



Planet Jr.

FARM & GARDEN IMPLEMENTS

S.L. ALLEN & Co.

PHILADELPHIA, U. S. A.







FOREWORD FOR 1912

OUR line of Planet Jr. tools for 1912 has been improved wherever it seemed possible. Tools which have been improved are No. 3, No. 4, No. 5 and No. 6 Planet Jr. Seeders, and our general line of Double and Single-Wheel Hoes. In these latter, *steel frames* and wheel arms have been substituted for cast, making them almost indestructible; undoubtedly their greatest improvement for many years.

A new weeding attachment for all our Orchard and Sugar Beet Cultivators gives large additional value to these tools at a moderate cost. They are most useful also for thorough shallow cultivation, leaving the ground almost perfectly level.

For 1912 we can supply roller bearings for all Planet Jr. Pivot Wheel Cultivators, as we have found they give excellent satisfaction in every way and are most economical; notice the cut. The steering of our two-horse machines has been much improved for 1912 by careful arrangement of levers and by the use of concave tires, enabling one to guide them with ease and satisfaction; a great improvement for moderate hillsides and for all fine work on the level.

Do not forget that we are always glad to assist our customers in the selection of tools for either regular or special work where we can, and our farm training, with continued visits among the best agriculturists in the country, keep us in the forefront of everything in the way of needed improvement.

By continued care we hope to fully maintain in the future the high reputation for excellence of workmanship, material and design that we have earned in the past and also to strengthen it substantially as the years go by.

Yours for good farms and gardens,

T. L. Allen & Co.

PHILADELPHIA, U. S. A.



HAND SEEDERS

No. 4

Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow

Price, Complete, \$11.00.
As a Seeder Only, \$9.00.

Steel Driving Wheel. Weight, complete 53 lbs.
Holds $2\frac{1}{2}$ quarts.

Equipment:
One pair of $4\frac{1}{2}$ -inch hoes.
Three cultivator teeth.
One garden plow.
One leaf guard.



THIS TOOL has been improved for 1912. It combines in a single convenient implement a capital hill-dropping seeder, a continuous row seeder, an admirable single-wheel hoe and excellent furrower, a capital wheel cultivator and a rapid and efficient wheel garden plow. In a word, with a great variety of tools, excellent in design and quality, it is without an equal for easy adjustment, lightness, strength and beauty. It is a practical, every-day time, labor and money-saver.

WHAT IT WILL DO. It will sow all garden seeds in continuous rows with great uniformity and also drop with accuracy in hills, 4, 6, 8, 12 or 24 inches apart and at the same passage mark the next row. The feed is automatically stopped by raising the handles, and started by lowering them and starting the tool.

USES OF THE COMBINED TOOL No. 4 AS A WHEEL HOE. If your garden is small you may break it up with the turning plow, running twice in a furrow and as deep as possible. If large, a horse plow should be used or the ground should be well spaded. In seeding **drop** beans, parsnip and spinach, carrot, turnip and onion seeds, beets and okra in hills. **Sow** your peas and celery, cabbage for plants and onion seed for sets, in drills. With a cultivator tooth, mark out rows for onion sets and for plant setting. With the plow going twice in a furrow, open drills for manure, potatoes, seeds, etc., and cover with a furrow from each side. During the growing season hoe, cultivate deep or shallow, plow to or from, just as needed.

AS A SEEDER the No. 4 is accurate, simple, durable, reliable and easy-running, doing first-class work in every particular. **The sowing device** consists of a feed wheel with four wings arranged on a spindle and driven by beveled gears from the main wheel. **The feed wheel**, revolving in a brass cylinder which opens into the hopper above, stirs the seeds so that they drop in a regular stream, through a diamond shape opening in the lower side of the cylinder. This opening may be varied in size by a cut-off sliding on the outside of the cylinder and connected to a lever and index at the right-hand side of the hopper. **The index** contains the names



Planet Jr. No. 4 Seeder opening the furrow, planting the seed, covering, rolling down and marking out the next row, all in one operation

of the principal seeds and indicates the proper adjustment of the seeder for sowing in hills or drills. Having set the index for any seed, the feed can be shut off instantly at the ends of rows and yet opens again automatically at the proper place. By means of the **brass thumb screw** and **index** the feed opening may be changed a hair's breadth at a time. A **cut-off lever** is easily operated by the hand or foot from between the handles, and the index shows clearly whether sowing or not. **When dropping in hills** the seeds fall from the hopper upon a shutter which closes the spout. This shutter is lifted at regular intervals by a toothed spacing wheel at the back of the hopper and the seeds on it are dropped in neat hills. **The spacing wheels** drop 4, 6, 8, 12 or 24 inches apart. **The hill-dropping** mechanism is substantial, positive and exact. **The change** from hill dropping to drill work and vice versa can be made in a moment. **To sow in a continuous row**, the dropper is hooked up. **The feed wheel** is stopped instantly without interfering with the adjustment by simply raising the handles, when the roller drops and throws the cogs out of gear. Lowering the handles instantly starts the feed. **The handles adjust** to suit man or boy and are of such shape as makes pushing easy. **The tool is simple**, and we are told runs only half as hard as some of the old agitator patterns.

FOR USE AS A CULTIVATOR, the drill parts are removed and the tool frame substituted by changing but one bolt. It is then a fine single-wheel hoe with an admirable variety of tools and a rapid-change frame, with side extension shown in the cut, for hoeing both sides of a row at one passage, all in a most convenient form.

HENRY K. DEYOUNG, South Holland, Ill., writes March 24, 1909: "Your seeder is the best one we know of."

W. E. MINHINNICK, Muskegon, Mich., writes April 3, 1908: "I have one of your first combined seed drills purchased, I think, in 1872. It is in use yet and works all right."

DENNIS RYAN, Jay, N. J., writes March 25, 1911: "I have been using a Planet Jr. seeder combined for twenty years, and it is a perfect seeder and wheel hoe. They are all right!"



HAND SEEDERS



No. 25 Planet Jr. Combined Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow

Price, \$13.50.

Holds $2\frac{1}{2}$ quarts. Weight, complete 64 lbs.

It combines in a most practical way the Planet Jr. No. 4 Drill and No. 12 Double-Wheel Hoe.

Equipment:

- One pair of 6-inch hoes.
- Two pairs of cultivator teeth.
- Two plows.
- Two leaf guards.

Steel frame.

THIS combination is intended for gardeners who have a large enough acreage in crops for a double-wheel hoe to be used to good advantage, and yet prefer not to buy seeders and wheel hoes separately. (See description No. 4.)

As a seeder it is practically the same as the **Planet Jr. No. 4**; will sow in drills any thickness or drop in hills 4, 6, 8, 12 or 24 inches apart, and has the same feed, hill-dropping mechanism and **automatic device** for stopping the feed, and has also the new seed index. It is thoroughly substantial and is accurate in planting all kinds of garden seeds in either hills or drills.

The seed hopper is ample, as shown, holding $2\frac{1}{2}$ quarts. Feeding may be stopped instantly by raising the handles and also by pushing down the index bar.

The attachment for making up rows for the seed drill as shown in the cut is



and guarantee satisfactory.

THE SIMPLICITY of this tool, both as a seeder and as a wheel hoe, makes the combination thoroughly practical.

AS A WHEEL HOE it is practically the same as the **Planet Jr. No. 12** Double-Wheel Hoe, Cultivator and Plow shown and described on pages 19 and 20.

a great labor-saver when fertilizers are to be used. First make the furrow with the two plow points together, lining out the next row with the marker.

The change from drill to wheel hoe and back again is quickly made, and the entire combination is one we can heartily recommend





Planet Jr. No. 25 Seeder and a Single-Wheel Hoe in use on the grounds of the Mengo High School, Uganda, Africa

For 1912 we make this tool with **steel frame**, practically indestructible.

The wheel arch is now removed when the tool is used as a seeder.

To use as a single-wheel hoe, place the wheels close together on the inside of the wheel arms.

THE HOES are of a special **patented** form, which enables the operator to run very close to the row without endangering either leaves or roots, yet doing clean work and leaving the ground almost perfectly level. They are the most useful of all the attachments. Use them for 6-inch, 8-inch and 10-inch rows; for 12 inches and upwards use one or more cultivator teeth between the hoes.

THE CULTIVATOR TEETH, the latest style with narrow neck, do thorough work, yet leave the ground practically level. Use for all deep and thorough work; also adapted to shallow cultivation and marking out, and for working 6-inch rows.

THE PLOWS are arranged to be used points together for furrowing out for manure, fertilizers, potatoes, seeds, etc., and reversed for covering and for making up rows for setting out plants. Later in the season they are used also for cultivation. First, straddle the row and plow shallow furrows away from the crop, then change the plows and throw the earth back again. This gives thorough and excellent cultivation, hilling the crop much or little as desired, and covering all weeds and grass. Afterwards, the space between the rows may be finished by using the cultivator teeth.

Two acres a day can easily be worked with this implement, and when done it will be better worked than several men could have done it in the same time, with hand hoes.

D. CARR, Owen Sound, Ont., writes April 29, 1909: "I have been a market gardener for twenty-one years and the first garden tool I ever bought was a Planet Jr. Combined Seed and Wheel Hoe, which I used every season up till two years ago when I sold it for \$5.00 and bought your No. 25 Combined. Twenty years ago I bought one of your horse hoes which is still in use, and which has cost very little for repairs, and since receiving your catalogue I have bought one 12 Tooth Strawberry Cultivator with pulverizer attached. I have so recommended your goods to my neighbors that at least four of them have purchased one or other of your implements, and I believe there are at present more Planet Jr. Seed Drills among the market gardeners of Owen Sound than of any other kind. I am asked many times what seed drill I consider the best and I always say the Planet Jr."

W. V. HUNNICULT, Frederick, Okla., writes April 3, 1911: "I can say your tools are the best I have ever worked with; light and easy to operate."

MRS. LEONARD BOLTER, King's Highway, West Springfield, Mass., writes September 26, 1910: "Last spring I purchased of your agents here a Planet Jr. No. 25, which has proved most satisfactory. By its use two women have successfully cultivated two acres of small truck. I could use the Planet Jr. for a whole afternoon and not be as tired as after one hour's work with a hoe."



HAND SEEDERS



Accurate planting and marking out next row with the No. 25 Seeder

THE LEAF LIFTERS are invaluable for late cultivation, making it quite easy to work crops closely without additional labor, when otherwise it would be impossible to work them at all; crops such as peas, carrots, beets, strawberries, etc.

THE MARKER makes a plain line, marking distances from 6 to 20 inches, and is easily changed from side to side, from between the handles.

The same tools are used on all our combined machines and work perfectly on each of them. Many different combinations and methods of special cultivation will suggest themselves to the practical gardener.

ONION SET PLOW.

A special plow (K-280) leaving seed in a wide band fits this tool, and is sold as an extra. Price, 45c. Also special **peat land plow** (K-362). Price, 45c.

The **disc hoes** and special **3-prong cultivator teeth**, and the **double moldboard plow**, **onion harvester** and special **peat land plows**, shown on later pages, will also fit this machine.



Both Sides at Once



Cultivating Salad

ROLAND WHITNEY, Broadalbin, N. Y., writes August 24, 1910: "For some years I have been a user of your horse hoe, also wheel hoe and seed drill. I consider these tools the best of their class. For range and nicety of adjustment, for perfect hang and balance, and for strength and durability, second to none."

A. T. GROAT, Gowanda, N. Y., writes February 25, 1905: "I ordered a No. 25 Planet Jr., and the work that I did with it was a surprise to everyone that saw me use it. I cannot give the Planet Jr. too much praise, for, it is the wonder of the age, one of the greatest garden and field helpers that was ever invented."

H. C. FINKLER, Redwood City, Cal., writes April 2, 1908: "I have your No. 25 Drill. The man working for me is a stranger to your goods but is so highly elated over his success and facility with which he now works that he is anxious to start out on his own hook."

J. C. ROSS, Leamington, Ont., Can., writes March 29, 1911: "Have one of your No. 25 Drills, and think it cannot be surpassed for accuracy in sowing."

HAND SEEDERS



No. 6

Planet Jr. Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow Combined

Price, Complete, \$13.50.

As a Hill and Drill Seeder Only, \$11.00.

Steel Wheel. Weight, complete, 64 lbs.

Equipment:

Two 6-inch hoes.

Three improved steel cultivator teeth.

Large garden plow.

Improved double leaf guard.



THIS IS OUR LATEST Planet Jr. Combined Hill and Drill Seeder and Wheel Hoe and has given excellent satisfaction.

WHAT IT WILL DO. It drops all garden seeds in hills and sows in drills with the greatest regularity, in a narrow line, to any exact depth required, covers, rolls down and marks the next row, all at one passage. As a wheel hoe, it hoes, cultivates and plows all garden crops, completing a row at every passage, up to 16 inches apart.

THE No. 6 WHEEL is 16½ inches high, making an easy running seeder. The spokes and rims are steel, and the whole construction is substantial.

THE SEED FALLS IN FULL VIEW, as the rear of spout is open and has a white lining.

SEEDING. The accuracy of construction insures unexcelled work in both hill and drill seeding, as is shown by careful comparisons with the best work of our regular drills, which have been favorites among gardeners all over the world.

HILL DROPPING. The dropper is steel; it is light, strong, durable and quick acting, and the hills are of a superior character. It drops 4, 6, 8, 12 or 24 inches apart. There are three change wheels, giving five distances. It takes less than a minute to make the change from one distance to another.

THE INDEX is in open view and is accurately adjusted by a brass thumb screw.

A HANDY CUT-OFF is operated by the thumb and forefinger of the right hand, so that no seed need be lost either in stopping or starting.

THE OPENING PLOW is of new shape, leaving the seed in a narrower row than any plow we have heretofore made; it will give entire satisfaction under all reasonable conditions. It also works deeper than our older patterns.

THE COVERERS are ample in size and have sufficient opportunity to swing, and adjust themselves to all inequalities of the ground.

THE ROLLER is large, wide and hollow faced, and leaves the seed in excellent condition for germination. **THE ROLLER SCRAPER** is low down at the rear, so that any earth or seed adhering to the roller is returned at once to its proper place.



HAND SEEDERS

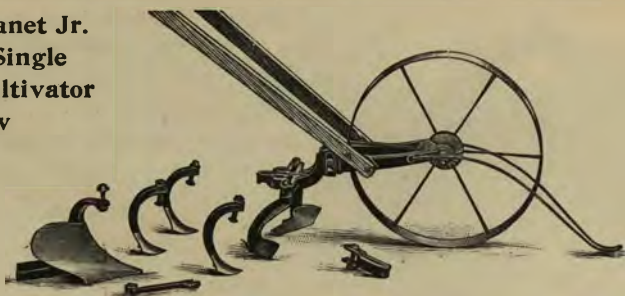
No. 36

**Planet Jr.
Single
Wheel Hoe, Cultivator
and Plow**

Price, \$6.25.

Steel Wheel.

Weight, packed,
34 lbs.



No. 36 is the Single-Wheel Hoe portion of the No. 6 Combined Tool less the seeder parts.

THE MARKER makes a plain line, marking distances from 6 to 20 inches, and is easily changed from side to side, from between the handles.

THE HANDLES ADJUST to the proper height for either man or boy.

THE STEEL WHEEL is high, to make an easy running seeder, and while a high wheel is not necessary for **hoeing** and **cultivating**, this one will suit many persons who like a high-wheel machine.

THE FRAME is strong and of a form to enable attachments to be quickly changed. Machine can be run deep or shallow as desired, the adjustment for depth being quickly made by loosening a single bolt.

BOTH SIDES OF THE ROW can be hoed at once when plants are small by means of a frame extension which is included with each machine.

THE CULTIVATOR TEETH are pressed steel and work well either deep or shallow, and leave the ground comparatively smooth and level. They can also be used for marking out.

THE PLOW is continually useful from spring till fall, for making furrows and covering them and for plowing to and from the crops for hilling, etc.

A NEW DOUBLE-LEAF GUARD, light and efficient, does excellent work.

AS A WHOLE, the No. 6 Seeder and No. 36 Wheel Hoe are made with the greatest care, endeavoring to combine ease of operation, strength, durability, perfection of work and simplicity of parts.

WE ADVISE BUYING the No. 6 Seeder complete with cultivating attachments, as there is a considerable saving by doing so; but we sell the seeder or the wheel hoe, or parts for them, separately if desired. Price of the complete machine is \$13.50.

THE EXTRA ATTACHMENTS shown on page 30 will fit either the No. 6 Combined Seeder or the No. 36 Wheel Hoe.

ONION SET PLOW. A special plow and special coverers (K-387 and K-381), leaving the seed in a wide band, fit the No. 6 Seeder and are sold as an extra. Price, \$1.00. Also special Peat Land Plow (K-393). Price, 45c.

SAMUEL R. ALLEN, Route 2, Sanford, Fla., writes September 16, 1909: "I bought No. 6 outfit jointly with a neighbor of mine. Planted one acre of sweet corn and bush beans mixed with it on the 8th. My first trial with like machine. It gave perfect satisfaction."

A. L. DEERING, President Maine Agricultural Club, University of Maine, Orono, Me., writes July 27, 1910: "Your Planet Jr. Drill Seeder has been in use here at the State College for several years now and has given perfect satisfaction; it was also on exhibition on the modern farming train that traversed the state in June and many inquiries were made regarding the durability, cost and the advisability of purchasing such a machine, all of which questions were most satisfactorily answered for you."

HARRY B. BOUTIN, R. R. No. 63, Ashville, N. Y., writes April 5, 1907: "We have the Combined Seeder and Wheel Hoe No. 25 and could not do without it. We are more than pleased."

JOHN J. COPP, writes July 25, 1911: "Have just purchased one of your No. 6 Hill and Drill Seeders, making the fourth of your seeders that I have purchased."

HAND SEEDERS



No. 3

Planet Jr. Hill and Drill
Seeder

Price, \$10.50.

15-inch steel driving wheel. Holds 3 qts.
Weight, packed, 43 lbs.



THE STEEL DRIVING WHEEL, with heavy forged steel spokes, not "piano wire," is of proper height, with broad face, making the tool light and easy running, even with the hopper filled to the brim.

THE SPECIAL FORCE FEED is admirable, working equally well whether sowing with an ounce or a full hopper.

THE HILL DROPPING is simple and reliable, making hills either 4, 6, 8, 12 or 24 inches apart.

WHEN DRAWN BACKWARD the feed wheel is thrown out of gear.

When passing from field to field the cam and lever at "A" may be used to throw gears out of contact.

CHANGES OF DISTANCE between hills may be made in less than a minute, by substituting one gauge wheel for another.

FROM HILL TO DRILL—This change is made and reversed almost instantly.

THE INDEX—The thickness of seed is regulated by an accurate index with brass screw indicator; it contains the names of the important seeds, and is carefully graduated, **both for hills and drills.** It is in plain view **at the top of handle.**

THE CUT-OFF—The flow of seed is instantly stopped by pulling the cut-off, and started as quickly by reversing. Not a hill need be missed in starting, nor any seed wasted in stopping.

THE OPENING PLOW is malleable and adjustable for depth and sows in a narrow line, making close wheel-hoe cultivation easy, thus saving nearly all hand work, as the weeds usually stand a little to one side or the other of the row and are easily exterminated, to the great surprise of the unaccustomed operator.

THE COVERERS are adjustable to throw more or less earth on the seed. **The Roller** is broad and hollow faced, leaving a convex surface over the seed which has the effect of letting the plants come through the ground more easily. **The Marker Rod** is steel and the drag bar makes a clear line and is adjustable from 6 to 20 inches. The marker is changed from side to side **from between the handles.** **The handles** are adjustable in height for man or boy. For description of special plow for onion seed for sets, see page 14.

HOWARD EATON, Wolf, Wyo., writes May 24, 1911: "I have used your Planet Jrs. for many years, and when we came here seven years ago I bought another; it is o. k."



HAND SEEDERS

No. 5

Planet Jr. Hill and Drill Seeder

Price, \$13.00.

16½-inch steel driving wheel.
Holds 5 qts.
Weight, packed, 52 lbs.



No. 5 is undoubtedly the best seeder we make for market gardeners, sugar beet and bean growers, onion set growers and other **large** planters. The style of construction is the same as in No. 3, the valuable mechanical features being common to both. It drops in hills 4, 6, 8, 12 or 24 inches apart. It runs light and plants equally well with a full hopper or with an ounce of seed, and up hill or down.

