G. BURSON.

Hand Planter.

No. 107,594. Patented Sept. 20, 1870.

Fig.2.

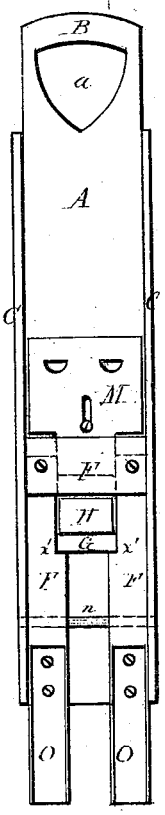

Fig.1.

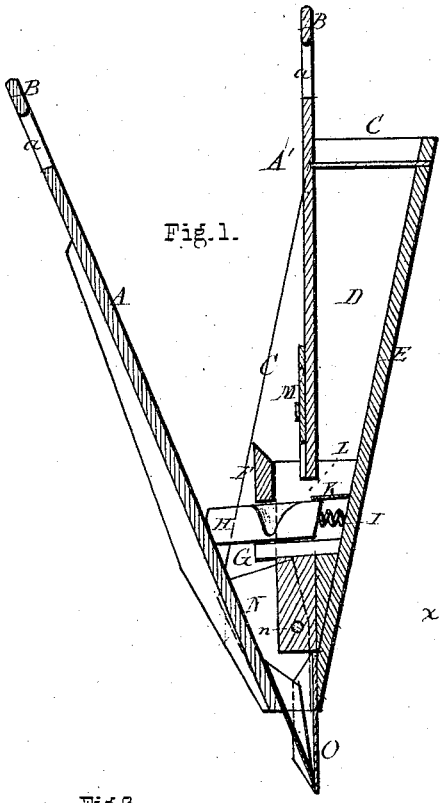

Fig.4.

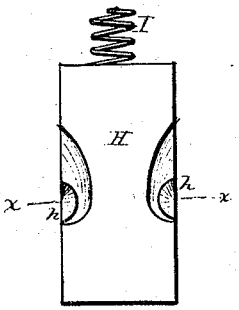

Fig.3.

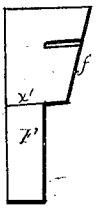

Fig.5.

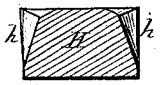

Fig.6.

Witnesses.

A. E. L. Merle

Chas. A. Poole

Inventor.

Geo. Burson,

by Prindle & Dyer,

Attys.

United States Patent Office.

GEORGE BURSON, OF EAST PALESTINE, OHIO.

Letters Patent No. 107,594, dated September 20, 1870.

IMPROVEMENT IN HAND CORN-PLANTERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE BURSON, of East Palestine, in the county of Columbiana and in the State of Ohio, have invented certain new and useful Improvements in Hand Corn-Planters; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a vertical longitudinal section of my device, on the line *x x* of fig. 2;

Figure 2 is a front elevation of the same with the operating lever removed;

Figure 3 is a side elevation of one of the dropper-frame blocks;

Figure 4 is a plan view of the dropper or slide;

Figure 5 is a cross-section of the same on the line *y y* of fig. 4; and

Figure 6 is a side elevation of said slide.

Letters of like name and kind refer to like parts in each of the figures.

My invention is an improvement upon a hand corn-planter, for which Letters Patent No. 88,607 were granted to me on the 6th day of April, 1869; and

It consists, principally, in the peculiar construction and arrangement of the hopper and of the casing for inclosing the dropping devices, by means of which great economy of material and space are secured and a more convenient machine produced.

It also consists in the construction and arrangement of the dropping devices and of the frame for inclosing the same, which frame forms, also, the chutes for conducting the grain to the hills, as is hereinafter set forth.

In the annexed drawing—

A and A′ represent the operating levers of my device, formed of two narrow strips of board, each provided at its upper end with a suitable opening, *a*, between which and said end is left a handle, B.

