(No Model.)

J. W. HERR.

BOLTING SIEVE.

No. 261,347 Patented July 18, 1882.

Fig. 1.

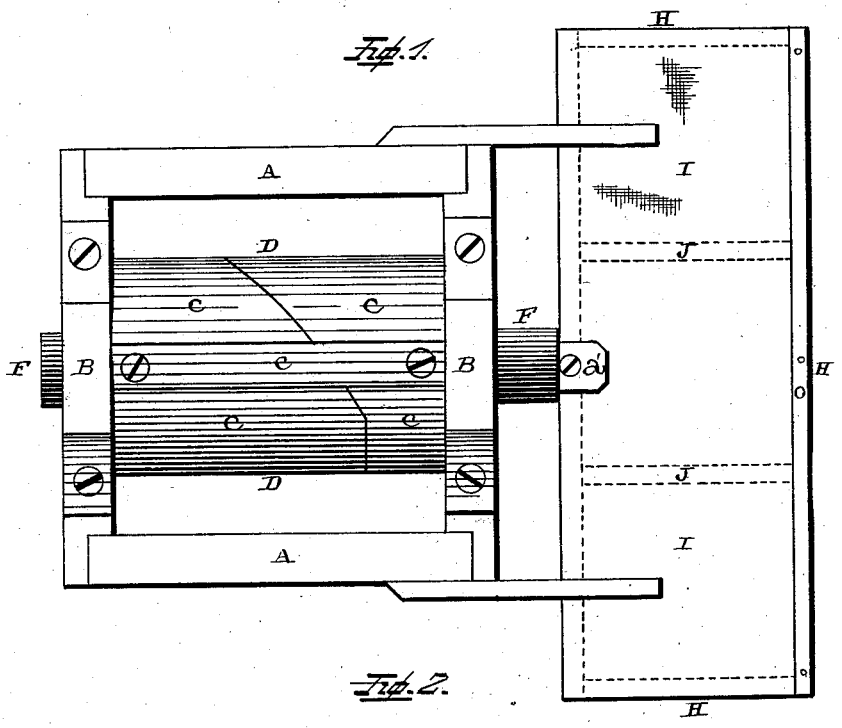


Fig. 2.

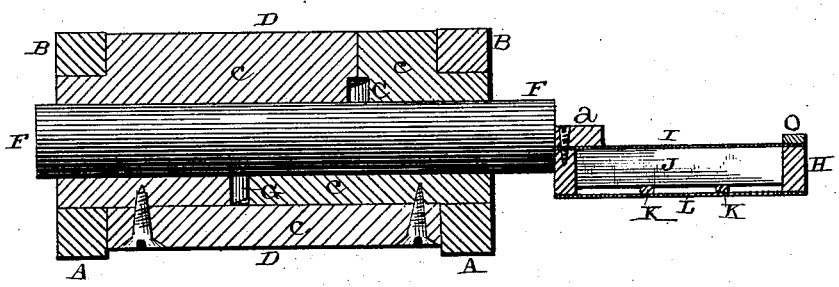


Fig. 4

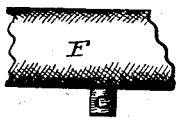
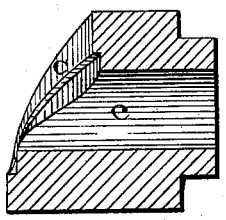


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

JACOB W. HERR, OF BLANCHESTER, OHIO.

BOLTING-SIEVE.

SPECIFICATION forming part of Letters Patent No. 261,347, dated July 18, 1882.

Application filed April 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, JACOB W. HERR, of Blanchester, in the county of Clinton and State of Ohio, have invented certain new and useful Improvements in Bolting-Sieves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in bolting-sieves; and it consists in the combination of a sieve, an operating-rod which is attached directly thereto, and which is provided with a pin or projection, and an internally-grooved pulley through which the rod passes, so that when the pulley is made to revolve the sieve is given a reciprocating movement.

Figure 1 is a plan view of a machine embodying my invention complete. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a detached vertical section of the pulley, showing the groove which is made in its inner surface. Fig. 4 is a detached portion of the endwise-moving rod F.

A represents a suitable rectangular frame, which is to be secured directly to the outside of the frame of the chest in which the sieve is placed. In this frame are formed suitable bearings, B, in which the operating-pulley D is journaled. This pulley is formed of a number of curved pieces, *c*, which have the grooves C formed in their inner surfaces, and which pieces, when secured together, form a perfect pulley, which can be operated by a belt, chain, cable, gear, or friction, as may be preferred. Passing through this pulley is the reciprocating rod F, which has a projection, G, extending out from its side, and which projection catches in the curved groove made in the pulley, so that as the pulley is made to revolve the pressure of the groove upon the projection will cause the rod to move back and forth through the pulley. Secured to the inner end of this reciprocating rod is the sieve H, which will be placed in a chest or frame, and which may run in grooves or be suspended upon springs. This sieve is held in a horizontal position in the chest, and serves to prevent the rod F from turning around as it is moved back and forth through the pulley D. The sieve is secured to the end of the rod F by means of the projection *a*, which forms a part of or is secured to the rod, and which projects over the top of the sieve. Any other means for securing these parts together may be used, for this forms no special part of this invention. The frame of the sieve may be of any desired length or width, and is covered upon its top with a coarse cloth, I. The longitudinal parts of the frame are connected together by the cross-pieces J, upon which this cloth rests. Running parallel with the side pieces of the frame are two or more strips, K, about an inch wide and five-eighths of an inch thick, and which are covered with canvas, metal, or wood, and which serve to form a space between the lower edges of the cross-pieces and the bolting-cloth L, so as to allow the middlings to pass under the cross-pieces and escape at one end. This sieve is to be slightly elevated at the head, where it receives the chop, so that as the sieve is reciprocated it will gradually work its way down toward the end of the sieve. Upon the edge of the sieve which is farthest away from the reciprocating rod there is attached a strip, O, so as to prevent the chop from being shaken off when the sieve reaches the end of its throw. The sieve will be given a movement from two to three inches, as may be required, and it will be moved fast enough to throw the chop back and forth against the strips. The chop will drop on the sieve at the head, and will move back and forth until it gets to the tail, where the bran will drop off, while the flour will pass through the cloth. By thus giving the rod a reciprocating movement and attaching the sieve directly to it the crank or eccentric is done away with, and not only can the mechanism be attached directly to the chest or frame in which the sieve is placed, but with the sieve operated as here shown as much material can be bolted as upon a reel of the same length. Should the sieve be thirty-six inches wide and fifteen feet long, the cloth necessary to cover it will cost fifteen dollars, while the cloth on a reel of the same length will cost three times as much. The cloth used upon the top of the sieve will be canvas, so that noth-

ing can get out except through the cloth or off at the tail, and the sieve will have a cross motion instead of an end one.

Having thus described my invention, I claim—

1. The combination of a sieve, a reciprocating rod which is attached directly thereto and provided with a projection, and a grooved pulley through which the rod passes, so that when the pulley is made to revolve the sieve will be reciprocated with the rod, substantially as shown.

2. The combination of the bolting-screen with the pulley D, composed of a number of curved pieces, *c*, which have the curved groove C formed in them, and rod F, having the projection G, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB W. HERR.

Witnesses:
JOHN BURTON,
ELISHA SPENCER.