(No Model.)

T. N. LUPTON.

HAND PLANTER.

No. 389,709. Patented Sept. 18, 1888.

Fig. 1.

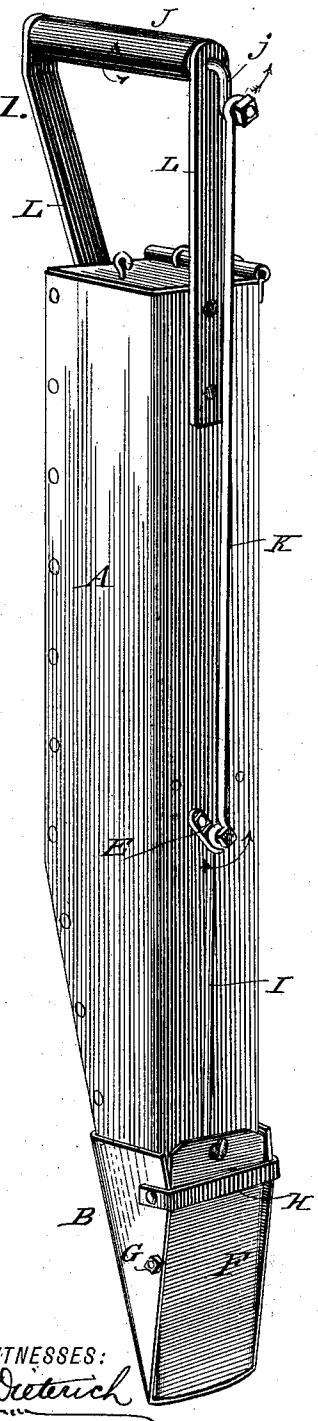


Fig. 3.

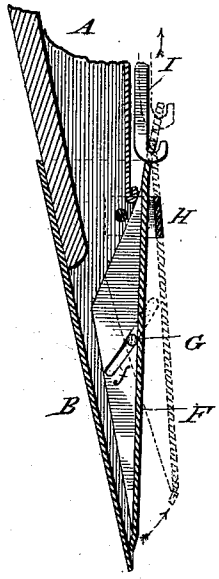


Fig. 4.

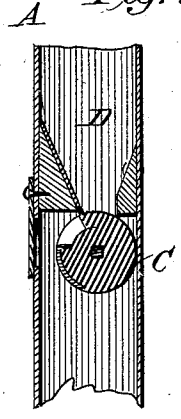
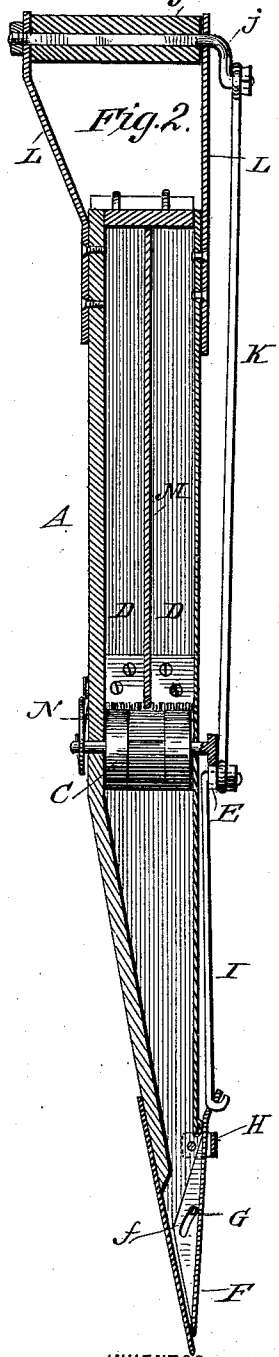


Fig. 2.



WITNESSES:

Fred G. Dieterich

P. B. Turpin.

INVENTOR

Thos. N. Lupton

BY Munn & Co

ATTORNEY

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

THOMAS N. LUPTON, OF WINCHESTER, VIRGINIA.

HAND-PLANTER.

SPECIFICATION forming part of Letters Patent No. 389,709, dated September 18, 1888.

Application filed May 19, 1888. Serial No. 274,615. (No model.)

To all whom it may concern:

Be it known that I, THOMAS N. LUPTON, of Winchester, in the county of Frederick and State of Virginia, have invented a new and useful Improvement in Hand-Planters, of which the following is a specification.

My invention is a hand-planter which is capable of use in planting corn, beans, and other seeds, the device being adapted to be carried by one hand and to have its movable part or parts operated by the handle grasped by said hand.

The invention consists in certain novel constructions and combination of parts, as will be described.

