 210 hills of the Ruby; six hills were lost, some never came up, and the Alpha dug 196 hills; eight hills lost.

JOHN TANNAHILL.

(From Alfred Rose.)

PENN YAN, YATES COUNTY, N. Y.

Messrs. B. K. BLISS & SONS:—I hereby certify that, on the 27th day of March, 1876, I ordered of B. K. Bliss & Sons, of New York, one pound each of the Ruby and Alpha Potatoes. Planted the same May 19th, 1876. The proceeds from each pound were dug October 11th, 1876. The one pound of **Ruby** produced **1,576 pounds**, and the one pound **Alpha**, **1,280 pounds**.

Soil, sandy loam; sub-soil, sand and gravel, intermixed with marl, and not underdrained, and is the same land that I raised premium potatoes on last season, (1875,) which was then heavy sod land, and was manured with barn-yard manure, wood-ashes and lime, very strong. This land, in April, was plowed twelve inches deep, and then covered about three inches thick with rotted barn-yard manure; also three bushels of wood-ashes to the square rod; then harrowed and plowed again ten inches deep, very fine; then marked it one way by turning two furrows opposite each other, ten inches deep. In this furrow, I put in a large shovelful of rotted hen manure, and two handfuls of wood-ashes for each hill of potatoes, and mixed all manures well with the soil. I cut the tubers to make as many sets as possible; some of the side eyes I divided into eight and ten sets, making from the one pound of Ruby 238 sets, and from the Alpha, 250 sets. Planted one set to each hill, one and one-fourth inches deep, in pure soil. I used, also, a fertilizer made with one cask of lime with twelve pounds of sulphur, slacked with water, then stirred in one bushel of salt and five bushels of wood-ashes, all mixed well together. Of this mixture, I sprinkled on

and around each hill two handfuls mixed in the soil; the sets are now eight to nine inches below surface level. Soon as the plants were up and the lateral vines four to five inches long, I spread them for a larger hill and filled up the hills, partly, with more of the mixture and soil, dusting the vines also with plaster and sulphur; cultivated and hoed the same. In about eight days from this time I done the same as above stated, which filled the hills up level with the surface ground; then I let them grow until the vines would more than reach half-way to the next hill, if laid down. I then cultivated, with a one-horse plow, ten inches deep and hoed them thoroughly, loosened the ground around the hills. Then I layered the vines, making the hills meet in the rows just under where I bent the vines to leave some of the tops above ground and to stand nearly perpendicular. I cut the bark of the vine also half-way back to the hill, covered the vines two to three inches deep, mixing in the soil more of the mixture. Also, to ten gallons of water I put in one quart of bone dust, and of this mixture I sprinkled on each hill five to six quarts; one week from this time I sprinkled again with the mixture.

Some of the vines in ten days from the layering had rooted and sets of potatoes formed on the vine layers. I done no more to them only to keep the weeds out and bugs off. The Ruby vines were large and covered all the ground. Any man not knowing the amount of seed planted to look at one of the hills, would think there must have been two to three whole potatoes planted to make so large a hill. Some of the vine layers had more potatoes on than the original hill.

We dug three hills of Ruby, side by side, and their weight together was forty-seven pounds. Potatoes were cultivated three times and hoed four times. Number of feet occupied by each variety was 231 by 9, making 2,079 square feet. Ruby, three feet apart, nearly, each way; Alpha, three by two and ten-twelfths. The average per hill is, Ruby, six three-fourths pounds; Alpha, five one-fourth pounds. I used no slips or artificial heat. We have tested the Ruby and Alpha Potatoes by boiling and baking in company with others, and all of us agreed they are first class, super excellent.

ALFRED ROSE.

(From Peter Robertson.)

THE GARDENS—HARTRIGGE HOUSE, JEDBURGH,

ROXBOROUGH, SCOTLAND, October 4, 1876.

Messrs. B. K. BLISS & SONS:—Gentlemen. I beg to forward to you my report. I ordered of you March 21st, 1876, one pound each of Alpha and Ruby Potatoes. I planted them on April 24th, 1876; they were dug October 2d and 3d, 1876. The Ruby produced **1,534 pounds**, and the Alpha produced **1,246 pounds**. The soil is a mixture of black sandy loam, four feet deep, with a red clay sub-soil and underdrained; it has been lawns or short grass for many years; it was trenched on or about December, 1875, and remained in Winter fir until about April 10th, 1876, it was enriched by about five inches of well-rotted cow dung and gas lime rubbish; the ground was then dug in the usual way, care being taken to mix and make it as fine as possible; the rows were six feet apart, and the sets were planted three feet apart, a mixture of about three cart-loads of wood-ashes, two cart-loads of sheep droppings, one lime, two hundred weight salt, all mixed. The tubers were cut and planted in the presence of Mr. Kerr and others. Some of the eyes divided into seven parts; they were very small. Planted one set three feet apart each way; under each, three spadefuls of the above mixture was pulverized three inches deep with the soil, and each set planted one inch deep; they all grew; at first they looked very weak but gained strength something extraordinary; they were kept free of weeds, and the soil drawn to them as they grew; they were two inches high on May 29th, 1876; they got nothing but kept free of weeds, and the soil drawn to them as they grew, until the tubers began to swell; they were then watered with a mixture of sheep droppings and hen manure a few times until they were lifted; there were 176 sets of Ruby, 164 Alpha, single eyes and very small; from one set single eye I had twenty-one pounds; many of the tubers were two and three pounds each. I may also say that I had some very fine early Cauliflowers and early Cabbage on the same ground; they were planted between the rows of the potatoes and cut before the potato vines got up to cover the space between; the ground they occupied was forty-six feet by seventy feet, and would be about 3,220 square feet for each variety. Many of the vines remained green until they were lifted. The season was generally good for potato culture; no forcing process was used whatever.

