

No. 709,575.

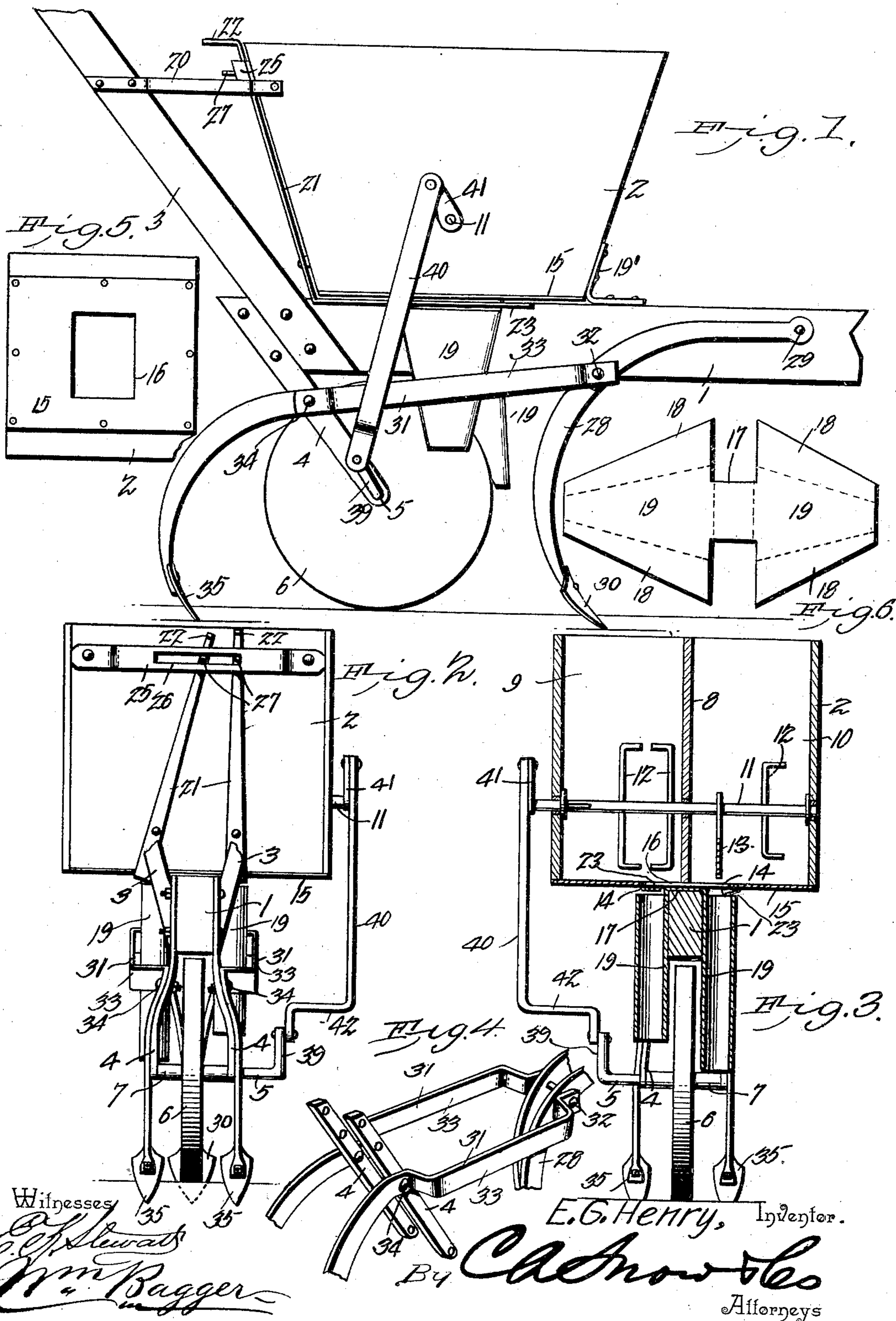
Patented Sept. 23, 1902.

E. G. HENRY.

COMBINED SEED PLANTER AND FERTILIZER DISTRIBUTER.

(Application filed May 22, 1902.)

(No Model.)



UNITED STATES PATENT OFFICE.

EDWARD G. HENRY, OF POWELLVILLE, GEORGIA, ASSIGNOR OF ONE-HALF
TO BENJAMIN J. MERRILL, OF CARROLLTON, GEORGIA.

COMBINED SEED-PLANTER AND FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 709,575, dated September 23, 1902.

Application filed May 22, 1902. Serial No. 108,563. (No model.)

To all whom it may concern:

Be it known that I, EDWARD G. HENRY, a citizen of the United States, residing at Powellville, in the county of Coweta and State of Georgia, have invented a new and useful Combined Seed-Planter and Fertilizer-Distributor, of which the following is a specification.

This invention relates to that class of combined seed-planters and fertilizer-distributors in which a hopper is provided with a vertical partition, thus forming two compartments, through which a transverse shaft is extended, said shaft receiving motion from the drive-wheel of the device.

