A. HUNTER.

Middlings-Purifier.

No. 167,102. Patented Aug. 24, 1875.

Fig. 1.

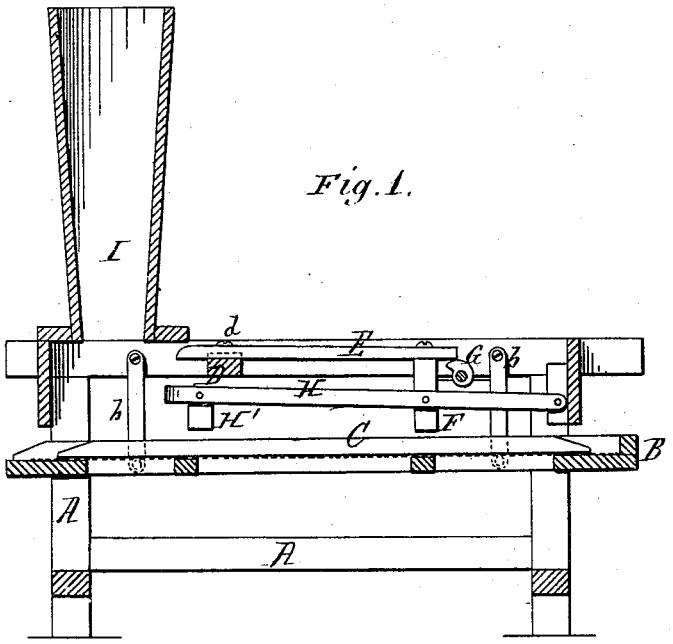
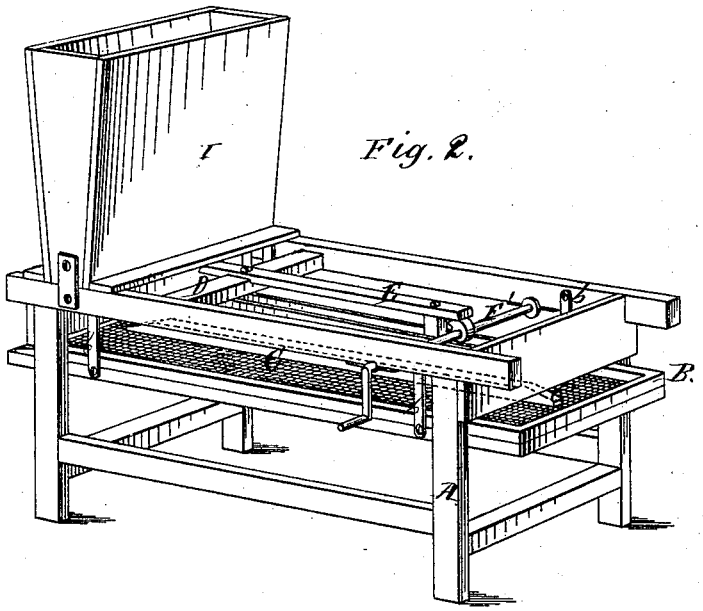


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

ANDREW HUNTER, OF QUINCY, ILLINOIS.

IMPROVEMENT IN MIDDLINGS-PURIFIERS.

Specification forming part of Letters Patent No. **167,102**, dated August 24, 1875; application filed March 18, 1875.

To all whom it may concern:

Be it known that I, ANDREW HUNTER, of Quincy, county of Adams and State of Illinois, have invented certain new and useful Improvements in Middlings-Purifiers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a longitudinal vertical section through the machine. Fig. 2 is a perspective view of the same with the inclosing-frame removed.

Similar letters of reference denote corresponding parts in both figures.

The invention relates to that class of middlings-purifiers in which the meshes of the bolting-cloth are cleaned by means of knockers or hammers; and consists, first, in providing the screen with a longitudinal strip against which the hammer or hammers may strike, as hereinafter explained; and second, in a novel construction of knocker or knockers, which will be hereinafter described.

In the accompanying drawing, A represents the main frame of the machine, in which is mounted the screen-frame B, suspended by hangers *b b*. Upon this screen-frame or upon the bolting-cloth is secured a longitudinal strip, C, against which the hammers strike. D is a bar, fastened to the upper side bars of the frame A, and near the tail end of the machine; and about midway of the length of this bar D is secured a spring-bar, E, to the end of which is connected one of the hammers F. This bar extends a short distance beyond the hammer and rests upon a cam, G, which is supported upon a shaft, F′, mounted in the frame and operated by means of a crank connected to one end of the shaft, the movement of which causes the cam to raise the spring-bar E while said bar rides on its curved face; but when it reaches its straight face the spring is free to drop, and the tension of the spring-bar E throws the hammer against the strip C, which jars the screen and clears the meshes of the cloth. To the head of the machine and about on a line with the center of the hammer F is pivoted an arm, H, which is also pivoted to the hammer F. This bar extends forward so that its end shall be about on a line with the end of spring-bar E, and has connected to it a hammer, H′, which, by its connection with the hammer F through the bar H, is also caused to strike the strip C at the same time as the hammer F, thus jarring the screen at both ends simultaneously.

The tension of the spring and the consequent force of the blow given by the hammer are regulated by the adjustment of the screw *d*, through which the spring is connected to the bar D.

I is an air-tube, through which the wind passes after leaving the screen, and which carries with it the light brown particles separated from the middlings.

Parts of the machine not particularly described may be constructed in any usual or preferred manner.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The screen provided with the longitudinal strip, in combination with a knocker or knockers, for the purpose, and substantially as described.

2. The combination of the spring-bar E, hammer F, pivoted arm H, and hammer H′, with the screen B, arranged and operating substantially as described.

In testimony whereof I have hereunto set my hand this 25th day of February, A. D. 1875.

ANDREW HUNTER.

Witnesses:
I. C. BERNARD,
W. H. BENNESON.