

Haworth's



PLANTING
MACHINERY

HAWORTH & SONS,

DECATUR, ILL.

TO PATRONS.

HAWORTH'S Planting Machinery is so much a thing in and of itself, unapproached by competitors, that it might seem but little called for to in this way ask attention to or further emphasize its many points of merit. But owing to the planter being a new and original type of machine, and a departure, we feel therefore more highly gratified with its great success, and under increased obligation for the liberal patronage always given to our goods. The purpose in this circular is to give a good reason for every point of superiority claimed and make it plain, without fulsome and unreasoning assumption.

Our experience in the invention and manufacture of this class of farm machinery commenced in 1853, and it has since then continued to be the special business in which we have been engaged. Hence the many stages in its development are familiar, and such knowledge to one with the practical ability to utilize it is of inestimable advantage, as every intelligent manufacturer can appreciate. In operation in the field there was apparent need for improvement in Corn Planters, especially on our introduction of the Check Rower (having produced the first practical Check Rower as early as 1867), the task being assumed, in consequence of such experience, of making a Corn Planter more perfectly adapted to the Check Rower.

It is not often that a new machine that is intended to be a departure contains the vital elements in its make-up that will enable it to pass through the gauntlet of the experimental and perfecting stages, with the set-backs from mistakes that will occur, and not have lost its distinctive features. But of the Haworth Corn Planter we are proud to say that it contains every feature highly perfected with which it started out, demonstrating all that was claimed for it on the start, and much more. The long time in use of our Check Rowers, over a wide reach of country, has wrought out to perfection the details to a degree that could not be arrived at by any other means. That our Check Rowers are unapproached in their excellence is universally conceded by those using them, and are the only rowers that have the power to work satisfactorily, fertilizer attachment or planters, under any and all conditions.

For producing our goods we claim to have the most complete and perfectly-equipped plant in this line exclusively in the country. We employ in the manufacture labor-saving machines specially designed for each part of the work, of our own invention, and perfected by long continuance in the business, enabling us to make our goods not only in the most economical way, but of the most exact workmanship and perfect finish. Also giving our exclusive attention to this special class, and the magnitude of the business, constitute factors that figure largely in the high quality of the products.

HAWORTH & SONS.

THE CORN CROP

depends most upon the manner of its planting, as a good stand in good season is a guarantee of sure success. The inventor of Haworth's Planting Machinery, from a practical acquaintance obtained on the farm as to the difficulties of putting in the corn crop, owing to the varying condition of season (for instance, the implement which serves well at one time, often will not answer at another), has made it a special study to better adapt machinery to meet the changing requirements. Therefore, when its success elicits the words, "HAWORTH'S DOES THE BEST OF ANY," as in the trying spring of 1892, it is a good sign. The Cross-wire Rower has proved its perfect reliance, as ever, when others fail. Also the planter, especially the front and rear independent covering wheels, meets fully the requirements; for example, if the seed picks up, the wheels are set apart or otherwise conveniently adapted to every varying condition.

So many most valuable points of advantage continue to crop out, as reported to us from different parts of the country by farmers using our planters, as a consequence of the front and rear covering wheel arrangement, that we feel impelled to give a few of them, as follows:

First.—The seed will not wash out upon rolling land.

Second.—Mice or other vermin cannot follow in the furrow to take the seed corn.

Third.—The corn is not picked up by the covering wheels when the ground is mucky.

Fourth.—The front covering wheels work near the heel of the runners and the pulverized soil is fed into the bottom of the furrow, making a perfect seed bed.

Fifth.—It plants the same depth in a depression or in passing a dead furrow. The small wheels are the best of coverers as the displacement of soil by them is greater. With the close uplifting draft to the main axle, the rear wheels pass over obstacles with as much ease as the large ones.

With the soil thrown into the furrow, first from one side and then the other, it fills better one side at a time, because the other side does not interfere with the dirt falling to the bottom or permit it to arch over, and the side opposite the wheels yields to the pressure, giving the soil the right density for the best growth under all conditions.

The drop is the easiest of movement and the least interfered with by rust or otherwise, and not affected by the shifting or variable surface of ground, variety of seed corn, etc. For check row and drill it is most accurate and reliable.



