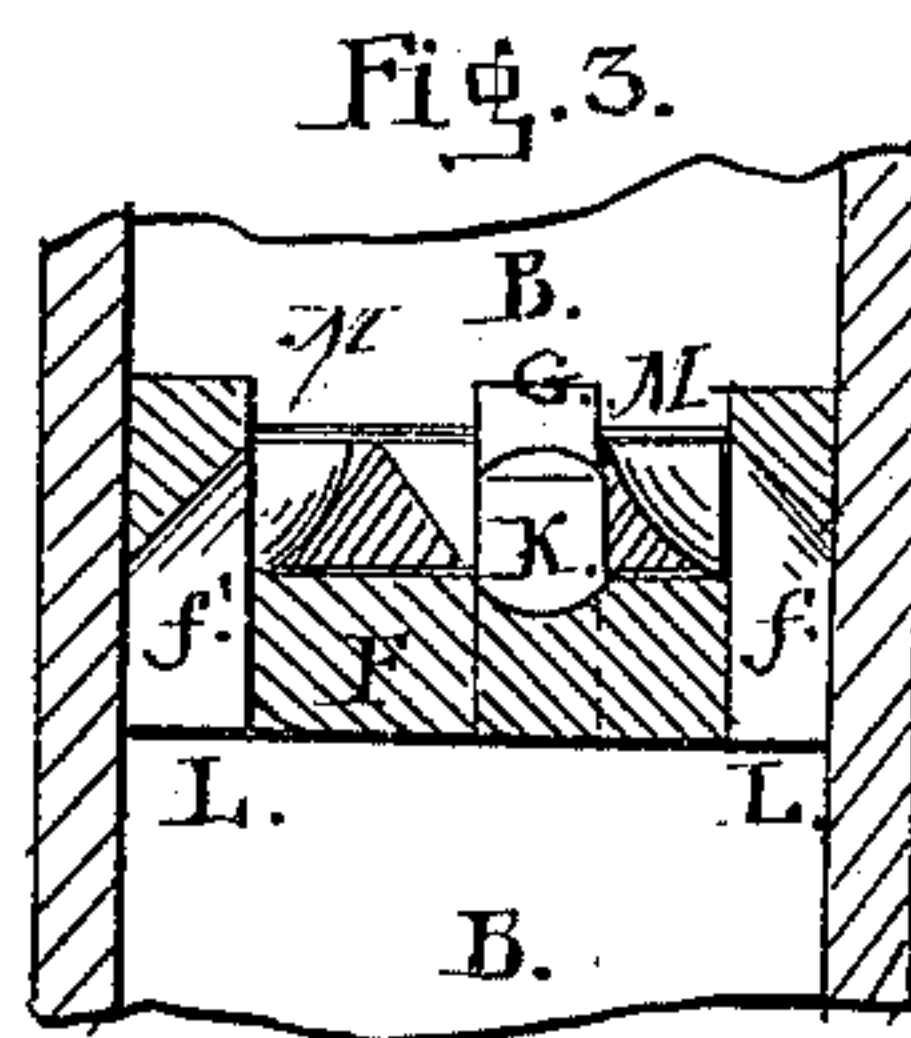
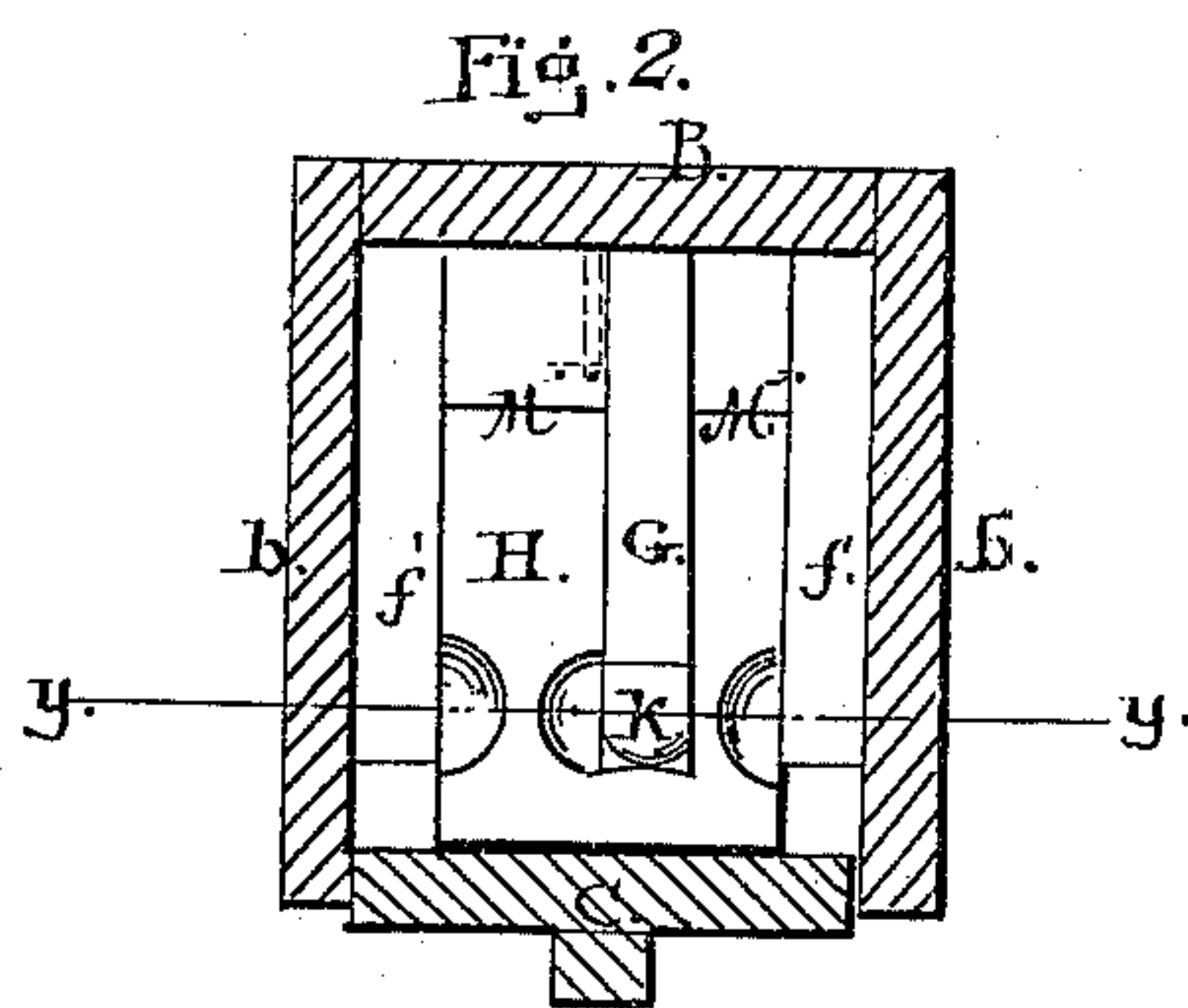
