

(No Model.)

2 Sheets—Sheet 1.

E. S. PLIMPTON.
Planter.

No. 228,112.

Patented May 25, 1880.

Fig. 1.

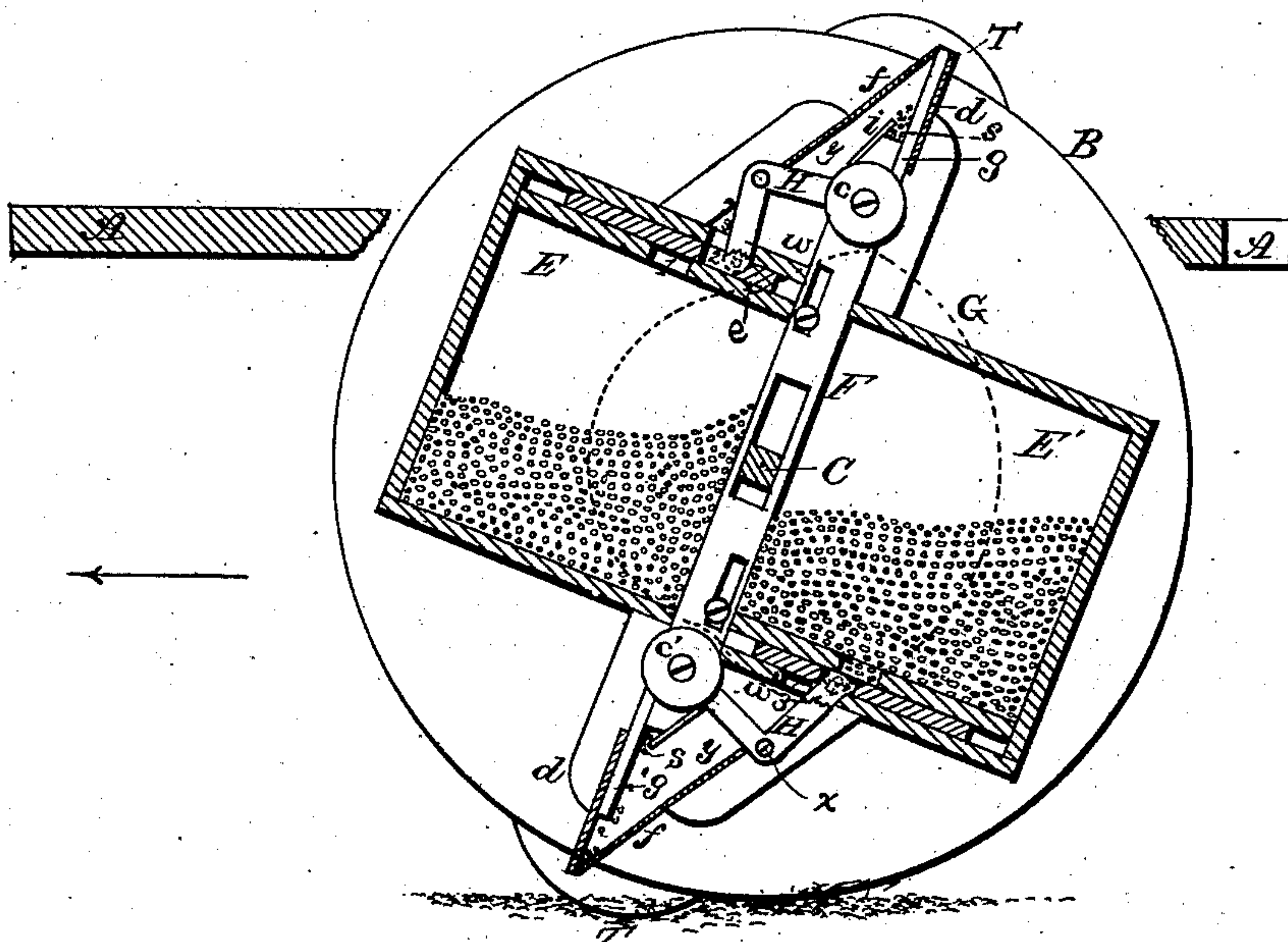
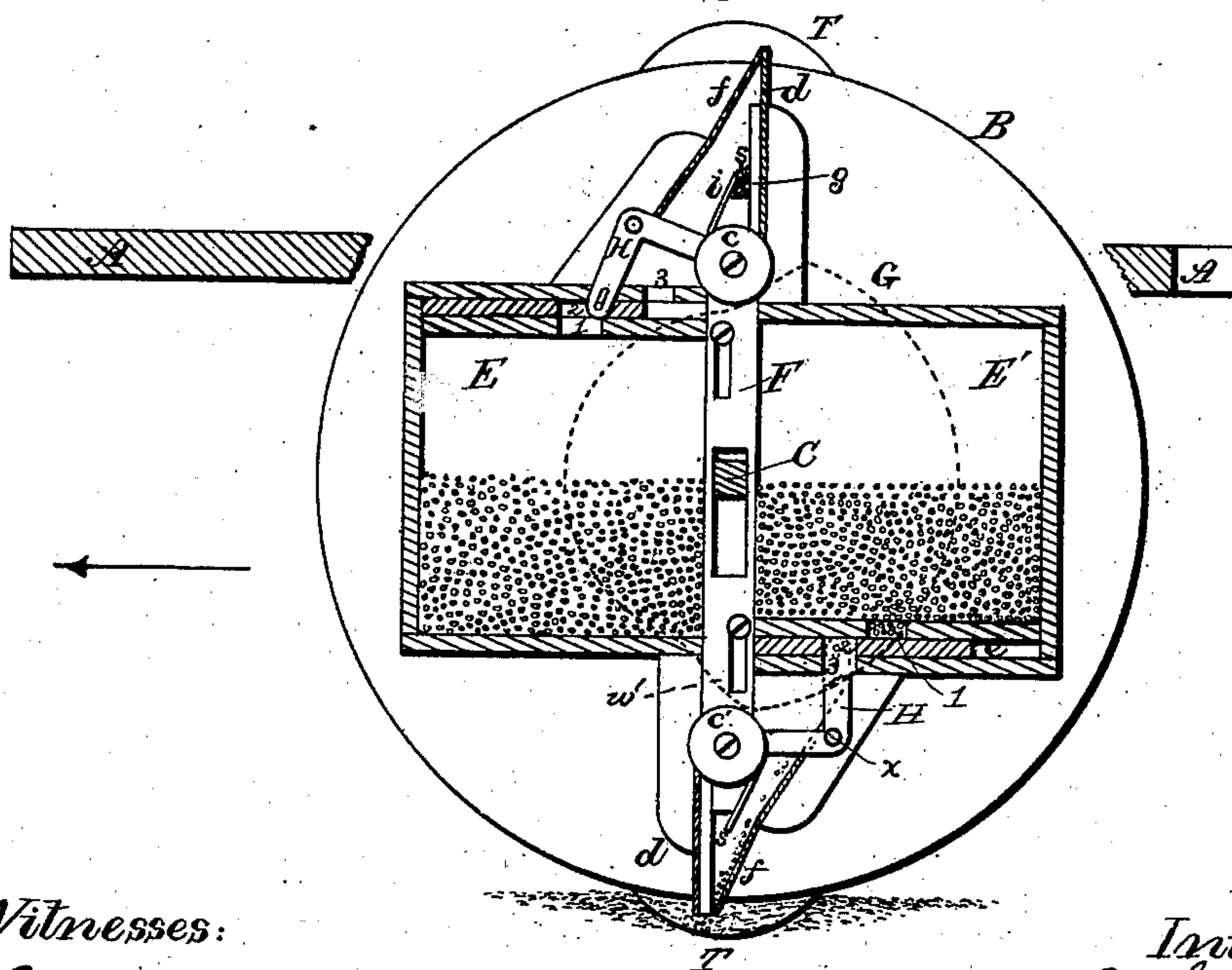


