

O. K. & A. G. H. WOOD.
Grain Separator.

No. 236,659.

Patented Jan. 11, 1881.

Fig. 1

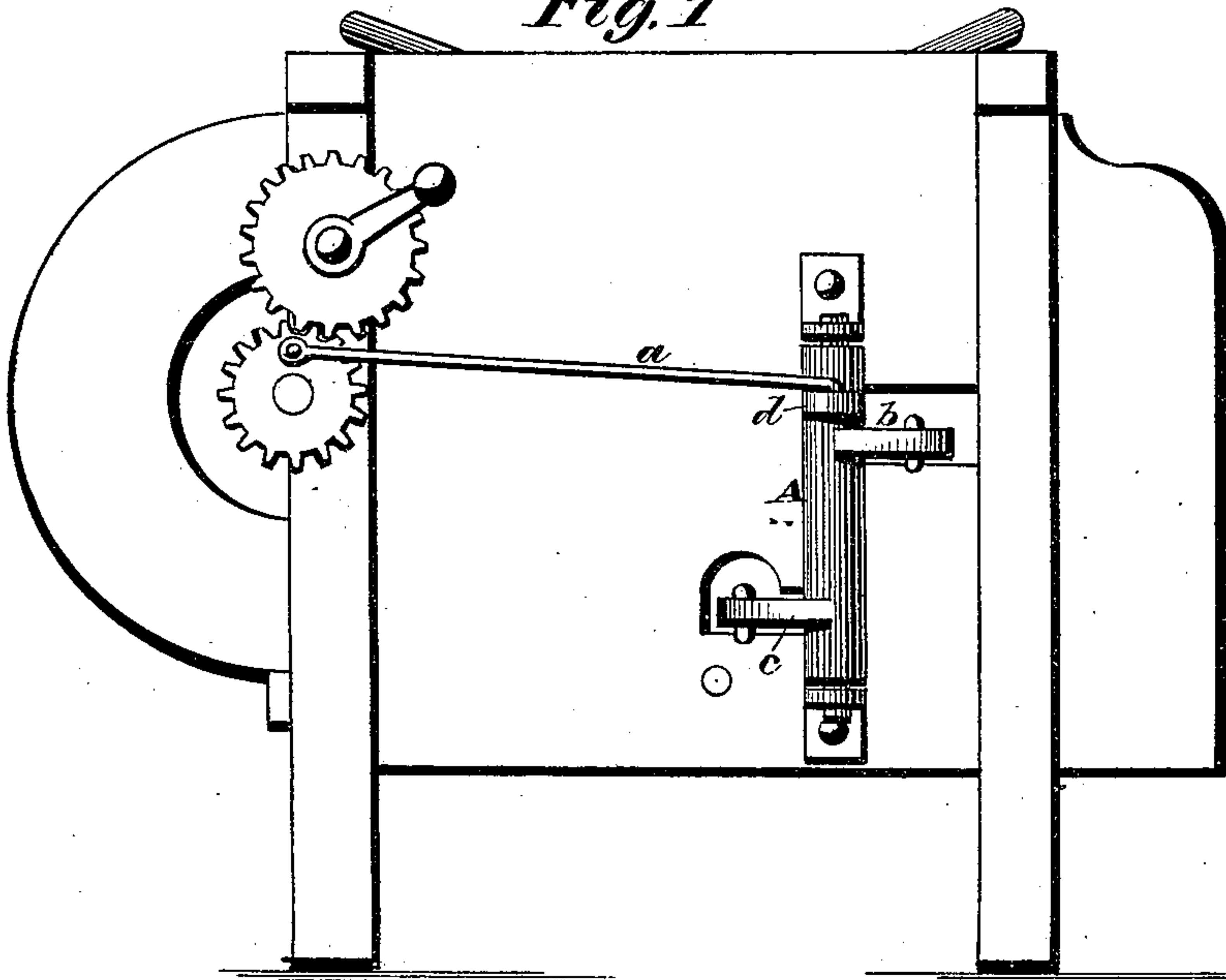
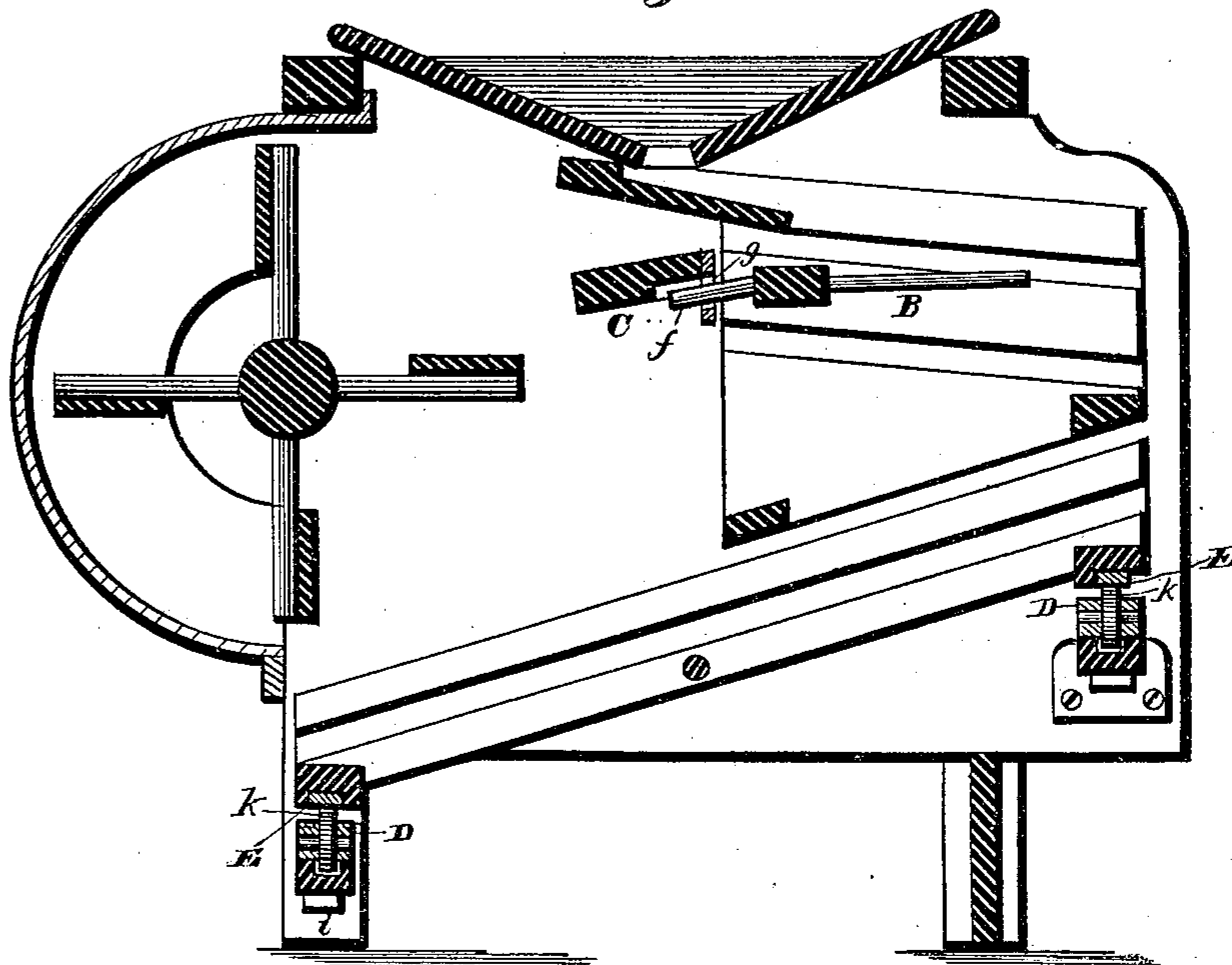


