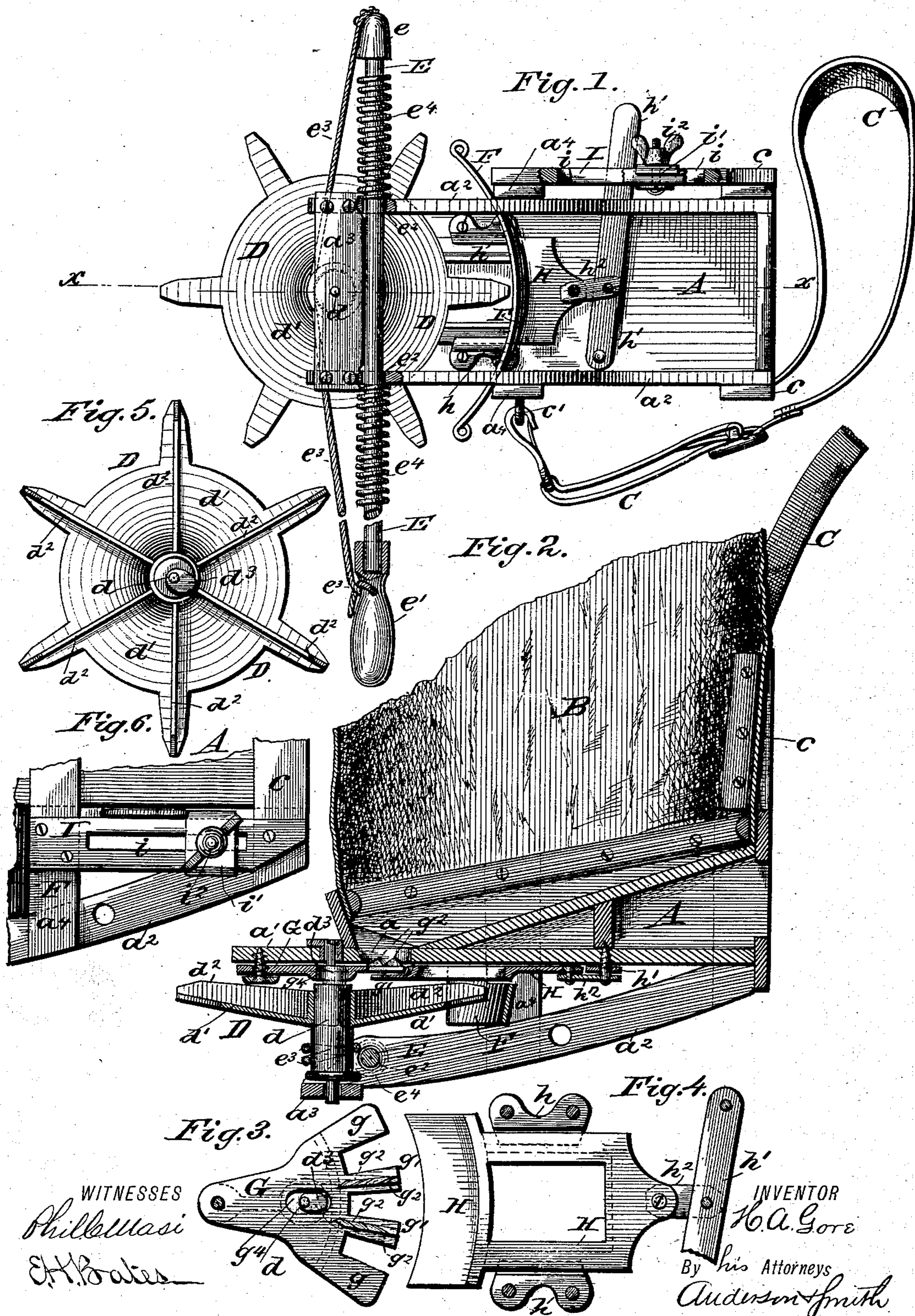


(No Model.)

H. A. GORE.
BROADCAST SEED SOWER.

No. 315,405.

Patented Apr. 7, 1885.



WITNESSES
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UNITED STATES PATENT OFFICE.

HENRY A. GORE, OF GOSHEN, INDIANA, ASSIGNOR OF TWO-THIRDS TO
EDWARD W. WALKER AND HIRAM W. RUTON, OF SAME PLACE.

BROADCAST SEED-SOWER.

SPECIFICATION forming part of Letters Patent No. 315,405, dated April 7, 1885.

Application filed December 13, 1884. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. GORE, a citizen of the United States, residing at Goshen, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Broadcast Seed-Sowers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a bottom view of my device. Fig. 2 is a vertical sectional view of the same; and Figs. 3, 4, 5, and 6 are detail views.

This invention relates to broadcast seed-sowers, having special reference to the class operated by hand; and it consists in the construction and novel arrangement of parts hereinafter fully described, and pointed out in the claims.