**HAWORTH'S is the Original and Best
Development of the Check Rower.**

**THE STEEL BAR, THE BEST
GENERAL-USE AND ATTACH-
MENT ROWER.**

The Cross-wire Rower, when used with a correct understanding as to the way to run it, is always regarded as incomparably the best. A mistake, however, commonly made, is in supposing that to do good work with it it is required that the check-line shall be kept tight. But, considering that allowance must be made for variations, viz.: crooked driving and changing surface of the land, etc., between one part of the field and another, it will be seen that the proper and always satisfactory way, without exception, is to run a slack check-wire. The force that operates the planter will not cause it to yield when slack, for the slack in the line is always carried in front of the machine and the tension in the rear, the latter part of the check-line always remaining rigid, therefore straight work is insured.

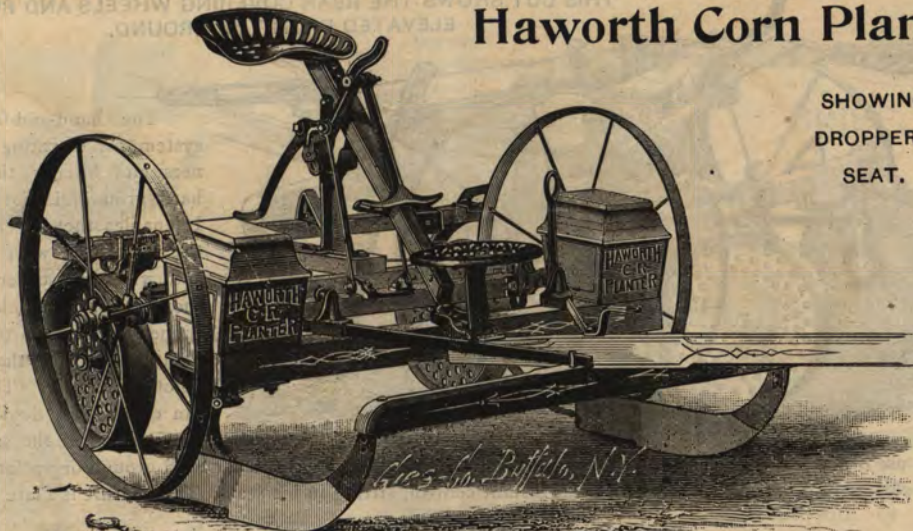
We have the pleasure of offering some very excellent improvements for the coming season in our goods.

First.—We furnish with our planter this year a new style marker, which by means of a lever in easy reach, the driver swings over from side to side of the planter and hitches it without getting off. It makes no side draft on the machine, and is quicker and easier handled, being adapted for the Cross-wire and our other Check Rowers.

Second.—The Side-wire Check Rower which we are furnishing to the trade for the coming season is a development resulting from several seasons practical experience with it in the field, the good qualities of which we challenge comparison with any other and believe that it has some very important advantages.

Haworth Corn Planter,

SHOWING
DROPPER'S
SEAT.

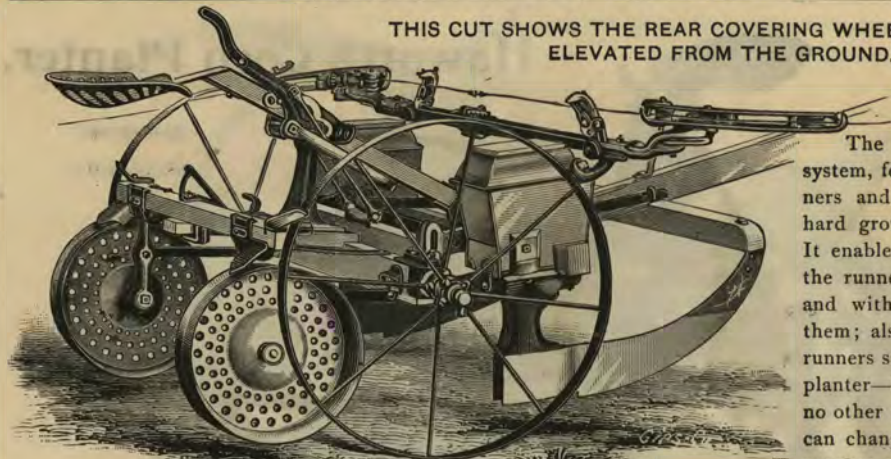


We will say, and with no disposition to boast, that in plan and appointments this implement, mechanically, is without a rival in fitness for service under the most difficult conditions and is everywhere found to be the right thing in the right place.