PETER ROBERTSON.

P. S. The potatoes have been tested by a number of families besides my own, and pronounced of excellent quality by every person who has tried them.

PETER ROBERTSON.

Milton M. Rose, Penn Yan, N. Y., to whom the sixth premium for Ruby was awarded, produced 1,353 pounds from one pound seed. His report of culture, being similar to that of his brother, Alfred Rose, we do not think it necessary to print it.

The following extracts from the report of the Committee awarding the premiums of 1875, will be interesting to all engaged in potato culture.

"A comparison of the distances between the hills with the average yield per acre, gives a most interesting and valuable table, as follows:

"The sets planted at the distance of

2 x 3 feet gave a yield of 378 bushels per acre.	3 x 4 feet gave a yield of 372 bushels per acre.
2 x 4 " " " 462 " " "	3½ x 4 " " " 342 " " "
2 x 3 " " " 651 " " "	4 x 4 " " " 332 " " "
3 x 3½ " " " 441 " " "	4 x 8 " " " 88 " " "

"The large number of data of which the above figures form an average, give these statistics a special value. It will be seen that although the greatest yields from one pound grew from hills four feet apart, the largest crops per acre were raised at distances of three feet each way, and that as the distances between the hills are increased or decreased, the yield diminishes in regular proportion. In the first case, there remains wasted ground which is not reached by the roots of the plants, and in the latter, the roots are so crowded that they can not obtain all the nourishment they are capable of consuming.

"The mode of planting and cultivating with a large number of the best cultivators, consists in crossing their fields with furrows six and more inches deep. The sets are dropped at the crossings and immediately covered with about two inches of soil or compost. The vines as they grow are hilled up gradually and frequently to a final height of twelve to eighteen inches. Then large, broad hills are made, using all the soil between the rows.

"The fact that single eyes and eyelets will, with good care, produce large crops, has been sufficiently proved. All the large yields were grown from very small sets. In some cases, single eyes were divided into ten pieces, and in one instance two hundred and forty (240) sets were made from one pound, nearly all of which grew well. The sets with few exceptions, were planted singly, yet we find a product of nine hundred and seventy (970) pounds raised from fifty-two (52) hills, two sets to each, nearly nineteen (19) pounds per hill, and six hundred and seventy-seven (677) bushels per acre."

What is Said by the Press.

It gives us much pleasure to copy the following favorable notice from the *Country Gentleman* of January 20, 1876, coming as it does entirely unsolicited, from one with whom we have no personal acquaintance—and only know him as a customer who believes in trying novelties, even though they are sometimes introduced at a high price; all of the varieties named, excepting the Lapstone Kidney, were first introduced by us.

Experiments with Potatoes.

In the Spring of 1868 I paid B. K. BLISS & SONS \$15 for 10 pounds of Early Rose, then making its advent. I grew 8 bushels, and have since grown over 400 bushels per acre, in that dry year, 1873. I supplied the want of rain in some measure by deep and thorough, and frequent culture. Tillage is manure, moisture and earliness. In the Spring of 1874, Messrs. BLISS offered prizes on three new varieties. I contested, in order to get seed if not prize, as they bore a splendid record. I got 120 one-stalk hills from one pound. I dug from two pounds of Extra Early Vermont 8 bushels, and from one pound of Compton's Surprise, 3 bushels; from one pound of Brownell's Beauty 2 bushels, but got beaten. In the Spring of 1875, prizes were offered on two new kinds. I contested again. From one pound (8 small tubers) of Snowflakes I got 160 one-stalk hills, and 100 hills of Eureka. I planted on the 12th of May, on very rich land, with manure, and gave them clean and very thorough culture. I dug of Snowflake, 690 pounds (11½ bushels), and of Eureka, 410 pounds, and got beaten 300 pounds.

I bought of Messrs. BLISS 110 pounds of Snowflake at a cost of \$6 per peck, or \$20 per bushel. I planted 18 pounds on the 22d of April, 1875, in a field with some Early Rose, Early Vermonts Peerless, Lapstone Kidney, &c., in order to compare the yield, earliness, &c., on new, rich land. I gave good clean culture. I dug some Snowflakes when half-grown to test them, and they were dry and of rich flavor. They ripened with the Rose, a little behind the Early Vermonts, and both yielded nearly three times as much as the Rose, were larger and more uniform in size. I found from 6 to 10 of a nice size to cook, and some larger and smaller, on one stalk. The Vermonts were very large. I dug from 18 pounds of Snowflakes, 35 bushels. I planted 30 pounds May 1st, and dug 60 bushels of very fine tubers. I planted 60 pounds on the 28th of May, cut to single eyes, on the best land; hoed as soon as up; gave them clean and very thorough culture; plowed deep five times, as soon after rains as dry enough. I dug 150 bushels of the smoothest and whitest (inside and out) tubers I ever saw, and had it not been for the August frost and dry weather that followed, I am sure I should have had a third more. I planted four bushels of Extra Early

Vermonts, and dug 400 bushels, very large, noble and fine in quality; I think it surpasses the Rose.

