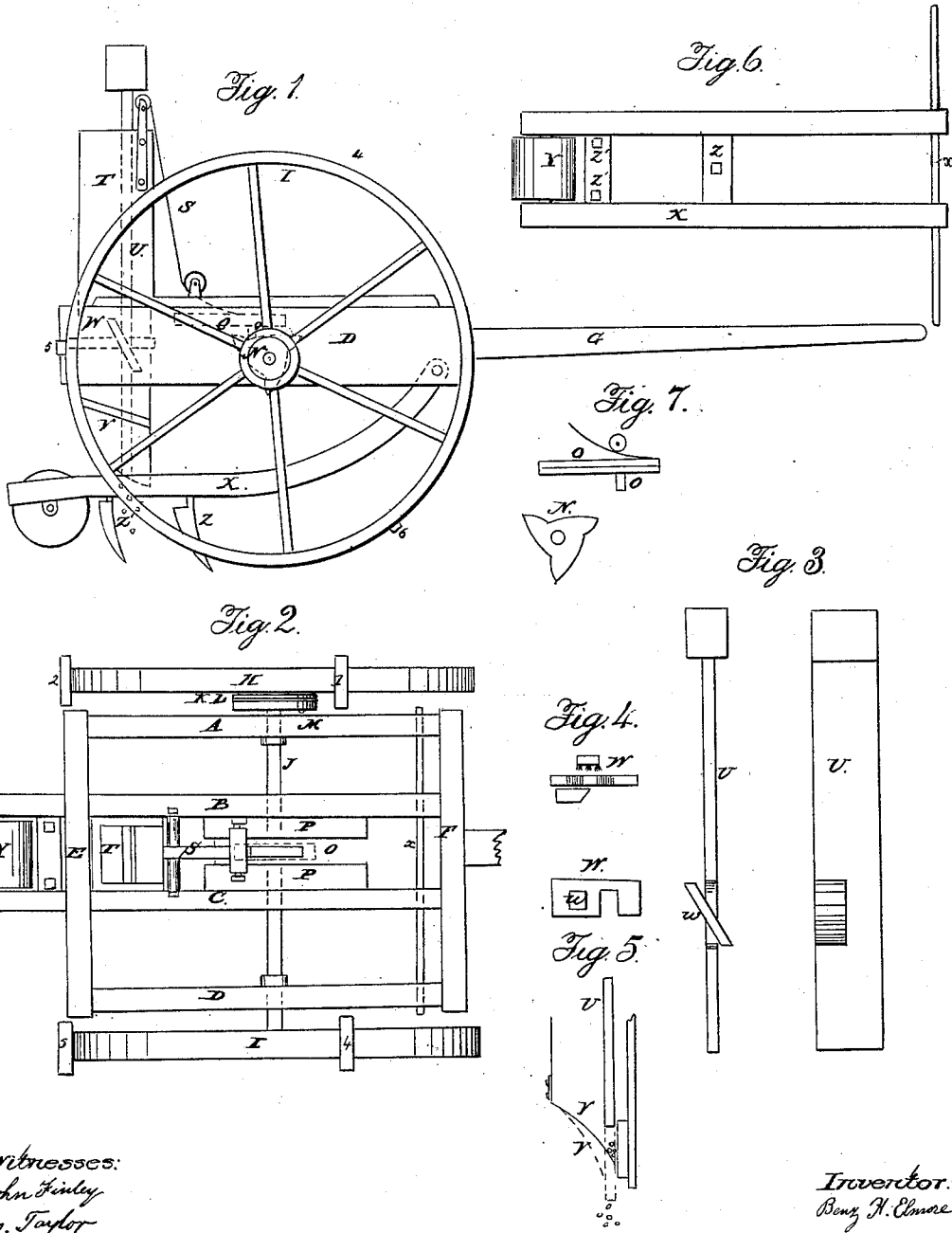


B. H. ELMORE.
Corn-Planter.

No. { 444, }
 { 31,448 }

Patented Feb. 19, 1861.