In the drawings, Figure 1 is a perspective view, and Fig. 2 a longitudinal section, of my planter. Fig. 3 is an enlarged sectional view of the lower end of the planter, and Fig. 4 is a sectional view of the planter in the region of the dropping-wheel.

The casing A has a foot-like portion, B, and is provided with the dropper C, formed in the present instance of a pocketed wheel, by partially turning which seeds from the receptacle D above the wheel may be discharged into the lower portion of the casing. With this dropping-wheel I connect a crank-arm, E, preferably by extending the trunnion or shaft of the wheel through the casing and securing the crank to said shaft, as shown.

The door F, for closing the lower end of the casing, is movable longitudinally with reference to the foot, rests alongside the same, as shown, and diagonal or inclined bearings are provided between the door and the foot. In the construction shown the door has diagonal or inclined slots *f* in its sides, which slots incline outward toward their upper ends, and a bolt, G, extends through these slots and between the sides of the foot portion.

Manifestly, short studs projected inwardly from the sides of the foot into slots *f* would to a certain extent be an equivalent of the bolt G; but the construction as shown is preferred. By this construction, as the door is drawn upward to open the casing, its lower end is moved outward and upward in approximately the arc of a circle. A strap or loop, H, extends from the foot over the upper end of the door and forms a guide or keeper by which to direct the movement of said end of the door, and so insure the desired movement of the lower end of the door above described. In order to move this door longitudinally, I connect it by rod I to the crank-arm E, so that the turning of the said crank will effect the desired movement of the sliding door.

In order to properly operate the crank E, and through it the dropper and the sliding door, I journal the handle J and provide said handle with a crank, *j*, connected by rod K with the crank E, so that the turning of said handle will operate to turn crank E, and so effect the operation of the dropper and of the door. This handle is the one by which the device is supported, so that it can be carried and operated by one and the same hand.

An important feature of my invention is the arrangement of this handle directly above the seed-box, so that the weight of the implement can be easily borne by said handle and retained in the desired vertical position. To this end I project supports L above the seed-box and provide same with bearings for the handle. This handle may be grasped by the hand, and when desired to drop seed by partially turning the handle the dropper and door may be operated to effect the dropping of the seed, as will be understood from the foregoing description. If desired, the handle may be oval or of other non-circular cross-sectional form; but I find that when made round, as shown, it may be easily turned in operation.

A partition, M, may be arranged in the seed-box, as shown, to enable two kinds of seed to be sown; or fertilizer may be placed in one side and the seed in the other, as may be desired.

In operation it will be noticed that gravity will exert its influence to return the dropping-wheel and the foot-door to the normal position, and it will be understood that the spring N, engaging the dropping-wheel shaft, could be dispensed with; but said spring may be preferred in order to render the operation of the device more certain. The foot, as shown, extends or projects below the lower end of the door, so that sticks and the like are not likely to get in between said door and foot to obstruct the operation of the machine; also, by such construction any slight battering of the

lower end of the foot will not prevent the door from properly closing the casing in the operation of the device.

Having thus described my invention, what I claim as new is—

1. In a hand-planter, the combination of the dropper, the crank-arm connected with and having a common center of motion with the dropper, the foot-door, the tripping-handle, and rods leading from said crank-arm to the tripping-handle and to the foot-door, substantially as set forth.

2. In a hand-planter, the combination, with the seed-box and supports projected above said box and having bearings for the handle, of the handle journaled in said supports and having a crank for connection with the moving part or parts of the planter, the handle being arranged directly above the seed-box for convenience in supporting the weight thereof, substantially as set forth.

3. The combination, in a hand-planter, of the dropping-wheel having its shaft provided with a crank-arm, the foot-door, the tripping-handle having a crank-arm, the connecting-rods extended between the crank-arms of the handle and of the dropping-wheel, and a rod connecting the latter with the foot-door, substantially as set forth.

4. In a hand-planter, the combination of the casing having a foot, the door movable longitudinally with reference to the foot and having diagonal or inclined slots in its sides, and a shaft or its equivalent entering said inclined slots, substantially as set forth.

5. In a hand-planter, the combination of the casing having a foot, the foot-door, diagonal or inclined bearings between said door at about its center, and the foot and a guide or keeper whereby to direct the movement of the upper end of the door, substantially as set forth.

6. The improved hand-planter, consisting of the casing having a foot at its lower end, the sliding door, diagonal or inclined bearings between the door and the foot, a guide or keeper whereby to direct the movement of the upper end of the said door, the dropping-wheel having a crank-arm, the rod connecting such crank-arm with the foot-door, the handle having a crank-arm, and a rod connecting the crank-arm of the handle with that of the dropping-wheel, substantially as set forth.

THOMAS N. LUPTON.

Witnesses:
SOLON C. KEMON,
P. B. TURPIN.