I planted two bushels of Compton's Surprise on similar land, and dug 125 bushels. This variety is said to be very abundant in starch, and to come on the table like balls of flour. It is blue, with deep eyes. The Lapstone Kidney, of English origin, is said to be first-class for baking and salad. I planted one peck, cut fine, and dug 20 bushels of very smooth, long, white tubers. The Peerless is my standard for Winter; smooth, white, large, noble and great to yield. I got from 250 to 300 bushels per acre. All from whom I have heard, who have grown the Snowflake, say they are the finest potatoes in all respects they ever grew. I venture to say that all now engaged in propagating may continue for thirty years, and not produce one that is as good in all respects.

REUBEN P. REED.

Ogle County, Northern Illinois.

ENGLISH OPINION OF AMERICAN POTATOES.

(From the *London Garden*, Nov. 18, 1876.)

New American Potatoes.—Two new kinds have been introduced this Autumn, which will probably be extensively grown next year. **Brownell's Superior**, one of these, has already been noticed in the report of the International Potato Show, as having received a certificate of merit. Its tubers so closely resemble those of the Snowflake in form and smoothness, that it might well be termed a Red Snowflake. The skin is of a rich reddish tint, rather deeper than that of Brownell's Beauty, and it is a much handsomer potato. Evidently it is not lacking in size, as I found a dozen tubers weighed 10 pounds, and every one of them fit for the exhibition table. Its flesh is as white as that of the Snowflake.

Ruby—has been severely tested by a hot dry Summer, and came out very well. It has a short haulm, much like that of Alpha, and ripens off early; the tubers are of a long bright pinkish red and very handsome, in this respect quite excelling the Early Rose, the color of which is too pale to be acceptable. Ruby will be much in request as an early Red Kidney variety.

(From the *London Gardeners' Magazine*, March 25, 1876.)

Potatoes by Express.—At the last meeting of the Royal Horticultural Society, Messrs. Hooper & Co., exhibited a pretty dish of the American Potato, **Alpha**, the result of a very simple mode of forcing, adopted by Mr. Barker of Littlehampton. The sets were planted on the 13th of January, in large pots which were placed in a greenhouse pit, facing south, from which frost is excluded by a single flue and return pipe. On the 7th of March, the crop was lifted and a portion sent for exhibition. The tubers were of good size, the colors delicate white, like wax, with a very faint tinge of rose about the eye. When growing in pots they had a pleasing appearance, for the haulm of this variety is quite handsome, the foliage being a beautiful color. As during the Summer months a crop could be obtained considerably quicker than in the coldest and gloomiest season, and as this crop was in the ground only fifty-five days, it is evident that the American Potato **Alpha** is capable of producing seven or even eight crops in the course of a year.

(From the *Report of Messrs. Carter's Royal Metropolitan Root Show*, in *Bell's Weekly Messenger*, Nov. 20, 1876.)

A dish of Snowflake Potatoes, sent by Mr. Penny, head gardener to his Royal Highness the Prince of Wales, cannot be adequately described in words; but we may advise any professional or amateur grower to secure a supply of this stock for trial next year, that they may put it to a practical test under their own eye.

(From the *London Gardeners' Chronicle* of Jan. 16, 1875.)

"It is not many years ago, since our American cousins introduced us to the first of their wonderful 'Taters,' and just see what a revolution they have caused! On the exhibition tables, frequently no other than American varieties are to be found—they are unmistakably great croppers and of fine, taking appearance. We cannot say in points of quality they are always so superior, yet, we can say, from personal experience, that some of the best potatoes we tasted during the past season were of the American sorts. Of this year's introduction, we would first especially note **Snowflake**. The tubers of this sort are of a long ovate form, the eyes very full, skin rough, pale straw, the most handsomely formed of all, and of excellent quality.

(From the *London Garden*, Nov. 20, 1875.)

PRODUCTIVENESS OF THE ALPHA POTATO.—On May the 13th I planted 9 lbs. of Alpha Potatoes on land situated within half a mile of the sea and fully exposed during the past cold, wet season. The land on which they were planted received no special preparation. No fertilizers were used with the exception of a small quantity of vegetable soil. The crop was lifted on September 2d, and handsomer potatoes I have never seen, not a single potato being diseased. The 9 lbs. of seed produced a crop of 401 lbs.

(Signed)

C. J. BARKER,
Littlehampton, England.

Antidote for Colorado Potato Beetle.

From a treatise on the "Pest and its Remedy," published by C. T. Reynolds & Co. New York.