When drawn backward the machine is thrown out of gear, stopping the flow of seed.

The cam and lever at "A" disengage gears when moving from field to field.

The seed cut-off is worked from the top of the handle. The falling seeds can be seen at all times by the operator.

Coverers are adjustable as to depth.

No injury by grinding or cracking seed takes place with this machine.

No seed need be wasted in starting or in stopping.



Peat Land Plow

A SPECIAL 4-inch PLOW (K-281) and coverers (K-227-8) for onion seed for sets, fit No. 3 and No. 5 Seeders. Price, \$1.00 for the set.

PEAT LAND PLOW. As shown in cut, we offer a special plow (K-282) for peat lands, which gives great satisfaction. It opens and pushes aside the loose, spongy soil and makes a narrow track for the seed, which comes up in a narrow line, easily cultivated and conducive to a large crop. Price, 55 cents.



Onion Seed Plow and Coverers

CHARLES SCHWERTFEGER, Ticonderoga, N. Y., writes May 24, 1911: "Your No. 5 Seeder and No. 11 Wheel Hoe have given entire satisfaction."

M. J. GREEN, Waterford, Conn., writes March 31, 1911: "I have used your tools for years and find they do all you claim."

GEORGE M. HAWN, Clayton, N. Y., writes April 29, 1911: "I presume we have fifteen or more of your implements here (Picton Island Farms). I have used your tools for years and always found them the best."



Equipment:
One pair of
hoes.
Three culti-
vator teeth.
One garden
plow.

No. 1

**Planet Jr.
Combined Drill
Seeder, Wheel Hoe, Cultiva-
tor and Plow**

Price, with tools as shown, \$9.50.

Holds 3 pts.
Weight, packed, 42 lbs.

THE OLDER PLANET JR. No. 1 and No. 2 SEEDERS have given complete satisfaction for over thirty years, are used the world over and, except our hill and drill seeders, are the most perfect known.

FROM A DRILL the No. 1 is changed to a wheel hoe by unscrewing two bolts and removing the plow, coverer and roller; when hoes, plow or cultivator teeth may be quickly attached.

THE SHIELD SHAPE and forward slanting cut of the 6-inch hoes and their rounded shape at the bend enable one to run them safely very close to the row, doing thorough work and leaving the ground level.

THE HOES may also be changed from side to side, and the plants worked still closer and deep or shallow. **Work cannot be done better.** It captivates all who see it; thousands of persons need a combined tool. All its operations are **rapid, easy and delightful.**

THE SET OF CULTIVATOR TEETH are always useful for deep work or when the ground becomes baked or too hard. They are the latest style with narrow neck, do thorough work, yet leave the ground practically level.

THE PLOW is of superior design, complete with land-side; is large and capable of heavy work and is generally the first attachment to be used in the spring.

WITH A SINGLE TOOTH and marker, neat rows may be run out, six to twenty inches apart, suitable for onion sets, small plants, seeds, etc.

Every purchaser of the No. 1 machine will find it an excellent seed sower; a first-class double-wheel hoe for use while plants are small, a first-class single-wheel hoe, an excellent furrower, an admirable wheel cultivator, a rapid and efficient wheel garden plow, and that it has no superior in variety of tools, easy adjustment, lightness, strength and beauty. It is a practical, every-day time, labor and money-saver. With a pair of 5-tooth rakes added, \$10.25.

CHARLES H. PRATT, Marshfield, Wis., writes March 31, 1908: "Planet Jr. tools are the only ones for the market gardener. I have a No. 1 Combined Seeder and Wheel Hoe that we have used twenty-five years. It is in good order yet."

B. E. WHITMORE, Estherville, Iowa, writes March 16, 1909: "I have been using one of your Planet Jr. No. 1's, to drill my broom corn, and like it very much."



HAND SEEDERS



No. 2 Planet Jr. Drill Seeder

Price, \$7.50.

Holds 3 qts. Weight, packed, 36 lbs.
Has no cultivating attachments.

The No. 2 takes no cultivating attachments.

THE SOWING CYLINDER is a drum of spring brass set between the driving wheels, with a sliding brass band secured in position by a cam. In drum and band are corresponding diamond-shaped discharge openings, and the sliding band is quickly adjusted for any kind of seed. Inside the drum, shields protect the openings and insure regular sowing, either with a full hopper or a thimbleful of seed. Wheeling around on the roller stops the flow of seed.

THE INDEX contains the names of the principal seeds. The drill is set right for any seed when the name appears through the slot. **The change** is made by opening the cam, sliding the band to the required place, then closing it.

THE OPENING PLOW, directly between the wheels, follows the irregularities of the ground, is adjustable and **opens the furrows at a uniform depth.**

THE COVERING is done by the carrying wheels, the plow throwing the earth on the rims, which return it exactly on top of the seed.

THE MARKER is easily changed from side to side from between the handles.

THE CLEARING FINGER is very useful among stones, trash, etc.; lower than the plow, it leaves a clear track.

THE ADJUSTMENTS for sowing different seeds at different depths, for rolling heavier or lighter, for changing the width of rows and for regulating the height of the handles are all quickly made.

These seeders are simple, having no agitator belts or gearings to injure the seed. They plant all varieties of garden seeds admirably and are especially adapted to planting small seeds shallow, the plow being directly between the wheels and sure to open at a regular depth. They are also strong, easily set and easily understood.

H. B. BETTS, R. F. D. No. 23, Danbury, Conn., writes November 27, 1909: "Planet Jr.' goods are the best I have seen so far—there is something about them that handles much easier than any other I have ever used."

J. A. FRASER, Saugerties, N. Y., writes March 31, 1908: "I have one of your Seed Drills, No. 2, also a Planet Jr. horse hoe and cultivator. We have had them about twenty years. They are in good order yet."

E. L. COLPITTS, Petiscodiac, N. B., writes March 24, 1908: "We have used a No. 1 Drill and No. 9 Horse Hoe for some time, and they have given best satisfaction."

HAND SEEDERS



No. 21

**Combined Hill and Drill
Seeder and Fertilizer Drill**

Price, \$19.00.

Packed weight, 94 lbs.



No. 21 has been much improved for 1912 and meets the demand for a drill to sow seed and fertilizers at the same time. **This tool** may be used to sow seed only, in either hills or drills, as desired; or to sow fertilizer only; or to sow both together. Its work is equally perfect when used in any of these ways. It sows all garden seeds in hills, 4, 6, 8, 12 or 24 inches apart, or in drills, and also fertilizer, placing it above or below the seed as desired. **The quantity** is regulated by our patent feed rod and index at the top of the handle. **The seed hopper** holds 2 quarts; the fertilizer hopper 4 quarts.

No. 21 is gradually growing in popularity and the demand indicates satisfaction given.

While performing a double service, it does not run too hard for the work accomplished. The parts are galvanized and the whole get-up is a desirable one.

THIS IMPLEMENT is the most perfect tool of its kind we have ever offered; simple, strong, reliable and durable, and complete with plow, coverer, roller and marker.

THE DRIVING WHEEL is 20 inches in diameter with a 2-inch face, with a series of pins on one side, which operate the agitator lever.

THE HOPPER holds one-half bushel, and an oscillating feeding shelf covers the open bottom of the hopper, and by a quick reciprocating motion feeds the fertilizer evenly through a rear discharge mouth, which is regulated in size by a feed rod and an index at the top of handle.

THE INDEX is graduated and is controlled by a brass thumb nut and slide. The tool is instantly thrown out of gear by the feed rod.

WHAT IT WILL DO. It will sow fertilizers evenly from 100 lbs. to 1,000 lbs. to the acre; with material in any reasonable condition it will not clog; is galvanized, has no gears or feed wheels.

It sows peas and beans in any quantity and with the greatest regularity.

FOR SOWING IN THE FURROW. The plow, coverer and marker are removed and the full hopper is used.

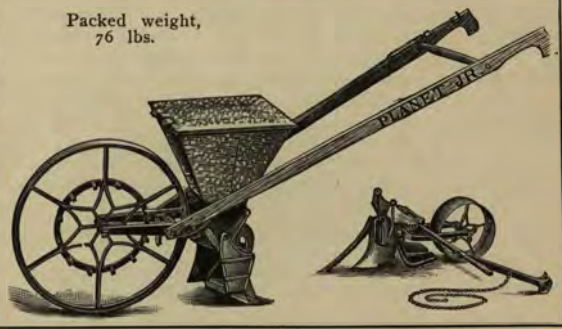
THE COMBINATION, while intricate, is compact, and is made with more than our usual care, and with the idea in view that the construction should be so perfect and reliable as to be entirely serviceable after many years of active use.

No. 20

Planet Jr. Fertilizer, Pea and Bean Seeder

Price, complete, \$17.00. Without Opening Plow, Coverer, Roller and Marker, Price, \$14.00.

Packed weight,
76 lbs.



A. GAGE, Bergenfield, N. J., writes August 29, 1910: "Wouldn't want to be without a 'Planet Jr.' for it is the greatest labor saver that there is."



WHEEL HOES



Planet Jr. Single-Wheel Hoes at work in the fields near Vienna, Austria

DOUBLE AND SINGLE WHEEL HOES

WHEEL HOES are companion implements to the seeder, but usually pay for themselves more quickly. Indeed, many people who can scarcely be recommended to invest in a seeder, may be very properly advised to buy a wheel hoe. No one who has even a small family vegetable garden can afford to be without a Planet Jr. wheel hoe if his time is at all valuable.

Our field scenes will be of interest as showing how the tools are appreciated, both at home and abroad, wherever thorough, rapid hand work is required.

If you have never used any of these tools, rest assured that the saving and satisfaction are enormous. They will do all they are recommended to do: hoeing, cultivating or plowing both sides of a row at once or all the space between two rows at one passage at the speed of a moderate walk. By using these labor-saving tools, growers may safely plant and easily cultivate four times the acreage that they otherwise could do; or if not wishing to increase the amount grown, the time and money saved by the use of wheel hoes soon exceed their first cost.

We make them single and double, with various attachments, and also in combination with seeders, as shown on previous pages. We recommend the lower-priced and smaller tools for very small gardens. They are especially gotten up for such places, while the more expensive ones, more fully equipped with tools, are intended for a greater variety of work and are suitable for the largest market gardens and farms.

The **greatest improvement** perhaps that we have made for a long time in wheel hoes is the introduction of **steel frames and wheel arms**. They make the tools indestructible, yet lighter and more convenient than the old-style cast frames.

THE PLANET JR. DOUBLE WHEEL HOES

are the **greatest hand cultivating tools in the world for the onion and small sugar beet grower**, and also for every grower of garden and market garden crops from drilled seed. They do more and do it better and easier than can possibly be done in any other way, where rows are too close for horse work.



Surface Cultivation of Salad

DOUBLE WHEEL HOES



No. 11

Planet Jr. Double Wheel Hoe

Price, with Attachments
as in cut, \$9.00.

Packed weight, 37 lbs.

- One pair 6-inch hoes, oil tempered.
- One pair 4½-inch hoes, oil tempered.
- Two pairs hollow steel cultivator teeth.
- One pair plows.
- Two 3-tooth rakes.
- Two 5-tooth rakes.
- Two leaf lifters.

Steel frame.



It is a popular belief in some sections that wheel hoe wheels should be very large. This is erroneous, and we have always avoided the high wheels so often recommended by the misinformed. At an agricultural fair we saw a hand cultivator with a 30-inch wheel! As large as many a two-horse walking cultivator wheel, nearly as large as you see on the best riding cultivators, that weigh 400 pounds and carry a man weighing 200 besides. If a hand tool weighing but a few pounds should have a 30-inch wheel, then the horse cultivator should have them 12 feet high, or more! But ten chances to one, the very man who makes a high-wheel hoe for the public will push his own **wheelbarrow** around with a 200-pound load on a 15-inch wheel. A wheel hoe wheel in use hardly carries a weight of ten pounds. It is not for the purpose of carrying weight, but is purely and simply a depth regulator, and should not be excessively high.

Nos. 11, 12, 13, 13½ and 14 Double-Wheel Hoes all have the same style steel frames, wheels and handles.

THE TOOL FRAMES for 1912 are made of pressed steel instead of malleable

or cast iron, as heretofore. This is a radical improvement and makes the machines almost indestructible. The frame can be set at three different heights, and change of teeth or position of teeth can be made in a few seconds.

AS A WHOLE, our No. 11 and No. 12 Double-Wheel Hoes are complete in each



Cultivating Salad

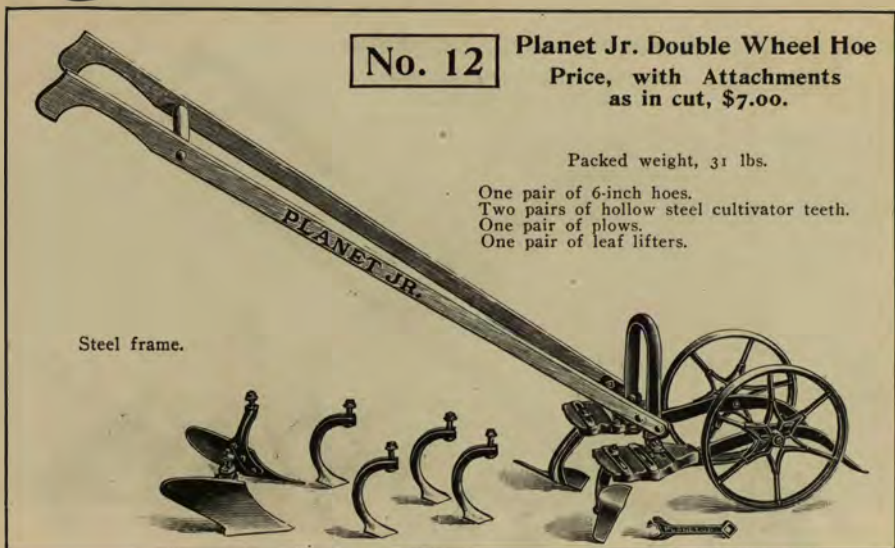


Both Sides at Once

detail, equipped with the most useful set of attachments and adapted to many kinds of work. Long experience has proven to onion growers and market gardeners that Planet Jr. Wheel Hoes pay for themselves in a single season. We do



DOUBLE WHEEL HOES



No. 12

Planet Jr. Double Wheel Hoe

**Price, with Attachments
as in cut, \$7.00.**

Packed weight, 31 lbs.

One pair of 6-inch hoes.
Two pairs of hollow steel cultivator teeth.
One pair of plows.
One pair of leaf lifters.

Steel frame.

not make a seed drill attachment to fit these double-wheel hoes.

Marking attachment (see page 30) extra. Price, 80 cents.

THE HOES are the most valuable of all the wheel-hoe attachments. They are oil tempered and polished. One hoe is set ahead of the other to prevent trash from catching between them and tearing out the row. The curved shield-like front ends protect both the leaves and roots of young plants admirably. The hoes leave the ground almost level. Use the 4½-inch hoes for 6 to 10 or 12-inch rows, and the 6-inch for rows 12 inches and upwards. For extra wide work use both pairs of hoes, the narrow ones next to the row. They will then hoe two rows at once, either 8 or 10 inches apart, or one row thoroughly up to 20 inches. (See cuts.)

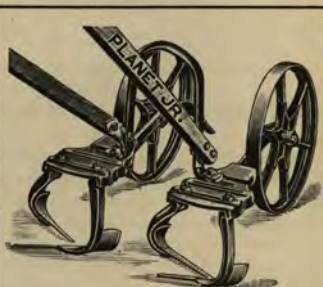


First Hoeing

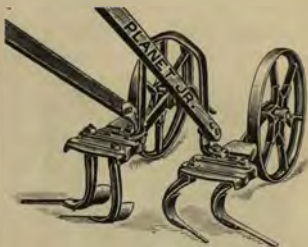
FOR WORKING TALL PLANTS, set the tool frames close together, wheels on the inside of the arms, leaf lifters on the outside, and you have a capital single-wheel hoe.

THE CULTIVATOR TEETH are

of improved design, all steel, and are admirable for deep or shallow cultivation or for marking out. **THE PLOWS** are invaluable. Use them with points together for opening furrows for manure, seed, etc., then exchange sides for covering. Use them also for plowing away from, or toward the crop, both sides at once. It is well to leave one or two days between the time of plowing away and returning the earth to the row in order that the weeds may die.



Set for Two Rows at Once



Ready for Extra Wide Work

DOUBLE WHEEL HOES



No. 13

Planet Jr. Double Wheel Hoe

Price, as in cut, \$4.75.

Packed weight, 26 lbs.



Steel frame.

THE RAKES are a new pattern, especially adapted by careful experiment to first cultivation and also to ordinary uses of a rake. Use two 4-inch rakes to cultivate two rows at once 6 inches apart; 7-inch for two rows 10 inches apart, and for wider, the 10-inch or two rakes on each side. For surface raking use width as needed.

THE STEEL LEAF LIFTERS save time and enable fine work to be done close to the row without additional labor, when plants are large or leaves are flat on the ground. **The arch is steel**, and high enough to enable crops to be worked until 20 inches high. The handles, being attached to the arch, are not affected by changes in width of wheels or height of frame, and the frame is left clear of obstruction. **The wheels**, our patent star design, can be set 9 or 11 inches apart for wide rows, 7 inches for narrow rows, or 4 inches for use as a single-wheel hoe.

FINISHING A ROW at one passage with a Planet Jr. Double-Wheel Hoe is the great charm of this tool. It seems, too, to be easier to work the crop closely, when hoeing both sides at the same time, and one is almost certain to work more closely and thus save hand work, from the fact that the balance of the tool is more easily maintained. With a little practice the operator finds it easy to follow the row accurately by simply keeping it exactly in the centre between the two wheels. It is well to keep the tools sharp and to work the crop once a week or after each rain. In this way the weeds are killed while small, in the most rapid and best manner. One is often surprised to find how complete the destruction of the weeds is, while the crop remains uninjured. This is because when the seed is planted by a good seeder, it grows in a straight, narrow line, while the weeds come up irregularly and are almost sure to be on one side or the other of the planted crop, and are easy victims of the deadly wheel hoe.

GEORGE W. MILLER, St. Lambert, Quebec, writes June 5, 1911: "My Planet Jr. No. 11 Double-Wheel Hoe is the greatest labor-saving tool I have on my farm."

J. KITTLE, Fort Plain, N. Y., writes January 11, 1911: "I use one of your No. 12 Double-Wheel Hoes, and if it was the last of its race no money could buy it."

WILLIAM L. ULVAT, Princeton, N. J., writes September 7, 1910: "I have over an acre of ground, the largest part of which is a vegetable garden. The time required and the extra labor necessary to keep the weeds down was a great worry to me until I purchased one of your Planet Jr. hand plows with attachments. Now I am able to keep the garden clean and have saved hundreds of dollars in labor during the past five years. Every garden, large or small, should be worked every week with a Planet Jr., the same as one mows the lawn. It makes gardening a pleasure instead of hard work."



DOUBLE WHEEL HOES

No. 14

Planet Jr. Double Wheel Disc
Hoe, Cultivator and Plow

Price, with Attachments
as in cut, \$8.00.

Packed weight, 38 lbs.

One set disc hoes.
One pair 3-prong cultivator teeth.
One pair plows.
One pair leaf lifters.

Steel frame.



No. 14 IS A NEW TOOL which will give excellent satisfaction, especially pleasing to all who work peat lands. **There are three discs** on each side, oil tempered, which may all be used at once or one or two on a side, as preferred. With the leaf lifters the work can be done without danger of cutting off the leaves and injuring the plants. The discs are also adjustable for depth and to throw to or from the row, as desired.

THE SET OF PRONG CULTIVATOR TEETH is constructed on entirely new lines and will be found invaluable in general cultivation. The tooth next to the row is narrow and is arranged to run shallow, the middle tooth is wider and runs $\frac{1}{2}$ inch deeper, while the outside tooth is still wider and runs another $\frac{1}{2}$ inch deeper still, so that the work is finer and shallower next to the row, to avoid injury to the plants, and deeper in the centre. The teeth are also set out of line from front to back, which makes them work with greater freedom.

