H. W. CURTIS.

Fanning Mill.

No. 57,483. Patented Aug. 28, 1866.

Fig. 1

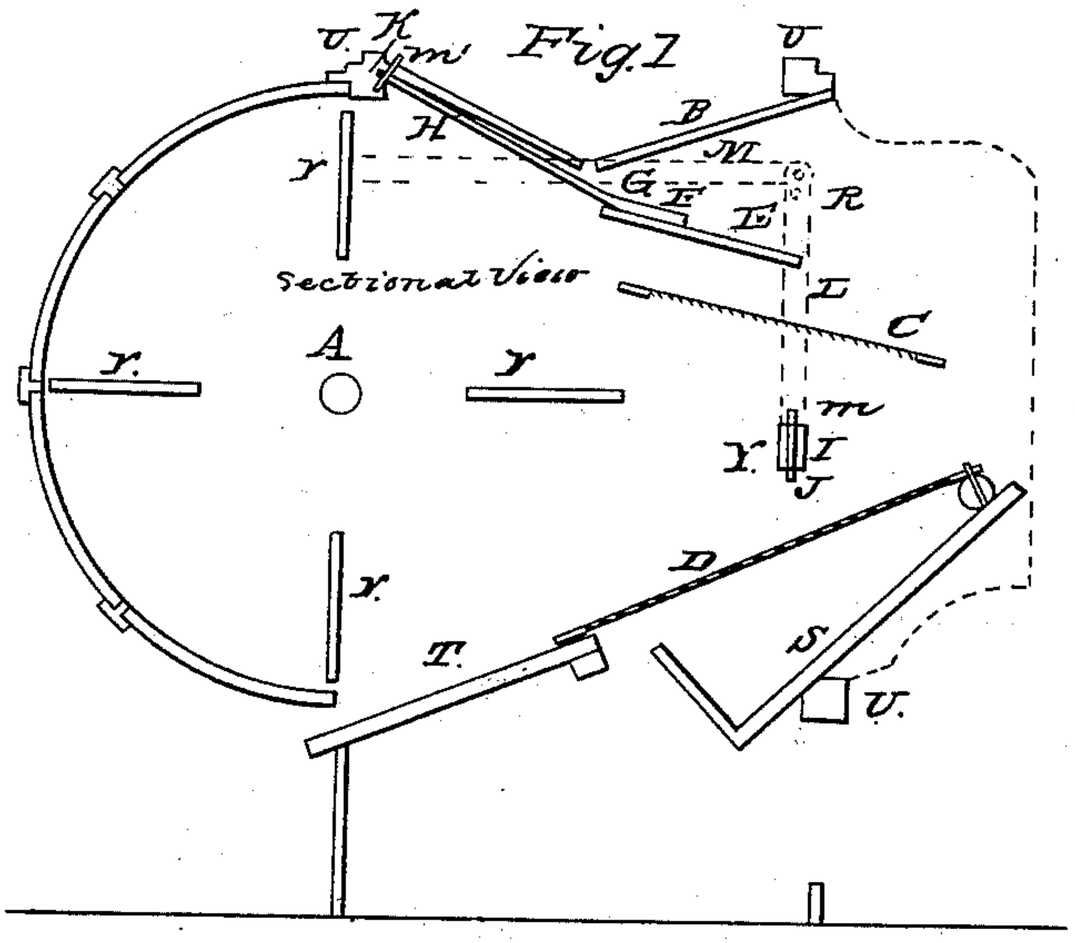


Fig. 2

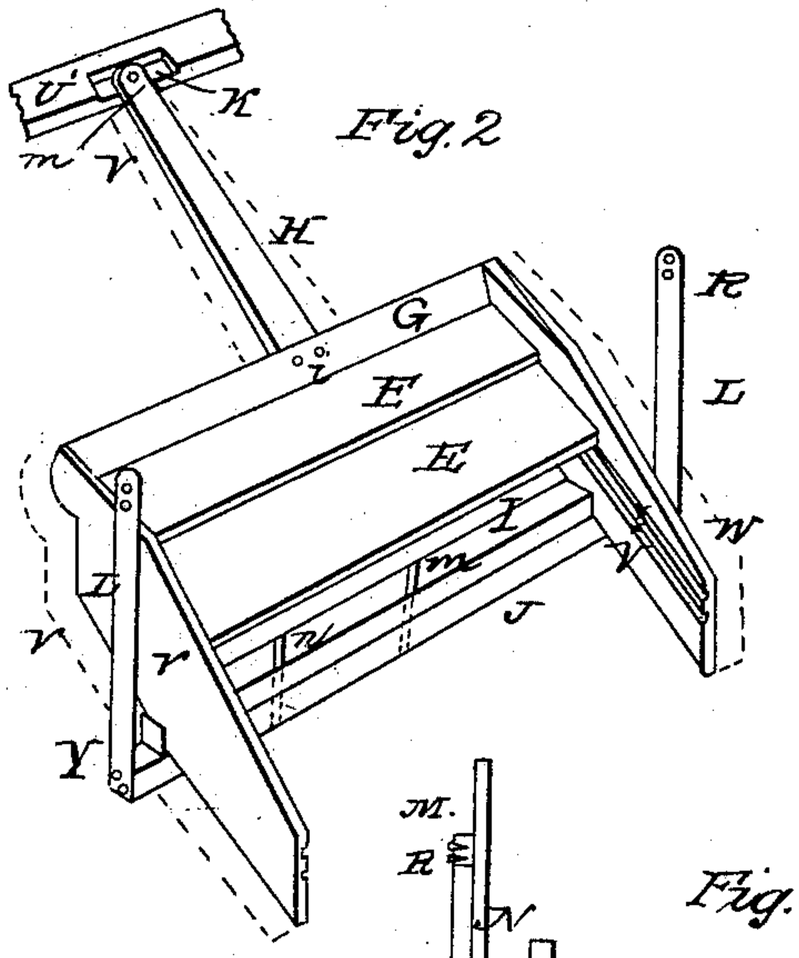
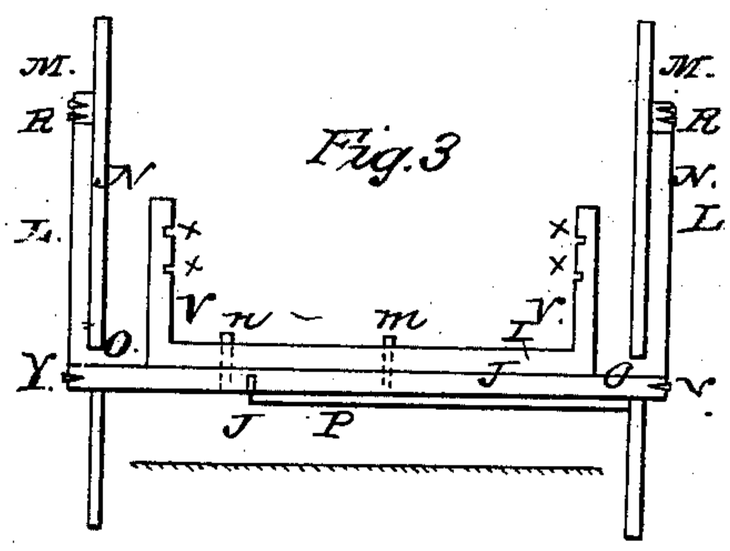


