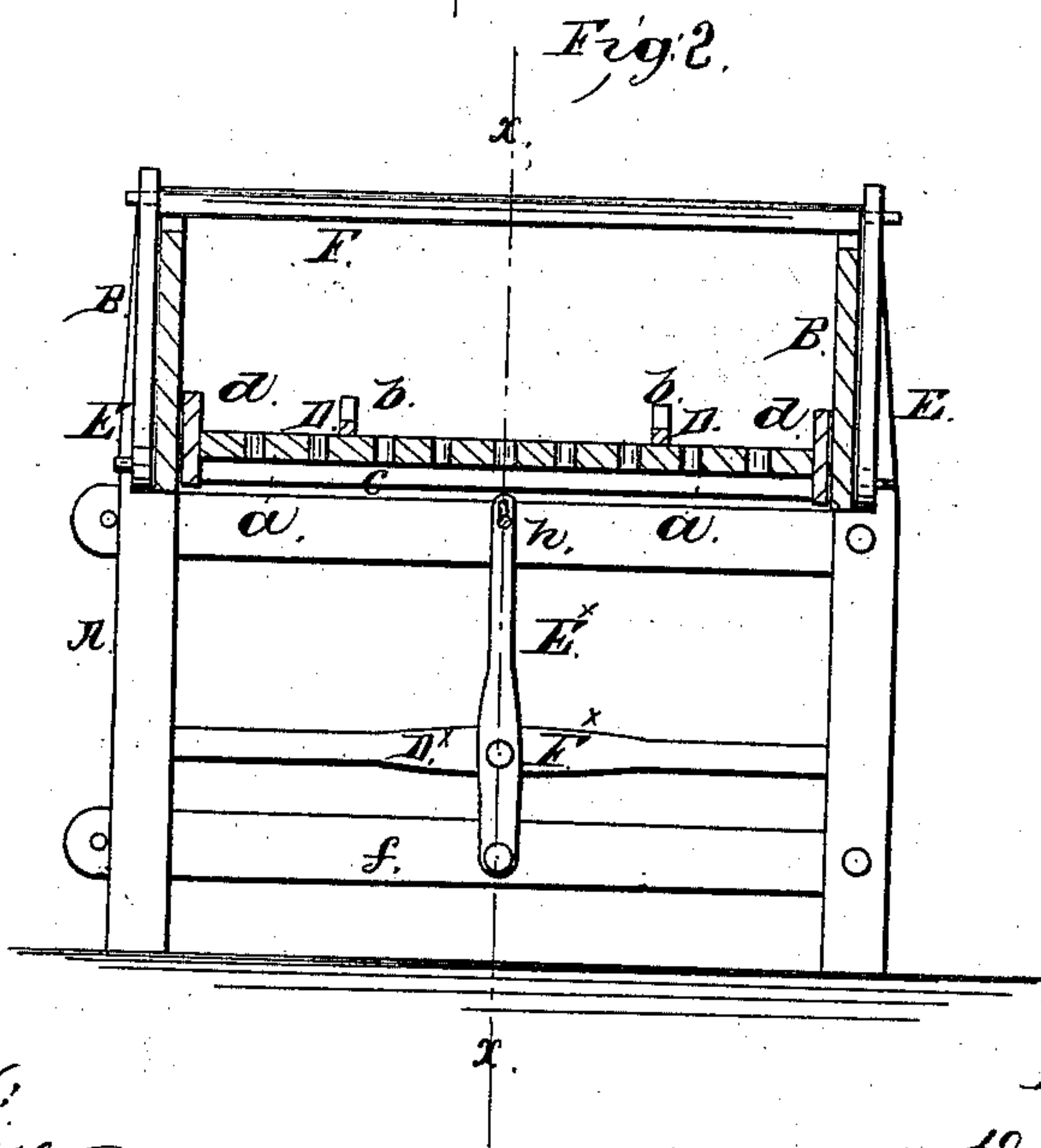
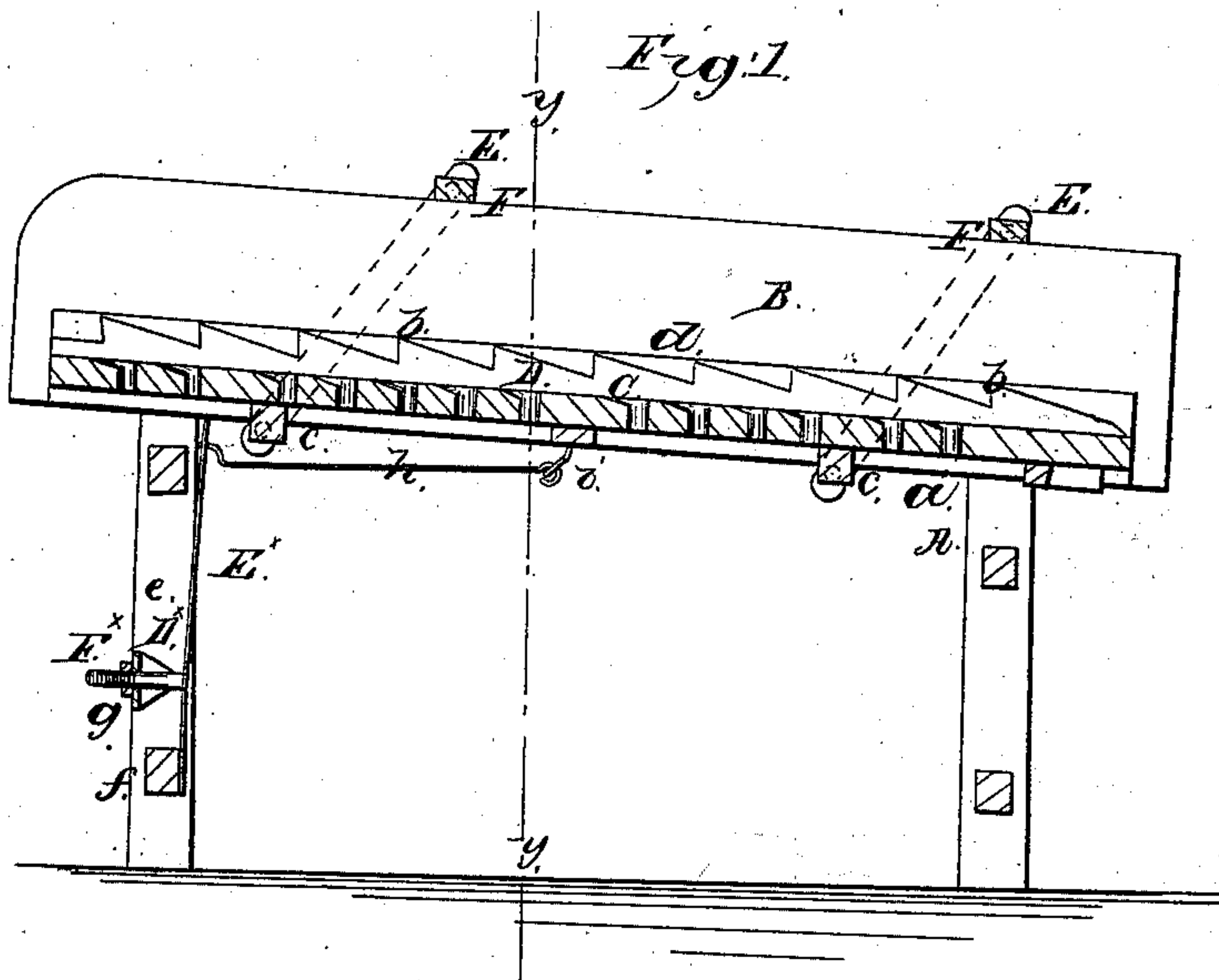


