

(No Model.)

F. WULFERT.
GRAIN SCREEN OR SEPARATOR.

No. 327,050.

Patented Sept. 29, 1885.

Fig. 1.

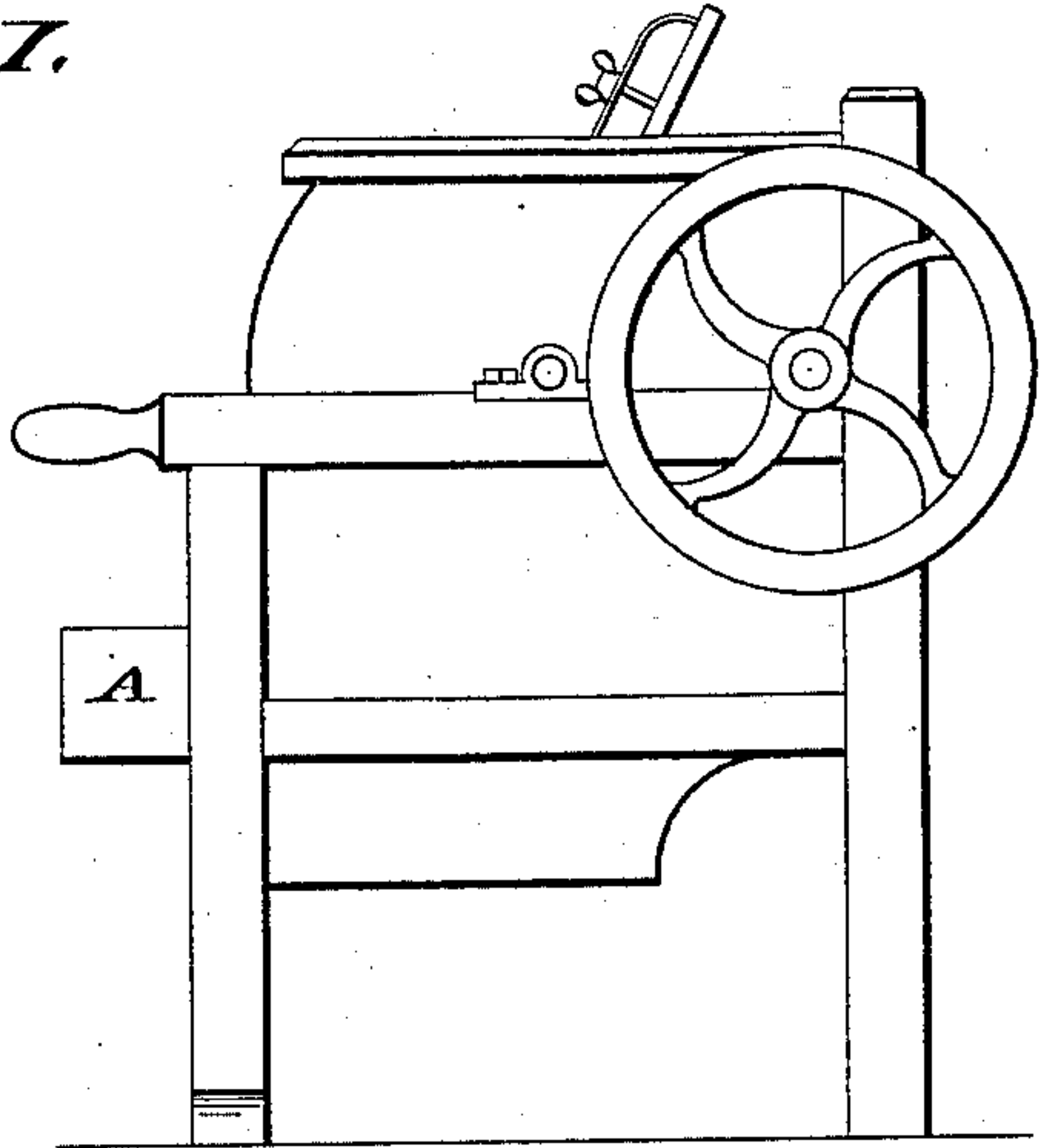


Fig. 2.