THE PLOWS are arranged to be used points together for furrowing out for manure, fertilizers, potatoes, seeds, etc., and reversed for covering and for making up rows for setting out plants. Later in the season they are used also for cultivation. First, straddle the row and plow shallow furrows away from the crop, then change the plows and throw the earth back again. This gives thorough and excellent cultivation, hilling the crop much or little as desired, and covering all weeds and grass. Afterwards, the space between the rows may be finished by using the cultivator teeth.

Two acres a day can easily be worked with this implement, and when done it will be better worked than several men could have done it in the same time, with hand hoes.

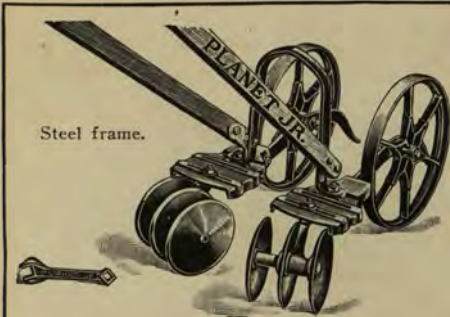
This new combination is sure to prove popular in all sections.

The attachments will fit our other double and single-wheel hoes (except No. 19), and are sold separately if desired. Price: Discs, per set, \$2.25; 3-prong cultivator teeth, per pair, \$1.30; plows, per pair, \$1.10.

M. A. WOODMAN, Tama, Iowa, writes April 2, 1908: "I have several No. 12's and they do good work. Have had one twelve years and it is as good as new yet."

MISS I. E. PATCHEN, 1015 N. 18th Street, Manitowoc, Wis., writes August 16, 1909: "Your Planet Jr. Wheel Hoe has been a valued possession in my family since 1875."

DOUBLE WHEEL HOES



Steel frame.

No. 13 1/2

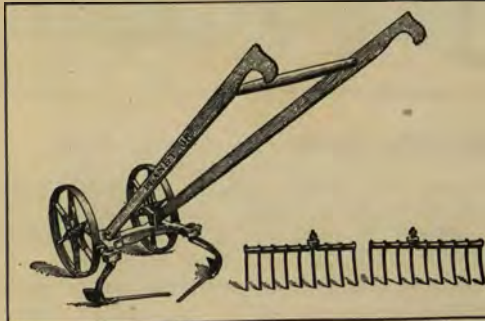
**Planet Jr. Double
Wheel Disc Hoe**

**Price, with Attachments
as in cut, \$6.00.**

Packed weight, 32 lbs.

Same as the No. 14, but has one pair of discs and one pair of leaf lifters only, but other attachments can be added at any time. (For attachments see page 30.)

Every part is perfected to make the tool acceptable to the intelligent farmer who knows the best is always the cheapest.



**The Planet Jr. Bunker and
Trap Weeder and Leveler for
Golf Courses**

Price, \$8.00.

Packed weight,
32 lbs.

This new member of the family has been brought out to meet the demands from the greens keepers of various golf courses for a tool with which to keep the sand in the bunkers free from weeds and in good condition. It is used at the speed of a moderate walk, a forward **stroke** being made at each step. Admirable as a wheel rake and leveler, finishing a strip thirty inches wide at each passage. It has been used extensively in England and Scotland and gave such excellent satisfaction that we now offer it here and give below some testimonials from courses where it has been used for two years past. A few were sold for the first last year in America and proved satisfactory in every respect.

The Secretary of the Walton Heath Golf Club, Walton-on-the-Hill, England, writes September 21, 1910: "The Bunker Keeper has been in use since we received it, and has been found in every way satisfactory. It does its work exceedingly well and as a time-saver is excellent. Kindly forward another at your earliest."

The Secretary of the Worplesdon Golf Club, Worplesdon Hill, England, writes August 11, 1910: "Both my Green Keeper and myself are very pleased with machine you sent us called the 'Bunker Keeper.' We have given it a good trial the last few days and find it a considerable save in manual labor. I am keeping it and shall be glad if you will send us, addressed to the Green Keeper, two more."

The Secretary of the Middlesex Golf Club, Southall, writes September 22, 1910: "We duly received the Bunker Keeper and have found it a very useful tool and a great saver of labor."

W. J. TRAVIS, Chairman of Green Committee, Garden City Golf Club, Garden City, N. Y., writes May 3, 1911: "I am pleased to say that the Bunker Keeper answers its purpose admirably."

PARKIN SCOTT, Ashland, Va., writes November 17, 1909: "People ask me how I keep my garden in such fine shape; I always tell them it is done with Planet Jr."



SINGLE WHEEL HOES

No 16

Planet Jr. Single Wheel Hoe, Cultivator, Rake and Plow

Price, as in cut, \$5.85.

Packed weight, 27 lbs.

Two 6-inch hoes.
Three cultivator teeth.
One 7-inch rake.
One 4-inch rake.
One large garden plow.
One leaf guard.



Steel frame.

SINGLE WHEEL HOES

SINGLE-WHEEL HOES are lighter than the double and do almost the same variety of work but are used mostly **between** the rows. Yet by attaching the wheel to the other side of the arm, **Planet Jr.** single-wheel hoes can be used to hoe both sides at once while plants are small—the most important time.

Nos. 16, 17, 17½, 18, 18½ and 38 wheels and frames are alike, but the tools sold with each vary. Examine the description.

FOR 1912 we offer these single-wheel hoes as the highest type of their class. They have a great variety of tools which adapt the implements to a large variety of work, and there is scarcely any garden culture of which they are not capable.

THE FRAME is made for 1912 of **pressed steel** and is practically indestructible, a great improvement in construction. The wheel arm and leaf guard are also made of steel. **The handles are adjustable in height.**

ALL OUR WHEEL HOE TOOLS are of special pattern, carefully tested by practical men; no others ever offered compare with them. All the steel parts are high carbon steel, oil tempered, finely formed, finished and polished **and work to a charm.**



7-inch Cultivating Rake in 3-acre field of salad, 12-inch rows

HOES. The shield hoes are **the most useful of all the tools.** They are oil tempered, finely shaped, neat and narrow, and leave the ground level; are just right for 9-inch rows and up to 12 inch. The hoes are not set opposite to each other, and thus avoid gathering trash between them and tearing out the plants, besides adapting them to different width rows.



6-inch Hoes only, in large salad fields, rows, 12 inches



Cultivating with a Planet Jr. Single-Wheel Hoe in a family vegetable garden.

THE PLOW is of superior design, complete with land-side; is large and capable of heavy work and is readily changed for depth. It is generally the first attachment to be used in the spring.

CULTIVATOR TEETH. A set of three of new design, adjustable for pitch, do invaluable service in deep culture. Use a single tooth for **marking out**.

RAKES. Different widths enable the operator to work many different widths of row. They are just the thing for fining and leveling the ground **preparatory** to seed planting, etc. When the plants first begin to show, cultivate 6-inch rows with the

3-tooth rakes and use the 5-tooth for 9 and 10-inch rows; for wider work use two rakes side by side or overlapping.

STEEL LEAF GUARD.

This is capital in late work where plants have fallen or been blown over, as peas, strawberries, beets, carrots, etc. It makes easy work close to the crop, where otherwise impossible to work at all, and **with no increase of labor.**



Cultivating Lettuce



Hoeing Both Sides

C. T. FISHBURNE, Green Pond, S. C., writes May 10, 1911: "Those large hoes (hoeing attachment) you sent me for 12-tooth harrow do the prettiest work of any tool I ever saw. The No. 17 Wheel Hoe is the best garden plow anywhere."

D. A. McDOWELL, R. F. D., Mill Hall, Pa., writes April 10, 1907: "I have one of your No. 17 Garden Hoes and I think it is a dandy. I don't want to part with it."

JOHN BEAHAN, Clearfield, Pa., writes May 4, 1911: "I have been using one of your Planet Jr. No. 17 Single-Wheel Hoes for eight years. I would not take \$25.00 for it if I could not get another one."

JOHN T. HILL, R. F. D. No. 3, Kinston, N. C., writes June 23, 1911: "I think the Planet Jr. seeders and garden plows fine. They are the most perfect machines for the uses they are intended for that I ever saw."



SINGLE WHEEL HOES

No. 17

**Planet Jr. Single Wheel
Hoe**

Price, as in cut, \$5.00.

Packed weight, 22 lbs.

One pair of 6-inch hoes.
Three steel cultivator teeth.
One large garden plow.



No. 17 is identical with **No. 16**, except in equipment, and all that has been said previously regarding **Planet Jr.** wheel hoes is equally true of **No. 17**. The three sets of attachments which go with it are all the finest of their kind. An outfit sufficient for most garden work. You can do more and better work with it in one day than you can do in three days with a hand hoe.

THE HOES exchange sides to work to or from the row, and change of wheel regulates the depth. They are constantly useful throughout the season.

THE CULTIVATING TEETH are formed of one piece of steel and work admirably, are changeable for pitch and are useful for marking out.



Planet Jr. Single-Wheel Hoes at work in a large market garden

SINGLE WHEEL HOES



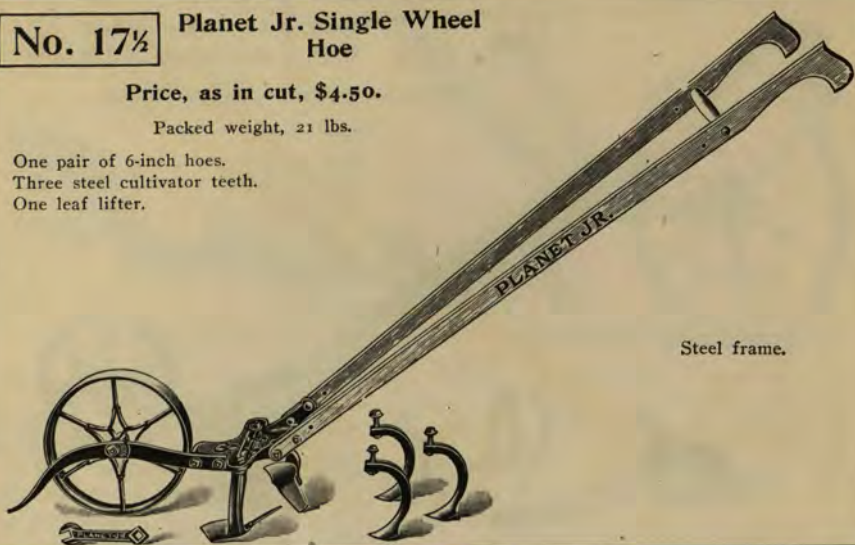
No. 17½

Planet Jr. Single Wheel Hoe

Price, as in cut, \$4.50.

Packed weight, 21 lbs.

One pair of 6-inch hoes.
Three steel cultivator teeth.
One leaf lifter.



No. 17½ is a great favorite with people who have a home vegetable garden which they tend in their spare moments, and also with large growers of beets, onions and other market crops who wish to do thorough and rapid work. But we recommend buying the No. 16 or No. 17 machine in the first place, as they cost but little more and the extra attachments are exceedingly useful; these may be added at any time, but cost more bought separately. Other extra attachments described on later pages will also fit on this machine.



No. 18

Planet Jr. Single Wheel Hoe

Price, as in cut, \$3.50.

Packed weight, 19 lbs.

Steel frame.

This has the same frame as our other single-wheel hoes, but is equipped with hoes only, and the plow, cultivator teeth or rakes may, any of them, be added to the equipment, although it is better and cheaper to select and secure what you need with the original purchase.

F. MANTLE, Queenstown, New Zealand, writes October 25, 1910: "The Planet Jr. Single-Wheel Hoe I have, has been in work for over twenty years."

MISS MARTHA BROWNLEE, Frost, Minn., writes February 21, 1908: "We have had a Planet Jr. wheel hoe about nineteen years, and could not get our garden (one-quarter acre) worked without it."

GEORGE GOODELL, Ripon, Wis., writes, January 10, 1911: "I purchased a Planet Jr. wheel hoe for my kitchen garden, and must say it gave me pleasure as well as satisfaction, and now I could not get along without one, be the garden ever so small."



SINGLE WHEEL HOES

No. 38

Planet Jr. Single Wheel Disc Hoe, Cultivator and Plow

Price, complete, as in cut, \$7.00.

Packed weight, 29 lbs.

One set discs.
One pair 3-prong cultivator teeth.
One plow.
One leaf lifter.

Steel frame.

No. 38. This new tool is a combination occupying the same position among single-wheel hoes as that taken by the No. 14 Planet Jr. Double-Wheel Disc Hoe (on page 22) among doubles. The sets of discs and cultivator teeth are the same as furnished with No. 14 Disc Hoe, and the plow is identical with that furnished with our single-wheel hoe. This combination we feel satisfied will give the very best satisfaction to every one, and is especially adapted to peat lands. The description of the attachments is given under No. 14 Double-Wheel Disc Hoe.

No. 18½

Planet Jr. Single Wheel Disc Hoe

Price, as in cut, \$4.75.

Packed weight, 24 lbs.

Steel frame.

This simple tool is identical with No. 18 Single-Wheel Hoe (page 27), except that two sets of three discs each and a leaf lifter take the place of the pair of hoes. The discs are adjustable for depth and throw, as described under No. 14 Double-Wheel Disc Hoe.

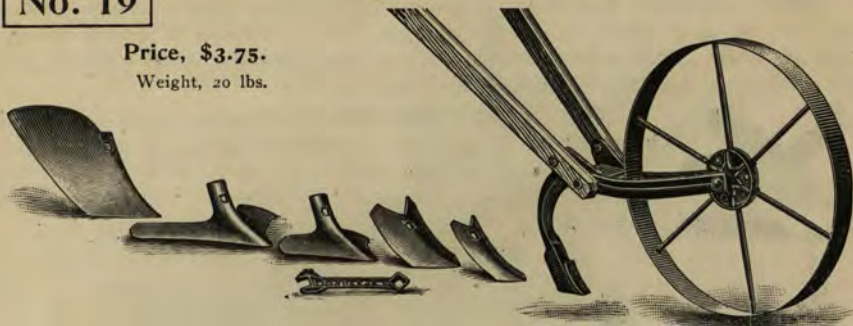
I. B. POUCHER, Oswego, N. Y., writes June 28, 1909: "I have been using the new 3-prong cultivator teeth on my Single-Wheel Hoe. They are the best ever. Owing to a very late season my garden was in very bad shape. I have succeeded in getting it in most excellent condition by the use of the Wheel Hoe alone. The new teeth have done wonders."

No. 19

"Farmers'" Single Wheel Hoe, Cultivator and Plow

Price, \$3.75.

Weight, 20 lbs.



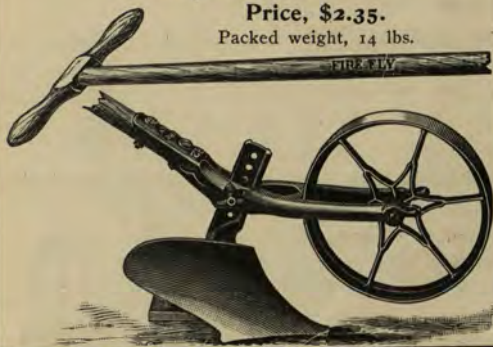
This attractive implement is especially designed for the farmer's garden work, though it offers to every one with either field or garden a cheap and effective tool for wheel hoe operations.

THE WHEEL is high, the standard is slotted for depth regulation and an adjustable malleable piece carries all the steels that go with the machine.

Fire-Fly Garden Plow

Price, \$2.35.

Packed weight, 14 lbs.



**THIS TOOL IS EXCEED-
INGLY USEFUL** to owners of small gardens. **It will throw** a furrow four to six inches wide and one to three inches deep, and deeper by going twice. Furrows for manure or seeds can be opened and covered. **In cultivating**, plow away, weed the row and plow back again. This tool will enable a busy man to do in his spare minutes nearly all the work of a family garden. **Chicken raisers** find it of great advantage in **plowing up their scratching yards.**

PLANET JR. GRASS EDGER. Price, \$6.25.

Packed weight, 25 lbs.

EXTREME NEATNESS is the great secret of attractiveness in grounds surrounding a house. The Planet Jr. Grass Edger assists wonderfully in producing this effect. It will edge either straight or curved work, paths, drives, open borders or flower beds, doing the work well and rapidly.

STRAWBERRY GROWERS find the grass edger disc attachment a rapid and excellent tool for cutting off surplus runners. Goes on all hand tools. Price, \$1.35.



JOHN J. COPP, Groton, Conn., writes: "I have your catalogue filed since 1884 and have used your tools since then."



HAND GARDEN TOOLS

EXTRAS FOR PLANET JR. HAND MACHINES

Planet Jr. machines have been in successful use for so many years that we get many calls for spare parts. A special catalogue covering all repairs is sent on application, but prices of the principal extras for our seed drills and wheel hoes are given below. We also make the following special attachments:



THE DOUBLE MOLDBOARD PLOW fits our single-wheel hoes and No. 4 and No. 1 Combined Drills. It can be set to furrow narrow or wide, or to hill much or little. Width at widest, 14 inches; narrowest, 10 inches. Price, \$1.25. With connecting bar, fitting all our double-wheel hoes, price, \$1.55.



PEAT LAND HOES. The accompanying cut shows new style hoes we have been making for some of our peat land customers, which have given such entire satisfaction that we now catalogue them. They have a wider and higher shield than our regular hoes and cut six inches wide each. They are much liked by onion growers everywhere. Price, per pair, \$1.60.

DISC HOES. These are described on page 22, and also do excellent work. Price, \$2.25 per set.

THREE-PRONG CULTIVATOR TEETH. These are also described on page 22, and are very popular. Price, \$1.30 per pair.



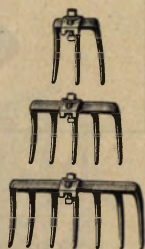
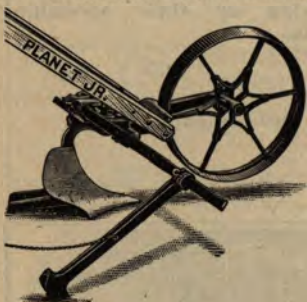
THE ONION HARVESTER is a useful attachment for our combined drills and all our wheel hoes. Eight-inch size for onions and onion sets. It leaves the crop in the best condition for easy handling. It is used also for cutting spinach. Price, \$1.00; 6-inch size, 85 cents.

PATH CLEANERS. We furnish a 12-inch size which does admirable work in parks, cemeteries, etc. Price, \$1.20.

MALLEABLE RAKES. Three and five teeth, for leveling and preparing ground for planting and for first cultivation of crops. The

three-tooth work and finish 6-inch rows, the five-tooth 10-inch rows, and for wider rows use a seven-tooth, or the three and five-tooth set to suit. For prices, see below.

MARKING ATTACHMENT. This fits all Planet Jr. wheel hoes and is similar to our seed drill markers. It will be found very useful and satisfactory. It makes a plain line, marking distances from 6 to 20 inches, and is easily changed from side to side from between the handles. Price, 80 cents.



4 1/2-inch Hoes, C & Dr.....	per pair, \$0.80
6-inch Hoes, C & Dr.....	per pair, .90
7-inch Hoes, C & Dr.....	per pair, 1.00
8-inch Hoes, C & Dr.....	per pair, 1.10
4 1/2-inch Hoe Steels, C & Dr.....	per pair, .40
6-inch Hoe Steels, C & Dr.....	per pair, .50
7-inch Hoe Steels, C & Dr.....	per pair, .60
8-inch Hoe Steels, C & Dr.....	per pair, .70
Cultivator Teeth, Regular, all steel..	each, .35
Rakes, Three-Tooth	per pair, .70

Rakes, Five-Tooth	per pair, \$0.90
Rakes, Seven-Tooth	per pair, 1.10
Plows for Double-Wheel Hoes.....	per pair, 1.10
Plow Steels for Double-Wheel Hoes,	per pair, .60
Plows for Single-Wheel Hoes.....	each, 1.10
Plow Steels for Single-Wheel Hoes..	each, .60
Onion Set Plow and Coverers.....	each, 1.00
Peat Land Plow.....	each, .55
Handles	per pair, .70



No. 8

**Planet Jr. Horse Hoe
and Cultivator**

**Price, with Attachments as
shown in cut, \$9.00.**

Packed weight, 82 lbs.

As used for plowing toward the
row and for hilling.



Equipment:
Four 3-inch plates.
One 4-inch plate.
Two side hoes.
One 7-inch shovel.