Reference being had to the accompanying drawings, and to the letters of reference marked thereon, A represents the box portion or frame of the device, of general rectangular shape, and having the lower edge of the bottomless sack B attached around and within its upper edges, so that the seed poured into the sack will descend into the box. The bottom of the box A is slotted at a at its front end, and projects beyond the front of the box, forming the extension a' , for a purpose hereinafter explained.

a^2 a^3 are similar strips fixed to the rear corners of the bottom of the box A, curving thence forward and downward, and having their front ends united by the strip a^3 below the extension a' . The strips a^2 are properly stayed by vertical side strips, a^4 , which unite them to the body of the box A.

C is the strap by which the device is carried, fixed by one end to the standard c , and attached by means of a snap-hook or other device at the other end to a ring or staple, c' , fixed in one of the side strips, a^4 . The strap may be lengthened or shortened by means of a buckle to suit different-sized persons, and

the standard c and staple c' are on the inner side of the box A, or the side next the operator.

D is the casting wheel or disk, fixed on the shaft d , which has bearings in the cross-strip a^3 and extension a' . The said wheel is composed of the central disk, d' , arranged with its concavity downward to hold the seed falling from the box, and the similar radial strips, d^2 , set at equal distances apart thereon, with their edges vertically upward and extending outward beyond the periphery of the central disk. Outside of the disk the said strips rest upon horizontal extensions fixed to and projecting from the edge of the same, the lower edge of each strap being fixed upon the central line of the corresponding extension.

d^3 is an eccentric cylindrical cam, formed upon the upper journal of the shaft d , below its bearing in the extension a' , and serving a purpose hereinafter explained.

E is a horizontal reciprocating rod, provided on its outer end with the stop-block e , and e' is a detachable handle on the inner end of said rod. The rod E passes through similar opposite openings, e^2 e^2 , made in the front ends of the strips a^2 , just to the rear of the shaft d .

e^3 is a cord, of leather or other suitable material, fixed by one end to the block e , thence running over and around the shaft d , below the casting-wheel, and having its other end passed through a hole in the detachable handle e' . By reciprocating the rod E the cord e^3 makes the casting-wheel rotate alternately in opposite directions.

e^4 e^4 are coil-springs surrounding the rod outside of the openings e^2 e^2 , against which springs the stop-block and the shoulder of the handle alternately strike, causing the rod to work without jar.

F is a curved deflector, fixed to the front edges of the vertical strips a^4 , with its concavity looking forward. The said deflector is made on the arc of a circle, having its center in the axis of the shaft d , and serves to throw outward and forward the seed coming backward from the casting-wheel.

G is a vibrating plate of general triangular shape, and pivoted by its front angle to the

lower surface of the extension a' , near the front end of the latter, its rear portion lying and moving immediately below the slot a in the bottom of the box A. The said rear portion consists of four arms radiating from a curved edge concentric with the pivot of the plate G, and situated from said pivot about two-thirds the length of the plate, the slot a being made on a curve corresponding to the movement of the arms. Of these arms the outer two, $g g$, pass beyond the side edges of the slot a when the plate vibrates and the inner two, $g' g'$, have on their upper surfaces the vertical projections $g^2 g^2$, which pass up into the slot and move the seed, descending there-through to and fro, and prevent it clogging or packing therein. There are two projections, g^2 , on each arm g' , and they have their side edges beveled backward and outward, so that the seed may more readily flow between them. The upper edges are also beveled so that the seed while being agitated may not be obstructed in the least possible degree.

g^4 is a longitudinal slot in the body of the plate G, into which slot the cylindrical eccentric cam d^3 enters and vibrates the plate as the shaft d rotates in either direction.

H is a closing-plate, sliding in ways $h h$ fixed to the bottom of the box A and moved by the lever h' , pivoted to the bottom of the box and connected to the rear end of the said plate by a link, h^2 , pivoted to both. The free end of said lever projects beyond the outer side of the box, or the side away from the operator, so as to be easily reached and moved by him. The front edge of the closing-plate is made on a curve corresponding to that of the slot, and when it is moved to entirely close the latter, brings up upon a similarly-curved rib upon the lower surface of the vibrating plate G. The deflector is properly cut away to allow the closing-plate to pass between it and the bottom of the box A.

The plate H may be set to allow a greater or less discharge through the slot a , or the latter may, when necessary, be entirely closed by it.

I is a horizontal strip, fixed to the outer side of the box A and provided with the longitudinal slot i , the end of the lever h' moving upon its upper edge. i' is a detaining-piece moving upon said strip I, and adapted to be fixed at any point thereon by means of the slot i and thumb set-screw i^2 . The edge of the detaining-piece may be brought to bear against the edge of the lever h' when the plate H is set for any desired rate of discharge, and the piece fixed in its position, thus keeping the discharge constant.

In operation the strap lies on the right shoulder of the operator, and the box A against his left side, the detachable handle of the rod E being to the right, so as to be convenient for the hand on that side. By reciprocating the said rod the casting-wheel and the vibrating plate are simultaneously actuated.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In a seed-sower, the combination, with the box A, provided with the slot a , and a seed-casting device, of the vibrating plate G, provided with the arms $g g'$ and projections g^2 , the closing-plate H, lever h' , link h^2 , and detaining-piece i' , moving on the strip I and controlled by the screw i^2 , substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY A. GORE.

Witnesses:

SAM P. YEAKEL,
CHAS. R. SCHURTZ.