My invention consists in certain improvements in the construction and arrangement of the component parts of the device, whereby an implement shall be produced which shall possess superior advantages in point of simplicity, durability, and general efficiency.

With these ends in view my invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of a machine constructed in accordance with my invention. Fig. 2 is a rear view of the same. Fig. 3 is a vertical sectional view taken transversely through the hopper. Fig. 4 is a perspective detail view showing a portion of the frame of the machine. Fig. 5 is a bottom plan view showing the hopper prior to the attachment of the seed-tubes. Fig. 6 is a detail view illustrating the preferred mode of constructing the seed-tubes.

Corresponding parts in the several figures are indicated by like characters of reference.

1 designates the beam, which supports near its rear end the hopper 2. Handles 3, by means of which the machine may be guided, are attached to the sides of the beam in rear of the hopper. To the sides of the beam at its rear end are secured the downwardly and forwardly extending brackets 4 4, the lower ends of which have bearings for a crank-axle 5, upon which is mounted the driving and supporting wheel 6. The latter is secured upon a hub 7, which serves to space the lower

ends of the brackets 4 apart from each other.

The hopper 2 of the machine is provided with a vertical partition 8, whereby it is divided into separate chambers or compartments 9 and 10, serving to hold, respectively, the fertilizing material and the seed which is to be distributed by the machine. A shaft 11, extending transversely through the compartments of the hopper and having its bearings in the sides of the hopper and in the central partition, is provided with stirring-fingers 12 and with a serrated segment 13, serving to agitate the contents of the compartments of the hopper and to convey the said contents to the slots or openings 14 in the bottom of the hopper. The said bottom 15 will usually be constructed of sheet metal and with a central slot or opening 16, as shown in Fig. 5 of the drawings. Longitudinally across this slot or opening 16 is secured a plate 17, the edges of which are bent or turned downwardly to form the inner walls of the seed-tubes, the front, rear, and outer walls of which may be formed by wings or flaps 18, extending from the edges of the said downturned portions 19, which form the inner walls. The construction may be varied by forming only one of the seed-tubes in connection with the plate 17 and attaching the other one to the edge of said plate in any suitable way; but I consider that when the two seed-tubes, with the central dividing-plate 17, are constructed from a single plate of metal, as shown in the blank illustrated in Fig. 6 of the drawings, a stronger and more durable article is produced at a minimum expense. The plate 17, carrying the seed-tubes, may be secured in its position longitudinally across the slot 16 in the bottom plate 15 of the hopper by soldering, bolting, riveting, or in any suitable way or manner.

When the hopper having the seed-tubes attached thereto is mounted upon the beam, the latter will be straddled by the said tubes, as plainly shown in Figs. 2 and 3 of the drawings. The attachment may be by means of a bracket 19', connecting the front side of the hopper with the upper side of the beam, and braces 20, connecting the handles 3 with the rear portion of the sides of the hopper near the upper end of the latter. Pivotal con-

5 nected with the rear side of the hopper are
 levers 21, having handles 22 at their upper
 ends. The lower ends of said levers are pro-
 vided with slides 23, extending forwardly un-
 10 der the slots 14 in the bottoms of the com-
 partments of the hopper. It will be seen that
 by manipulating the levers the slides may be
 adjusted so as to close or partially close the
 said slots or openings 14, thus regulating the
 15 escape of the contents of the hopper-compart-
 ments. Means may be provided for retain-
 ing the levers 21 at any point to which they
 may be adjusted. In Fig. 2 of the drawings
 the upper ends of said levers have been shown
 20 confined in a keeper 25, having a slot 26 to
 receive pins 27, extending rearwardly from
 said levers, which may frictionally engage
 said slot, or the latter might be provided with
 teeth, notches, or ratchets to be engaged by
 said pins.

Suitably attached to the beam 1 in front of
 the hopper is the curved stock or standard 28,
 the upper end of which is preferably bifur-
 cated to straddle the beam, with which it is
 25 connected by means of a transverse bolt 29.
 The lower end of the standard 28 carries the
 shovel 30, which serves for opening the fur-
 row.

30 31 31 designate a pair of beams, which are
 connected with and extended rearwardly
 from the standard 28. The front ends of the
 beams 31 are connected with the standard 28
 preferably by means of a transverse bolt 32,
 which may extend through the said beam or
 35 just below the same, so as to form a very rigid
 connection between the parts. The beams 31,
 or the portions of said beams which lies be-
 tween the standard 28 and the brackets 4 4,
 40 are bent to form yokes 33, a construction
 which is rendered necessary in order to afford
 room for the seed-tubes, which lie between
 the central beam 1 and the yokes 33, which
 latter forms guards for this part of the de-
 vice. In rear of the yokes 33 the beams 31 are
 45 rigidly connected, as by means of bolts 34,
 with the brackets 4, and in rear of said brack-
 ets they are curved or extended in a down-
 ward and rearward direction for the attach-
 ment of the covering-shovels 35, one of which
 50 is located on each side and in rear of the sup-
 porting-wheel 6 of the device.

