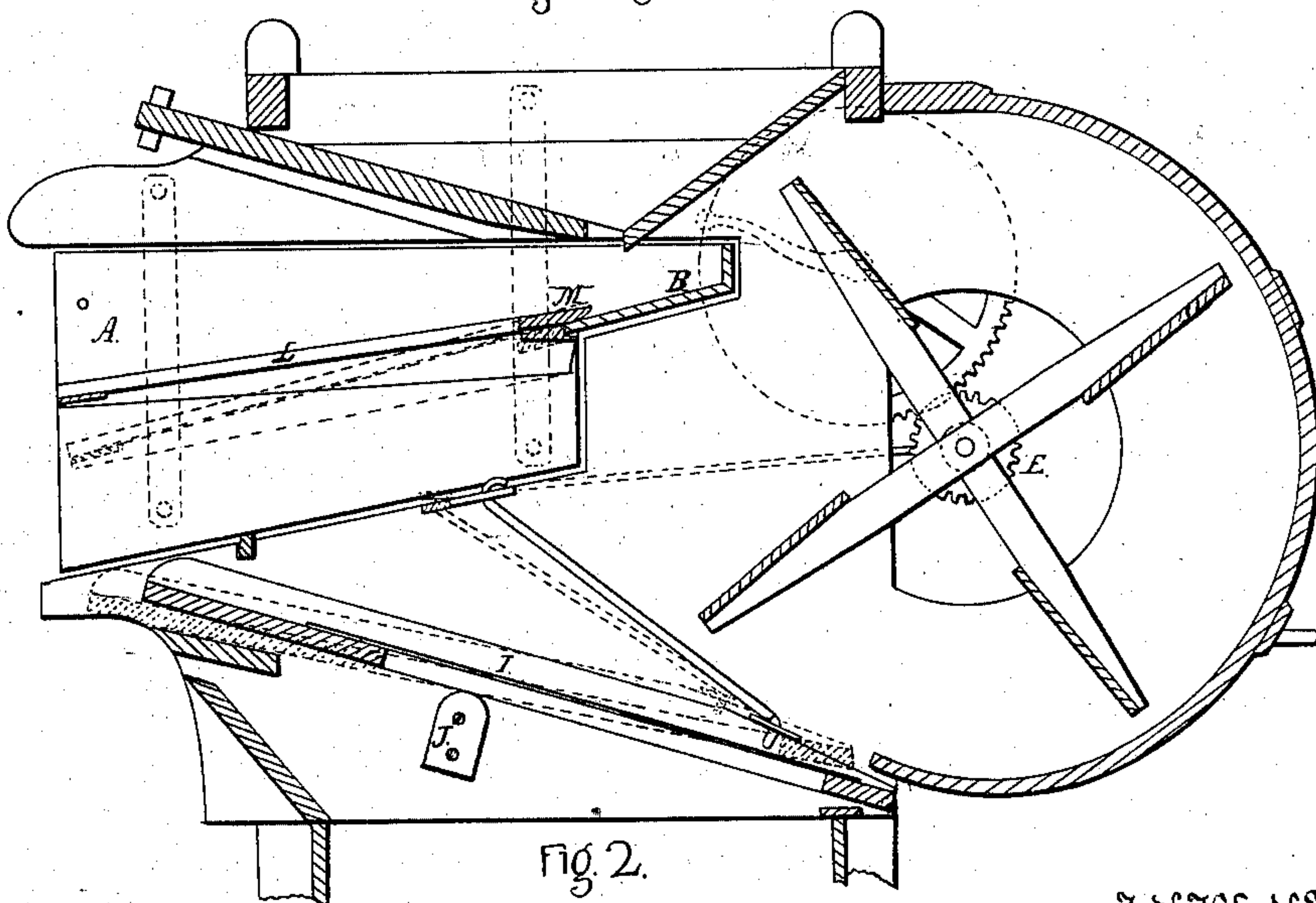
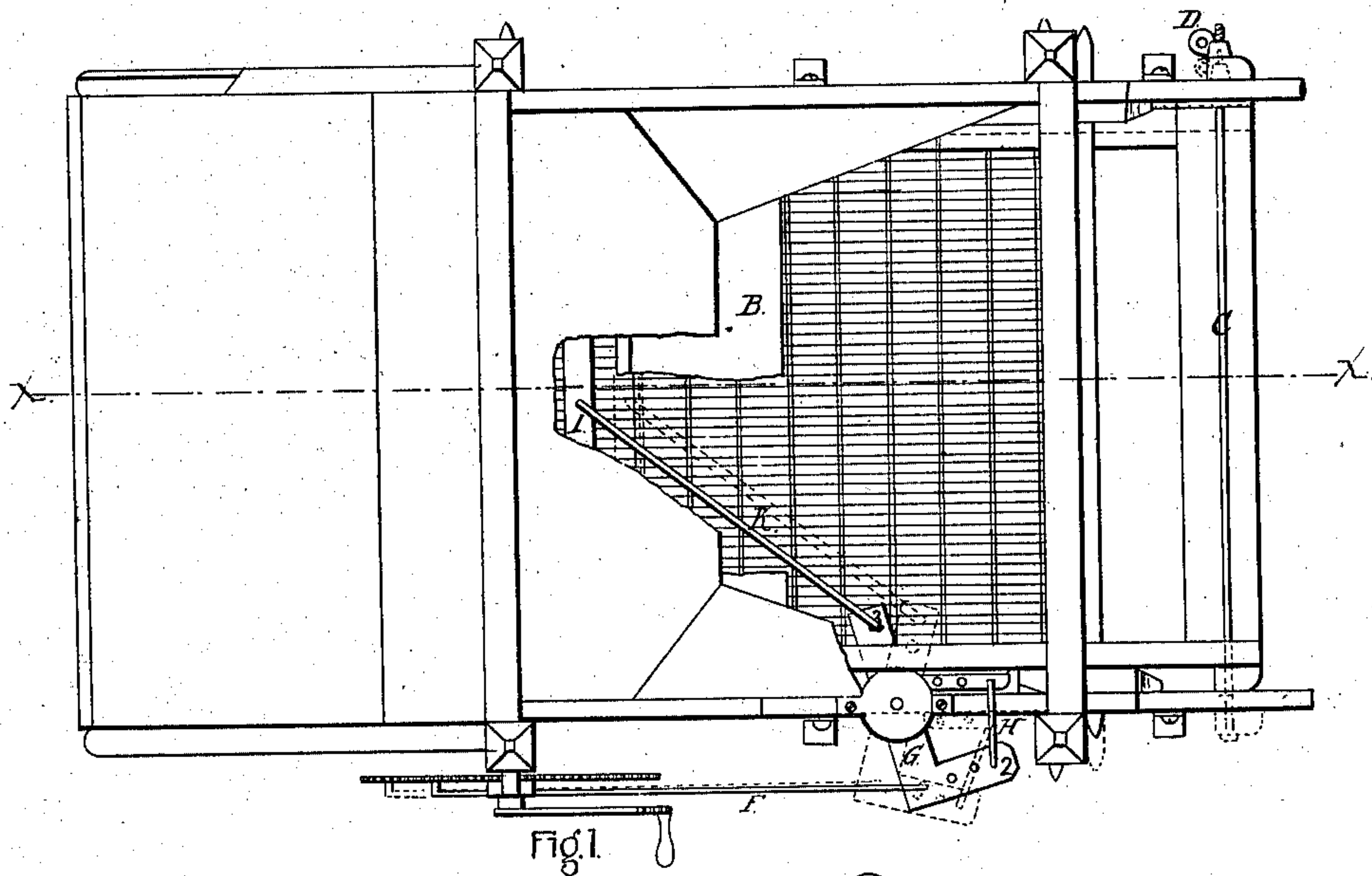