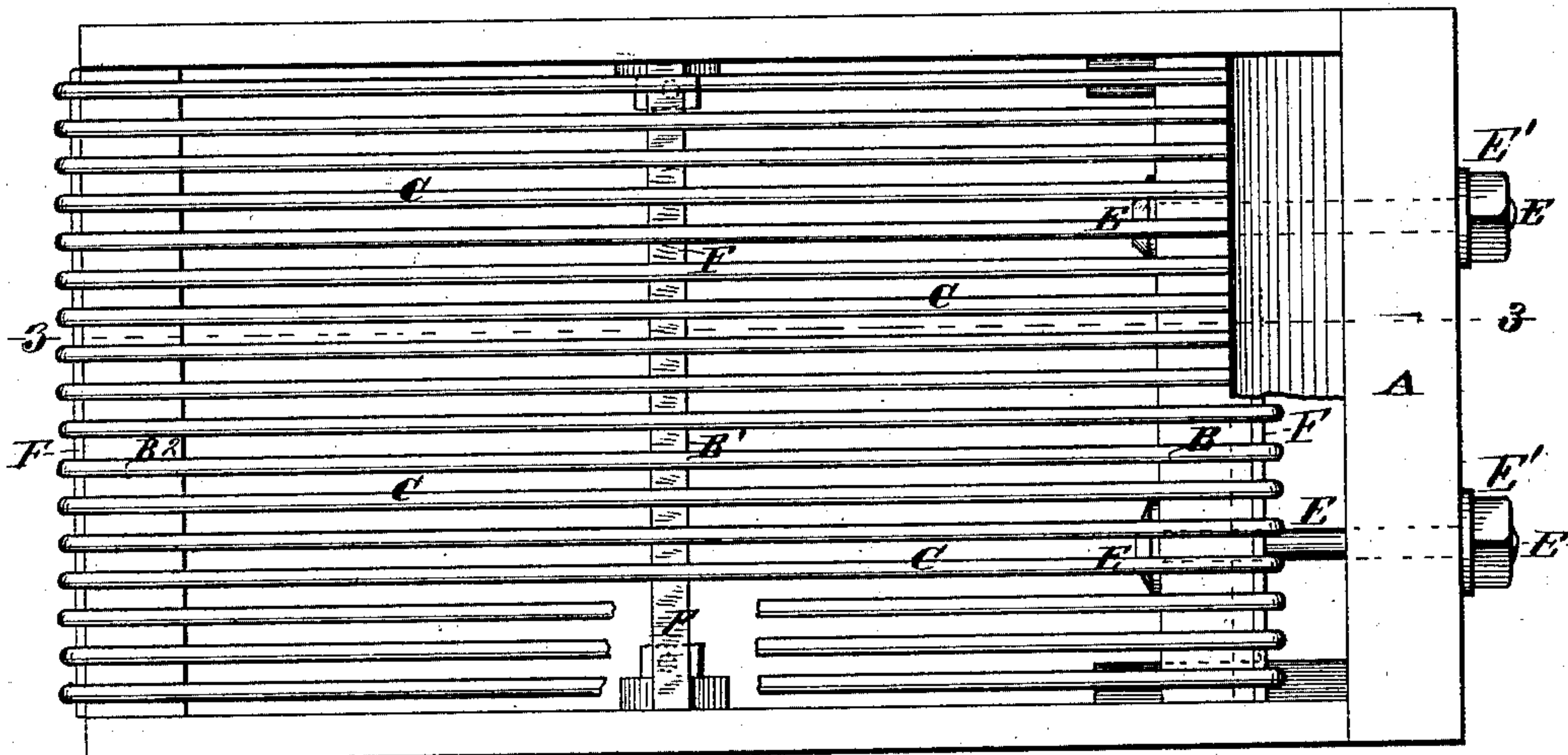
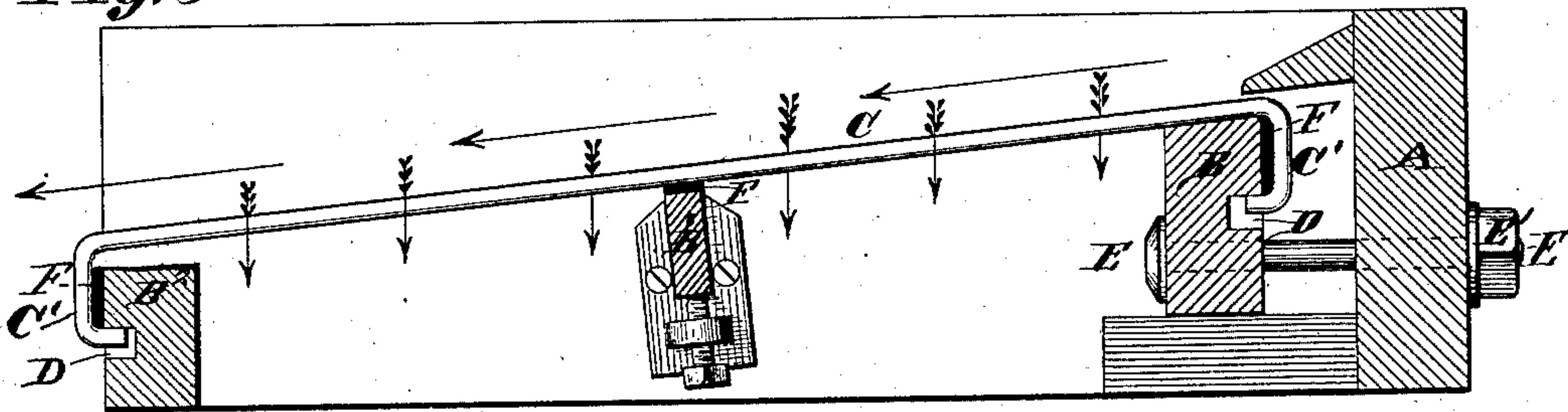


Fig. 3.