Fig. 2.



Witnesses:

J. W. Garner
William Paxton.

Inventor:

E. S. Plimpton
By his attorney
Charles E. Foster

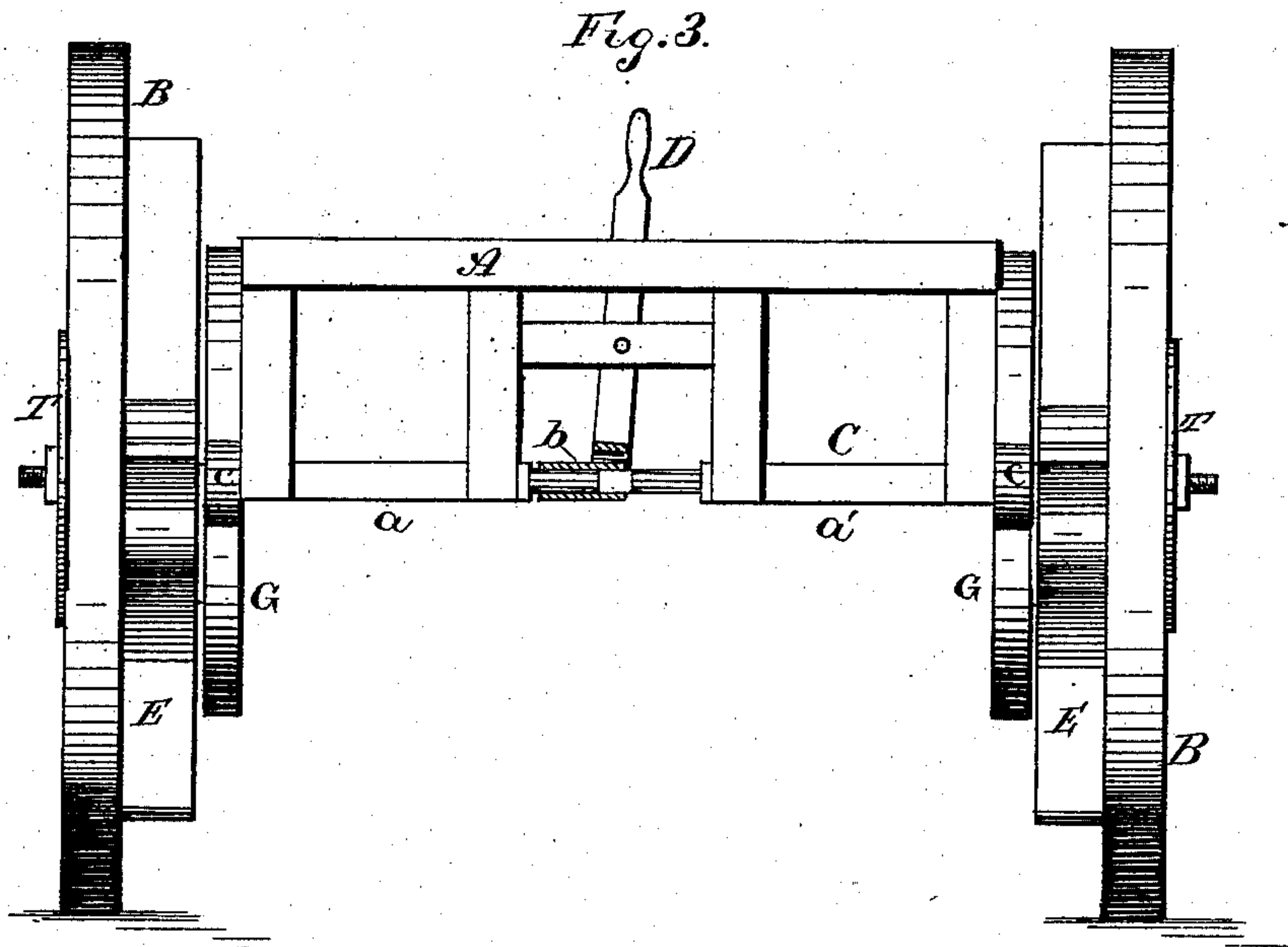
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UNITED STATES PATENT OFFICE.

EDWARD S. PLIMPTON, OF DENISON, IOWA.

PLANTER.

SPECIFICATION forming part of Letters Patent No. 228,112, dated May 25, 1880.

Application filed March 1, 1880. (No model.)

To all whom it may concern:

Be it known that I, EDWARD S. PLIMPTON, of Denison, Crawford county, Iowa, have invented an Improved Planter, of which the following is a specification.