The resistless progress of that dreaded pest, the Colorado Potato Beetle, has for several years past been watched with anxiety and alarm by the farmers of the Middle and Eastern States. It was foreseen that it would eventually make its way north and east, and the appearance of this farmer's enemy in Pennsylvania, New York, and portions of New England, last Summer, leaves but little room to doubt that the bug will be out in full force this coming season, and rapidly extend its ravages. In fact, we consider its crossing the ocean itself and becoming naturalized in the old world, as merely a question of time. Already several of the European governments have taken the alarm, and fully alive to the magnitude of the danger with which they are threatened, have endeavored to forestall it by prohibiting the importation into their dominions of American potatoes from the district devastated by the 'bug. Whether this measure will prove effectual in warding off the evil from their shores remains to be seen, *we believe it will not.*

ITS GREAT PROLIFICACY.

The Colorado beetle propagates itself with astonishing rapidity; several broods (at least three) following each other in the course of the year. The first batch of larvæ makes its appearance towards the end of May, and sometimes even in April, if the weather be warm. Each female lays from 700 to 1200 eggs, in clusters of twelve or thirteen, on the under side of the leaves. In about six days the larvæ are hatched, and immediately begin the work of devastation, which continues for about nineteen days. They then descend to the ground, where they are transformed into pupæ, at the surface of the earth. The perfect beetle appears in ten to fourteen days after the pupæ is formed—begins to pair in about a week, and on the fourteenth day commences to deposit her eggs.

THE VORACITY OF THE BEETLE,

especially in its larval condition, is truly marvellous. When once a field of potatoes has been attacked, unless very prompt remedial measures are resorted to, all hopes of a harvest will speedily vanish, as in a very few days nothing will remain but a barren waste of dried-up stalks.

VARIOUS PLANS

for the destruction of the Colorado potato beetle have from time to time been devised, very few of them have proved satisfactory, however, while many of them were wholly impracticable. Picking the larvæ and bugs from off the plants by hand, for instance, has been thoroughly tried but leaving out of the question the great loss of time this plan involves, and the danger of poisoning from handling the larvæ, it was generally found that after the field had been thus gone over, the insects would be apparently as numerous as ever in twenty-four hours, so that the operation had to be constantly repeated!

PARIS GREEN THE TRUE REMEDY.

is the general verdict of the Western farmer. This is not only the case with respect to efficacy, but it has also the additional merit of being the cheapest in first cost, and the most convenient and economical in use of all the remedies that have been tried. When first proposed as an antidote, some seven or eight years ago, Paris Green met with considerable opposition, but its triumphant success has overcome nearly all prejudice, and while some still hesitate to resort to so virulent a poison, experience has demonstrated that with *due care* no harm can result from its use, as it will not poison the soil or injure the plant or the Potato.

Prof. CHARLES V. RILEY, State Entomologist of Missouri, in his fourth annual report referring to Paris Green, says: "Properly mixed I have used it without the slightest trace of evil on the leaves or tubers; and I know hundreds of others who have done likewise; so that with present experience I should not hesitate to recommend its judicious use." In this connection we take occasion to acknowledge our indebtedness to Prof. Riley's able reports for much valuable information. We also refer to the testimony of the same high authority to Paris Green as "THE remedy for the Colorado potato beetle."

MODES OF APPLICATION.

In its application the Western farmers generally use Paris green *dry*, and as it is a highly concentrated poison it is necessary to mix it with some other substance, such as flour, plaster, or ashes, in proportion varying with the strength of the green, and thus reducing its cost. We give the preference to flour as a vehicle, as combining with the dew on the plant, it forms a paste which adheres with greater tenacity than either plaster or ashes. Another method is by mixing with water, say a large tablespoonful of green to a pailful of water. This is in some respects a convenient way, and has the advantage of being free from dust; it can also be used at any time of day. It has some disadvantages, however: 1st, as the green is not soluble—though it quickly gives a green tint to the water when stirred, it soon settles to the bottom, and needs continual agitation to keep it in suspension. 2d. It *settles in spots on the leaves*, the natural tendency of water in finding its level being to carry and concentrate in wherever a drop finds rest and evaporates. 3d. Much of it is wasted on the ground in sprinkling.

THE UNPARALLELED DEMAND FOR PARIS GREEN,

caused by the rapidity with which the Colorado beetle has overrun the country, has greatly stimulated its production; and, as usual in such cases, the market is flooded with various brands, representing all grades, from the strictly pure down to the highly adulterated article of merely nominal strength and value. There are several qualities manufactured, in order to meet the views and conveniences of all who are compelled to resort to its use.

PROPORTIONS FOR MIXING.

To those who have suitable appliances for mixing, we recommend the "strictly pure," but where these are wanting, and it is an object to avoid much mixing, on account of the danger arising from the dust (and this is the greatest danger attending its use) the cheaper grades are more desirable. These, of course, contain more or less adulteration, but the price is made to correspond, and the buyer has but *comparatively* little mixing to do. The following are the proportions recommended by experienced Western farmers, and also by scientific men who have arrived at the same conclusions by careful experiment:

To 1 lb.	"Strictly Pure"	use 30 to 35 lbs.	Flour.
1	"Genuine"	use 25 to 30	"
1	"King's County"	use 20 to 25	"
1	"Long Island"	use 15 to 20	"
1	"Montauk"	use 10 to 15	"

Relatively speaking, the "Genuine" is the cheapest to use, but the "Montauk" has the advantage of being less liable to poison from dusting.