Fig. 2.



WITNESSES

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Fig. 3.

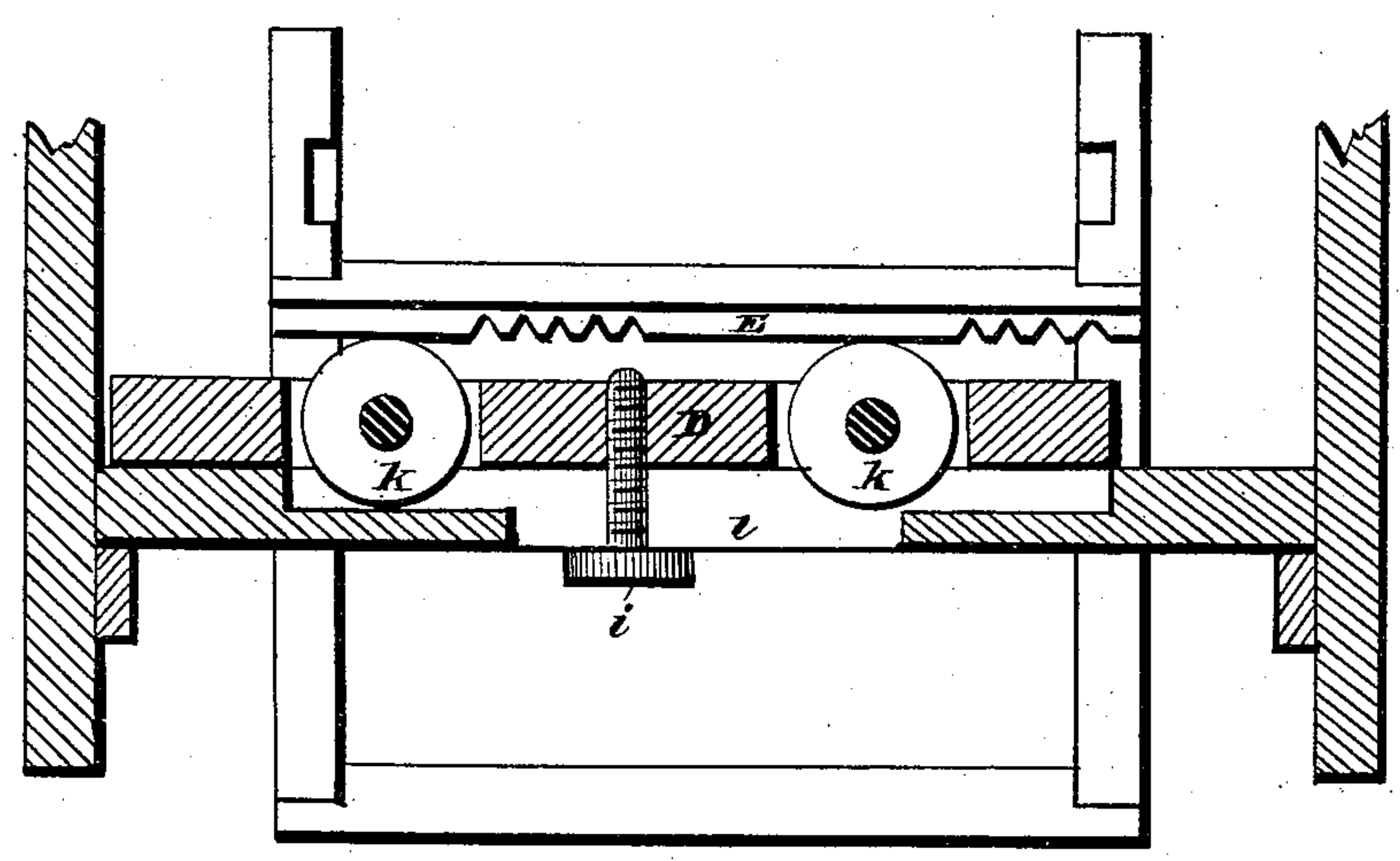
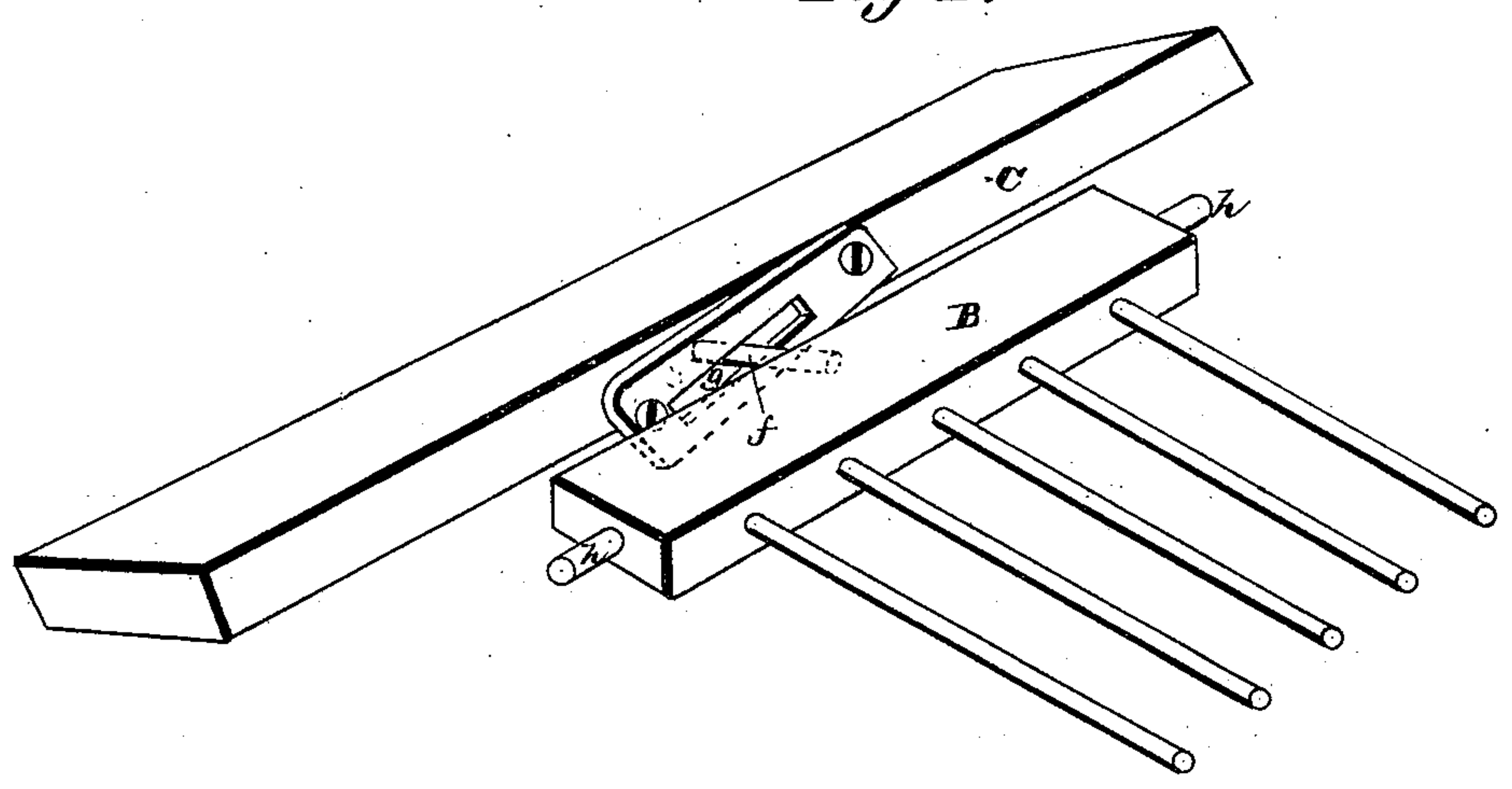