ONE-HORSE IMPLEMENTS

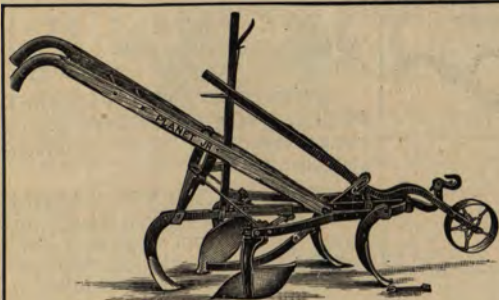
THE Planet Jr. Horse Hoe is probably as well known as any cultivating implement made. Its merits are such that at its first appearance it was recognized at once as a valuable tool. It is now sold all over the world. We were the original inventors of the modern horse hoe, and the first to make one of sufficient real value to become a general favorite. The value of the Planet Jr. Horse Hoe has been recognized also by manufacturers, who have made an avalanche of imitations in this and other countries, but inferior in design, workmanship and value. We have always aimed to make the best possible rather than the cheapest, and the fact that we are to-day the largest makers in the world in this line proves the wisdom of our policy.

In the following pages, practical men will easily detect the impress of the practical mind. The various tools are the result of a thorough knowledge of both farming and manufacturing, and very naturally they have the attention of brother farmers throughout the world.

We ask you to study this catalogue if interested in one-horse or two-horse cultivators, and to write us fully when in doubt what to use. We will do our best to advise correctly.

THE PATENT FRAME of stiff steel is extra long and one or two inches higher than usual, and, being our patent design, the standards are interchangeable. **Planet Jr.**

Horse Hoes and Cultivators close to 10 inches and open to 25 inches. **The expander** combines strength and stiffness with simplicity. The play of the ordinary lever expander is largely avoided and the change in width is easy and almost instantaneous. **The patent standards** are hollow steel, of the strongest pattern, mutually stiffening the frame and being stiffened by it. They are round in the throat, they polish in use and can scarcely be clogged; are also much higher than other makes and the rear tooth has extra



Set for hoeing away from the row



ONE HORSE TOOLS



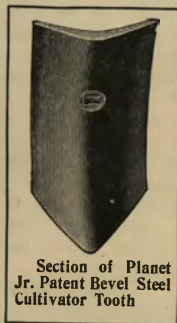
Cultivating corn with the Planet Jr. No. 8 Horse Hoe

clearance—both important points in preventing clogging and making good work. **The cultivating teeth** are our invention and are the latest improved style, being made of **beveled steel**. They are thickest in the centre (see cut), so the point retains its shape and strength and the life of the tooth is much prolonged. When buying repairs, see that Planet Jr. is on the back of every tooth.

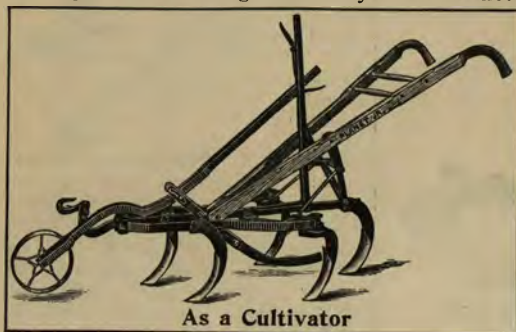
THE PATENT SIDE STANDARDS take either cultivator teeth or hoes and are adjustable sidewise.

THE PATENT HOES are reversible, used either pointed or rounded edge foremost. They work as plows, and throw both to and from the row and are also invaluable for hoeing. The amount saved by the hoes is something remarkable. The slanting rounded edge may be run so close to the plants as almost to touch them, without danger to the roots, since the cut rounds away from the row. The rear shovel returns earth to the row.

THE WHEEL LEVER is a new pattern and the patent depth regulator is an important feature. Change of depth is obtained by a central depth regulator, worked simultaneously with the wheel by the wheel lever. With this arrangement the tool runs steadily, and the depth can be changed instantly while in motion.



Section of Planet Jr. Patent Bevel Steel Cultivator Tooth



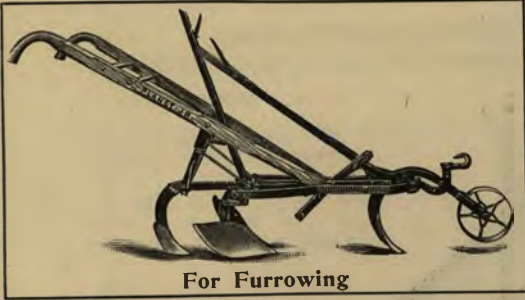
As a Cultivator

THE PATENT STAR WHEEL is distinctive, and designed for strength and beauty.

THE PATENT PRESSED STEEL LOCK PIN HOOK always stands erect. It is the strongest and best made.

THE PATENT HANDLE BRACES are of special design and rigid, yet do not interfere with opening and closing or with the side adjustment of the handles.

THE PATENT HANDLE ADJUSTMENT is complete. Up or



For Furrowing

crops as corn, potatoes, cotton and also on tobacco and coffee plantations, and in hopyards and vineyards.

down for height, and a very important side adjustment. It holds the handles either central or to one side, as desired. Thus, in covering, the operator need not walk on the finished work, and in vineyards and among raspberries, blackberries, etc., he may work close to the row without scratching his hands or having the handles break down the crop.

EVERY OWNER of a Planet Jr. Horse Hoe will find that it is invaluable in cultivating such

EXTRA ATTACHMENTS FOR PLANET JR. HORSE HOES

Pages 62 and 63 show a variety of extra attachments which will fit the Planet Jr. Horse Hoe standards. Arranged with sweeps on the three rear standards or with a pair of hoes and a sweep, as shown in the cuts, the machines are particularly adapted to surface weeding, thistle cutting and shallow work generally. Every buyer of a horse hoe ought to have one or both. We make the hoe steels in two sizes, cutting 6 and 10 inches each. Like the regular side steels, they can be turned at any angle or used to throw to or from the row. **THE SWEEPS** we make from 8 inches up to 18 inches wide. Two 10-inch hoes and a 12-inch sweep make an excellent combination, or two



Thistle Killer and for level work



With Hoes and Sweep in shallow work

used in connection with cultivator steels in front. All widths of cultivator steels and furrowing steels fit the horse hoes. (See page 63 for prices.)

When buying extras or repairs, always see that **Planet Jr.** is on the back of every steel.

Steel handles for horse hoes and cultivators we supply when wanted. Price, \$1.00 per pair.

If steel handles are wanted in place of wood, add 20 cents to list price of machines.

F. H. HOLLOWAY, Iraquato, Gto., Mexico, writes March 24, 1910: "Up to the present time I see only one mistake I made in sending you my order, and that was in not ordering four times as many tools as I did."

J. E. WALLACE, Washington, Pa., writes April 20, 1907: "I bought a Planet Jr. Horse Hoe in 1890 and have used it every year with great satisfaction; have also used the twelve-tooth cultivator, and it is all right, too."

H. L. HARRIS, Newberry, Mich., writes March 23, 1907: "I use in my business Double and Single Celery Hillers, Twelve-Tooth Cultivators, Seed Drill and No. 8 Cultivator—all Planet Jr. tools."



ONE HORSE TOOLS

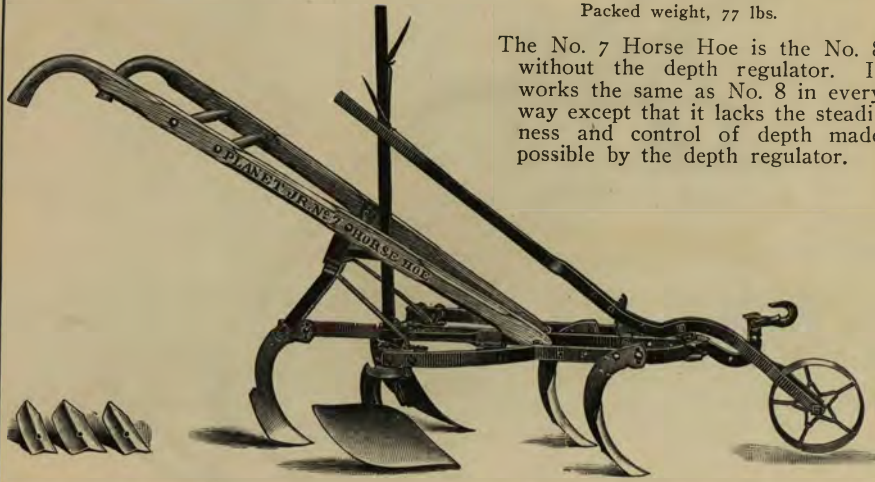
No. 7

Planet Jr. Horse Hoe

Price, with Attachments as in cut, \$8.50.

Packed weight, 77 lbs.

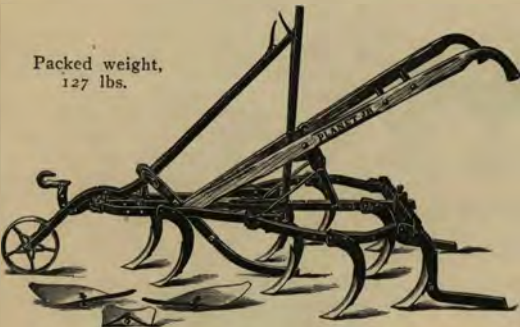
The No. 7 Horse Hoe is the No. 8 without the depth regulator. It works the same as No. 8 in every way except that it lacks the steadiness and control of depth made possible by the depth regulator.



THE cut above shows the most common and useful of the various forms in which the combined horse hoe can be set up. The small cut (page 31) shows the side hoes reversed, when the tool can be used for **hoeing** a crop closely, saving an immense amount of hand work. The hoes cut the surface and weeds away close to the row, yet do not endanger the roots of the crop, and the rear tooth **returns the earth toward the row**. The hoe steels and sweeps shown with the No. 8 machine will, of course, fit the No. 7 as well as the various furrowers and ridgers shown on page 62.

PLANET JR. NINE-TOOTH HORSE HOE

Packed weight,
127 lbs.



Nine-Tooth Horse Hoe

Price, complete, as in cut, \$15.25.

This tool is made by attaching two extra side bars to our No. 8 Horse Hoe (each carrying two teeth and a depth regulator), and a middle bar extension and truss expander. The tool leaves **no open furrows next to the row**.

It is thoroughly braced. It cultivates nearly four feet in width and, if properly set, will run from one end of the field to the other without touching the handles, while doing perfect work.

For orchards, vineyards, hop yards and wide cultivation. Excellent for fall-plowed ground and for covering grain.

Complete attachment, fitting any of our horse hoes except Nos. 10 and 81. Price, \$7.25.



No. 9

Planet Jr. Horse Hoe

Price, \$7.75.

Packed weight, 71 lbs.

Without wheel, \$7.00.

Packed weight, 64 lbs.



THIS ADMIRABLE TOOL is identical with No. 7, except that it has a plain wheel instead of the lever wheel. It has the high frame, patented hollow steel standards, patent lever wheel, patent lever expander and new hollow steel wheel arms.

This tool has become popular because of its strength and lightness, easy change of width, and while not so handy as a tool with a lever wheel, in some places the wheel is changed so infrequently that the lever is not highly valuable.

The handle brackets are thoroughly braced.

The handles are adjustable in height and also side-wise and the equipment as shown in the cut offers a tool which will always be useful.

No other cultivating machine is so widely known as the Planet Jr. Combined Horse Hoe and Cultivator, for it is in use throughout the civilized world. It is so strongly built as to withstand incredible strain, yet it is light and easy to handle. It opens and closes furrows, hoes right up to the plants without danger of injuring, throws dirt to or from the row and throws back from centre again. You can cultivate to any depth desired, and adjust for any width. Every part is perfected to make the tool acceptable to the intelligent farmer who knows the best is always the cheapest.

W. M. BURDETT, Route No. 1, Seneca, S. C., writes May 1, 1911: "I use one of your No. 9 Horse Hoes and Cultivators and could not farm without it."

S. H. MORGAN, Oliver, Ga., writes May 24, 1911: "Bought two of your cultivators and they are ahead of anything I have ever tried. Plowed my corn and cotton with my Planet Jr. Cultivator and they gave perfect satisfaction everywhere I have tried them."

E. W. ROSENTHAL, R. F. D. No. 2, Huntington, L. I., N. Y., writes March 20, 1908: "I now have one of your horse hoes and a seeder that have been in use over ten years continuously, and consider them too good to throw away yet."

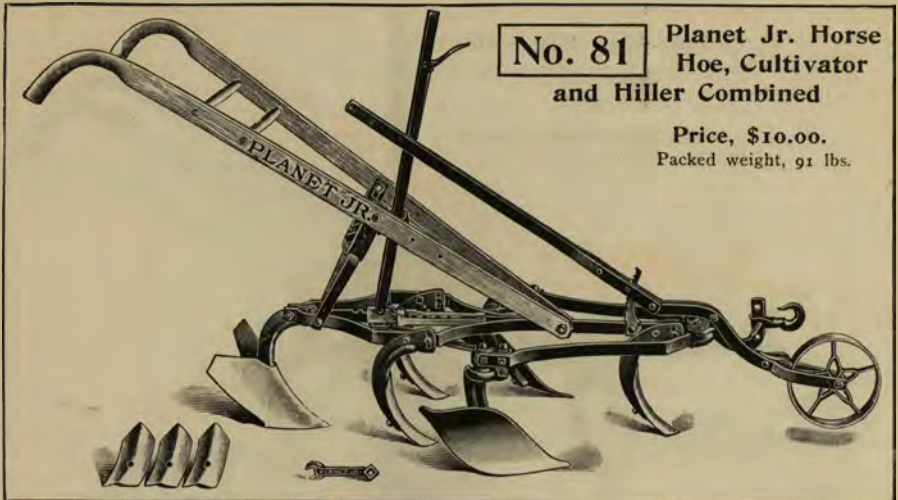
MISS I. E. PATCHEN, 1015 N. 18th Street, Manitowoc, Wis., writes August 16, 1909: "Your Planet Jr. wheel hoe has been a valued possession in my family since 1875."

M. A. WOODMAN, Tama, Iowa, writes April 2, 1908: "I have several No. 12's and they do good work; have had one twelve years and it is as good as new yet."

WALTER E. BAIN, Nassau, N. Y., writes March 31, 1911: "I have both the twelve and the five-tooth Planet Jr. Horse Cultivators, and think them better than any other make I have seen. The five-tooth is certainly built to stand rough usage; it will outlast two or three of the cheaper makes."



ONE HORSE TOOLS



No. 81

**Planet Jr. Horse
Hoe, Cultivator
and Hiller Combined**

Price, \$10.00.

Packed weight, 91 lbs.

No. 81 IS THE LATEST and best tool of the kind we make, new for 1912. Has six 3-inch cultivator teeth, two 6-inch side plows and a 12-inch furrowing tooth, making an admirable equipment for all widths of cultivation and for hilling crops up to four feet apart.

It is very compact and strong, and is sure to give entire satisfaction. It runs steadily, is the finest and best braced of all our one-horse tools, and leaves the crop just as you want it. It is an admirable hiller and furrower.

It has a cultivator tooth central in front, which increases the steadiness of the tool. This is followed by a group of teeth, of which the pair that work next to the plants are furthest forward and are adjustable for width by means of a convenient lever expander. Intermediate between these and the rear tooth is a pair of teeth 13 inches apart, not adjustable for width.

The whole arrangement of the teeth, as shown in the cut, is such that it works as a hiller, and for thoroughness is a distinct advance over the older tools. Yet as a horse hoe, the earth may be thrown away from the row and the ground be kept comparatively level.

THE EXTRA WIDTH OF CUT and the extra firmness of frame make this tool a useful one and an increasing favorite.

THE NEW PATENT WHEEL LEVER avoids the use of the wire and the hand piece makes the operation much quicker and remains satisfactory for years.

P. I. PACKARD, Portland, Ore., writes: "Please send me your latest catalogue. I used your tools years ago and am 'going back to first principles' again."

E. A. WEDGER, Plainview, Minn., writes March 30, 1911: "Planet Jrs. give me good satisfaction."

C. G. WHITE, Kaiku, Maui Island, Hawaii, writes January 1, 1911: "I have placed the order with the local store. There are no tools like yours. I have six different sorts of implements of yours."

EDWARD R. BARNARD, Newington, Conn., writes August 2, 1911: "I have used one of your walking cultivators for fifteen years, and others, and the Planet Jr. is like daylight from darkness."

J. G. BERILL, Sturgis, Miss., writes: "Have been using Planet Jr. Horse Hoe for fifteen years. It's good."

ONE HORSE TOOLS



No. 4

Planet Jr. Horse Hoe

Price, \$6.75.

Packed weight, 63 lbs.

Without wheel, \$6.00.

Packed weight, 56 lbs.



THIS TOOL is low in price, strong and simple; it has our latest patent handle braces; firm, simple, strong, convenient. With these the frame and handle seem almost like one solid piece. Changes in width are very quickly and easily made by the patent expanders, and one side may be opened wide, and the other closed. This tool will also carry a variety of our extras shown on pages 62 and 63. The sweeps, the narrow points, the furrowers and the vine turners are specially useful, and will be found to fit well and do capital work.

Every part is perfected to make the tool acceptable to the intelligent farmer who knows the best is always the cheapest.



The Planet Jr. No. 9 Horse Hoe and the Twelve-Tooth Harrow, one hilling, the other doing level work

J. G. DAVIES, Holmesville, Neb., writes: "I bought two one-horse cultivators of your make this year and they are fine."

WILLIAM BATE, North Attleboro, Mass., writes May 24, 1911: "I have used one of your horse hoes six or eight years and am well satisfied."

D. A. KIEFFER, Warren, Texas, writes April 9, 1910: "I received the No. 4 Planet Jr. Horse Hoe o. k. on the first day of this month. I am more than well pleased with the cultivator, and I am sure it paid for itself the first two days I used it."

CHASE BROTHERS COMPANY, Rochester, N. Y., write February 15, 1910: "We have been using for several years your Planet Jr. Cultivators in our nursery work, and have found them very satisfactory."



ONE HORSE TOOLS

No. 10

Planet Jr. Horse Hoe, Cultivator and Hiller

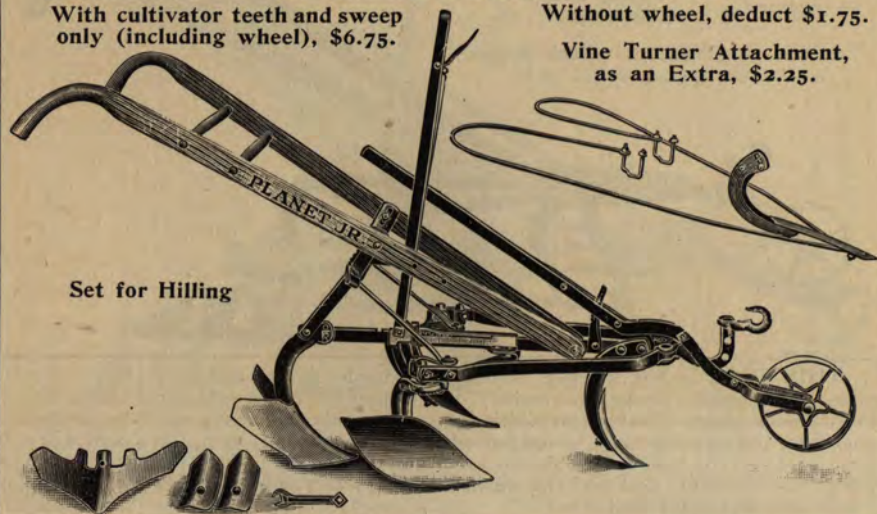
Price, complete, as in cut, \$8.00.

Packed weight, 74 lbs.

With cultivator teeth and sweep only (including wheel), \$6.75.

Without wheel, deduct \$1.75.

Vine Turner Attachment, as an Extra, \$2.25.



Set for Hilling

No. 10, new in 1910, is the best tool of its kind we have ever made, combining in itself the most valuable features of our regular one-horse cultivators and horse hoes. It is lighter and smaller, but as strong as our regular line of horse hoes.

BUT FOUR TEETH are used for ordinary work; three cultivator teeth followed by a wide sweep with fingers in the rear, a combination that works "like a charm" for level cultivation. For hilling, three extra teeth are provided; two plows and one 10-inch furrower, especially adapted to working crops not over 3½ feet apart.