By arranging the supporting wheels with their ground-bearings close to the runners, the essential parts of the machine are brought so near as to involve the least waste of strength and material in its construction, and proportioned in accordance with the light work of planting corn. Short, compact, light draft and wieldy, is turned on one row less space at the ends.

The covering wheels, acting independently on opposite sides of the furrow, front and rear, cover the corn better than possible for the single wheel, and are adaptable to the various kinds of land. The depth of the seed is varied as desired, and planted at a perfectly uniform depth, for the runners and wheels follow the inequalities of the ground together, filling in advance the furrows with loose dirt on the seed, and are also utilized to crush the clods between the wheel and the runner, the rear wheels lapping the soil over. It covers so that the seed is not liable to be destroyed by vermin following in the track of runner, or washout on rolling land.

THIS CUT SHOWS THE REAR COVERING WHEELS AND RUNNERS ELEVATED FROM THE GROUND.



The hand-and-foot lever system, for elevating the runners and forcing them into hard ground, is not unequaled. It enables the driver to force the runners in with one foot and with the other elevate them; also, he can elevate the runners standing in rear of the planter—features that are in no other planter. The driver can change the depth of the runners and at the same time

have free use of his hands in driving, or, if he wishes to use the lock, lock it in for hard ground or up for mellow, so that a change of depth is brought within his instant control, sitting in his seat. This feature is a late improvement.

A BETTER WAY TO PUT IN THE CROP.

With the soil thrown into the furrow, first from one side and then the other, it fills better one side at a time, because the other side does not interfere with the dirt falling to the bottom or permit it to arch over, and the side opposite the wheels yields to the pressure, giving the soil the right density for the best growth under all conditions.



Fig. 1.

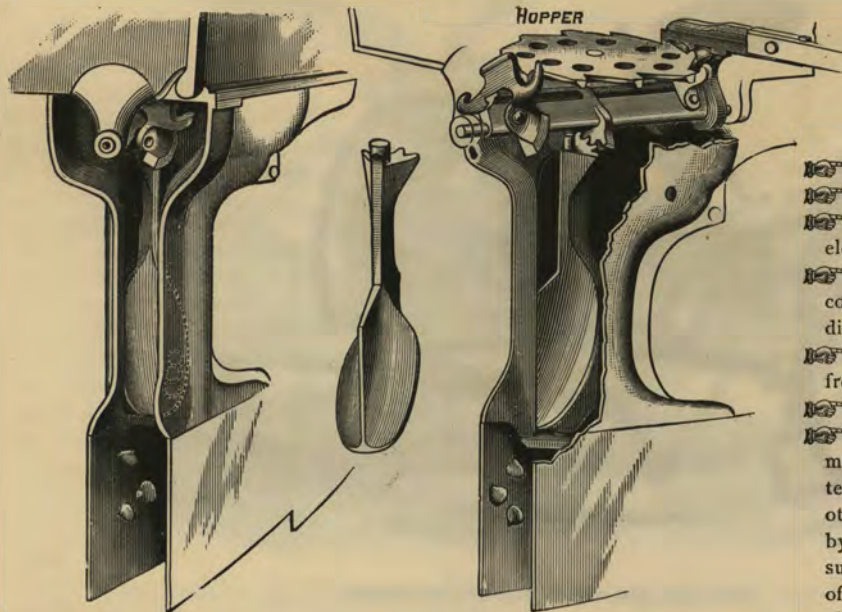


Fig. 2.



Fig. 3.

Fig. 1, front wheel as it partly fills the furrow from the bottom up; Fig. 2, rear one laps the soil and fills the furrow completely; Fig. 3, the broad wheel, with furrow arched.