My invention is a planter constructed, as fully described hereinafter, so as to deposit the seed regularly and to support the slide between said actuations without the aid of springs. This is accomplished by constructing the cam with diametrically-opposite parallel inclines $w w'$, uniting concentric arcs of different diameters in determined quantities, the invention relating especially to devices for effecting this purpose.

In the drawings forming part of this specification, Figure 1 is a sectional elevation, showing the wheel and seed-boxes and adjuncts; Fig. 2, the same, showing the parts in a different position; Fig. 3, a rear view of the machine.

The planter may be provided with one or more wheels, arranged on any suitable frame, to be drawn or driven by a horse or by hand, as may be found desirable.

I have illustrated the invention in connection with a two-wheeled horse machine.

A represents the frame of the machine, B B the wheels, and C the axle, which may consist of two sections, $a a'$; and b is a sliding coupling-sleeve, operated by a lever, D, so as to couple or uncouple the shafts to work together or independently. Each wheel carries, preferably on one side, two boxes, E E', separated by a slide, F, carrying rollers $c c'$ at the side, which rollers bear upon the periphery of a stationary cam, G, secured to the frame, and constructed to move the slide downward as each roller is carried beneath the axle. Each box is provided with a feed-slide, e , having an opening, 2, which coincides alternately with openings 1 3 in the box as the slide reciprocates, which movement is effected by a bell-crank lever, H, pivoted at x to the wheel, and connected both to the slide e and to the slide F. Adjacent to each end of the slide F are arranged converging plates $d f$, forming a hopper, y , with which communicates the opening 3, one side of the hopper being closed by the wheel and the other by a suitable covering-plate. From each end of the slide F projects

a plunger, g , of such a length that when said end of the slide is thrown outward the plunger will project beyond the plates $d f$, and the latter, being a spring-plate, will bear with its lower end closely against the plunger. A plate, i , projecting at an angle from each end of the slide F, forms a pocket, s , for the purpose described hereinafter.

When the parts are in the position shown in Fig. 1 the seed will pass into the opening 2 of the lower slide, e , and as the apparatus is drawn across the field in the direction of the arrow the operation will be as follows: The wheels will turn until the roller c' is brought against the shoulder w' of the cam G, and the spring-plate f , by pressing upon the earth, is forced against the plate d . As the roller c' passes the shoulder w' the plunger is forced downward between the plates $d f$ (pressing back the latter) and into the earth, as shown in Fig. 2. As the plunger reaches its lowest position the opening 2 is brought above the opening 3, the seed falls into the lower part of the hopper y , and as the hopper reaches the position shown in Fig. 1 at the top the seed slides into the pocket s . As the hopper reaches the position shown at the bottom in Fig. 1 the seed falls from the pocket s below the end of the plunger g , and as the latter descends is forced into the ground. These operations are repeated successively as the machine moves forward, and the seed is thus planted regularly in determined quantities without any other operations than are necessary to move forward the machine.

To prevent injury to the plates $d f$ when the machine is drawn over a hard surface, I secure guard-plates T to the sides of the wheels, which form the bearing, preventing contact of said plates with the ground.

Any other suitable device or mechanism may be substituted for the cam G for operating the slide F.

I claim—

1. The combination of the seed-boxes E E', carried by a wheel, B, and provided with discharge-hoppers y and seed-measuring feed-slides e , and the reciprocating slide F, connected to and operating said feed-slides, and provided with ejecting-plungers g , substantially as herein specified.

2. The combination of the seed-boxes E E', carried by a wheel, B, and provided with hoppers *y* and feed-slides *e*, the reciprocating slide F, connected to and operating said feed-slides 5 and provided with plungers *g*, the non-rotary cam G, having diametrically-opposite inclines *w w'*, and the rollers *c c'* at the respective ends of said slide F, as herein specified.

3. The combination of the seed-boxes E E', 10 carried by a wheel, B, and provided with discharge-hoppers *y* and seed-measuring feed-slides *e*, and the reciprocating slide F, con-

nected to and operating the feed-slides, and provided with concentrating-pockets *s* and ejecting-plungers *g*, substantially as herein 15 specified, for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD S. PLIMPTON.

Witnesses:

G. R. KNIGHT,
J. C. BAKER.