The axle 5 of the supporting-wheel 6 is pro-
 vided at one of its ends with a crank 39, which
 is connected by means of a pitman 40 with a
 55 crank 41 upon the transverse shaft 11 of the
 hopper, to which motion is thus transmitted
 from the axle of the supporting-wheel when
 the latter is revolved. In the accompanying
 drawings the pitman 40 has been shown as
 60 provided with a bent portion or crank 42.
 This might be dispensed with by extending
 the axle 5 for a suitable distance, as will be
 readily understood.

65 From the foregoing description, taken in
 connection with the accompanying drawings,
 the operation and advantages of my inven-
 tion will be readily understood. The frame

of the machine, especially that portion which
 is comprised by the standard 28, the side
 beams 31, having the yokes 33 and the brack- 70
 ets 4, which portion is to be constructed of
 metal, is of a nature to be particularly fitted
 to resist any strain or wear to which it may
 be subjected, and, moreover, the said frame
 portion is so constructed and disposed as to 75
 form a heel or guard for that portion of the
 machine which is naturally most frail and at
 the same time most exposed to injury. The
 construction and arrangement of the seed-
 tubes and the seeding mechanism are very 80
 simple and effective, and the machine as a
 whole, while it may be constructed at a very
 moderate expense, is designed to render ex-
 cellent service. It will be noticed that by
 the peculiar construction of the seed-tubes 85
 and the method for attaching the same to the
 bottom plate of the hopper there will be an
 ample space left between said bottom plate
 and the upper ends of the seed-tubes to ac-
 90 commodate the slides 23, the entire construc-
 tion and arrangement being very compact
 and in every way efficient.

Having thus described my invention, I
 claim and desire to secure by Letters Patent
 of the United States—

95 1. The combination of the beam, the hopper
 supported thereon near the rear end and hav-
 ing seed-tubes disposed one on each side of
 the beam, the standard connected with the
 latter in front of the hopper, the brackets se- 100
 cured to and extending downwardly and rear-
 wardly from the rear end of the beam carry-
 ing the supporting-wheel, and beams having
 rigid connection with said brackets and with
 the front standard, said beams being formed 105
 with outwardly-disposed yokes forming
 guards for the seed-tubes and intermediate
 parts, substantially as set forth.

2. The herein-described frame comprising
 the bifurcated front standard, the brackets 110
 adapted for attachment to the rear end of the
 beam and the beams connecting said bifur-
 cated standard with the said brackets and
 extended downwardly and rearwardly from
 the latter, said beams being provided with 115
 outwardly-disposed yokes located intermedi-
 ately between the front standard and the rear
 brackets, substantially as set forth.

3. In a device of the class described, the
 combination of the beam having downwardly 120
 and forwardly extending brackets carrying
 the supporting-wheel, the front standard hav-
 ing bifurcated upper end rigidly connected
 with the beam and carrying a furrow-opener,
 the rear standards carrying covering-shovels 125
 and having beams rigidly connected with the
 brackets and with the front standard and hav-
 ing outwardly-disposed yokes intermediately
 between their points of attachment, the hop-
 per mounted upon the beam and having down- 130
 wardly-extending seed-tubes disposed inside
 of said yokes, a partition in said hopper,
 means for agitating the contents of the hop-
 per-compartments, and operating means

driven from the supporting-wheel, substantially as set forth.

4. The combination of the hopper having a longitudinal partition, a bottom for said hopper having a central slot or opening, a plate secured longitudinally across said slot or opening which is thereby divided into two separate slots, and seed-tubes connected with and depending from the edges of said central dividing-plate, substantially as set forth.

5. The combination of the hopper, the bottom plate having a central slot or opening, a dividing-plate secured longitudinally across said slot or opening and having depending flanges forming the inner walls of the seed-tubes, and wings extending from said flanges and bent to form the front, rear and outer walls of the seed-tubes, substantially as set forth.

6. The combination of the hopper, the bottom plate for the same having a central opening, a dividing-plate secured longitudinally across said opening, the seed-tubes depending from said plate, the beam arranged between said seed-tube and supporting the hopper, the front standard carrying an opening-shovel, the rear standards carrying the cov-

ering-shovels, and beams extending forwardly from said rear standards and having connection with the front standard and with the supporting-brackets, said beams being formed with yokes disposed outside of and serving to guard the seed-tubes and intermediate parts, substantially as set forth.

7. The combination of the hopper, the bottom plate for the same having a central opening, a dividing-plate secured longitudinally across said opening, the seed-tubes connected with and depending from the edges of said plate directly below the divisions of the central slot, a partition arranged longitudinally within the hopper, and levers mounted pivotally upon the rear side of the latter and having slides extending forward between the bottom plate of the hopper and the other ends of the seed-tubes, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDWARD G. HENRY.

Witnesses:

L. TURNER,

ED. ADAMS.