

L. M. CROSBY.

Improvement in Fanning-Mills.

No. 114,416.

Patented May 2, 1871.

Fig. 1.

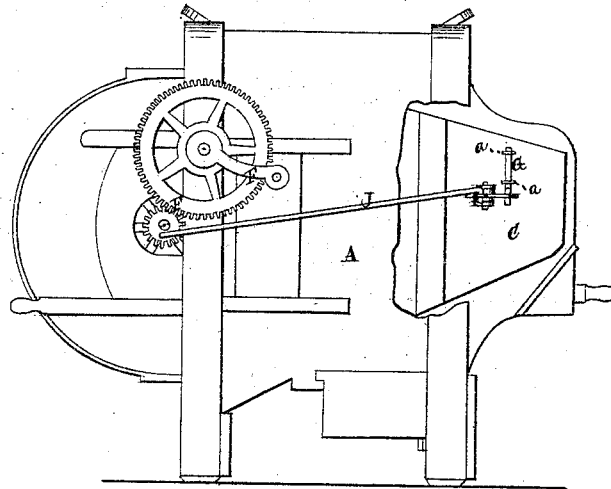


Fig. 2.

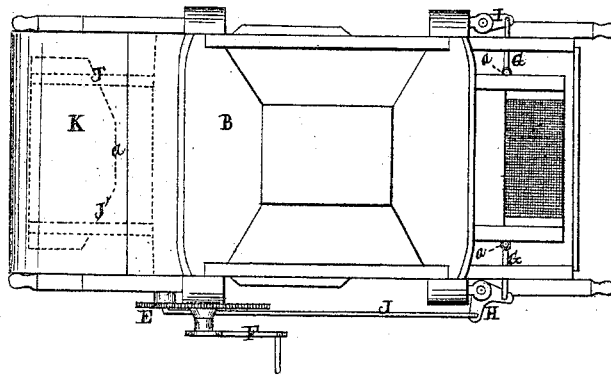


Fig. 3.

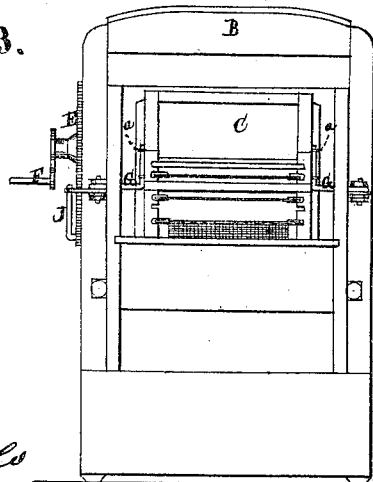
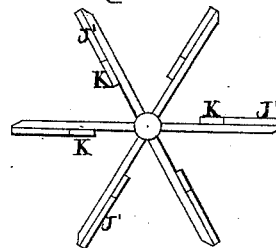


Fig. 4.



*Inventor:*  
*L. M. Crosby*  
*per Burdette & Co*  
*Attorneys.*

*Witnesses:*  
*Edw. Hart*  
*W. L. Humphrey*

# United States Patent Office.

LEWIS M. CROSBY, OF ASHTABULA, OHIO.

Letters Patent No. 114,416, dated May 2, 1871.

## IMPROVEMENT IN FANNING-MILLS.

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, LEWIS M. CROSBY, of Ashtabula, in the county of Ashtabula and State of Ohio, have invented a certain new and improved Fanning-Mill; and I do hereby declare that the following is a full, clear, and complete description of the same, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a side elevation of the machine.

Figure 2 is a plan view.

Figure 3 is a front view.

Like letters of reference refer to like parts in the several views.

The nature of this invention relates to that part of a fanning-mill termed the shoe, consisting of the several sieves and grain-boards, and the object of the same is to so hang said shoe that it should have a direct horizontal vibratory motion instead of a swinging motion like that of the ordinary machine, the front end of the shoe being supported at the sides by links instead of being suspended from the top of the machine in the ordinary way.

It also relates to the construction of the fan, whereby an increase of wind is obtained for separating the chaff, &c., from the grain, all of which is constructed and arranged in the following manner, viz.:

In the drawing, fig. 1—

A represents the body of the mill, which is or may be of the ordinary shape;

B is the hopper;

C, the shoe;

D, the fan;

E, the gearing; and

F, the crank whereby said shoe and fan are operated.

The shoe referred to is constructed in the usual manner, but is hung in the mouth of the body by means of the links G, fig. 3, one on each side of the shoe.

Said links consist of a hook, one limb of which is attached to the side of the shoe by means of staples a, fig. 1, fixed in the shoe, and in which the hook is loosely held.

The opposite end of the link, which is also a hook, is inserted in an eye made in the end of one of the arms of the bell-crank H, as shown in fig. 2.

To the opposite side of the shoe a link is attached in the same way, whereas the outer end of the link is

hooked into an arm, I, fig. 2, pivoted to the side of the body of the mill, as shown.

It will be obvious that by this means the shoe is supported on each side by the links G, which, in turn, are supported by the arm I and bell-crank H, and by which bell-crank the shoe is vibrated, the same being actuated by the gearing and crank E F, connected thereto by the rod J.

In this way of supporting the shoe the space above the shoe is unobstructed by hangers; hence the escape of the dust, straws, &c., from the shoe will be unimpeded, and the grain more thoroughly cleaned than in the ordinary mill, wherein the shoe is suspended by hangers depending from the front beam or roof of the mouth, against which the straws and other refuse matter lodge or are blown and fall back. Also, by supporting the shoe in my way a direct horizontal reciprocating motion is obtained to it, which will keep the foul stuff and grain more upon the middle of the sieves than it can be in the ordinary mill, where the shoe is given an oscillating motion in consequence of its being suspended by the hangers.

In my mill the fan is constructed with six wings.

The inner corner J' of each web K is cut off, as indicated by the dotted lines a, fig. 2, thereby giving more breadth to the central part of the web than to the ends, so that, on blowing, more wind will be blown upon the middle of the sieves, where the largest amount of grain, &c., is received, than at the sides.

By this shape of the web and the increased number of them a stronger blast is produced from an equal number of revolutions of the fan, and the grain more thoroughly cleaned than when the fan is made in the ordinary way; but I do not claim such construction as new.

### Claim.

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

The shoe C, supported in the frame of the mill by means of the hook-links G, when connected thereto and to the bell-crank H and arm I, substantially in the manner as described, and for the purpose set forth.

LEWIS M. CROSBY.

Witnesses:

W. H. BURRIDGE,

J. H. BURRIDGE.