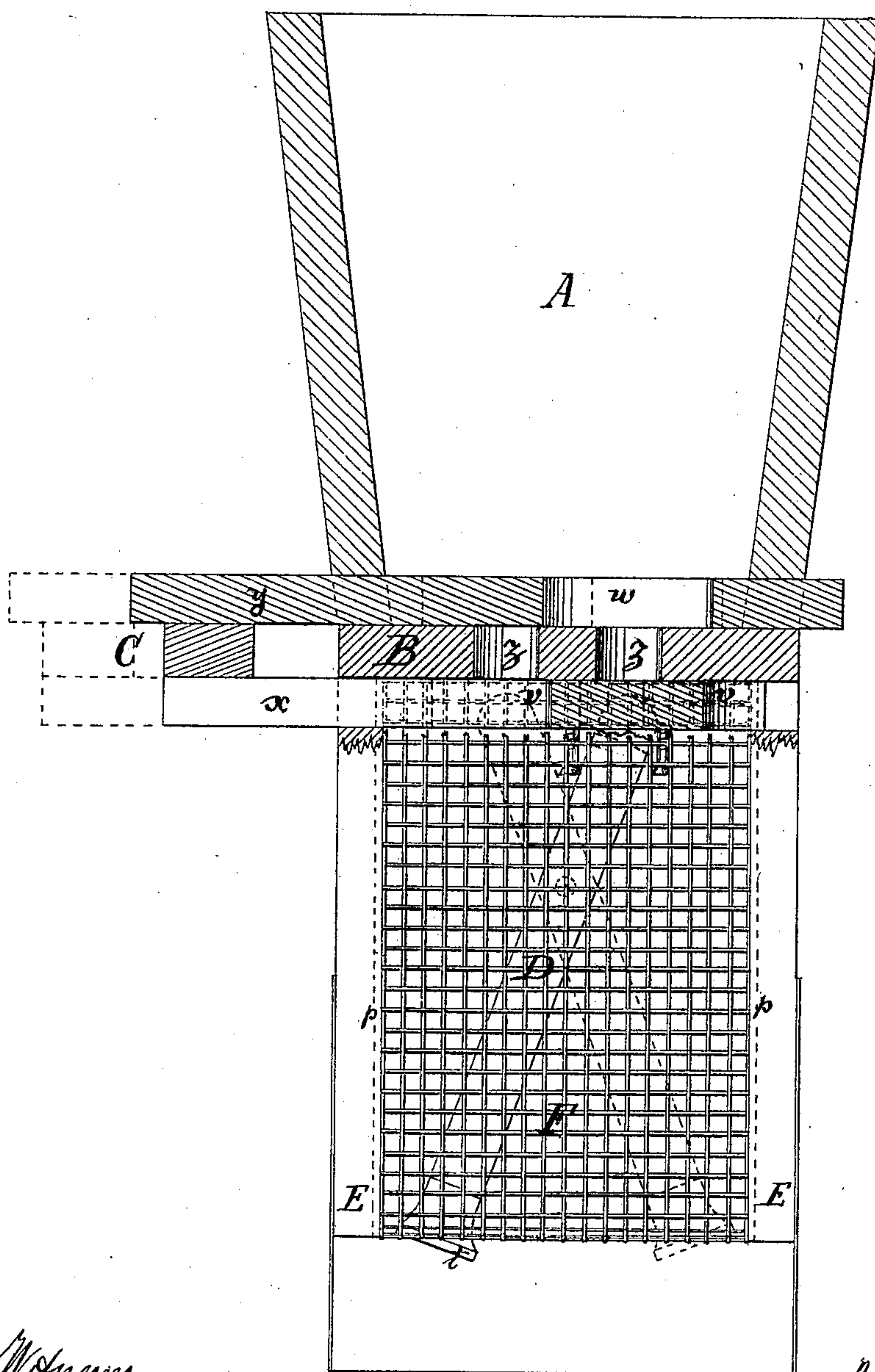


A. N. SMITH.  
Corn-Planters.

No. 143,036.

Patented September 23, 1873.



Witnesses  
Chas. Cheson  
C. H. Parkman

Inventor  
Artemas N. Smith  
by his attorneys  
Cox & Cox

# UNITED STATES PATENT OFFICE.

ARTEMAS N. SMITH, OF CHILLICOTHE, MISSOURI.

## IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **143,036**, dated September 23, 1873; application filed February 3, 1873.

*To all whom it may concern:*

Be it known that I, ARTEMAS N. SMITH, of Chillicothe, Livingston county, Missouri, have invented certain new and useful Improvements in Screens for Corn-Planters, of which the following is a description, reference being had to the accompanying drawings.

The invention relates to providing the heel of a device for planting corn or grain with a screen, of wire or perforated metal, through which the operation of the planter in dropping the grain may be observed.

The accompanying drawing represents a side elevation of a device embodying the elements of the invention, the upper part being shown in section, so as to disclose the internal arrangement of the parts at the base of the hopper.

A in the accompanying drawings is a hopper, the bottom B of which is formed of a piece of material punctured with a suitable number of apertures, *z*. The slide C consists of a slide-board, *y*, and dropper *x*, which move upon the upper and lower surfaces of the bottom B of the hopper; the slide-board *y* being provided with the slot *w*, and the dropper with the slots *v*, all being so arranged that the slots *w* and *v* alternately pass over the apertures *z* as the slide C is operated. To the center of the lower surface of the dropper *x*, and midway between the apertures therein, is hung the valve D, which, in width, nearly equals that of the valve-box E of the planter, in which it swings freely. The lower portion of the valve is provided on each side with the ledge *t*, and is moved as the slide C is operated, the edges of the ledges *t* coming alternately in contact with the sides of the valve-box E. Immediately in rear of the valve, and forming the rear side of the valve-box E, is provided the screen F, which is so placed in order that the grain falling from the dropper

may be seen. The screen F is held in place by grooves *p* in the sides of the valve-box E, or may be arranged in any other suitable manner, so as to afford a view of the dropping operation aforesaid.

The hopper A is filled with grain, and the proper attachments made so as to give the slide C an alternate movement from side to side. A certain number of kernels of the grain from that in the hopper descend into the orifice *z*. As the slide C operates, these kernels are drawn over one of the apertures in the bottom B of the hopper. Upon the reverse movement of the slide this aperture is opened, and the kernels fall through one of the slots *v*, and are caught between the ledge *t* and the side of the valve-box E. The reverse movement of the slide C opens the valve D, swinging it in contact with the opposite side of the valve-box E, thus dropping the grain, and at the same time catching, in the manner above set forth, the grain falling through the other slot in the dropper by the reverse movement of the slide. The screen F is so placed that the falling grain may be readily seen, one hill being in sight at all times.

I do not claim a glass or similar solid transparent covering for the valve; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

The screen F, for the uses and purposes substantially as shown and described.

In testimony that I claim the foregoing improvement in screens for corn-planters, as above described, I have hereunto set my hand and seal this 16th day of December, 1872.

ARTEMAS N. SMITH. [L. S.]

Witnesses:

C. H. MANSUR,

J. D. SHERMAN.