

H.K. Burkholder,

2 Sheets, Sheet 1.

Gravity Separator.

No. 38,346.

Patented Dec. 23, 1869.

Fig. 1.

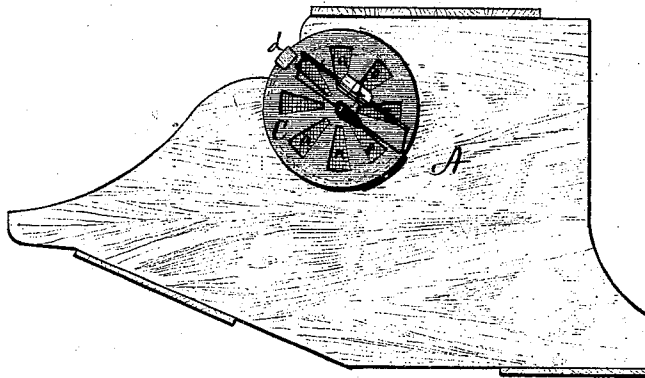
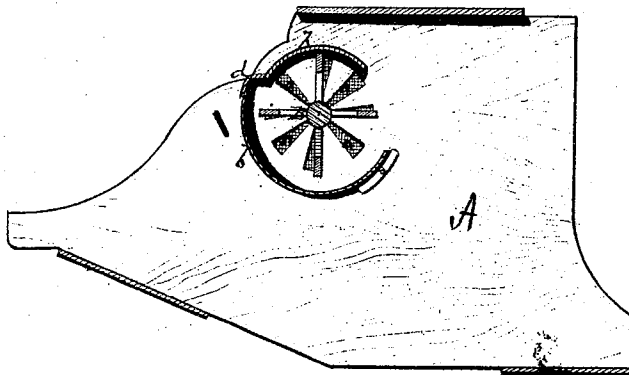


Fig. 2.



Witnesses

J. Lehmann
E. J. Cress

Inventor

Henry K. Burkholder
per Alexander Massee
Att'y.

H. K. Burkholder,

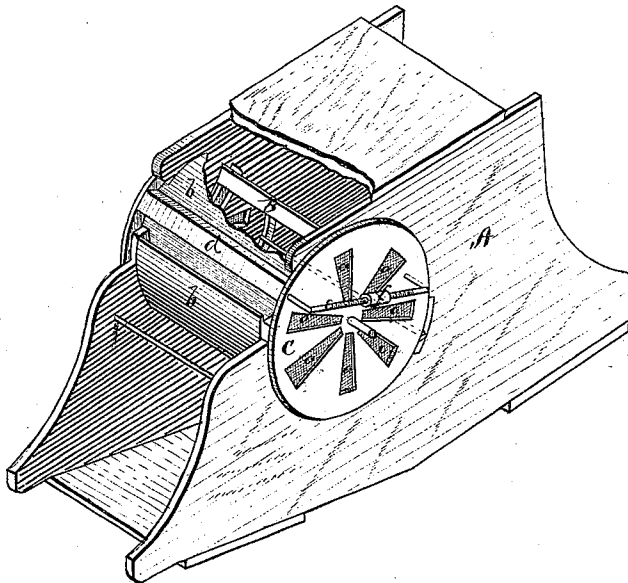
2. Sheets, Sheet 2.

Gravity Separator.

No. 98,346.

Patented Dec. 28, 1869.

Fig. 5



Witnesses

A. J. Spentman
C. L. Quert

Inventor

Henry K. Burkholder
per Alexander Mason

Atty.

United States Patent Office.

HENRY K. BURKHOLDER, OF CLEAR SPRING, PENNSYLVANIA.

Letters Patent No. 98,346, dated December 28, 1869.

IMPROVEMENT IN GRAIN-SEPARATORS.

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, HENRY K. BURKHOLDER, of Clear Spring, in the county of York, and in the State of Pennsylvania, have invented certain new and useful Improvements in Grain-Separators; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction of certain devices to regulate the draught in fans for grain-separators, making the fans self-regulating.

In order to enable others skilled in the art to which my invention appertains, to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side elevation.

Figure 2, a longitudinal vertical section.

Figure 3 represents a perspective view.

As my improvement may be attached to or connected with any grain-separator, I have not deemed it necessary to show in the drawings any more of such a machine than just sufficient to indicate my invention.

A represents that part of a grain-separator in which the fan is situated.

The heads of the fan, B, are provided with screens *a*, to prevent the chaff from entering and mixing with the grain.

On the ends of the fan-shaft, outside of the fan-heads, are placed shutters C, to close the screen-covered openings in the same.

The shutters C C are connected on the back of the fan-case *b* by means of an L-shaped bar, *d*, which

when the shutters are open, covers an opening in the back of the fan-case, as seen in fig. 2.

The action of the fan will raise the bar *d* more or less, closing the shutters to a greater or less extent, and thus regulating the draught automatically.

On the outer sides of the shutters C C are bent rods *e*, provided with adjustable weights *f f*, for the purpose of balancing the shutters.

The weights *f f* being adjusted so as to counter-balance the action of a current of air created by the fan, running at a certain speed, so that the bar *d* will close the opening in the fan-case, then it will be readily seen that if the speed of the fan is increased, the air will raise the bar *d* and close the shutters C C, more or less, but as soon as the fan resumes its original speed, the weights will cause the shutters to open and the bar *d* again cover the opening in the fan-case, thus automatically regulating itself.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. Providing the heads of a fan in a grain-separator with screens, substantially as and for the purposes herein set forth.

2. In combination with a fan-case, having an opening across its back, as above described, the outside shutters C C, connecting bar *d*, rods *e e*, and adjustable weights *f f*, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand, this 3d day of September, 1869.

HENRY K. BURKHOLDER.

Witnesses:

C. L. EVERT,
A. N. MARR.