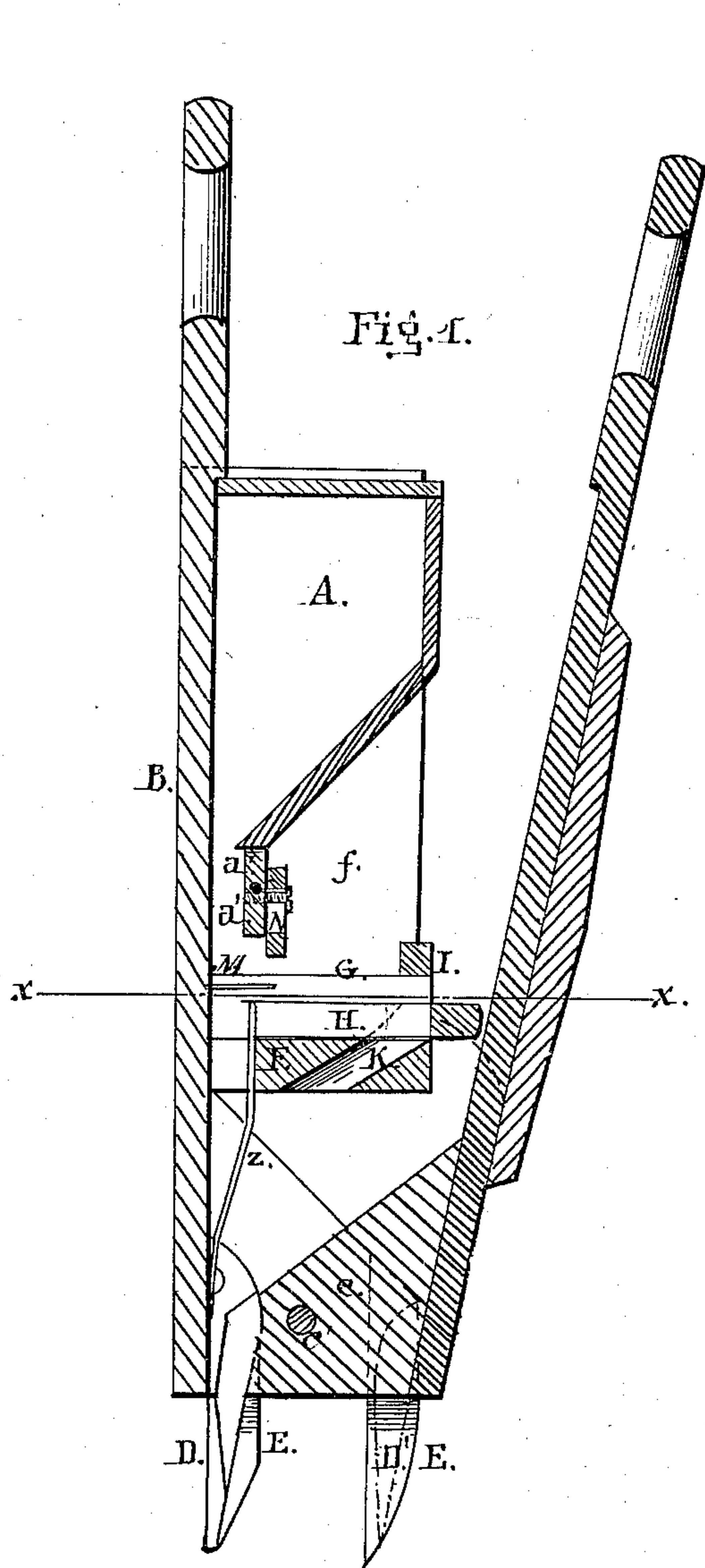