D. S. Yeakel,
Grain Separator.

No 79,715.

Patented July 7, 1868.



Witnesses:
H. C. Aslikettle
J. A. Morgan.

Inventor:
D. S. Yeakel
per Munif & Co.
Attorneys.

United States Patent Office.

DANIEL S. YEAKEL, OF DILLINGERSVILLE, PENNSYLVANIA, ASSIGNOR TO
HENRY DEER AND SOLOMON DEER, OF SAME PLACE.

Letters Patent No. 79,715, dated July 7, 1868.

IMPROVEMENT IN GRAIN-SEPARATOR.

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, DANIEL S. YEAKEL, of Dillingersville, in the county of Lehigh, and State of Pennsylvania, have invented a new and improved Grain-Separator for threshing-machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved separator, for separating the grain from straw as said substances are discharged from the threshing-cylinder of a threshing-machine, whereby the work above mentioned is performed in a perfect manner.

In the accompanying sheet of drawings—

Figure 1 is a longitudinal vertical section of my invention taken in the line *x x*, fig. 2.

Figure 2, a transverse vertical section of the same, taken in the line *y y*, fig. 1.

Similar letters of reference indicate corresponding parts.

A represents a framing, which may be constructed in any proper manner, so as to be strong and durable.

On the top of this framing there are secured two side pieces, B B, and between said pieces the screen C is placed, and allowed to work or swing freely.

This screen may be constructed of wood, having holes *a* bored through it, of sufficient diameter to admit of the grain passing through, and to the upper surface of the screen there are attached two longitudinal bars, D D, which are notched at their upper edges, to form a series of projections, *b*, as shown clearly in fig. 1.

The screen has two transverse bars, *c c*, secured to its under side, said bars having tenons formed at their ends to pass loosely through the lower ends of bars E, the upper ends of the latter being fitted loosely on the ends of transverse bars F F, which are permanently secured to the upper edges of the side pieces B B.

To each side of the screen C there is attached a strip, *d*, which extends up a short distance above the upper surface of the screen, and serves to prevent grain from passing down between the screen and side pieces.

To the supports *e e*, at the discharge-end of the framing A, there is attached a horizontal spring, D^x, and to the lower cross-piece, *f*, of these supports, there is attached the lower end of a vertical spring, E^x, which spring is attached to the spring D^x by a bolt, F^x, and nut, *g*, the bolt being allowed to work a little in spring D^x.

The upper end of the spring E^x is connected by a rod, *h*, with the bottom of the screen C, as shown at *i*.

The discharge-end of the framing and screen are slightly elevated, and a swinging, reciprocating motion is given the screen, in any proper manner, from the working parts of the threshing-machine.

The grain and straw are discharged upon the rear and depressed or lower part of the screen, the straw being gradually shoved forward, and discharged from the elevated end of the screen, in consequence of the projections *b* acting against it, the grain, under the motion of the screen, passing through the perforations thereof.

The springs cause the screen to operate with a uniform motion, which is well calculated to separate the loose grain from the straw as the latter is moved along over the surface of the screen, and the screen, owing to the way in which it is hung, has an upward and downward swinging movement, which greatly favors the end above mentioned.

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

The swinging screen C, hung or suspended as shown, in combination with the springs D^x E^x, all arranged and applied in the manner substantially as and for the purpose set forth.

Witnesses:

M. H. ALLRIGHT,
CHARLES MEASCHTER.

DANIEL S. YEAKEL.