No. 81,448.

PATENTED AUG. 25, 1868.

M. D. WILLIAMS.  
GRAIN SEPARATOR.



ATTEST  
G. C. Olyer  
H. F. Ebers

INVENTOR  
M. D. Williams  
Per attorney  
Thos S Sprague

The drawing in this matter  
is not in accordance with the rules

## United States Patent Office.

MILES D. WILLIAMS, OF LAWTON, MICHIGAN.

Letters Patent No. 81,448, dated August 25, 1868.

### IMPROVEMENT IN GRAIN-SEPARATORS.

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

#### TO WHOM IT MAY CONCERN:

Be it known that I, MILES D. WILLIAMS, of Lawton, in the county of Van Buren, and State of Michigan, have invented a new and useful Improvement in Grain-Separators; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

Figure 1 is a top view of my invention, partly in section, and

Figure 2 is a vertical sectional view of the same, on the line X X, fig. 1.

The nature of my invention consists in so constructing a grain-separator that its "shoe" and its upper screen-case are given a vibratory, and its lower screen a rocking motion, for the quicker and more effectual cleaning of the grain or seeds than can be obtained by other separators.

To accomplish this purpose, I construct a case and fan in the ordinary style, provided with an upper screen-case, A, and shoe B attached to its inner end, which acts as a guide to convey the grain from the hopper to the screens. To the pinion E is attached the connecting-rod F, which gives motion to the double bell-crank G, the outer arm 2 of which gives a lateral vibratory motion to the upper screen-case A, by means of a proper link or rod, H, while its inner arm, 3, causes the lower or cockle-screen I to "rock," with an oscillating and sliding motion on the rocker-blocks J, which motion is obtained from the inner arm 3, by the connecting-rod K, engaging with the rear end of the screen. The upper screens, L, instead of being secured to certain positions, by sliding in fixed grooves therein, are provided with the jaws M, upon their upper inner corners, which engage with the shoe B, while the outer ends may be inclined to any necessary slope, and there held, by tightening the sides of the screen-case A against them, by means of the bolt C and nut D.

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

1. The upper screens L, provided with the jaws M, in connection with the shoe B, screen-case A, bolt C, and nut D, operating in the manner described and for the purposes specified.
2. The combination of the above-named parts with the grain-separator, constructed and arranged substantially as and for the purposes set forth.

MILES D. WILLIAMS.

Witnesses:

JAS. W. ATWELL,

A. LONGSTREET.