For level or shallow cultivation

No. 10 arranged as a market garden-er's horse hoe, with a pair of 10-inch hoe steels and the wide-fingered sweep.

THE PATENT FRAME is compact and strong; the tool is smaller in size than our regular No. 8, increasing its ultimate strength, while reducing its weight.

THE PATENT STANDARDS are especially strong and solidly attached to the frame, and the adjustment for the side hoes is exact and simple.

THE PATENT PRESSED STEEL LOCK PIN HOOK is a favorite.

THE PATENT WHEEL LEVER is a new design shown last year for the first; has no pin or wire and is instantly adjustable.

THE PATENT HANDLE BRACES are extremely rigid, adjust up and down to suit man or boy, and sidewise for raspberries, blackberries, etc.

THE EXPANDER can be moved so quickly that it is quite easy to finish rows up to 3½ feet apart perfectly at a single passage, no matter if the rows vary greatly in width. For years we have been trying to do this, and with the 1912 style, we can recommend the Planet Jr. Horse Hoes and Cultivators to do the work perfectly.

At an extra price (\$2.25) we offer a vine turner of a new pattern and of special value in the cultivation of all vine crops. Sweet-potato growers can lay by all the potatoes that fifteen men could turn the vines for, and do it in the very finest manner possible. Handles rows 3½ feet apart and under. (See cut.)



Potato field being worked with the Planet Jr. Horse Hoe

The No. 10 Vine Turner Attachment is admirable for work among other crops at a late stage—tomatoes, peas, potatoes, etc. At the last cultivation the vines may be lifted without risk and cultivation can be done close to the row, where otherwise it would be impossible.

In the cultivation of sweet potatoes, cucumbers, cantaloupes and other vine-growing vegetables, the lever makes it very easy to work close to the plants in a most satisfactory manner.

When desiring to hill the crops very high, as is sometimes the case in wet land and for some special sections, a larger furrower than a 10-inch may be used on the rear standard. The tool is light, handy and must become a great favorite.

No. 80

Planet Jr. Horse Hoe and Cultivator

Price, \$9.00.

Without wheel, \$8.25.

Packed weight, 77 lbs.

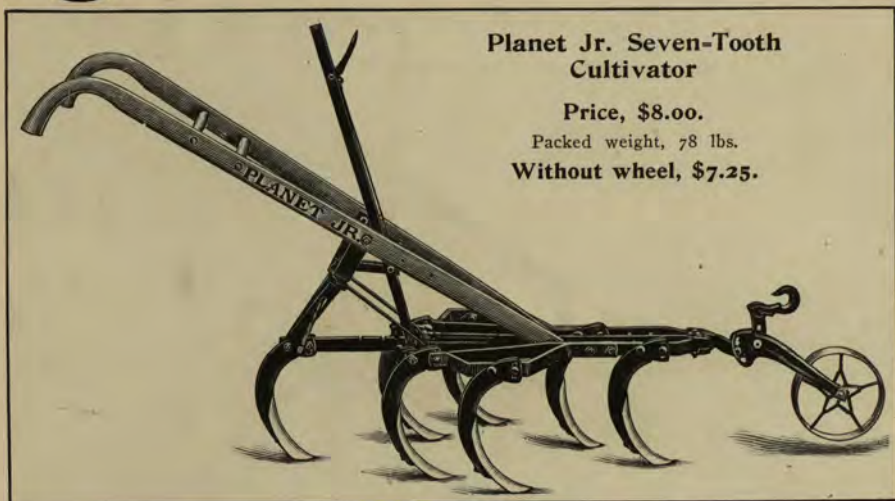
Packed weight, 70 lbs.

We offer for 1912 this new **Horse Hoe and Cultivator**, which is heavier and stronger and has a longer frame than any style we have heretofore made. It expands to 26 inches and will finish rows up to $3\frac{1}{2}$ feet apart at one passage.





ONE HORSE TOOLS



Planet Jr. Seven-Tooth Cultivator

Price, \$8.00.

Packed weight, 78 lbs.

Without wheel, \$7.25.

The work of the Planet Jr. Seven-Tooth Cultivator is particularly pleasing, as the extra number of teeth widens the cut to 30 inches and fines and prepares the soil admirably. The arrangement of the teeth prevents open furrows next to the row and puts the ground in beautiful shape. For finishing a middle at one passage it is much superior to a 5-tooth machine. The price of the 7-tooth attachment only, to fit our other horse hoes, except Nos. 10 and 81, is \$1.65.



Price, with wheel, \$6.50.

Weight, 63 lbs.

Without wheel, \$5.75.

Weight, 56 lbs.

No. 9 PLANET JR. PLAIN CULTIVATOR

Is a light and very strong tool, having our improved patent hollow steel standards, our parallel and extra high steel frame, patent lever expanders, handle braces and side adjustments for handles. It is used either with or without a wheel, the wheel being preferred in most sections. For very narrow rows, the outside teeth and standards may be removed from the frame.

No. 4 PLANET JR. PLAIN CULTIVATOR

This popular tool has been much stiffened and improved by our new patent braces and expanders, identical with those used on No. 4 Horse Hoe. Has pressed steel wheel arms and standards.

Price, with wheel, \$5.25.

Weight, 56 lbs.

Without wheel, \$4.50.

Weight, 49 lbs.



THE UNION FEED COMPANY, LTD., Honolulu, T. H., write December 9, 1910: "We have used several agricultural implements manufactured by the Planet Jr. Company, and do not hesitate to state that they have given perfect satisfaction."

L. H. DENSBAUGH, Palmetto, Fla., writes May 24, 1911: "Have been using your tools for over twenty years and nothing has ever pleased me so well. I have fifteen hoes on my farm."

TWELVE-TOOTH HARROW



Planet Jr. Twelve-Tooth Harrow, Cultivator and Pulverizer

Complete (with lever wheel and pulverizer), \$9.00.

With lever wheel, \$7.40.

Price, plain, \$6.20.

Packed weight, complete, 73 lbs.



THIS TOOL has rapidly grown in favor with strawberry growers, market gardeners, truckers and farmers because the twelve chisel-shaped teeth do such thorough work, and because the tool is so convenient, durable and strong. The teeth and pulverizer leave the ground in the finest condition, and the operator can set the tool exactly to any depth desired, making delicate work not only possible but very easy.

Improved braces enable one to change the handles in height to suit boy or man, and also **sidewise**. It is a great advantage to be able to move the handles to one side when cultivating blackberries, raspberries, vines, hops, etc., saving the hands, the clothes and the crops. **The expander works with ease, yet holds the tool thoroughly rigid.**

THE HAND LEVERS regulate both width and depth instantly. The tool expands to thirty-two inches and contracts to twelve.



A Field of Strawberries being finished with the Planet Jr. Twelve-Tooth Harrow



TWELVE-TOOTH HARROW



The Planet Jr. Twelve-Tooth Harrow in the Market Garden

THE STRAWBERRY GROWER finds this tool invaluable, as it works so close and thoroughly, deep or shallow, without throwing earth on the plants. He uses it to keep the ground loose and clean and to **work up and bed the runners; the round-throated teeth** turn them aside without injury, ready to root in the mellowed soil.

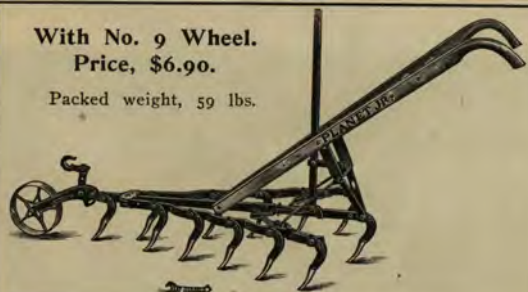
FARMERS AND GROWERS use the harrow in deep or close cultivation, or when desiring to work the crop thoroughly, but without hilling.

THE FOOT-LEVER PULVERIZER is an admirable tool for preparing ground for the seed drill or for plant setting.

With No. 9 Wheel.

Price, \$6.90.

Packed weight, 59 lbs.



PLANET JR. TWELVE-TOOTH HARROW

WITH THE No. 9 WHEEL the 12-tooth harrow gives excellent satisfaction and is lower in price. The wheel arms are substantially made of steel, but lack the convenience of the hand lever.

PLANET JR. TWELVE-TOOTH HARROW WITH No. 4 EXPANDER

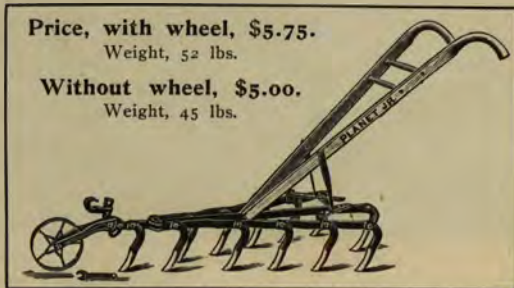
Some prefer this expander, as it is very stiff, strong, simple, easily adjusted, and low in price. It also allows one side of the tool to be closed while the other is open. It makes a light but effective cultivator for fine work.

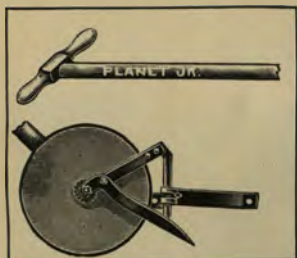
Price, with wheel, \$5.75.

Weight, 52 lbs.

Without wheel, \$5.00.

Weight, 45 lbs.





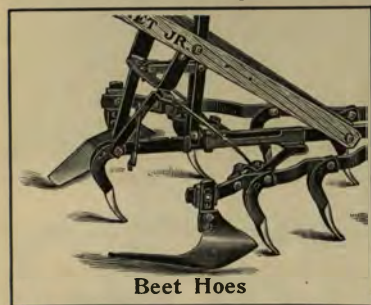
STRAWBERRY RUNNER CUTTER

To fit Harrow (less handle). Price, \$1.85.

With handle. Price, \$2.50.

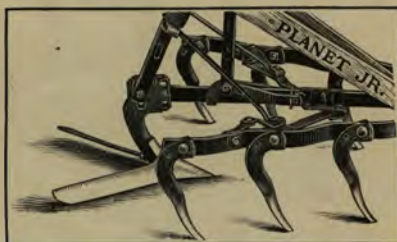
THIS is a 10-inch steel disc mounted on an out-rigger; it fits our 12-tooth harrows. It has a castor action, is adjustable for depth and sidewise, and has an adjustable leaf guard which lifts the leaves to avoid trimming them off and weakening the plants. It is thoroughly approved by strawberry growers. We can supply a handle (see cut) so this attachment can be used independently of the cultivator.

SWEEP ATTACHMENT. Price, complete with standard, \$1.35. We sell as an extra an 18-inch sweep with special standard,



Beet Hoes

which is used in place of the pulverizer for leveling and weed cutting. It is adjustable in height, throws a little earth each way, hilling up a trifle; is sure destruction to weeds.



BEET HOES for the 12-tooth harrow for hoeing beets and all crops in rows from 15 to 30 inches. They do admirable work, leaving the ground level. They work next the row with a

slanting forward rounded cut, making very close work easy and safe. Price, per pair, \$1.40.

PLANET JR. DOUBLE AND SINGLE CELERY HILLERS

CELERY HILLERS are now considered indispensable. The leaf lifters are adjustable in height and are especially valuable for first workings. With their aid some of our best and largest growers hill their celery **without any "handling."** We equip both with lever expanders and leaf lifters. The double hiller only is fitted with lever wheel. The hilling blades are 43 inches long, adjustable in width or height as wanted; the double machine works all rows up to four feet apart. The single works all widths, and where market gardeners plant close and first bleach every other row, it is "just the thing." Before hilling, **the soil should be thoroughly loosened with a horse hoe.**



PLANET JR. HILLING ATTACHMENT

Price, complete, \$9.00.

Attachment only, \$3.85.

THIS SPECIAL HILLING attachment fits all our Planet Jr. Horse Hoes, except Nos. 80, 81 and 10, and is very effective. Sold either complete, as shown, or as an attachment to regular Planet Jr. Horse Hoe.



TWO HORSE CULTIVATORS



Two No. 72 Planet Jr. Two-Row Cultivators finishing four "middles" at one passage

TWO-HORSE IMPLEMENTS

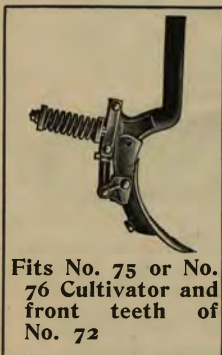
WE have given much thought and care to the making of two-horse cultivators, feeling that there was nothing on the market quite up to our idea of what two-horse implements should be and do.

We now confidently believe that the tools shown in the following pages are different from and, in some respects at least, better than any heretofore offered to the public. We think that the careful perusal of the descriptions, in conjunction with the cuts showing the tools arranged for different purposes, will convince any one that they are original and superior in plan to any now on the market. They are all strong and easily handled, do exactly as represented in the description, and are of excellent

workmanship, design and material. We commend them to your careful consideration and ask that you allow the testimonials to assist in your estimate of their merits.

SPRING TRIPS. For 1912 we can furnish No. 72, No. 75 or No. 76 Riding Cultivators fitted with spring trip standards instead of solid standards, at an additional cost of 62½ cents per tooth. They are necessary when the ground is rough and ordinary break pins are unsatisfactory.

Spring Trip Teeth are also sold as an extra. Price, \$1.50 per tooth. In ordering, specify for what machine wanted.

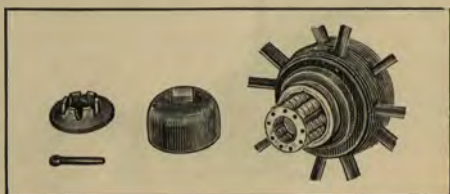


Fits No. 75 or No. 76 Cultivator and front teeth of No. 72



Fits No. 72 Cultivator

ROLLER BEARINGS. Recognizing the great value of roller bearings on our Nos. 72, 75 and 76 Two-Horse Cultivators, we supply them for 1912. The cost (\$5.00) is soon repaid, as the wear ceases and the wheels run true for years. One set of roller bearings will outwear three of plain bearings, and therefore are economical.



TWO ROW CULTIVATORS



No. 72

Planet Jr. Two-Row Pivot Wheel Cultivator, Plow, Furrower and Ridger

Equipment: Fourteen cultivator teeth.
Four reversible plows.
Two 8-inch shovels.
Four plant guards.

Price, \$52.50.

With roller bearings, \$5.00 extra.

Packed weight,
577 lbs.

With depth regulators to make
floating gangs, \$1.50 extra.



For several seasons there has been a rapidly increasing demand for our Planet Jr. **No. 72 Two-Row Cultivator** because it does such rapid and thorough work, even in rows of irregular widths. It completes the cultivation of two rows at one passage, at all widths from 28 to 44 inches, inclusive, and is specially built to do this when the rows are irregular. It is so designed that the operator can make changes in width of gangs instantly while in motion, by means of a handy lever for each gang, thus accommodating the machine to rows which vary greatly in width. The wheels and gangs can also be changed for different width rows in a few minutes.

IN LISTED CORN the hinged tongue and adjustable front teeth combine to make this cultivation, which is so difficult, entirely satisfactory.

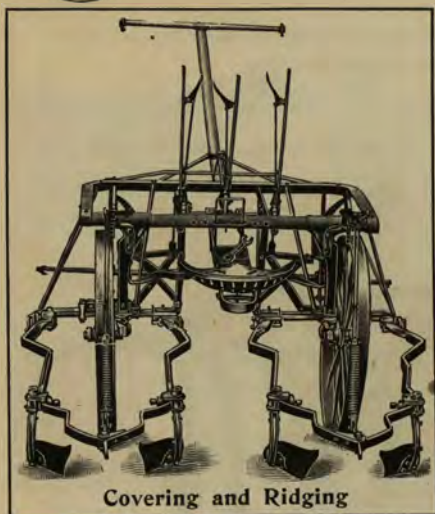
IN CHECKROWS it surprises every one. Checkrowed crops are usually planted with two-row seeders and, therefore, with this tool the gang working between the two rows need not be changed from one end of the row to the other, so that the driver has but one lever to handle. When going **crosswise of the rows he need not change either lever** because, however crooked the rows may be, they are always the same distance apart, and the pivot wheel enables the driver to steer around the crooks perfectly. **One row** at a passage can be worked perfectly when, from any cause, this seems desirable.

THE TOOL HAS FIVE LEVERS, yet instead of complicating, this simplifies its management so that a boy can operate it with success. The centre lever adjusts the hinged tongue, regulating the depth of the front teeth to a nicety and leveling up the machine to suit all heights of neck yokes. The outside levers regulate the depth of the teeth in the rear, while the intermediate levers are those used in changing the widths of the gangs to suit irregular planting without stopping the team. The gangs change in width evenly; that is, the levers open or close both sides of the frame equally, so that the teeth always work the spaces thoroughly.

THE EQUIPMENT is a very liberal and practical one. Seven 2¼-inch reversible



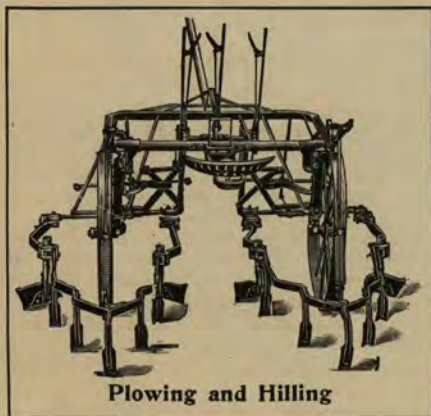
TWO ROW CULTIVATORS



Covering and Ridging

high carbon steel teeth of the best design and finish are carried by each frame so that the work is thorough, even at the greatest width of 44 inches. Four large plows take the place of the front cultivator teeth when wishing to plow or hill the crop; they are reversible, giving double wear. Two wide shovels are useful for marking out two rows at once, from 28 to 44 inches apart, or to use in place of the rear teeth.

THE STANDARDS are hollow steel, the five rear ones being attached directly to the frame because they do not need any adjustment except what is provided for by the levers, but the front standards are all adjustable for depth and angle, throw-



Plowing and Hilling

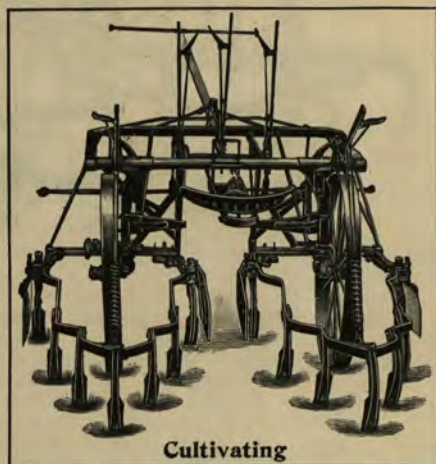
ing to or from the rows, as desired. All may have break pins.

THE FOUR ADJUSTABLE STANDARDS take the useful plows which ridge and cover. For the latter purpose they are used as shown in the cuts and enable the operator to cover at one passage two rows of manure or potatoes or corn, peas, beans, etc., that have been dropped in the furrow.

THE PIVOT WHEELS work quickly and make the cultivation of crooked rows easy. They can be made stationary when desired. They adjust for all width rows, 28 to 44 inches, inclusive. Four-foot rows may be worked if very regular in width, but it then requires a strong team.

THE WHEELS are heavier, with four more spokes in each wheel this year, and guaranteed.

THE ARCH AND SEAT are unusu-



Cultivating

ally high, 33 inches in the clear; the seat is adjustable back and forth and in height, low enough when plants are small, to reach them from the seat, or high enough to cultivate corn when five feet high.

WHEN PLOWING AWAY from corn or other crops, two rows may be completed at once and cultivated back again at the same passage; in the same way two rows may be hilled by the plows and finished by the cultivator teeth at one passage.

PLANT SHIELDS. Each tool is furnished with four plant shields, adjustable in height and made to swing so as to clear themselves of obstructions.



Two rows of corn well cultivated at one passage, with but ONE man and TWO mules

THINK OF THE SAVING made in cultivating perfectly two rows of potatoes, beans or corn, or any crops planted in rows not over 44 inches apart, **at a single passage.** This means double speed at a single cost, for the arrangement of the fourteen teeth is such that all the ground is well tilled and no open furrows are left next to the row.

AT WORK always turn the team to the right at the headlands by skipping **two** rows at one end of the field when turning. Much easier for man and team.