We have made arrangements with the manufacturers of the above to furnish our patrons at the lowest market rates. In consequence of frequent fluctuations, we do not publish prices, but will give prices upon application.

We have on hand a small quantity ready for use for those who wish to use it in their gardens in *one pound packages, at 15 cents each*, mixed ready for use.

There is great danger in mixing this green for potato bug and cotton worm poison, owing to the fine dust which arises in the process, which is inhaled, and also rapidly absorbed by the pores of the skin, especially if the person, using it should be in a state of perspiration. To guard against this, the hands and face, (particularly the nostrils) should be protected as much as possible, and should be carefully washed after working in it, or in any of the preparations of which it is an ingredient. As it penetrates and poisons *wood*—gets into the seams and crevices of articles made of metal—and even into earthenware that is at all porous. *All household utensils, or anything in barn or stable* (which cattle or horses could have access to) in which the article may have been mixed, or from which it has been used, should be carefully set aside, and *never again used for any other purpose.*

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APPARATUS FOR APPLYING.

Several ingenious machines have been invented for applying the poison,—three of which are here illustrated. The cheapest and most simple is made in the form of a common dredging-box, holding about two pounds each, and is attached to the end of a pole, as seen in the accompanying engraving. It is used by gently shaking over the plants, taking care to walk to windward, so as to avoid any dust that may arise. It should be applied in the morning, when the dew is on the vines. When mixed with water, it is usually applied by means of an ordinary watering-pot, or sprinkled on the vines with a broom, taking care to keep it well stirred. *Price, 35 cents each.*



Randolph's Fertilizer Distributor.

A Dropper for all Hill Crops, such as Corn, Potatoes, Tobacco, Cotton, Etc.

THE LATEST AND BEST THING OUT. SOMETHING THAT NO FARMER CAN AFFORD TO BE WITHOUT.

For dropping Phosphates, Bone Dust, Fish and Peruvian Guano, Poudrette, Ashes, Plaster, and all kinds of Concentrated Fertilizers.



which to rest its step F. For windy weather a detachable skirt (not shown in the cut, is provided which ensures the accurate placing of the fertilizer in any required circle even under such unfavorable circumstances.

SPECIAL ADVANTAGES.

It is not necessary to touch the fertilizer with the hands, a matter of some importance, when caustic substances are used.

The fertilizer will not stick or clog, even though it be damp and has a tendency to pack, the vibrating hopper being so effective in its operation, that nothing suitable for use, can withstand its action.

The quantity sown may be determined to a nicety, by properly adjusting the valves upon the plunger, so that every hill in the field may be supplied with a uniform amount.

The entire quantity between the valves is always discharged; the construction of the lower valve with its conical surface, and the action of the plunger, which is suddenly arrested at a limit of its movement by a stop, serving to ensure this result.

The amount delivered is accurately deposited in a circle about the planting spot or hill, no more being delivered upon one side than another, and the center of the hill covered by the ball step being, of course, without any deposit, these being the precise conditions desired in using concentrated fertilizers. These effective results, also, can be obtained in windy weather, by using the protecting skirt.

For many other recommendations, and a more complete description—send for circular. Price, \$5.00 each. A liberal discount to agents.

Allen's Potato Bug Destroyer.



The Planet, Jr. Potato Beetle Destroyer.

as with reasonable care to make its use entirely safe. It is desirable to apply in the early morning, the dew then forming a paste, and that time being less windy. Price, \$3.00.

Allen's Potato Bug Destroyer, sent out late last Summer, has been greatly improved, and will be found efficient, handy and inexpensive, and an important acquisition where the potato beetle is either established or expected. It is especially contrived for the purpose of quickly and economically throwing a mixture of Paris Green and Flour, or other destructive compound in a penetrating cloud, among Potato and other plants, and upon bushes, vines and trees, to destroy Bugs, Fleas, Worms, Slugs, Caterpillars, etc.

It consists of a peculiarly constructed double coned reservoir, readily filled, and by means of bellows, capable of throwing either a jet or cloud of fine powder, thoroughly dusting a row of potatoes or other plants at the speed of a walk. It is also especially effective for Pear and Rose Slugs, Cotton Worms, Plant Lice and other insects.

Paris Green, before use, should be carefully mixed with five or six times its weight of dry flour or plaster; the quantity applied being easily regulated by the quantity of flour added.

Though the Powder is a dangerous poison, this machine discharges at so great a distance from the hands and face, as with reasonable care to make its use entirely safe. It is desirable to apply in the early morning, the dew then forming a paste, and that time being less windy. Price, \$3.00.

HEXAMER'S PRONG HOE.

The Best Hand Potato Digger In Use.