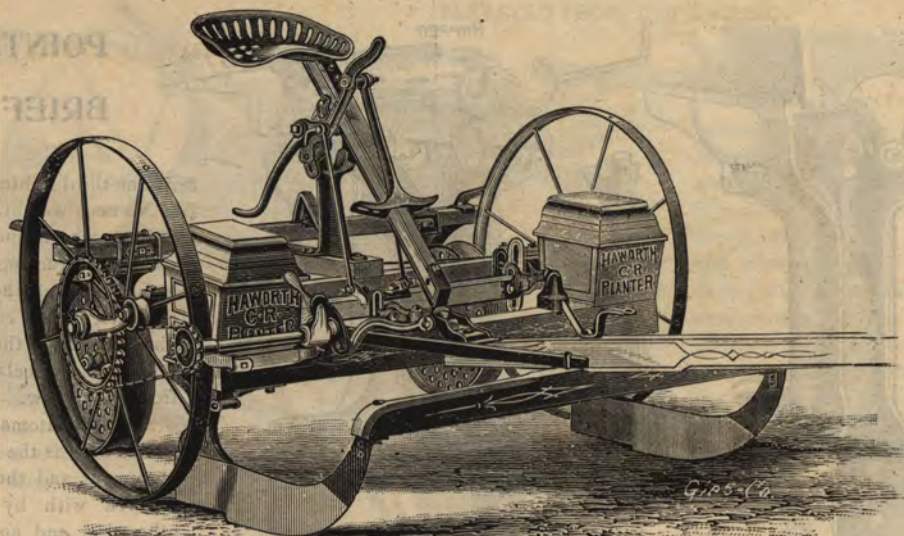


POINTS IN BRIEF.

- One-third lightest draft.
- No neck weight.
- Rear wheels and runners elevated in turning.
- Small wheels the best of covers, as they cause more displacement of the soil.
- Covering wheels set to or from the furrow.
- Scrapers automatic.
- The drop is the easiest of movement and the least interfered with by rust or otherwise, and not affected by the shifting or variable surface of ground or variety of seed corn, etc. For check-row and drill it is most accurate and reliable.

The Balance Movement Dropper we were first to bring out in 1877 makes ours beyond question the most perfect dropping device in all respects ever used in a corn planter. It makes sure a full stroke even when the check row is not adjusted to throw full, or is so from wear, etc. It has the fewest parts and least number and amount of frictional bearings; consequently cannot be affected by rust so as to cause it to work hard, no matter how it may be exposed. Also by the double-toothed pails with the lugs opposite each hole in dropper-plate it catches with a return part stroke and saves half the loss from mis-drops.

The back-throw of the second drop is corrective of variation from check caused by an irregular gait.



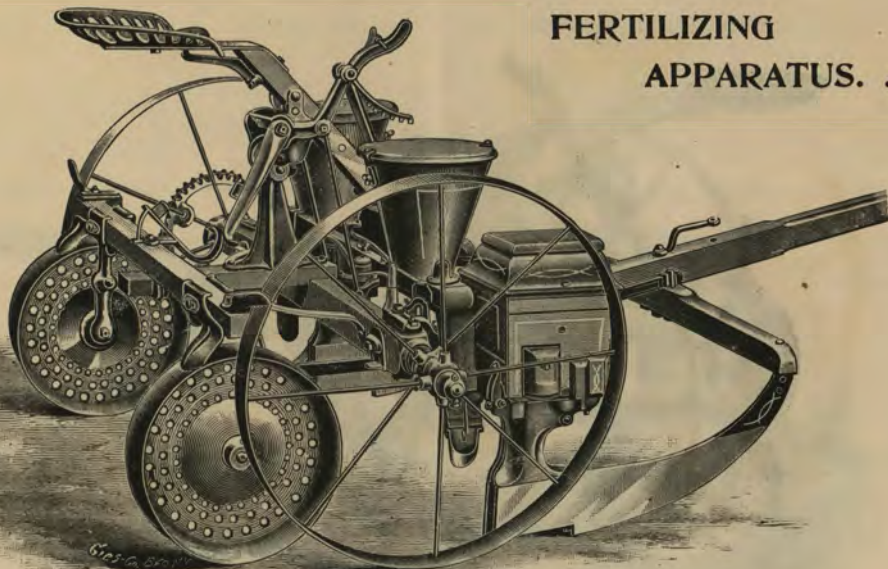
THIS CUT SHOWS DRILL ATTACHMENT.