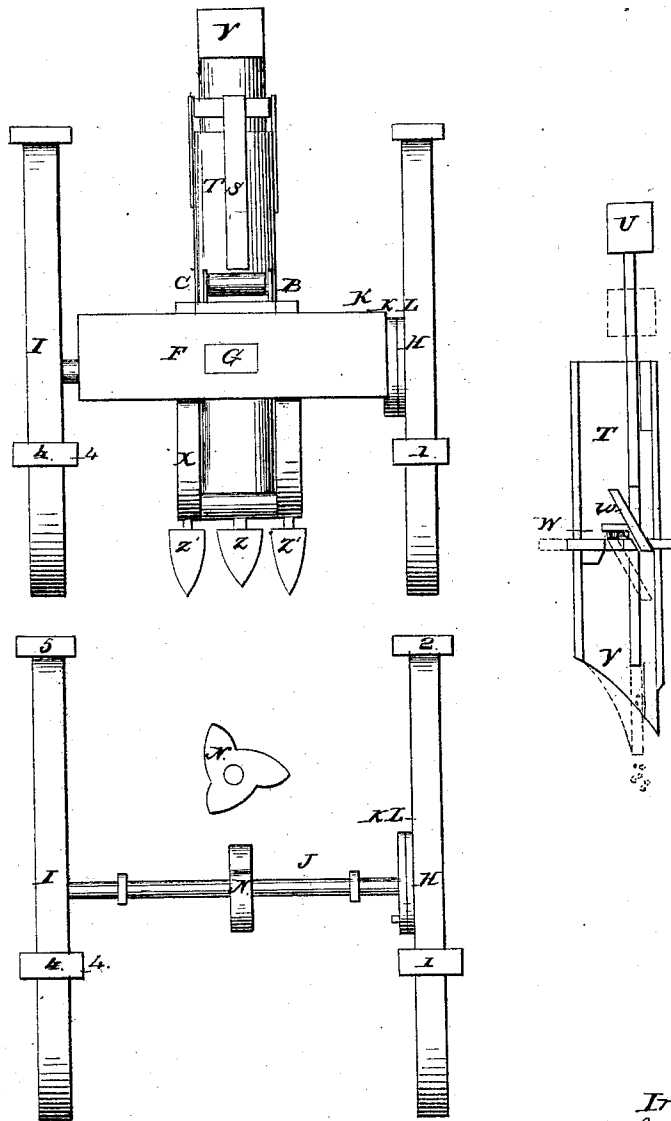
Witnesses:
John Finley
Geo. Taylor

Inventor:
B. H. Elmore

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UNITED STATES PATENT OFFICE.

BENJAMIN H. ELMORE, OF RICHMOND, INDIANA.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. 31,448, dated February 19, 1861.

To all whom it may concern:

Be it known that I, BENJAMIN H. ELMORE, of Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Corn-Planters; and I do hereby declare that the following is a clear, full, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon.

This improvement relates to that class of corn-planters known as "power-planters;" and it is intended to secure greater certainty in the discharge of the seed, and also more perfect checking of the hills.

Figure 1 is a side elevation of my machine. Fig. 2 is a top view. Fig. 3 shows a side and front view of slide U. Fig. 4 shows a section and top view of feed or grain slide W. Fig. 5 shows the relations of slide U and spring-valve V. Fig. 7 shows cam N and slide O.

A B C D E F G constitute the frame-work of the machine, whose construction is sufficiently shown in the drawings.

H I are the burthen-wheels, of the ordinary construction. Wheel I is firmly secured to the axle J. Wheel H is fitted loosely upon axle J, and revolves independently of the motion of axle J, unless secured to it by a means hereinafter described.