"HEXAMER'S PRONG HOE"

(TRADE MARK)

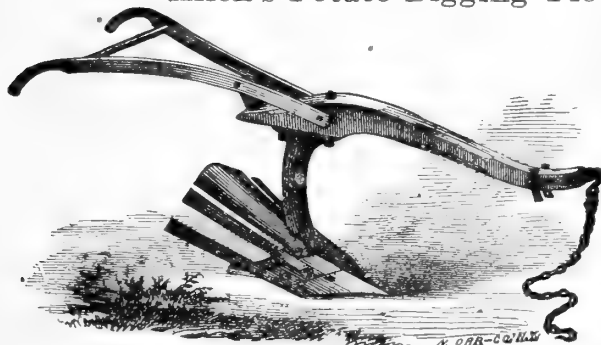
The highest premium in the Horticultural Department of the Great American Institute Fair of 1867, was awarded to it. The *American Agriculturist*, in speaking of this implement, gives it the following favorable notice:

HEXAMER'S PRONG HOE.—Dr. HEXAMER, the well-known Horticulturist, has such a way of making his investigations and coming at his facts, that we accept his results with almost the same confidence we would have in our own. He makes use of expensive labor, and the monthly pay-roll is so large as to lead him to employ his men to the very best advantage. The problem was what tool to place in the hands of the laborers for hoeing out between rows of strawberries or other small fruits, root crops, nursery stock, etc. The common hoe is a slow, hard, old-fogy tool, and, of course, its use is out of the question. The potato hook, or pronged hoe with round prongs, good, but not sufficiently rapid for the outlay of strength, yet vastly superior to the hoe for the same purposes, except after weeds have grown large, which ought rarely or never to occur. After having made numerous experiments with tools made expressly for him, he decided upon this implement. The six teeth or prongs are eight inches in length, the outer ones being ten inches apart, which is the width of the actual cut. The prongs are square, of the best steel, and inserted in pairs into a malleable iron head, in which they are firmly wedged. They are delicate, but very strong and elastic.

It stirs the soil thoroughly, more than a foot wide, and from two to four inches deep, killing all small weeds, lifting out stones of small size, removing weeds and all obstructions as effectually as a rake. On light soil it is as easily worked as a hoe, and on heavy soils, if dry enough to work at all, very much easier. It is safe to say that a man, with one of these, can do several times as much work as with a hoe. We think it will prove more useful as a potato digger on account of its breadth, than the implement made for the purpose.

PRICE,—\$1.50 each; \$15.00 per dozen.

Allen's Potato Digging Plow.



ALLEN'S POTATO DIGGING PLOW.

out clogging from weeds and potato vines, but in harvesting for an early market, when the vines are long and still green, the work will be much facilitated by cutting these and removing them from the rows.

Price of Potato Plow, with cast-iron Mould and Share, \$15.00. The same, with steel Mould and Share, \$25.00.

The Planet Horse Hoe and Cultivator.

This is a new and most perfect tool for horse cultivation. It is especially adapted to market garden and farm-hoed crops, and to working *Tobacco, Broom-Corn, Cotton, Rice and Roots*. It greatly reduces the labor of hoeing, often thus saving cost in a day. Blades tempered and polished steel. Price, \$12.00. With extra cross-piece and pair of hoes, \$15.00.

Planet No. 3.—A Fertilizer sower. Price, \$16.75.
Complete directions for use accompany each machine. Send for a full descriptive circular, with cuts of each implement and testimonials.

Forrester's Potato Fertilizer.

Another season's use of this special Fertilizer for Potatoes, brings to us from farmers who have tried it, reports of its worth as a medium of increasing the crop, and we offer it with the utmost confidence that it will repay several fold all who give it a trial or use it extensively.

The claim we make, that it is much cheaper than stable manure, has been verified this year, as past seasons have demonstrated.

The use of this fertilizer leaves the land in good condition. It contains all the elements needed by the crop, and in the proper proportion. Many letters have been received by us enquiring its composition, and to these enquiries, and to all others, we give the information that it contains *Soluble Phosphoric Acid, Soluble Potash and Ammonia*—**Elements the Potato Crop needs.** Farmers have made the test in regard to the comparative value of this fertilizer with stable manure, and the unanimous opinion is that *one ton of Forrester's Potato Fertilizer is equal to 24 loads of stable manure.* Take the hauling of the manure into account, the Fertilizer is worth over \$70 per ton, as a farmer can take in his wagon in one load, what in manure, he would have to make 24 journeys after. The stable manure made on any farm in the Atlantic States is not sufficient for the requirement of each farmer's wants, and either stable manure, or fertilizers, must be purchased to insure a full crop. This Potato Fertilizer meets the wants of the farmer—furnishes all the elements needed for the crop, and the crop yield is large per acre, and the tubers smooth and seemly in appearance.

Where any fertilizer is applied at the rate of 250 lbs. per acre, it is insufficient to give an ample return. *Heavy fertilization pays.* The interest on the land, the cost of seed, and the labor in tilling is the same, whether a large or small quantity of fertilizers are applied, but where land is well fertilized, the returns are often threefold greater.

Our advice is, to apply, of Forrester's Potato Fertilizer, 700 lbs. per acre, but those who have made the experiments, state that 1000 pounds per acre pays them richly in the increased yield. One farmer in Kings County, N. Y., who applied at the rate of 1000 lbs. per acre, harvested 1286 baskets of potatoes from a field of $2\frac{1}{2}$ acres, the largest yield he ever had in an experience of forty years farming.

We shall prepare it this season for growing *Early Potatoes*, and farmers will find it desirable for this purpose.

APPLICATION.