Secured to or upon the edges of the lever A′ are two strips of board, C, which extend diagonally from the lower end of the same to a point immediately below the opening *a*′, as shown in fig. 1, and furnish suitable protection for the dropping devices, and also sides for the hopper D, said hopper being completed by means of a back, E, corresponding in width to the space between said side pieces C, and in length to the length of the same.

Secured to the sides C, near their lower ends are two blocks, F, having the general form shown in fig. 3, the upper half of which, being provided with sloping edges *f*, corresponding to the angle of the back E, extend through the lever A′, and are attached to said back, while the front edge of said blocks extends downward in a line parallel with the face of said lever.

The inner face of each block F is removed vertically from its upper end downward to about its center, lengthwise, so as to form a ledge, *x*′, extending backward and slightly upward from the front.

Resting upon the ledge *x*′, and secured to the blocks F, is a strip, G, corresponding in width to the distance between said blocks, and having a length somewhat greater than the distance from their front edges to the back E.

Corresponding in size with and resting upon the strip G is a slide, H, having within each edge near its center, lengthwise, a semicircular cavity or groove, *h*, which, commencing at a point near the lower side of said slide, widen and deepen as they extend upward, until at the upper side of the slide said cavities spread inward and to the rear, as shown in figs. 4 and 6.

A spiral spring, I, resting within and projecting from the rear end of the slide, bears against the back E, and holds said slide in the position shown in fig. 1, except when pressed inward by the means hereinafter described.

Secured within the rear of the blocks F, immediately above the slide H, is a thin strip of metal, K, which serves the double purpose of a bottom for the hopper D and a shield for said slide, keeping from the latter all pressure from the grain in said hopper, and also preventing said grain from passing in rear of said slide.

Above the shield K, in and through the lever A′, is provided an opening, L, for the escape of grain from the hopper, which opening is opened or closed, and the passage of said grain correspondingly varied by means of a slide, M, secured to and working upon the face of said lever A′.

A cross-bar, F′, secured to the front edges of the blocks F, immediately above the slide H, holds the latter in position vertically, and prevents the grain resting thereon from passing outward.

Secured to the center, transversely of the inner face of the lever A, at and extending upward from its lower end, is a block, N, having the form shown in fig. 1, and corresponding in thickness to the space between the blocks F. Being placed in position between said blocks, a pin, *n*, passing through the same, the sides C and said block N secures the latter in position and serves as a pivot for the lever A, upon which said lever turns when its upper end is moved to or from the lever A′.

Two bills, O, of usual form, the sections of which are attached to and extend downward from the lower ends of the levers, upon their inner faces, and at their edges, complete the device, which is operated as follows:

The hopper being charged with grain, and the position of the slide M adjusted so as to regulate the

flow of said grain, the levers are moved together, so as to press inward the dropper or slide H and allow said grain to fill the cavities *h*, after which, if said levers are moved outward, the spring I will force outward said dropper until its cavities are beyond the blocks F, when the grain contained within will drop downward into the bills. If now the bills are forced downward into the ground, and the levers pressed together, said bills will be opened so as to allow their contents to drop out, and at the same time the dropper will be recharged with seed, which, upon spreading apart said levers, will be deposited within said bills for the next operation.

The principal advantage possessed by this device arises from the peculiar construction and arrangement of the hopper and of the casing and frame of the dropping devices, as thereby both space and material are economized.

Another advantage arises from the construction of the dropping devices and of the frame within which they operate, the same being simple, durable, and not liable to get out of order.

Having thus fully set forth the nature and merits of my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The lever A′, the side pieces C, and the back E, when constructed and arranged as shown, so as to form a hopper, D, and a casing for the dropping devices, substantially as and for the purpose specified.

Also, the construction and arrangement of the dropping devices, consisting of the blocks F and N, the strips G and K, the slide H, provided with the cavities *h*, and the cross-bar F′, substantially as shown, and for the purpose set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 26th day of March, 1870.

GEORGE BURSON.

Witnesses:

BENJAMIN P. BURSON,

GEORGE JORDAN CHURCHILL.