J is a round iron axle connecting wheels H I. Upon the end which receives wheel H, and in immediate contact with its hub, is a plate or collar, K, in which is a hole for the reception of connecting-pin M. Upon the inner end of the hub of wheel H is a plate or enlargement, L, with three holes equidistant from each other, and so arranged that pin M, passing through the hole in collar K and through these holes severally, confines wheel H in three equidistant positions upon shaft J, thereby causing projections or markers 1 2 3 4 5 6 upon wheels H I to coincide in whatsoever position wheel H may be secured. 1 2 3 4 5 6 are metallic blocks secured upon the peripheries of wheels H I, as shown. They are markers to indicate the checking of the planting.

N is a sort of triangular cam fixed upon the middle of shaft J. It operates part O.

O is a slide working between the guides P P. Upon its under side is the tappet *o*, which is acted upon by cam N. To its upper side is

fastened the strap S. The edges of slide O are adapted to the grooves in guides P P.

P P are two guides attached, respectively, to the parts B C of the frame of the machine. They each have a V-shaped groove in their approximal surfaces for the reception of slide O.

T is the grain-box, of a rectangular form. It receives slide U in guides down through its center, and at its lower end is valve V.

U is a sliding bar, whose shape and construction are shown at Fig. 3. Near its lower end, fixed in a recess, is secured the cam or oblique portion *u*, which actuates feed-slide W. It works in a horizontal position through box T.

V is a spring-valve closing obliquely the lower end of box T.

W is the seed-slide, being situated in a horizontal position near the middle of box T. Its shape is shown at Fig. 4.

X is a hinged frame carrying the roller Y and plows Z Z' Z'. This frame is hinged to the frame of the machine by a rod, *x*. The plow Z opens a furrow for the reception of the grain. Plows Z' Z' replace the earth after the seed is deposited, and roller Y renders it smooth and compact.

The distribution of the grain is effected thus: Slide U is first lifted by the action of cam N upon tappet *o* of slide O. The cam *u* acts upon seed-slide W, brings the receptacle *w* into the portion of box T which contains the grain, and thereby fills it with grain. Tappet *o* being released from cam N, slide T descends with its own gravity, returning slide W and depositing the seed upon valve V. Slide T ascends again, performing the same functions as before; but in its descent it drives before it the seed previously deposited upon valve V, thereby securing a certain and instantaneous delivery. Slide T should have sufficient weight to make it move with rapidity and precision. It is for this purpose that its upper end is enlarged.

It will be hereinafter shown that axle J regulates the distance. Its length will therefore be governed by the required distance between the rows of corn. Its ordinary length will be four feet six inches, which will make the tracks of the wheels four feet apart.

Operation: After the machine is driven to the field, corn is placed in the seed-box, and all the parts being properly adjusted, it is driven

across the field, planting a single row of corn. When the opposite side of the field is reached wheel H is liberated from shaft J by removing pin M, to facilitate the operation of turning. The machine is now turned round and brought so that one wheel in returning shall directly hit one of the tracks made in previously crossing the field. - Wheel H must now be secured to axle J by pin M. The wheels must now be so adjusted that the one which is traversing the track previously made shall have its markers 1 2 3 or 4 5 6, as the case may be, fall exactly in the prints made by the markers on the previous crossing. The machine may now be driven across the field as before, observing, however, that the wheel traverses truly the track in which it is started. Should the markers be seen to vary from the prints previously made, the machine must be stopped, and the wheels adjusted by turning backward or forward, as the case may require.

This machine is simple in construction and certain and efficient in operation, securing perfect checking of the rows crosswise of the planting, so that the corn may be plowed both ways.

Now, I do not consider the parts of my machine as being new when separately and of themselves considered, for most or all of them may be found in other machines of a similar kind in other combinations, or performing other functions than those for which I employ them; but

I do claim as new and useful and desire to secure by Letters Patent—

The combination of slides U and W and spring-valve V with strap S, slide O, cam N, shaft J, and wheel H I, the whole being constructed and operated substantially as herein set forth.

Attest:

BENJ. H. ELMORE.

JOHN FINLEY,
GEO. TAYLOR.