Planting in drills being the most common method of planting potatoes, the mode of applying this fertilizer is, to drop it along in the furrow, and then run a small plow through to mix the fertilizer with the earth, thus neutralizing it, because if coming in direct contact with the seed it is liable to destroy it, from the concentrated strength of the fertilizer. Farmers planting in hills can also mix it with the earth so as to keep the fertilizer from direct contact with the seed.

This article is packed in barrels of about 250 pounds each, (weight of bbl. included), 8 bbls. to the ton. *Price, 1 bbl., \$7.00; 8 bbls., (1 ton) \$50.00.*

Mapes' Nitrogenized Superphosphate of Lime.

Introduced 1852. TWENTY YEARS OF PRACTICAL SUCCESS. Patented December 29, 1859.

3.947 per cent. Ammonia. 21.022 per cent. Dissolved Bone Phosphate.

(See Analyses by Dr. Isidor Walz, Dr. G. A. Liebig, and Dr. A. Means, published in pamphlet.)

Quick Action and Permanent Improvement to the Soil.

The oldest Super-Phosphate manufactory in this country. Composed only of Bones, Potash, Phosphatic Guano, Concentrated Animal Ammoniacal Matter and Sulphuric Acid, all of which contain the required ingredients for Plant Food, not only in the most concentrated form, but also in a condition (after manipulation with Sulphuric Acid during manufacture, to be made the *most soluble and ready available* to vegetation. Testimony of hundreds of Farmers and Planters in favor of this Manure, published in pamphlet form, will be mailed to applicants. Awarded by the American Institute of New York the highest premium, ("a large silver medal,") ever awarded by it to fertilizers. The rapidly increasing demand for Ammoniated Super-Phosphate of Lime, as shown in its enormous use, probably greater at the present time both in this country and in Europe, than that of Peruvian Guano, Bone Dust, and all other Commercial Fertilizers combined, can be accounted for only in its general adaptedness to all crops and on every variety of soil, and ease and safety of application.

Packed bbls. (250 lbs. each.) \$7.50 per bbl. \$50.00 per ton, (2,000 pounds.)

Randolph's Hand Seed Sower.

For Sowing all kinds of Small Garden Seeds with accuracy and despatch.

It is easily operated by a lady or child of ordinary intelligence, with a little practice. Highly recommended by some of our most experienced gardeners and farmers.

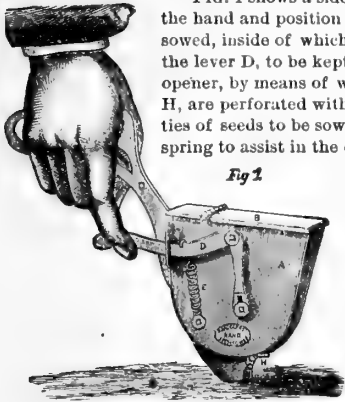


Fig 2

FIG. 1 shows a side view of the implement, with the manner of holding it in the hand and position of the finger; A, hopper for containing the seeds to be sowed, inside of which is an agitator for discharging the seeds, connected with the lever D, to be kept in constant motion by the finger while in use; F, earth opener, by means of which a furrow is made for the seed; the removable sides H, are perforated with holes of various sizes, adapted for the different varieties of seeds to be sown; B, cover or lid; C, handle; D, finger lever; E, spiral spring to assist in the operation of the agitator.

DIRECTIONS FOR USE.—The earth in which the seed is to be deposited must first be well prepared, by a thorough digging and raking, in order to have the soil well pulverized and free from lumps as possible; a line should then be drawn upon the ground, or the position of the row indicated in any other way, as a guide to the sower. The discharge plate H, with the proper sized opening, should be put in its place, and the seed placed in the hopper A, and the implement is ready for use. In sowing the seed, insert the sower into the earth at one end of the row, at the required depth, which must be regulated according to the size of the seed, and draw the implement through the soil, along side the line, in a backward direction, at the same time working the lever D, with the finger, as shown in the cut. In conse-

quence of this action, the seeds are discharged with accuracy and uniformity into the furrows made by the implement. The seed may then be covered in the ordinary way. As the seeds all pass through a single opening of a given size, it is manifest that they must follow each other in order, and being delivered into the furrow in a straight line, the tendency to plant in clusters or bunches is avoided. In order to become familiar with the operation of the implement, it is best to sow the seeds upon a cloth on a table, before attempting to sow them in the open ground. By changing the discharge plate the size of the opening may be varied at will, to sow a greater or less quantity in a given space. No. 1 for Cabbage, Turnip and Cauliflower. No. 2 for Radish, Carrot and other seeds of similar size. No. 3 for Onion, Carrot, &c. No. 4 for Beet and Parsnip. As all seeds vary in size, the operator can easily cut a piece of tin and punch a hole in it to suit the case, whatever it may be.

