W. DOUGLASS.

Hand-Seeder.

No. { 1,933, / 32,937. }

Patented July 30, 1861.

Fig. 1.

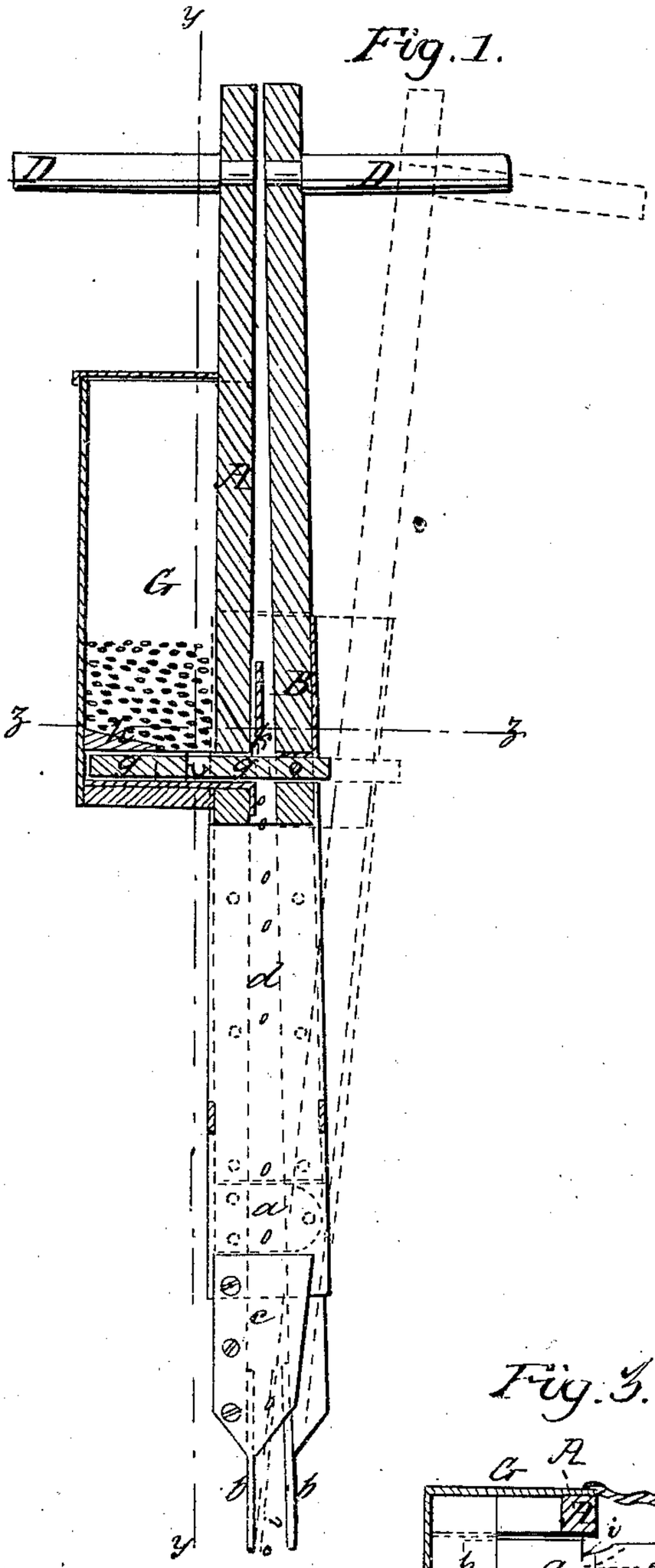


Fig. 2.

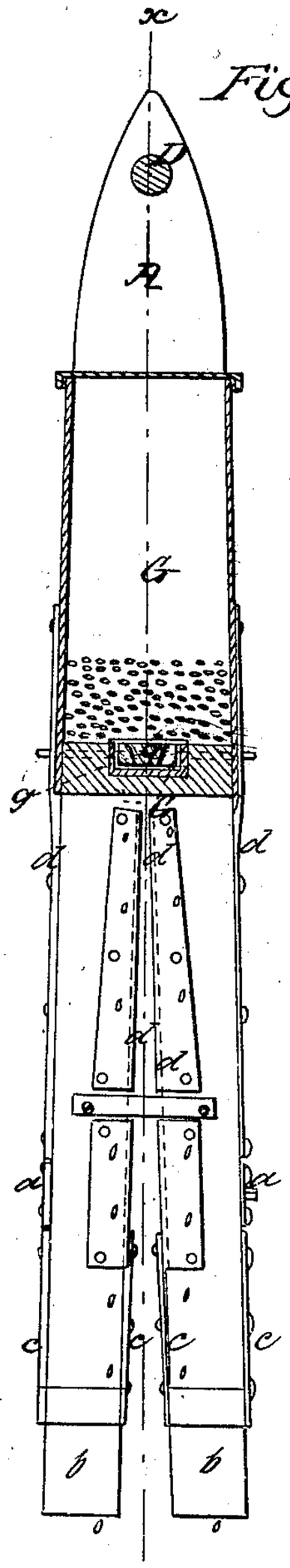
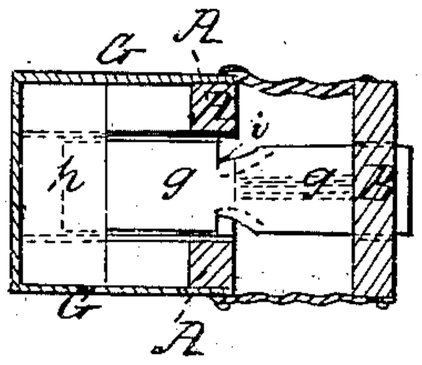


Fig. 3.