G. Burson.

Hand Planter.

N^o 88,607.

Patented Apr. 6, 1869.



Witnesses:
Geo. H. Reed
C. H. Bishop

Inventor:
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by Prindle and Dyer
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United States Patent Office.

GEORGE BURSON, OF EAST PALESTINE, OHIO.

Letters Patent No. 88,607, dated April 6, 1869.

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 a part of this specification, in which—

Figure 1 is a vertical section;

Figure 2 is a cross-section, on the line $x x$ of fig. 1; and

Figure 3 is a broken vertical section, on the line $y y$ of fig. 2.

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

This invention is an improvement upon a hand corn-planter, for which Letters Patent, No. 84,426, were granted to C. A. Kellogg, November 24, 1868; and

It consists principally of the construction and arrangement of the slide and passages for distributing the seed, whereby the charge deposited in each hill is conducted into and equally divided between the bills, or chutes.

It also consists of the devices for regulating the flow of the corn, and for relieving the slide from the variable pressure caused by the weight of seed in the hopper.

In the annexed drawing—

A represents the seed-box, or hopper, the bottom of which inclines downward to within a short distance of the back, where it is secured to a vertical strip, a , between which and said back is left a narrow opening, a' , for the passage of the seed.

The back, B, extends above and below said hopper, (as shown in fig. 1,) and is provided, at its upper end, with a handle, by which the implement is carried.

The sides of said box $b b$ also extend downward as far as the back, B, leaving an open space in front, except when the hopper is enclosed.

C represents a lever, corresponding in size, and shape, to the back, B, having, upon its lower end, a lug, c , by means of which it is pivoted to the lower ends of the sides $b b$, by a pin, c' , passing through said sides and lug.