No drill in any respect compares with ours for simplicity and ease of management; cannot cause one runner to go deeper than the other, owing to its lightness and the peculiar construction of the planter throwing its weight onto the wheel and it not running on the furrow. It is impossible for one runner to go deeper than the other, as they are controlled by the wheels absolutely.

The hinge permits covering wheels to conform to every inequality of ground. The dropper cannot be affected by chaff or dust.

The planter is light and strong; all of the exposed castings are malleable iron. The attachments, check rower, drill and fertilizing apparatus, are the most complete of any on the market. We furnish to order with the planter either of three styles of check rowers—steel bar, combined crossover and side wire—either of which is without a rival.

FERTILIZING APPARATUS. . . .

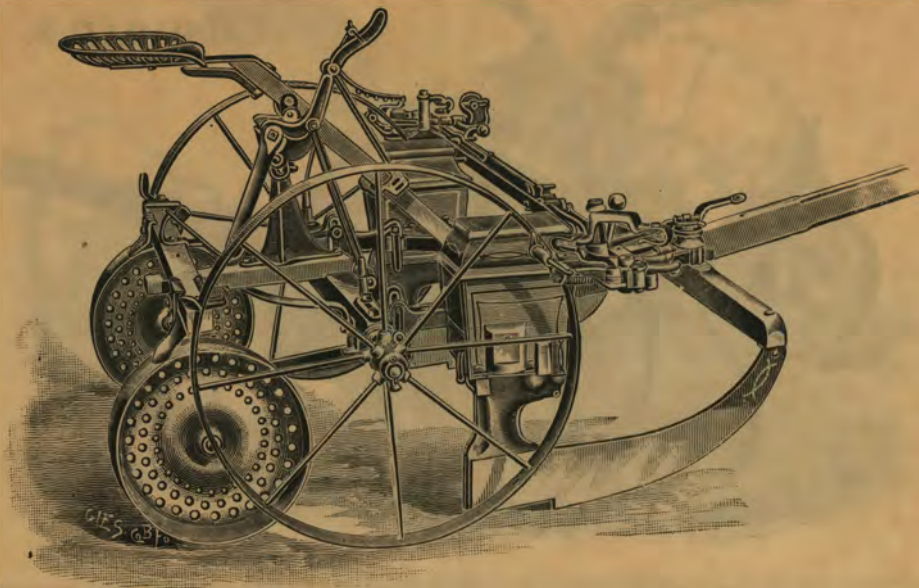


Our fertilizer distributing attachment for planter, we are fully convinced, is adapted to every requirement that the experience of four years in the field has brought out.

The fertilizing apparatus is arranged on the planter so as not to interfere in any respect with the planter's working parts, the corn being in sight as it is dropped the same as without it, and it has other convenient features. The fertilizer is operated by hand or by check rower and drill either.

It is obvious that the easier a rower works the better the general average result. It should work light enough so that the pounding force on the check-line will not be liable to drive it from its checking position. The only rower that successfully lays the check-wire over. Can plant right after the breaking plows when the clods are easily pulverized, or in rough or hilly land, and clear to the end with equal accuracy. The check-wire is a guide to drive by. The anchors are self-releasing.

We make the only check rowers that have the power and are adapted to operate fertilizer attachment to the corn planter.



Haworth's Side-wire Check Rower.

Our Side-wire Rower works with half the power of the common spring retractile movement, and cannot fail to make a full stroke, no matter how slack the wire is run.

We have made a great improvement in Side-wire Rower for the coming season, rendering it the most simple, durable and convenient to handle of any Side-wire made. It is rigged on a bar and adapted for attachment to all planters, and has trip levers for dropping the wire automatically.

—1893—

JULY.							AUGUST.							SEPTEMBER.							OCTOBER.							NOVEMBER.							DECEMBER.						
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1894

JANUARY.							FEBRUARY.							MARCH.							APRIL.							MAY.							JUNE.							
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JULY.							AUGUST.							SEPTEMBER.							OCTOBER.							NOVEMBER.							DECEMBER.						
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—1895—

JANUARY.							FEBRUARY.							MARCH.							APRIL.							MAY.							JUNE.						
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