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

H. W. CURTIS, OF LOCKPORT, ILLINOIS.

IMPROVEMENT IN FANNING-MILLS.

Specification forming part of Letters Patent No. **57,483**, dated August 28, 1866.

To all whom it may concern:

Be it known that I, H. W. CURTIS, of Lockport, in the county of Will and State of Illinois, have invented an Improved Fanning-Mill; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a sectional elevation of my improved fanning-mill. Fig. 2 is a perspective representation of the suspended shoe and the devices used in operating the same. Fig. 3 is a transverse sectional elevation of the fanning-mill, showing a part of my improvement.

The object of my invention is to so adjust the shoe containing the sieves of a fanning-mill that the same can be changed from the end shake to the body-shake when required, the importance of which will be better understood when it is known that the end or swing shake of the shoe is necessary in chaffing grain, and the body-shake in separating the grain from dirt and obnoxious seeds. The mills now in use give only one of these motions to the shoe, but in my invention I claim to have introduced devices by the use of which the shoe of any common fanning-mill can be made to give either of the above-described motions.

To enable others skilled in the art to make and use my invention, I will describe the method of constructing and using the same.

I will first give a description of the general features of the mill, shown by the sectional elevation, Fig. 1.

v v v v' show the transverse frame-work of the mill; A, the shaft supporting the fans *r*; T, the chute from which the grain is discharged after being cleaned. D shows the screen; S, the screen-box; and B, the hopper.

Fig. 2 represents the common shoe adjusted by means of my device. V V show the sides of the shoe. G and F show the fall-boards, and E the sliding gage used in regulating the fall of grain upon the sieve *c*, Fig. 1. At *i* is attached the tail-shaft H, by means of common bolts, or otherwise. At K, in the part U', is cut the slot in which the end of the tail-shaft H operates, and when an end shake of the shoe is required is secured in the center of the slot K by means of the pin *m'*. L shows the suspenders attached to the frame of the mill M by means of either of the holes R and a common bolt.

The lower ends of the suspenders L are attached to the swinging bar J by the bolts Y. P shows the common shaking-rod used in giving the required motion to the shoe attached to the bar J at I.

I represents the cross-bar attached to the under edges of the shoe and resting upon the swinging bar J. *m* shows the pin passing through the center of the bars J and I, forming a joint, so as to give a swinging motion to the bar I upon the bar J. *n* is the pin used in holding the bars J and I parallel when a body-shake is required of the shoe.

o o show vertical slots made in the sides of the mill for the purpose of allowing the swinging bar J to be adjusted so as to give the required pitch to the sieves resting in the grooves *x x*. This is accomplished by means of the holes R in the suspenders L.

Operation: All parts of the fanning-mill to which my device is attached are supposed to be adjusted in the usual manner with the necessary gearing for cleaning grain. The uncleaned grain is put in the hopper B, and the shaking-rod P will give the necessary motion to the shoe to spread the grain on the sieves, resting in the grooves *x x*. If an end shake is required of the shoe, as in chaffing, the pin *m'* must be adjusted in the end of the tail-shaft H and slot K, which will allow the shoe to swing by taking out the pin *n* connecting the bars I J, as will be seen by the dotted lines W, Fig. 2. If a body-shake is required, as in separating grain from seeds and dirt, the pin *n'* must be inserted through the bars I and J, and the pin *m'* withdrawn from the end of the tail-shaft H and the slot K, which will give a motion to the shoe indicated by the dotted lines *v v*.

Having thus fully described my device, what I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The combination of the bar J, shaft I, pins *m n*, and suspenders L, with the shoe V V, shaft H, and slot K, substantially as described.

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