Secured to the lower end of the back, B, at its centre, crosswise, is a chute, or bill, D, which is provided with deep flanges upon each side, and is open to the front, while two similar chutes, D', are attached to the sides $b b$, near their front edge.

To these chutes are fitted jaws, E E, which are attached to the lower end of the lever C, and to the lug c , so that, when the upper end of said lever is pressed toward the hopper, said jaws will be distended.

Situated midway between the hopper and chutes, and secured to the back, B, and sides $b b$, is a horizontal partition, F, which is provided with two side-pieces, $f f'$, and also with a vertical partition, G, extending from near its front edge to the back, B, and about one-

third of the distance from the side-piece f' , to that on the opposite side, f .

A slide, H, corresponding in width to the space between said sides, and provided with a longitudinal slot, corresponding in width to the vertical partition G, rests upon the horizontal partition F, where it is held in place by a cross-bar, I, so as to allow said slide to move in or out upon said horizontal partition.

A spring, z , is so secured to the back, as to cause its upper end to press the slide outward, and keep the lever in such a position as to close the jaws.

Immediately in front of the vertical partition G, is a passage, K, which extends downward diagonally through the horizontal partition F, (as shown in fig. 1,) while, situated upon a line with the upper end of said passage, are two others, L L, formed by cutting away the lower part of the front ends of the side-pieces $f f'$, as seen in fig. 3, said passages being for the purpose of conveying grain to the chutes.

The slide H has three semicircular bevelled cavities, $h h h$, upon its edges, which correspond with the passages K and L L, when said slide is in such a position as to bring said cavities beneath the cross-bar I, so that, if grain is supplied so as to fill the cavities, and the slide then drawn out, the grain will drop through said passages into the chutes, furnishing to each an equal quantity.

Directly beneath the opening a' , and immediately above the slide H, is a strip of sheet-metal, M, which is secured to the sides $b b$ and back, B, and extends forward about twice the width of said opening, for the purpose of receiving the direct pressure of the grain, and thus relieve the slide H from its weight and all unnecessary friction.

In order that the flow of the grain may be regulated, a gate, N, is secured to the piece a , by means of a screw, n , passing through a vertical slot in said gate, allowing it to be adjusted up or down, so as to increase or lessen the size of the opening between it and the strip M, and correspondingly affect the passage of the grain.

The operation of this device will be readily understood.

The hopper being filled with grain, a portion of it passes downward, and rests upon the slide. If now the lever C is pressed inward, carrying with it the slide, the cavities will be uncovered and filled with grain, which, upon the liberation of the lever, is carried outward by the slide, until said cavities correspond with the passages K and L L, through which the grain falls into, and is held by the chutes. Said chutes being now forced into the ground, and the lever again pressed inward, the grain will be discharged into the ground, and the cavities in the slide again filled, to be, in like manner, discharged into the chutes, when the machine is raised from the ground, and the lever liberated.

The advantages possessed by these improvements are, that the slide, being relieved from all weight, and, consequently, friction, is more certain to operate; and,

further, by the arrangement of the openings for the passage of grain to the chutes, in connection with the construction of the slide and cavities, an equal amount of grain is deposited in each of said chutes at every motion of said slide.

Having thus fully set forth the merits of my invention,

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

1. The metal strip, or partition M, placed immediately beneath the opening α' , at the bottom of the hopper, for the purpose of relieving the slide H from the weight of the grain, substantially as shown and described.

2. Also, in combination with said strip M, the gate

N, constructed and arranged to operate substantially as shown, and for the purpose set forth.

3. Also, the slide H, with the cavities $h\ h\ h$, and the horizontal partition F, with the vertical partition G, and passages K and L L, by means of which an equal quantity of grain is caused to pass into each of the chutes, at every operation of the device, substantially as herein specified; and I hereby disclaim all parts of the aforesaid device, except those enumerated in the above claim.

In testimony that I claim the foregoing, I have hereunto set my hand, this 20th day of February, 1869.

Witnesses: GEORGE BURSON.

J. T. CHAMBERLIN,
AMOS BURSON.