EXTRA ATTACHMENTS

DEPTH REGULATORS. The illustration on page 45 shows machine with depth regulators. With them the gangs are made to float so that they follow the clean-up furrows, save the tool and team and do beautiful work. Price, \$1.50.

DISCS, SWEEPS, Hoe Steels and Furrowing Steels described on pages 49, 62 and 63, fit this machine.

Spring Trip Standards. (See page 44.)

J. W. Wood, Sawyer, Mich., writes July 20, 1911: "The No. 72 is the greatest vineyard cultivator in existence."

C. C. SHARP, Waverly, Va., writes March 18, 1910: "I have one of your No. 72 Planet Jr. Cultivators. I was the first one in my county to get one. People came from far and near to see it. After seeing mine at work, I think ten others got one. I consider the Planet Jr. Cultivator the 'Only Cultivator' on the market."

A. H. ELLIS, Ellis Farms, Willsboro, N. Y., writes of our No. 72 Cultivator: "You have a machine that is worthy of the highest commendation."

ILLION MOORE, Chandlerville, Ohio, writes March 9, 1908: "Last year I purchased your No. 72 Two-Row Pivot-Wheel Cultivator and find it complete and satisfactory. It is the greatest general purpose implement on the farm."

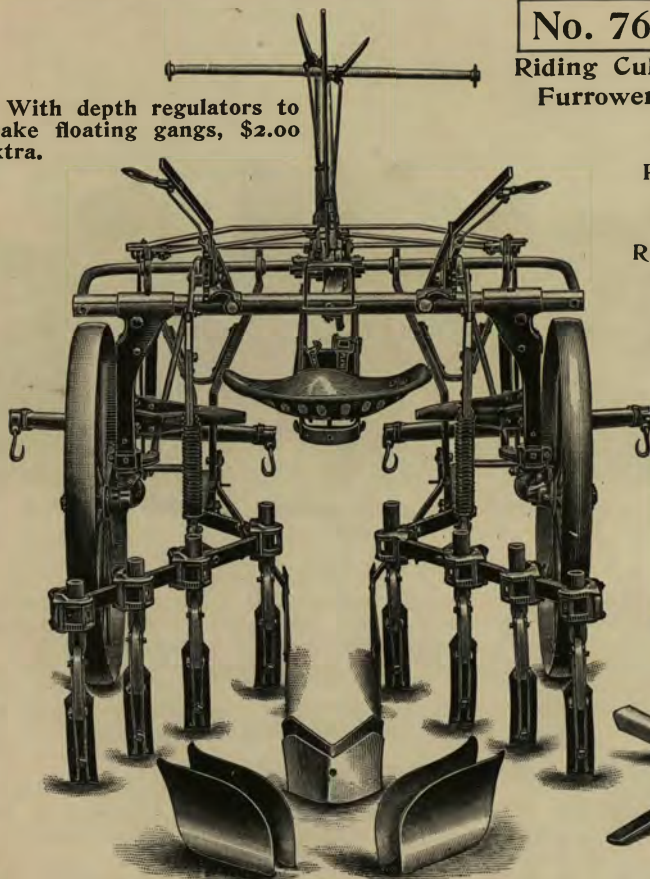
A. E. WILKINSON, Robstown, Texas, writes April 4, 1911: "I have used one of your two-row cultivators four years, and would not be without it. I also have a one-row which is the best of its kind."

W. J. G. WEBSTER, Vice-President West Tennessee Farmers Institute, Raleigh, Tenn., writes January 21, 1911: "I use your garden tools and find them almost indispensable. While at the Experiment Farm in Jackson, I saw and used your two-row two-horse cultivator and think it a greater labor-saver than your garden tool. While my farm is hardly large enough to afford such a machine, I would like to see one in every locality, for I consider it the greatest object lesson in labor saving."



TWO HORSE CULTIVATORS

With depth regulators to make floating gangs, \$2.00 extra.



No. 76 Planet Jr.
Pivot Wheel
Riding Cultivator, Plow,
Furrower and Ridger

Price, \$46.00.

Weight, 521 lbs.

Roller bearings,
\$5.00 extra.

Equipment:

Nine cultivator teeth
Two 6-inch plows.
Two 7-inch plows.
Two 7-inch shovels.
Two plant shields.

THE No. 76 IS A NEW implement which combines in itself nearly all the advantages of our earlier cultivators. The combination of the best parts of these tools in one seems to us to make a machine which is without a rival in popularity and usefulness. The arch is high, frame and tongue are of steel, and the change in width of the wheels is all that could be desired. It has improved powerful levers; the gang frame is stronger than ever, and the equipment of the standards is the same as that of No. 75, all being adjustable in depth to throw to or from the row as desired. The **extra wide** arch is very desirable. The draft is arranged to insure satisfactory work in all conditions of soil. We look for a wide sale for this tool this season.

THE PIVOT FOURTEEN-SPOKE WHEELS act instantly and make the guiding a pleasure.

THE SEAT is large and comfortable, adjustable up and down, back and forth.

THE NEW LEVERS and springs regulate depth and pressure on the teeth.

THE CENTRAL LEVER operates the hinged tongue, regulating the depth of the front teeth and leveling the machine; the same lever moves the teeth instantly, **either closer to or farther from the row**, as desired, while the team is in motion.

CONSTRUCTION. All parts steel except a small percentage of malleable iron.

ROLLER BEARINGS are worth far more than the \$5.00 extra. (See page 44.)

TWO HORSE CULTIVATORS



Thorough yet Comfortable Cultivation on a hot day

IMPROVED LIFTING LEVERS have been placed on the gang frames.

THE ARCH is 33 inches high, clearing corn until five feet or more.

IT WORKS ROWS from 38 to 44 inches, cultivating, plowing, hilling, etc., as desired.

MARKS OUT ROWS from 24 to 44 inches apart, two at once, and with the plows will cover or make up drills beautifully.

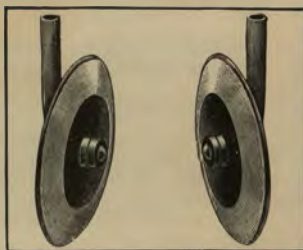
SPRING TRIP STANDARDS in place of regular, \$5.00 per set of eight, when ordered with machine.

This cultivator is simple, roomy, strong and easily understood; will not get out of order easily and does admirable work. Every part is made of the best material, in the best manner and is of the finest quality, design and finish. It is comfortable to ride upon, strong, light, thorough at work yet light in draft, at once simple, efficient and durable.

AT WORK. Always turn the team to the right at the headlands, skipping one unworked row each round. Much easier for both man and team.

Stops on ratchet make floating gangs.

A PAIR OF DISC PLOWS as shown in cut are much liked. They are used front next to the row, and can be set to throw either to or from the row. Price, 12-inch, per pair, \$4.25; 14-inch, per pair, \$4.75.



THE BRAND NURSERY COMPANY, Faribault, Minn., writes June 13, 1911: "The No. 76 Planet Jr. Pivot-Wheel Cultivator we purchased of you last spring is a splendid machine."

JOEL PATRICK, Grifton, N. C., writes July 3, 1911: "Relative to Planet Jr. two-horse cultivator, I think the machine a model one. I cultivate six to eight acres a day of cotton, corn, and even tobacco."

O. TAYLOR, LaGrange, N. C., writes June 20, 1911: "I have used your two-horse Planet Jr. the past two years on young corn and cotton as a harrow, and it did very nice work."

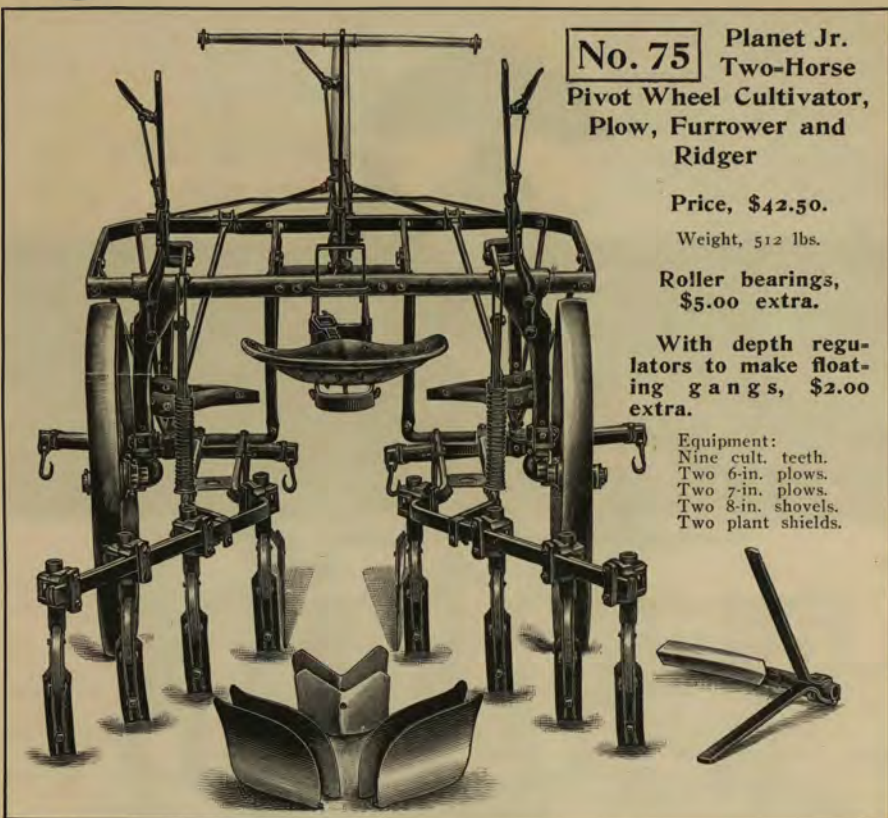
T. H. SHETTERLY, Lapel, Ind., writes April 1, 1908: "I have used No. 72 Cultivator five seasons now, and I consider it superior to any two-row cultivator made."

E. C. HARGADINE, Glasgow, Mont., writes June 28, 1911: "The No. 72 Two-Row Cultivator will do all and more than you claim for it. They would be cheap labor savers at \$100.00 each."

C. A. MOW, Hubbard, Minn., writes August 14, 1911: "In looking for a desirable cultivator I hunt up the Planet Jr. line, having used a No. 72 Two-Row for four years. Find them without comparison."



TWO HORSE CULTIVATORS



No. 75 Planet Jr.
**Pivot Wheel Cultivator,
Plow, Furrower and
Ridger**

Price, \$42.50.

Weight, 512 lbs.

**Roller bearings,
\$5.00 extra.**

**With depth regu-
lators to make float-
ing gangs, \$2.00
extra.**

Equipment:
Nine cult. teeth.
Two 6-in. plows.
Two 7-in. plows.
Two 8-in. shovels.
Two plant shields.

THIS POPULAR CULTIVATOR does about the same class of work as No. 76. **THE WHEELS** adjust for all rows from 28 to 44 inches apart. The gangs adjust sidewise.

THE STANDARDS are malleable and steel; adjustable for depth, distance apart and sidewise, and throw either to or from the row. The height of the arch is 33 inches, and the tool will cultivate corn five feet high.

SPRING TRIP STANDARDS in place of regular, \$5.00 extra per set of eight, when ordered with machine.

THE 1912 FOURTEEN-SPOKE PIVOT WHEELS make steering and crooked-row work easy.

THE TONGUE is hinged so that a lever regulates the depth in front, while two other levers govern the depth in the rear to a nicety.

THE SEAT is adjustable back and forth, and also in height.

THE TWO PAIRS OF PLOW STEELS, six and seven inches wide, are used to plow to or from, to hill and cover, etc. The two shovels are also used for hilling and for marking two rows at a time, from 28 to 44 inches apart.

Stops on ratchets make the use of floating gangs easy.

BESSIE RYALL, R. F. D. No. 1, Memphis, Mich., writes July 11, 1909: "Some time ago I purchased one of your Planet Jr. Cultivators No. 75. It does more thorough work and does it more rapidly than any tool of its kind I have ever used. I am more than pleased with it and will always recommend its use."

T. M. MANLEY, Griffin, Ga., writes March 25, 1908: "I have been using your Planet Jr. for twenty years in cultivating cotton, corn and vegetables."



No. 42 Planet Jr. Orchard Cultivator in California

ORCHARD AND FALLOW LAND CULTIVATORS

These have become extremely popular where known; and for varied uses. The California orchards of citrus fruits, of olives and walnuts are largely cultivated with them. Vineyards, also, and hopyards are worked with them. All over the United States orchardists are finding out their value and adopting them. They are being used also for preparing ground instead of plowing, as they work deep and leave the ground level. Most of our special teeth fit them. Sweeps of all widths are used on them for level cultivation, or a combination of cultivator teeth and sweeps which leave the ground quite level.

They are used with furrowing teeth for marking out rows and for hilling, and with two or three pairs of plows for covering two or three rows at once.

These tools are used also for cultivation of crops in rows from two to three feet apart, until they are two feet high.

They do superior work, too, to the disc harrow, in many places often doing twice as much at one passage with the same draft. And we supply discs for them to make a combined cultivator and disc harrow, if desired, so the term, Universal Cultivator, seems thoroughly applicable to them.

We recommend them highly and believe they will be money-savers to many.

FRED H. BRYAN, Sunnyside Fruit Ranch, Paonia, Col., writes: "We got one of your No. 41 machines through your agents at Delta, and it is satisfactory in every way and consider it the best tool of its class in the market, and parties that have seen it in operation consider it the best and most perfect cultivator they ever saw."

F. W. MAGAN, Lyle, Wash., writes: "I have your Cultivators, No. 42 and No. 1, also your hand hoes and a drill. They give every satisfaction, and are of excellent material and workmanship."

VACCARO BROTHERS & Co., La Ceiba, Honduras, write August 17, 1910: "In reference to No. 1 Orchard and Universal Cultivators we have been using for the last few years, glad to say that they have given us very satisfactory results in our orange orchard."

THE WHITTIER IMPLEMENT COMPANY, Whittier, Cal., write January 28, 1911: "We have your favor inclosing card of inquiry for catalogue from George E. Osmun. We have mailed Mr. Osmun a catalogue and will follow up the inquiry with personal visit. Mr. Osmun's father is one of our best customers, and not long ago we sold him three No. 41 Orchard Cultivators, which he pronounces 'the best ever.'"



ORCHARD CULTIVATORS

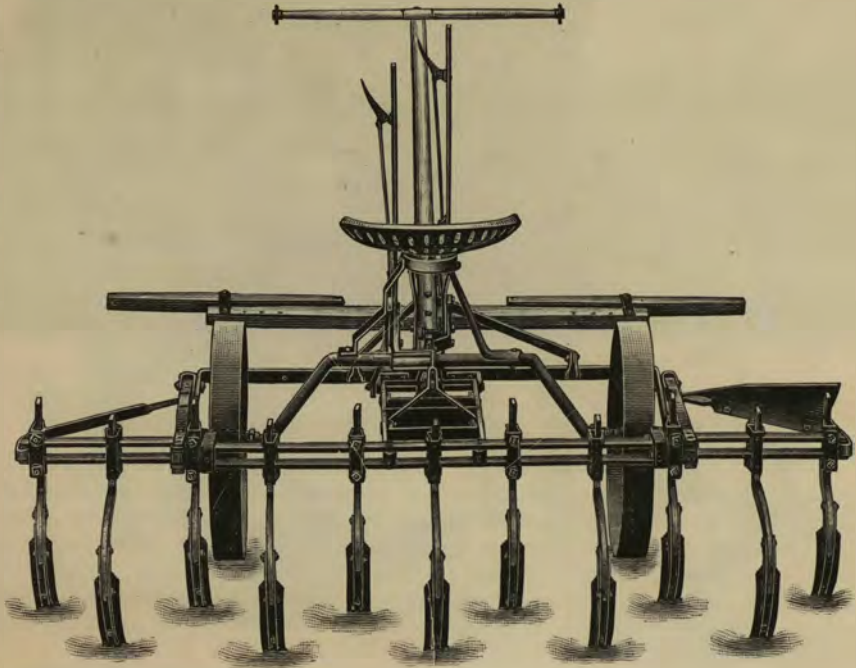
No. 41

**Planet Jr. Orchard and Universal
Cultivator**

**Price, with two-tooth extensions, \$48.00. With one-tooth extensions, \$43.00.
Without extensions, \$38.00.**

Packed weight, 488 lbs.

Packed weight, 383 lbs.



THIS is a modern orchard and universal cultivator, built to combine strength, lightness, adjustability and efficiency to the fullest extent in one tool, representing in itself the advantages of our earlier patterns, combined with important improvements.

THE STEEL WHEELS are low and entirely enclosed by the frame.

THE TONGUE IS STEEL, hollow and of rectangular section.

THE FRAME is high carbon steel, compact in form, well braced, heavy and strong.

WITHOUT THE EXTENSIONS, it cuts 4 feet in width, having seven stiff steel standards, carrying $2\frac{1}{4}$ x 10-inch teeth.

WITH THE EXTENSIONS, it cuts 6 feet 6 inches, carrying eleven teeth, and the frame can be changed to cut any width from $6\frac{1}{2}$ down to 4 feet.

ALBERT EASTOE, Launceston, Tasmania, writes March 11, 1909: "At a trial on my ranch near Launceston, Tasmania, of the Planet Jr. No. 41 Universal and Orchard Cultivator, I am pleased to say that it did excellent work and was so easily operated and adjusted for width of rows and the lightness of draft when either rigged up for three or four rows. It cannot be excelled, and I heartily recommend it to all fruit growers."

A. DAVYS, Woodrow Farm, Crabb's Cross, Redditch, writes: "The 'Universal Cultivator' I bought from you gives every satisfaction. My men thought it would not be strong enough for the stiff land, but my wagoner, the first day of trying it, *scuffed seven acres straight out of the furrow with one pair of horses*, and made capital work of it. It has evidently come to stay."

ORCHARD CULTIVATORS



THE TEETH. $1\frac{1}{4}$ inch, $1\frac{3}{4}$ or $2\frac{1}{4}$ teeth can be used, or sweeps, either 3, 5, 8 or 10-inch cut, the latter for Canada thistles, or with $2\frac{1}{4}$ -inch cultivator teeth in front and 10 or 12-inch sweeps in the rear, make beautiful level work. Furrowers (page 62), plows, irrigation teeth (page 62), etc., also fit and work perfectly.

THE TREE AND FRUIT SHIELD is placed on the right to be used next the tree row and prevents injury to fruit and limbs.

THE STANDARDS are adjustable up, down and sidewise. Are heavy, high carbon steel.

SIDE HITCH FOR TWO HORSES.

—With the tongue set fifteen inches to

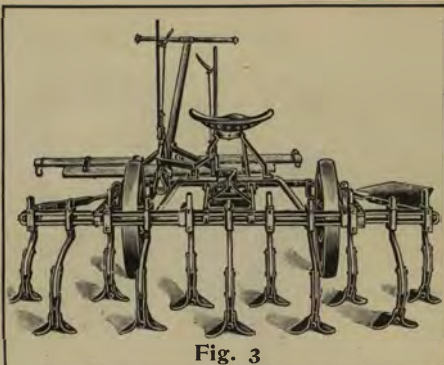


Fig. 3

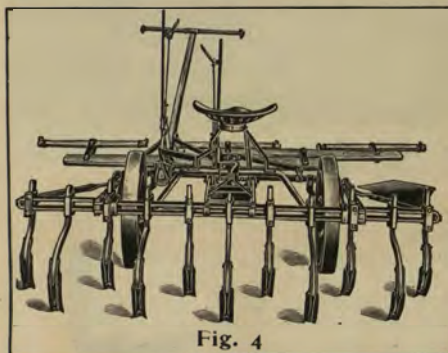


Fig. 4

the left (Fig. 3), the tool is arranged for working under low-branching trees for orange and orchard cultivation. It can also be set for any height neck yoke or team; this creates some side draft, but it can be largely overcome by setting the teeth shallow next to the trees.

THE TONGUE is steel and is hinged to assist in adjusting for depth and for large and small teams.

FOR THREE HORSES.—Add to the above tongue arrangement a triple-tree and single-tree (Fig. 4). The tool then works admirably with no side draft. Price of the three-horse hitch, \$3.50.

FOUR BOLTS only need be moved to change tongue and seat to one side.