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 Egg.
 Elder.
 Empire.
 Empire State.
 English Kidney.
 Eureka.
 Excelsior.
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 " " Seedling.
 " " Vermont.
 " " White.
 " Large Seedling.
 " Peerless.
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 Farmer's Delight (red).
 Farmer's Delight (white).
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 Fenn's Early Market.
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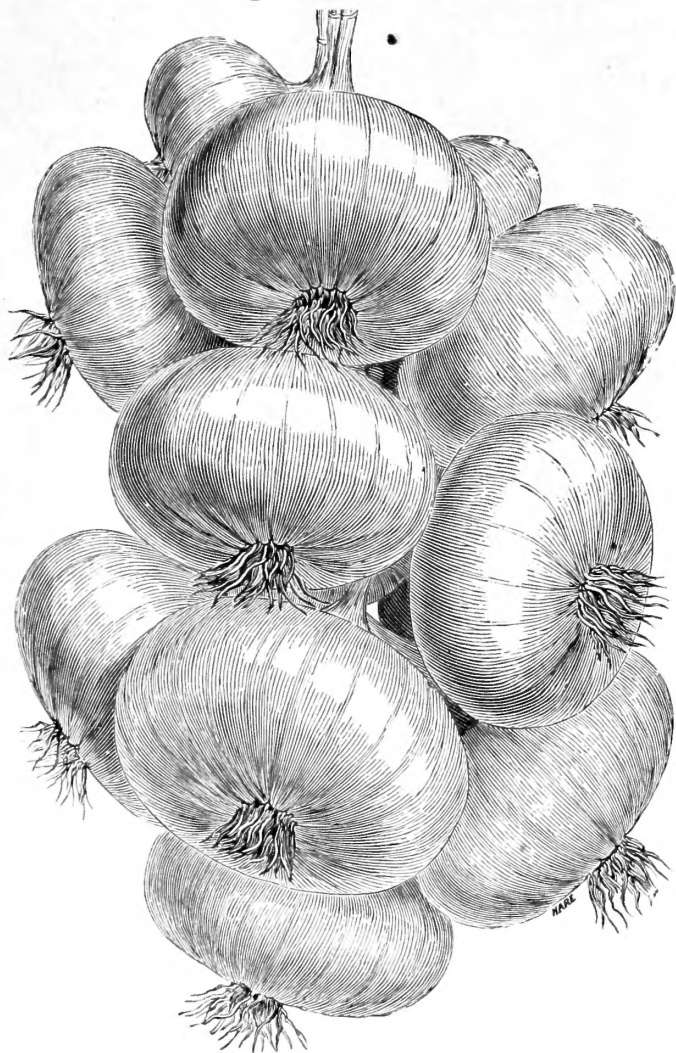
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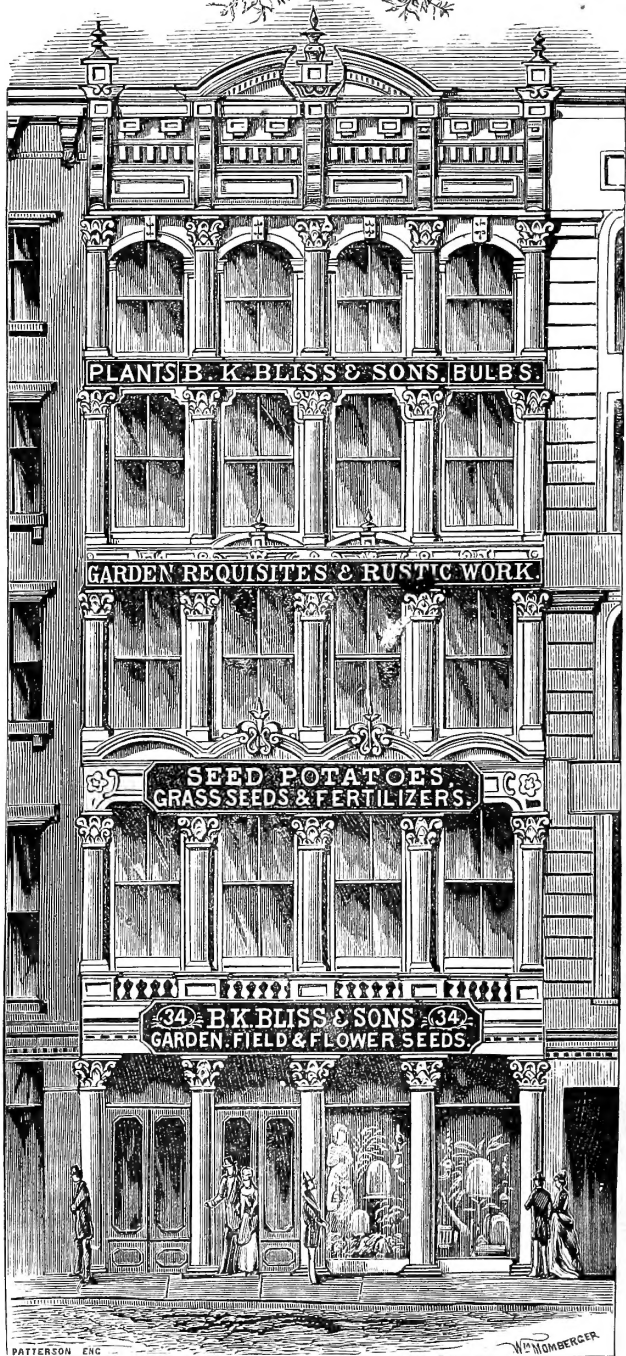
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