Attest:

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FRIEDRIK WULFERT, OF ST. CHARLES, MISSOURI.

GRAIN SCREEN OR SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 327,050, dated September 29, 1885.

Application filed November 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRIK WULFERT, of St. Charles, in the county of St. Charles and State of Missouri, have invented a certain new and useful Improvement in Grain Screens or Separators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a perspective view of a corn-sheller of usual construction. Fig. 2 is a top view of a reciprocating riddle embodying the different parts of my invention, with parts broken away to show construction; and Fig. 3 is a transverse sectional view of the same, taken on line 3 3, Fig. 2.

This invention relates to an adjustable riddle that can readily be made to conform to the size of the grain to be cleaned. It can be used in connection with any ordinary corn-sheller, to which it may be attached in the usual way, or can be used apart from a corn-sheller.

The invention consists in the inclined reciprocating shoe or frame, with means for the attachment and tension of the longitudinal rods of the screen-bed, and for their adjustment in conformity to the size and condition of the grain that has to pass through them in the process of cleaning.

In the accompanying drawings, A designates the reciprocating shoe or frame of the riddle, which is rectangular in form, is hung at an incline, and vibrated or swung on its pivoted connections with the sheller.

The frame is provided with transverse bars B, B', and B'', which support the adjustable longitudinal rods C. The transverse bar at one end of the shoe (B, for example) is adjustable to and from the others, for the purpose and by mechanism substantially as herein-after described. These rods are furnished with hooks C' at their extremities, which enter into slotted grooves D in the end transverse bars, and are securely held there when the adjustable bar B is drawn away from the others under the operation of the tension-bolts E with their screw-nuts E'.

Rubber cushions F intervene between the rods and the transverse bars, and have a special use in facilitating the adjustment and retention of the rods in their required position.

It will be seen that when the rods have been placed to the desired grade to accord with the size and condition of the grain to be cleaned, (using more or less of the rods, as the case may require,) the upper cross-bar may be drawn up under the influence of the draw-bolts until sufficient tension is obtained to firmly secure the rods and embed them in the rubber cushions. The pressure of the rods thus forms grooves across the cushions, which grooves in their turn assist in the retention of the rods in position as placed and equidistant from each other.

The middle transverse bar or bars—for I do not necessarily confine myself to one—are vertically adjustable to sufficiently embed the rods in the cushion, and as a counterpoise, if need be, to any sagging of the screen. The coarseness of the screen can thus be readily gaged in accordance with the will of the operator, the rods being set just such distances apart as will best conserve the purpose intended. It will also be seen that the middle cross bar or bars effectually sustain the screen from sagging, and thus remedy an evil that the common woven screen, as it advances in age, is too apt to fall into.

This riddle is of economic advantage, as it can be used in the place of a number of riddles of diverse grades, the rods being readily adjusted to clean grain of all sizes and conditions.

There has long been a difficulty experienced in the use of large wires in woven screens. In this riddle, the rods being all placed in parallel lines, larger wires can be used than would be otherwise practicable, which adds greatly to their strength and durability.

I do not desire to limit myself to the precise means herein shown for effecting an engagement between the transverse end bars of the shoe and the longitudinal wires or rods which form the sieve.

I am aware that screens having removable wires or slats are not, broadly considered, new, and do not therefore claim such.

I claim as my invention—

1. The combination, with a shoe or frame having two transverse bars, one of which is adjustable toward and from the other, of a series of removable wires or rods having rigid hooks at their ends for engaging with said

transverse bars, whereby said wires or rods are secured in place, substantially as and for the purpose set forth.

2. The combination, with a shoe or frame 5 having two transverse bars, one of which is adjustable toward and from the other, of a series of removable rods or wires having rigid lateral projections at their respective ends engaging loosely with said transverse bars, and 10 means for moving said transverse bars asunder, whereby the wires are secured, as explained.

3. The combination, with a shoe or frame, a series of movable wires or rods engaging at 15 one end with a transverse bar of said shoe, and an adjustable bar placed transversely of the shoe, with which the other ends of said wires engage, of rubber packing interposed between

the engaging portions of said wires and the transverse bars, substantially as and for the 20 purpose set forth.

4. The combination, with a shoe and a series of wires stretched between the transverse bars of said shoe, of a vertically-adjustable transverse bar for supporting said wires at an in- 25 termediate point, substantially as set forth.

5. The combination, with a frame or shoe and a series of wires stretched between the transverse bars of said shoe, of a vertically-movable transverse bar placed beneath said 30 wires, and having a rubber packing on its upper edge, as and for the purpose set forth.

FRIEDRIK WULFERT.

In presence of—

BENJN. A. KNIGHT,
SAML. KNIGHT.