Planet Jr. No. 41 Cultivators ready for delivery to California fruit growers.

T. M. MANLEY, Griffin, Ga., writes March 25, 1908: "I have been using your Planet Jr. for twenty years in cultivating cotton, corn and vegetables."



ORCHARD CULTIVATORS



Breaking up the Stubble Field with Planet Jr. No. 41 Universal Cultivator
Eastoe Ranch, Launceston, Tasmania



Rear Spring Trip Tooth,
for Nos. 1, 41 and 42

SWEEPS, 5-inch, are shown in Fig. 3; excellent for level work and for dry countries. This tool is adapted to a great variety of work, carrying almost any of our teeth, including furrowers, plows, hoes, etc., and the great feature of adjustment for width adapts it perfectly to all vineyards and hopyards, with rows planted from 5 to 10 feet apart. Admirable for orange culture and in cultivating two or three rows at once of potatoes or corn until plants are 2 feet high. Five-inch sweeps, each, 28c.

SPRING TRIP STANDARDS.—

For 1912 we can supply these for all our Orchard Cultivators. Price as follows:

\$5.00 Extra per set of 7
6.25 Extra per set of 9



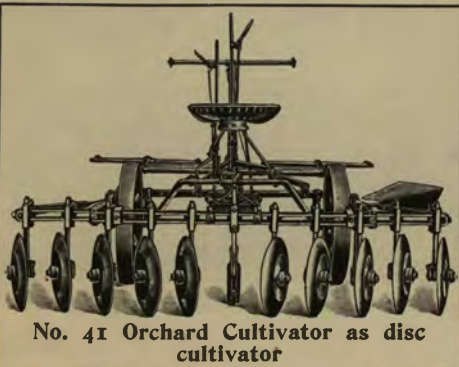
Front Spring Trip Tooth,
for Nos. 1, 41 and 42

\$7.75 Extra per set of 11
9.00 Extra per set of 13

The above prices are for machines ordered with spring trips in place of regular teeth.

IRRIGATION STEELS, only, per set of three, \$2.50.

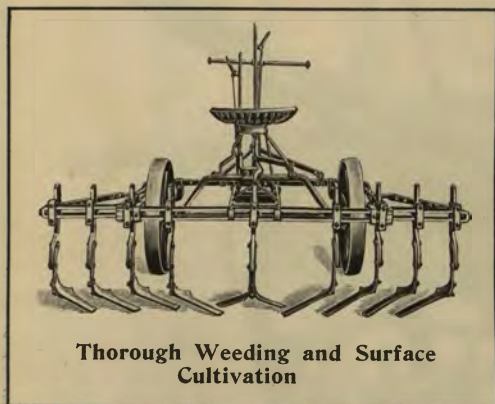
We supply a set of ten discs and special standards as an extra, used as shown. Price, 16-inch, \$4.50 per pair, or \$20.00 per set. This makes a capital **disc harrow**, light in draft and under perfect control from a comfortable seat. The carrying wheels reduce the draft and regulate the work. The attachment is admirable for orchard and vineyard work and for preparing ground for seeding and other surface cultivation. They fit Nos. 41, 42 and 1.



No. 41 Orchard Cultivator as disc
cultivator



A combination of two Planet Jr. Orchard Cultivators and one Smoothing Harrow drawn by a 40 horse power traction motor, cultivating a large New York apple orchard



Thorough Weeding and Surface Cultivation

The Planet Jr. Orchard Cultivator does rapid and thorough work and is strong and well designed for either deep or wide cultivation. With four horses and narrow teeth, deep tillage is done well and rapidly, while with wide cutting steels, shallow work and weeding are most successfully done. The standards take almost all of the steels shown on a later page, and the tool works well under many varying conditions. Being adjustable for width from a cut of four feet to six feet six inches, it is admirable in large orchards, vineyards, hopyards and all broad cultivation.

PLANET JR. SPECIAL WEEDER ATTACHMENT FOR ORCHARD CULTIVATORS

The cut shows an adaptation of No. 41 with extensions which will be welcomed by almost every owner of this tool.

By substituting four pairs of hoe steels and standards, and a 12-inch improved sweep, with three extra standard extensions for the regular equipment, the most perfect weeder that ever has been seen, is produced at a very small additional cost. Price for set, \$8.50.

ALL OWNERS of No. 41 should avail themselves of these parts to add to the value of their cultivator as they will find it most useful in almost every kind of surface cultivation, and especially in vineyards, hopyards and orchards.



ORCHARD CULTIVATORS

No. 42

Improved Planet Jr. Orchard and Universal Cultivator

Price, with extensions and 2-horse hitch, \$52.00.

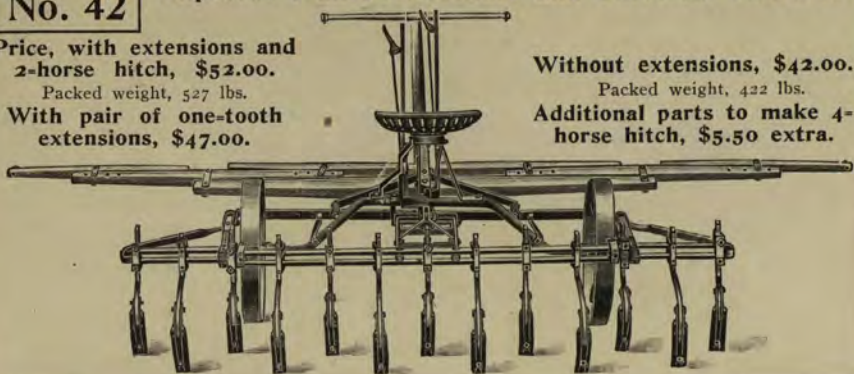
Packed weight, 527 lbs.

With pair of one-tooth extensions, \$47.00.

Without extensions, \$42.00.

Packed weight, 422 lbs.

Additional parts to make 4-horse hitch, \$5.50 extra.



This is a heavy, strong tool; it cuts 7 feet 9 inches; the standards are high carbon steel, $1\frac{1}{2}$ inches by $\frac{5}{8}$ inch thick. It is a larger pattern of No. 41. In heavy ground it requires four to six horses. Has **steel tongue**.

WITHOUT EXTENSIONS, cuts five feet three; for two or three horses.

IRRIGATING STEELS only, per set of four, \$3.35. The wheels change in width. No. 42 can also be provided with wider teeth at moderate cost.

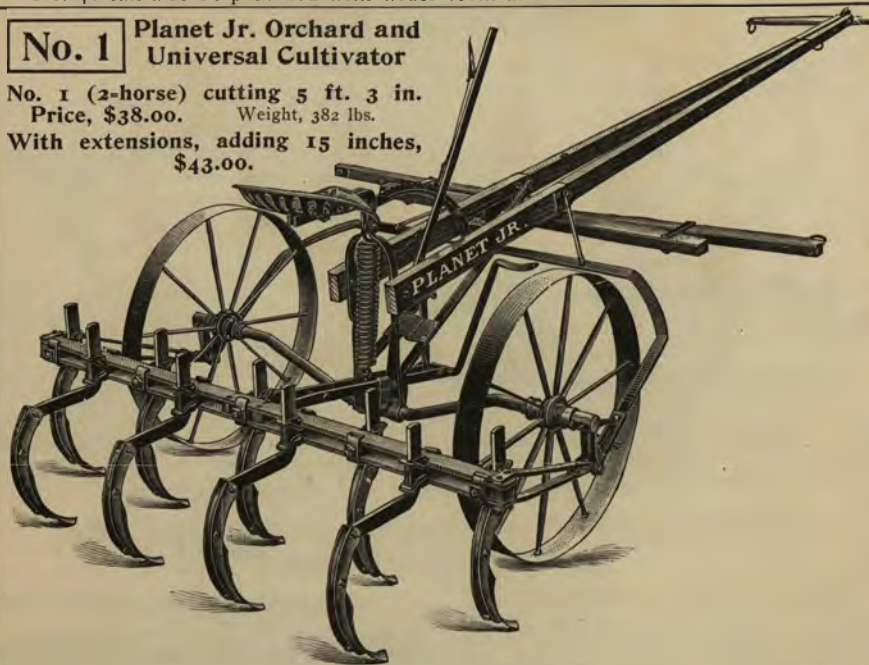
No. 1

Planet Jr. Orchard and Universal Cultivator

No. 1 (2-horse) cutting 5 ft. 3 in.

Price, \$38.00. Weight, 382 lbs.

With extensions, adding 15 inches, \$43.00.



THIS TOOL is a great favorite and merits well the title of **UNIVERSAL**. Almost every tooth we make fits it. Different widths singletrees supplied.

30-INCH WHEELS set within the frame. Change from 48 to 42 inches.

THE STANDARDS are adjustable up, down, sidewise and for pitch.

THE SINGLE LEVER spring and roller, make the lift and depth regulation easy.

WE FURNISH SWEEPS, 8 to 18-inch cut. (See page 62.)

TWO HORSE CULTIVATORS

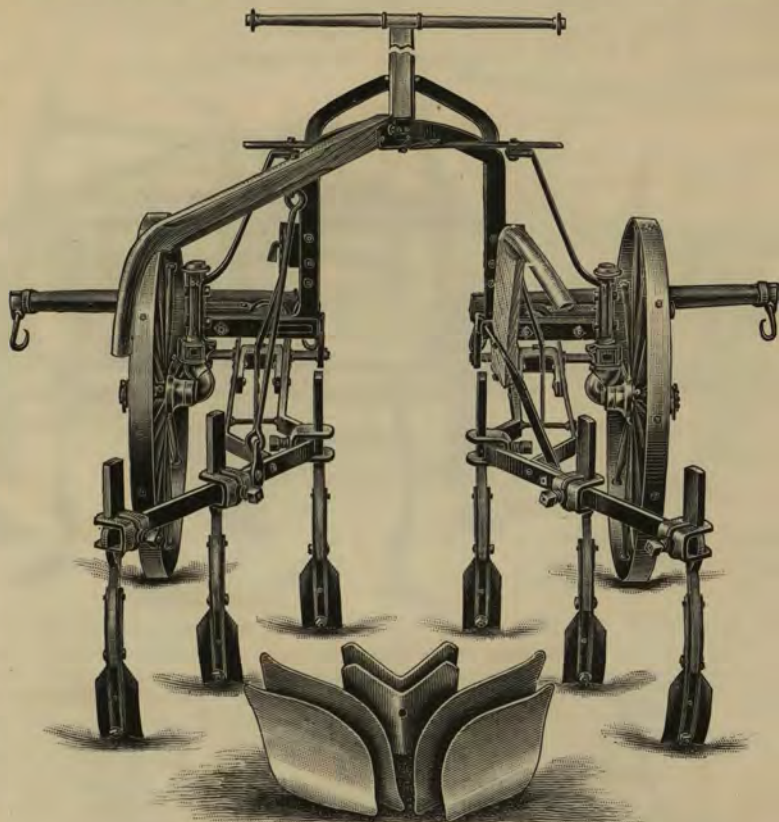


No. 85

Planet Jr. Walking Cultivator

Price, complete, \$28.00; less furrowing and hilling shovels, \$25.50.

Packed weight, 343 lbs.



This is the latest and most up-to-date two-horse walking cultivator. The wheels can be set either 36 or 42 inches apart, and it works all crops from 28 to 42 inches, **finishing a row at each passage.**

THE ARCH is 13 inches wide and 34 inches high, and the tool works corn five feet high.

WHEELS 28 inches with 2-inch face. The two rear teeth on each side, though adjustable for depth, are held exactly parallel to the row. (See cut.) The front pair, when in their middle position, are also held exactly parallel, but may be turned **to throw to or from the row as desired.**

THERE ARE NO LEVERS OR RATCHETS, their use being made unnecessary by a patent pawl for each gang. The pawls have two notches and the gang frames can be held up when the tool is being turned at headlands and dropped instantly into working position.

THE DEPTH can be regulated exactly and the gangs set there, or used floating, as desired. Where horses are of unequal strength, they can be evened up and the depth can be regulated by changing the draft irons, no eveners required.

THE WHOLE CONSTRUCTION is carefully arranged to produce the best work in the simplest manner, and takes the least possible out of team and driver.

SOFT CENTRE STEELS, supplied at an extra cost of \$2.75. See special circular.



SUGAR BEET TOOLS

This new two-row cultivator is well built, strong and easily adjusted.

IT WORKS TWO ROWS, 16, 18, or 20 inches apart.

IT IS STEEL THROUGHOUT except the handles, as steel shafts take the place of the old wooden ones.

THEY HAVE A TOGGLE JOINT attachment, which makes steering simple, quick and very easy.

THE HOES do admirable, close work and leave the ground level.

THE STEERING is done to perfection by the pivot wheel and hand lever.

THE WHEELS adjust in width.

Price, complete, with hoes, sweeps, etc., a set of seven 1¼-inch by 8-inch cultivator teeth and standards, \$25.00.

BEAN CULTIVATION requires close, thorough work, and this tool **steers** so perfectly that the closest possible cultivation can be done with it.

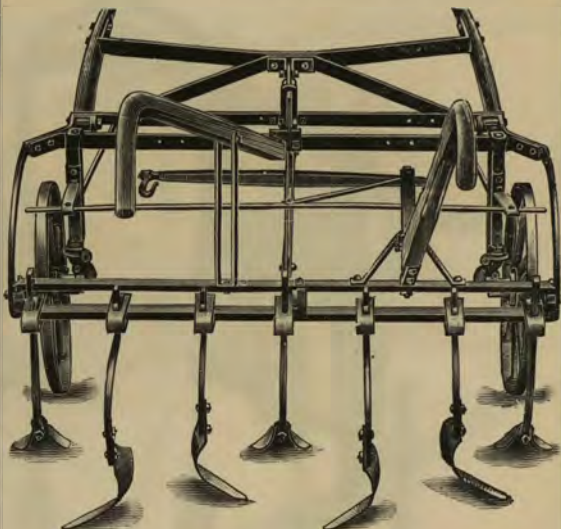
No. 53

Planet Jr. Two-Row Beet and Bean Cultivator

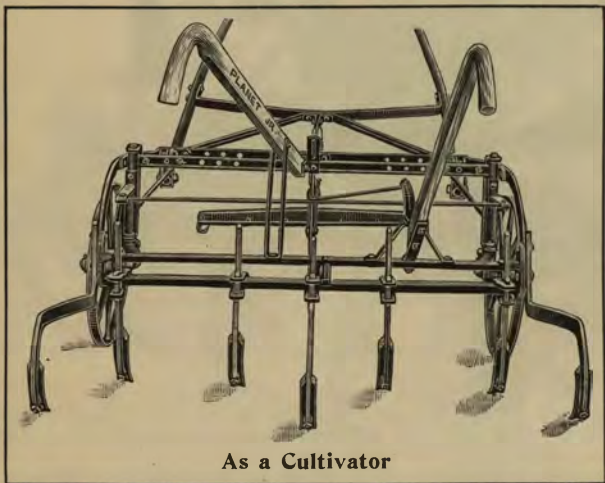
Price, plain, as in cut, \$22.50.

Packed weight, 240 lbs.

Complete, with cultivator teeth, \$25.00.



As a Weeder



As a Cultivator

It is intended to work two rows of beans at one passage within two inches of the crop on each side, requiring two additional pairs of wider hoes for this purpose. Price, \$1.10 per pair.

Extensions for cultivating beans to work 22 inches, 24 inches and 26 inches apart, \$2.00.

Irrigation steels with special standards, set of three, \$5.00 extra.

We also supply 12-inch discs to be used in place of hoes. Complete, per pair, \$3.25.

A set of weeding teeth can be added to this tool, cutting beautifully a width of about 3 feet.

JOHN DAWSON, Marlette, Mich., writes regarding No. 53: "Your No. 53 Cultivator is all any one could wish for. It beats all I have tried or seen tried. I am interested in 120 acres of beets, and it does the work first-class in every respect."

SPENCER & RILEY, Menominee, Mich., write: "Referring to No. 53 Cultivator, it gives perfect satisfaction."



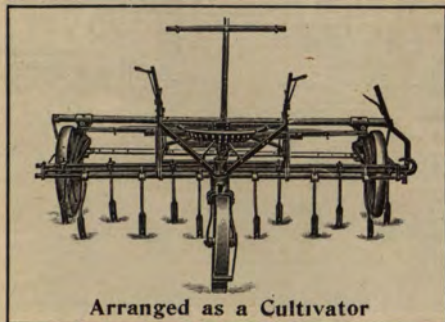
No. 3

Planet Jr. Four-Row Sugar Beet and Bean Horse Hoe and Cultivator

Price, including thirteen $1\frac{1}{4}$ x 8-inch cultivator teeth and five irrigation shovels and standards, \$90.00. Packed weight, 687 lbs. Less cultivator teeth, \$83.00. Less cultivator teeth and irrigation shovels (as in cut), \$80.00. Packed weight, 600 lbs.



THIS MAGNIFICENT TOOL hoes four rows at once, 18, 20 or 22 inches apart, or three rows 24, 26, 28, or 30 inches apart, or two rows 36 inches to 42 inches. **Two levers**, assisted by a powerful spring, control the depth to a nicety or easily lift the tool bars clear. For 1912 we supply a two-wheel seat rig in place of one wheel, for **three-row** cultivation. Additional price, \$12.50. The patent hoes have a down cut next the row and a plant shield; the curved shape allows the closest hoeing at the surface, while rounding away from the roots. The standard is set over away from the beet tops and the front of the hoe is a leaf guard. **Recent** visits among the large beet growers of Colorado have resulted in many important improvements



Arranged as a Cultivator

in this tool, as enumerated below. **The steering bar** and attachments for the pivot wheels now work at a better angle and keep the tool under better control. **The tongue is balanced** by a heavy spring which removes weight from horses' necks. **Easy lift gang**, a grand improvement. **Increased penetration** secured, with better control of depth in hard ground. **New style clamps**, firm and accurate. **Countersinks**, to mark position of standards and set screws. **Umbrella socket**. **Improved wheel scrapers**. **Standards**, marked for depth. **The wheels** are changeable in width for all rows from 18 inches up.

JAMES D. MITCHELL, Los Animas, Col., writes January 5, 1907: "After seeing nearly all the different cultivators work, can safely say that your Planet Jr. No. 3 Beet Cultivator is so far ahead of all the others that there is actually no comparison."

L. MYERS, Manager The Southwestern Sugar and Land Company, Glendale, Ariz., writes March 12, 1910: "We are much pleased with the Planet Jr. No. 3 Beet Cultivators; they are giving us excellent satisfaction."



SUGAR BEET TOOLS

THE WHEELS are pivoted and act instantaneously, steering the tool with ease.

THE TOOL BAR consists of three stiff steel bars, the middle one, to which the sweeps are attached, is stationary. The right-hand hoes are attached to the top, and the left hoes to the bottom bar. These bars are moved simultaneously in opposite directions by a convenient lever, instantly changing the distance between each pair of hoes as needed. The hoes and sweep are set for different width rows by figures on the frame.

DISCS to use in place of hoes; price, \$3.25 per pair. Very much liked for early work. Can be used also to prepare ground for seeding, four or five on each side of centre. (See cut.)

CRUST BREAKERS (see cut) for use just as the seed is coming

through. A pair straddles each row, and the outer edges bearing down the crust, cause it to crack upwards directly over the line of growing seed, letting them come through, without injury to a single plant. Price, per set of four pairs, \$4.00.

Also a set of five **special irrigation teeth**, with special standards (see cut), which work **behind** the hoes, hoeing and ditching thus being done at one passage. Per set, \$8.25.

The set of thirteen $1\frac{1}{4} \times 8$ -inch teeth with standards are valuable for late cultivation of beets or similar crops. Price, extra, \$8.50.