Fig. 4.



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UNITED STATES PATENT OFFICE.

ORVILLE K. WOOD AND ALBERT G. H. WOOD, OF CHAZY, NEW YORK.

GRAIN-SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 236,659, dated January 11, 1881.

Application filed September 20, 1879.

To all whom it may concern:

Be it known that we, ORVILLE K. WOOD and ALBERT G. H. WOOD, of the town of Chazy, in the county of Clinton and State of New York, have invented certain new and useful Improvements in Grain-Separators, which are more specially adapted for that class of such machines known as "grain-separators and fanning-mills;" and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1, Sheet 1, is a side elevation of our machine. Fig. 2, Sheet 1, is a longitudinal section. Fig. 3, Sheet 2, is a transverse section, showing the arrangement of means for agitating the screens; and Fig. 4 is a detail perspective view of the rake.

Our improvements apply particularly to grain-separators or fanning-mills of the class to which those belong which were patented to Orville K. Wood, March 9, 1875, and numbered 160,561, and March 7, 1876, and numbered 174,606.

Motion is imparted to the usual upper shoe and lower long screen-frame by means of the connection *a* from the fan-shaft to the arm *d* on the upright rock-shaft A, having arms *b* *e*, arranged on opposite sides of the said shaft, and respectively connected to said upper and lower shoes, for giving counterbalancing movements in opposite directions. These devices are plainly shown in Figs. 1, 2.

The upper shoe is provided with a rake, B, journaled in the sides of the shoe, below the plane of the feed-board, and provided, as shown, with an arm, *f*, projecting from the back of the bar carrying the teeth into a diagonal slot, *g*, in a metallic plate secured to the forward edge of the stationary wind-board C. This board is located beneath the feed-board of the shoe, and the transverse motion of the shoe causes arm *f* to traverse the inclined slot *g* and produce a vertical vibration of fingers B.

This mechanism is located out of the way of any straws, chaff, &c., and cannot become clogged. Its peculiar merit is, that the old construction of the fanning-mill is utilized, without material alteration, for the purpose of giving this motion to the rake.

The lower screen-frame, Figs. 2 and 3, is provided with bars E at each end, formed with alternate smooth and roughened under faces, which are constructed as metallic plates. These bars rest upon the supporting-rollers *k*, journaled in beam D, made shorter than the width of the machine, and adjustable upon a transverse slotted bar, *l*, by means of set-screw *i*, so as to bring the rollers under the smooth portions of plate E or under the corrugated portions at will, and change the motion of the screen-frame from a smooth to a tremulous one, or vice versa, at will, according to the kind and condition of the grain to be treated.

We claim as our invention—

1. The combination, with the rake B, journaled in the reciprocating shoe, below the feed-board, and provided with arm *f*, of the wind-board C beneath said feed-board, and provided with the plate *g*, formed with an inclined slot, substantially as set forth.

2. The combination, with a shoe or sieve-frame and a supporting-bar, of a plate formed with a face alternately smooth and corrugated at intervals, and a roll or rolls having a smooth perimeter and supporting said shoe or sieve-frame from said bar, said shoe or frame and said bar being made one adjustable relatively to the other, for the purpose of changing from a smooth to a tremulous movement, and vice versa, substantially as set forth.

ORVILLE K. WOOD.
ALBERT G. H. WOOD.

Witnesses:

JNO. CHAMBERLAIN,
A. F. BRANDO.