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UNITED STATES PATENT OFFICE.

WM. DOUGLASS, OF WESTPORT, MISSOURI.

IMPROVEMENT IN HAND CORN-PLANTERS.

Specification forming part of Letters Patent No. **32,937,** dated July 30, 1861.

To all whom it may concern:

Be it known that I, WILLIAM DOUGLASS, of Westport, in the county of Jackson and State of Missouri, have invented a new and Improved Seed-Planter; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a transverse section through Fig. 2 in the vertical plane indicated by red line *x x* thereon. Fig. 2 is a transverse section through the hopper-box in the vertical plane indicated by red line *y y*, Fig. 1. Fig. 3 is a section through Fig. 1 in the horizontal plane indicated by red line *z z* thereon.

Similar letters of reference indicate corresponding parts in the three figures.

This invention is an improved hand seed-planter, it being an improvement on the Patent No. 13,820, granted November 20, 1855, wherein the seed is all discharged through one opening from a hopper by means of a common perforated slide and two hinged blades or openers.

The object of my invention is to so construct the machine that the charges of seed will be divided, and, although planted in one hill, they will be dropped into separate holes, thus obviating the objection to dropping the seed (corn) in one heap.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawings, A B represent two forked blades, which taper in width from their lower or forked ends to their upper or solid ends. These two pieces A and B are cut out of thin boards, and they are both of the same shape and size. Two short metal straps, *a a*, are secured to the outside edges of the forked blade A, and to the projecting ends of these pieces *a a* the blade B is pivoted, so that when the two blades are thus connected by closing the upper ends thereof the lower ends will open slightly, and by opening the upper ends the lower ends will be closed.

On the lower ends of the prongs, inside of the blades A B, flat plates *b b b b* are suitably secured, which project out and form perforators for entering the soil and making holes for receiving the seed, which is dropped through the two forked channels shown in Fig. 1 of the drawings.

Below the plates *a a*, and on each side of each prong, a plate, *c*, is secured to the edge the portion A, and projects over the edges of the prong on opposite blade, B, but is not secured to this blade B. These plates *c c c c* serve merely as guards to conduct the seed down into the openings made in the earth by the plates *b b b b*. The seed is conducted down as far as the plates *c c c c* and prevented from escaping, except at the lower forked ends, by covering the sides of the machine with any suitable flexible material, such as leather or oiled cloth, (indicated by letter *d* in Figs. 1 and 2 of the drawings,) which should be tacked along the edges of the blades A B and extend above the seed-dropping device. These strips *d d* should be of such a width as to allow the lower ends of the blades A B to be properly opened and closed. The crotch of the forked channels thus formed is directly below the dropping device, and forms a division for separating each charge of seed when dropped, so that one half of the charge will pass down one of the discharging-channels and the other half down the other channel.

The dropping device consists of a seed-slide, *g*, one end of which is pivoted to the blade B, (shown in Fig. 1,) and the other end passes through a hole made through the blade A into a seed-box, G, which is secured to the outside of the blade A. The slide *g* works in a channel in the bottom of the seed-box G, and the end of the slide *g* is covered by an inclined board, *h*, which prevents the seed from getting between the end of the slide *g* and the side of the box G. The slide *g* has two notches, *i i*, cut in it, (shown in Figs. 2 and 3 of the drawings,) each of which is of such a size as to contain just half the quantity of seed desired to be planted at one time. The channel in which the seed-slide *g* works is lined with sheet metal, and over the slide *g*, on the inside of the blade A, a brush, *k*, is secured, which is used to prevent more than the desired quantity of seed from being drawn out of the seed-box G. Slide *g* is of such a width that the seed dropped from the notches *i i* through it will fall on each side of the crotch of the two discharging-forks, as indicated in red marks in Fig. 2 of the drawings. The blades A B are furnished with handles D D, which are secured

to the upper ends of the blades, and the seed-box G is provided with a sliding cover, as shown in Figs. 1 and 2 of the drawings.

The operation of my machine is as follows: The box G being filled with corn, the cover is closed, and the machine is ready for use. The planter walks along over the field which has been prepared for the reception of the seed, and with the lower forked ends of the machine closed he plunges these ends into the soil, and then closes the upper ends of blades A B, as shown in Fig. 1. This operation separates plates *b b b b*, which form two holes in the earth the proper depth to receive the corn, which is dropped from the machine at the same time the holes are formed in the earth. The machine is now lifted up, and the upper ends of the blades A B are again opened, which operation, as before, draws out the slide *g* and drops a half-charge of seed in each one of the forked dischargers, ready to be deposited into the soil at the next operation of opening the lower ends of these dischargers. By thus separating the grains in the hills they will vegetate much more rapidly and uniformly, and none of the grains will be thrown out of the ground by the rapid growth of other grains. Besides, other objections attending the dropping of corn in a heap will be obviated.

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

The forked distributing-tubes formed of blades A B and a flexible material, *d*, as herein described, in combination with the double discharging seed-slide *g* and box G, all arranged and operating in the manner herein set forth.

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