Disc Cultivation with No. 3 Beet Cultivator



Irrigation Tooth and Standard



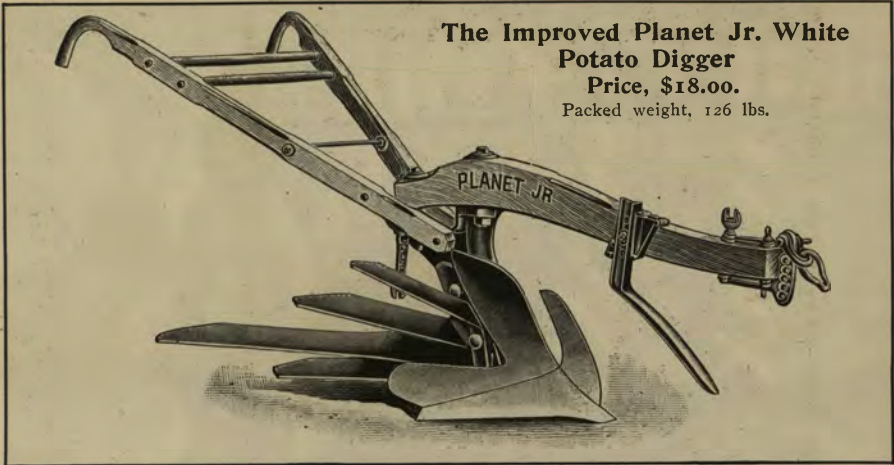
Crust Breakers



Four Planet Jr. No. 3 Four-Row Sugar-Beet and Bean Cultivators, working sixteen rows of beets at one passage. California

H. H. Castwood, Oxnard, Cal., writes: "I consider your No. 3 Beet Cultivator by far the best that I have ever seen or used. Have used nearly all kinds on market to-day. We use them for cultivating beets, beans and peanuts. I consider the knives and sweeps as near to perfection as they could be made. Cannot recommend Planet Jr. beet cultivator too highly to any one wanting a good, well-made, high-class beet cultivator."

WHITE AND SWEET POTATO DIGGERS



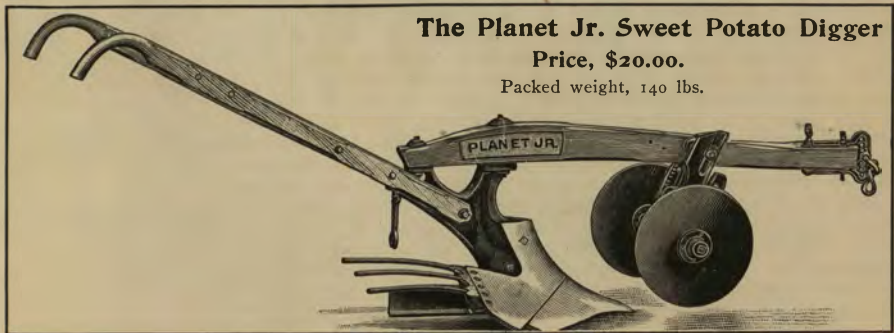
**The Improved Planet Jr. White
Potato Digger**
Price, \$18.00.

Packed weight, 126 lbs.

The Planet Jr. White Potato Digger has been greatly improved recently. Instead of a digging head of tines, it now consists of successive shares which cut the furrow, turned on edge by the front share and moldboard, into horizontal slices, throwing the vines and weeds to one side and pushing the potatoes to the surface.

Doubtless you would like us to say how they compare with the various four-horse diggers on the market. To answer this, the Planet Jr. White Potato Digger is equal to any for digging early, when the vines are green, the potatoes fast to them and the ground clean. A little later on when the vines are dead and the ground fairly free from weeds, the four-horse diggers do better work in some cases, the crop being picked up more easily after them. At a later stage when the fields grow very grassy and weedy, the four-horse tools are almost useless, while the Planet Jr. even then does its work fairly well. If compelled to use but one digger the season through, the Planet Jr. is the best.

It costs but one-fourth or fifth as much, takes less than half the power to draw it, **does not skin the potatoes**, digs faster and costs about one-twentieth as much for repairs and it will last almost a lifetime, with a few new shares and landsides.



The Planet Jr. Sweet Potato Digger
Price, \$20.00.

Packed weight, 140 lbs.

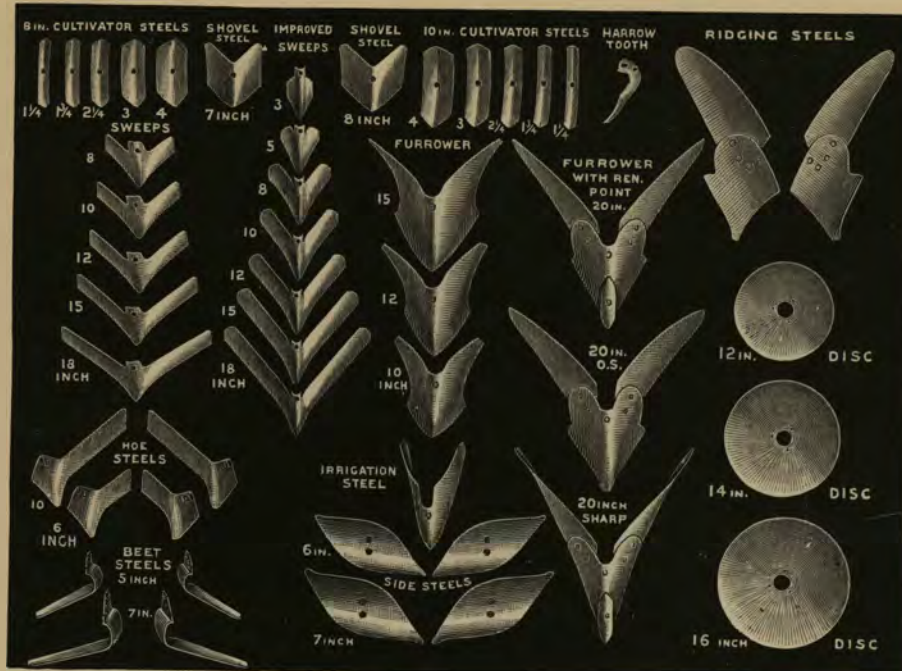
This tool has been the standard in sweet potato districts for many years. It has been improved recently and we know of no digger that will give equal satisfaction.

For small farms where both white and sweet potatoes are grown; some farmers use it for white potatoes also by removing the wheels and setting the moldboard to the proper pitch. While not at all equal to our regular White Potato Digger for this purpose, it is of advantage in getting out a crop.

CASSARD BROTHERS, Muirkirk, Md., write October 31, 1907: "We have given the potato plow which you sent us a thorough trial and find it the best digger we have ever used. We heartily recommend it as the most satisfactory tool for potato digging on the market."



REPAIRS AND EXTRAS



CULTIVATOR PLATES. We make a large variety of steel shapes of high carbon steel and our own special design. For 1912 we can supply also some sizes made from special **soft centre steel** for sticky clay or waxy soils, as noted in price list on next page. Most of our steel shapes are covered by patents, and to enable customers to be sure of getting the right thing instead of inferior imitations, we stamp the trade-mark Planet Jr. on the back. See that you get them, for you need the best, and they are the cheapest in the end. As an instance, we make our regular cultivator plates now out of beveled steel, which is twice as thick down the centre where the wear comes, as at the sides, gradually tapering from one to the other. This new shape causes the points to remain strong and they do not wear thin or into a notch at the point and bend as others do, giving much better service. We make the 8-inch length in five widths, and these fit all Planet Jr. Horse Hoes, Plain Cultivators and No. 72 Pivot Wheel Cultivator and Nos. 41 and 42 Orchard Cultivators. The 1 1/4 and 1 3/4 inches are for extra deep work; the 2 1/4 for general work in heavy soils; the 3-inch for light soil. This latter is the size generally used on all one-horse machines, with a 4-inch on the rear standard to fill up against the row and avoid an open furrow there. The 10-inch length is also made in five widths and fits all our two-horse cultivators except No. 72, the narrowest being used for deep work, the 2 1/4-inch for general purposes, and the 3-inch and 4-inch for light lands. All regular Planet Jr. Steels have our patent bolt sleeves to prevent bolts from pulling through.

PATENT SWEEPS we make in two styles, 8, 10, 12, 15 and 18 inches wide. The regular sweep fits all one or two-horse cultivators. These are great favorites in cotton fields and orange groves, and are extremely useful for exterminating quack grass and Canada thistles. Generally used in sets of three (see page 33), or a single sweep may be used on the middle standard.

SPECIAL IMPROVED FLAT SWEEPS we also make, particularly adapted to sugar beet cultivation and for use on our orchard cultivators and for **level cultivation** generally. These will not fit horse hoe side standards but will fit all other standards. The 3-inch are used for deep tillage and the wider sizes for shallow work.

PATENT FLAT HOES. Two sizes, 6-inch and 10-inch cut, are more popular year by year for market garden and flat work generally. They cut clean and are sure death to weeds, and should be largely used on all our horse hoes for flat cultivation; they fit all our one-horse tools, and with a special standard they fit our two-horse tools.

PATENT BEET HOE STEELS. These are admirably designed and do beautiful work. Two sizes: 5 and 7 inches; so shaped as to act perfectly as **leaf guards** and also to work very close to the row at the surface while curving away from the roots underneath. They are eminently satisfactory to critical and practical men. They fit Planet Jr. two and four-row cultivators and, with special standards, fit twelve-tooth harrows and horse hoes.

FURROWERS. We make six styles. The 10, 12 and 15-inch are one piece, designed on fine lines. The 20-inch (three kinds) have adjustable wings, which can be set to make narrow or wide furrows, and do grand work in hilling. The wings can be removed, when the **body** makes a neat double plow for sharp bottomed furrows. The 20-inch, with renewable point, is the favorite, and is sent unless otherwise specified. They fit all Planet Jr. one and two-horse tools, excepting twelve-tooth harrow.

PATENT SIDE STEELS. Six and 7-inch used as **plows** on the horse hoe, and by reversing, for **hoes**. They have our patent plow points; are reversible for wear as well as for the two kinds of work, hilling and hoeing. Used with special clips on the two-horse cultivators, also. The patent points give **increased penetration and wear**. They fit all our one-horse tools, and with special clips they fit our Riding and Universal Cultivators.

PATENT SHOVEL STEELS. These are exactly the right shape to use on the rear standards to fill up behind the side plows; 7-inch for the horse hoe, 8-inch for the two-horse cultivators. Used also on the latter for **marking and furrowing.** They fit all our one and two-horse tools.

PRICES OF REPAIRS AND EXTRAS

	Price	Postage		Price	Postage
1½ x 8-inch Steels	\$0 09	11	8-inch Shovel Steel, soft centre.	\$0 65	37
1¾ x 8 " " " " " " " "	" 10	11	Furrower " " " " " " " "	89	
2¼ x 8 " " " " " " " "	" 11	12	12 " " " " " " " " " " " "	1 00	
3 x 8 " " " " " " " "	" 12	14	15 " " " " " " " " " " " "	1 20	
3 x 8 " " " " soft centre.	" 20	18	20 " " " " O. S. " " " " " "	1 90	
4 x 8 " " " " " " " "	" 13	17	20 " " " " New Style.	2 25	
1½ x 10 " " " " " " " "	" 13	16	20 " " " " Sharp " " " " " "	2 25	
1¾ x 10 " " " " " " " "	" 14	16	Wings for 20-inch Furrows, each.	70	
2¼ x 10 " " " " " " " "	" 17	17	Point " " " " " " " " " " " "	20	11
2½ x 10 " " " " " " " "	" 30	17	Ridging Steels, per pair.	2 40	
3 x 10 " " " " " " " "	" 19	19	Irrigation Steels.	85	
4 x 10 " " " " " " " "	" 22	20	Teeth for 12-Tooth Harrow.	20	14
8-inch Sweep Regular.	" 35	18	Vine Turner for No. 10 Horse Hoe.	2 25	
10 " " " " " " " " " " " "	" 40	26	Nos. 7, 8 and 9 Horse Hoes 2 25		
12 " " " " " " " " " " " "	" 45	30	Nine-Tooth Attachment.	7 25	
18 " " " " " " " " " " " "	" 55	35	Seven-Tooth " " " " " " " " " "	1 65	
3-inch Imp. Sweep and Bolt, No. 1493	23	12	Hilling Attachment " " " " " " " "	3 85	
5 " " " " " " " " " " " "	" 1494	28	Runner Cutter Attachment.	1 85	
8 " " " " " " " " " " " "	" 1495	33	Sweep Attachment (Harrow) " " " " " "	1 35	
10 " " " " " " " " " " " "	" 1496	38	Beet Hoe " " " " " " " " " " " "	40	
12 " " " " " " " " " " " "	" 1497	44	Discs, 12-in., for Nos. 70, 72, 75 or 76.	4 25	per pair
15 " " " " " " " " " " " "	" 1498	50	" 12 " " " 3 or 53 Special.	3 25	"
18 " " " " " " " " " " " "	" 1499	60	" 14 " " " 70, 72, 75 or 76.	4 75	"
Improved sweeps do not fit Horse Hoe Side Standards		43	" 16 " " " 1, 41 or 42.	4 50	"
Fingered Sweep and Bolt.	1 00	53	Spring Trip Teeth, see page 44.		
6-inch Side Steels, each.	50	38	Planet Jr. Special Weeder Attachment for Orchard Cultivators Nos. 41 and 46 (cutting 4 ft.)	4 50	
6 " " " " soft centre, each.	80	48	Planet Jr. Special Weeder Attachment for Orchard Cultivators Nos. 41 and 46 (cutting 6 ft. 6 in.)	8 50	
7 " " " " each.	60	43	Planet Jr. Special Weeder Attachment for Orchard Cultivator No. 42 (cutting 5 ft. 3 in.)	6 50	
6-inch Hoe Steel and Bolt.	45	23	Planet Jr. Special Weeder Attachment for Orchard Cultivator No. 42 (cutting 7 ft. 9 in.)	10 50	
10 " " " " " " " " " " " "	55	29			
5 " Beet Hoe Steels.	45	22			
7 " " " " " " " " " " " "	55	27			
7 " Shovel Steel.	25	22			
7 " " " " soft centre.	50	32			
8 " " " " " " " " " " " "	30	28			



INDEX AND PRICE LIST

INDEX AND PRICE LIST

			Page	Packed Weight	Price
" Planet Jr. "	No. 4	Hill and Drill Seeder and Single Wheel Hoe.....	4	53 lbs.	\$11.00
"	No. 4	" " " " plain (as a seeder only).....	4	44 "	9.00
"	No. 25	" " " " and Double Wheel Hoe.....	8	64 "	13.50
"	No. 6	" " " " and Single Wheel Hoe.....	11	64 "	13.50
"	No. 6	" " " " plain (as a seeder only).....	11	55 "	11.00
"	No. 36	Single Wheel Hoe.....	12	34 "	6.25
"	No. 3	Hill and Drill Seeder.....	13	43 "	10.50
"	No. 5	" " " " ".....	14	52 "	13.00
"	No. 1	Combined Drill Seeder and Wheel Hoe.....	15	42 "	9.50
"	No. 2	Drill Seeder.....	16	36 "	7.50
"	No. 20	Fertilizer Pea and Bean Seeder, complete.....	17	76 "	17.00
"	No. 21	Combined Seed and Fertilizer Drill.....	17	94 "	19.00
"	No. 11	Double Wheel Hoe.....	19	37 "	9.00
"	No. 12	" " " " ".....	20	31 "	7.00
"	No. 13	" " " " ".....	21	26 "	4.75
"	No. 14	Double Wheel Disc Hoe, complete.....	22	38 "	8.00
"	No. 13½	" " " " plain.....	23	32 "	6.00
"	Bunker, Trap Weeder and Leveler.....		23	32 "	8.00
"	No. 16	Single Wheel Hoe.....	24	27 "	5.85
"	No. 17	" " " " ".....	26	22 "	5.00
"	No. 17½	" " " " ".....	27	21 "	4.50
"	No. 18	" " " " ".....	27	19 "	3.50
"	No. 38	Single Wheel Disc Hoe, complete.....	28	29 "	7.00
"	No. 18½	" " " " plain.....	28	24 "	4.75
" Farmers' "	No. 19	" " " " Hoe.....	29	20 "	3.75
" Fire-Fly "	Plow.....		29	14 "	2.35
" Planet Jr. "	Grass Edger.....		29	25 "	6.25
"	Hand Tool Extras and Attachments.....		30		
"	No. 8	Horse Hoe and Cultivator, complete.....	31	82 "	9.00
"	No. 7	" " " " complete.....	34	77 "	8.50
"	Nine-Tooth Horse Hoe, complete.....		34	127 "	15.25
"	No. 9	Horse Hoe and Cultivator (with wheel).....	35	71 "	7.75
"	No. 9	" " " " (without wheel).....	35	64 "	7.00
"	No. 81	Horse Hoe Cultivator and Hiller, complete.....	36	91 "	10.00
"	No. 4	" " " " (with wheel).....	37	63 "	6.75
"	No. 4	" " " " (without wheel).....	37	56 "	6.00
"	No. 10	Horse Hoe and Cultivator, complete.....	38	74 "	8.00
"	No. 10	" " " " with cultivator teeth, sweep, and wheel only.....	38	66 "	6.75
"	No. 80	" " " " (with wheel).....	39	77 "	9.00
"	Seven-Tooth Plain Cultivator (with wheel).....		40	78 "	8.00
"	No. 9	Plain Cultivator (with wheel).....	40	63 "	6.50
"	No. 9	" " " " (without wheel).....	40	56 "	5.75
"	No. 4	" " " " (with wheel).....	40	56 "	5.25
"	No. 4	" " " " (without wheel).....	40	49 "	4.50
"	Twelve-Tooth Harrow (complete).....		41	73 "	9.00
"	" " " " (without pulverizer).....		41	65 "	7.40
"	" " " " (without pulverizer or wheel).....		41	52 "	6.20
"	" " " " (with No. 9 wheel).....		42	59 "	6.90
"	" " " " (without lever expander with wheel).....		42	52 "	5.75
"	Double Celery Hiller.....		43	87 "	16.00
"	Single Celery Hiller.....		43	67 "	13.00
"	No. 72	Two-Row Pivot-Wheel Cultivator, complete with regular bearings.....	45	577 "	52.50
"	No. 72	" " " " plain with regular bearings.....	45	556 "	50.00
"	No. 72	" " " " complete with Spring Trip Standards (14) and regular bearings.....	45	647 "	61.25
"	No. 76	" " " " plain (8 cultivator teeth only) with reg. bearings.....	48	521 "	46.00
"	No. 76	" " " " complete with Spring Trip Standards (8) and regular bearings.....	48	491 "	43.25
"	No. 75	" " " " complete with regular bearings.....	48	551 "	51.00
"	No. 75	" " " " plain (8 cultivator teeth only) with reg. bearings.....	50	412 "	42.50
"	No. 75	" " " " complete with Spring Trip Standards (8) and regular bearings.....	50	582 "	39.75
"	No. 72, 75 or 76	Cultivators, fitted with roller bearings.....	Extra		5.00
"	No. 41	Orchard and Universal Cultivator (cuts 4 ft.).....	52	383 "	38.00
"	No. 41	" " " " with Spring Trip Standards.....	52	410 "	43.00
"	No. 41	" " " " with extensions (cuts 6 ft. 6 in.).....	52	488 "	48.00
"	No. 41	" " " " with extensions (cuts 6 ft. 6 in.).....			
"	No. 42	" " " " Spring Trip Standards.....	52	530 "	55.75
"	No. 42	" " " " (cuts 5 ft. 3 in.).....	56	422 "	42.00
"	No. 42	" " " " (cuts 5 ft. 3 in.) with Spring Trip Standards in place of regular.....	56	456 "	48.25
"	No. 42	" " " " (with extensions, cuts 7 ft. 9 in.).....	56	527 "	52.00
"	No. 42	" " " " (with ext., cuts 7 ft. 9 in.) with Spring Trip Standards in place of reg.....	56	577 "	61.00
"	No. 1	Orchard and Universal Cultivator (cuts 5 ft. 3 in.).....	56	382 "	38.00
"	No. 85	Pivot-Wheel Walking Cultivator, complete.....	57	343 "	28.00
"	No. 53	Two-Row Horse Hoe and Beet Cultivator, complete.....	58	240 "	25.00
"	No. 53	" " " " plain.....	58	219 "	22.50
"	No. 3	Four-Row Sugar Beet Horse Hoe, complete.....	59	687 "	90.00
"	White Potato Digger.....		61	126 "	18.00
"	Sweet.....		61	140 "	20.00
"	Horse Tool Extras and Repair Parts.....		62		

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that
steers"*



*Wins
every
race!*

This is the sled that has revolutionized the entire sled industry, and has given a new zest to coasting. It has removed every element of danger, because with the Flexible Flyer you can steer in any direction **around** every obstacle and **past** all other Coasters.

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Planet Jr.



1912

