

No. 649,240.

Patented May 8, 1900.

A. W. GROFF.

AUTOMATIC BRUSH FOR BOLTING CLOTHS

(Application filed Apr. 22, 1899.)

(No Model.)

Fig. 1.

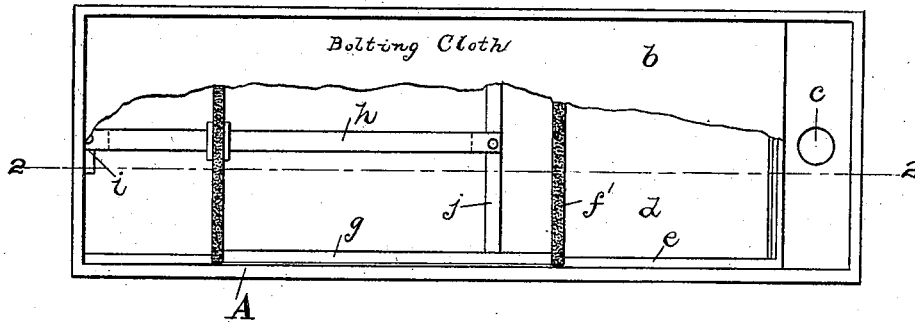


Fig. 2.

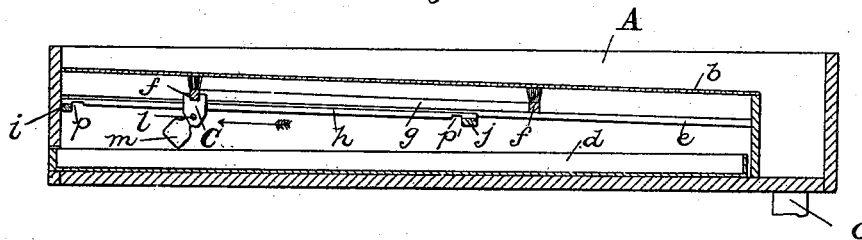


Fig. 3.

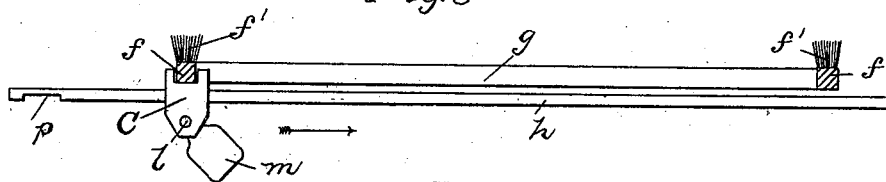


Fig. 6.

Fig. 4.

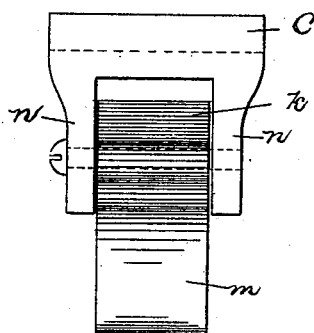
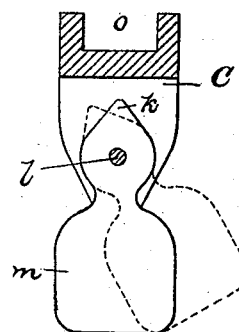


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

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AUTOMATIC BRUSH FOR BOLTING-CLOTHS.

SPECIFICATION forming part of Letters Patent No. 649,240, dated May 8, 1900.

Application filed April 22, 1899. Serial No. 714,019. (No model.)

To all whom it may concern:

Be it known that I, ABRAM WILLIS GROFF, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Automatic Brushes for Bolting-Cloths, of which the following is a specification.

This invention relates to an automatically-movable brush for cleaning bolting-cloths of flour-bolting machines.

The object of the invention is to provide for bolting-cloths an improved self-acting brush to clean the under surface of the cloth during the operation of the machine.

The invention is particularly applicable to bolting-machines of the oscillatory, gyratory, or swinging class.

Referring to drawings, Figure 1 is a top plan view of a bolting-sieve, part of the cloth being broken away, and showing my brush. Fig. 2 is a vertical longitudinal section of a sieve and pan and showing the improved brush and indicating its movement in one direction. Fig. 3 is a detail view, on a larger scale, the position of the grip-weight and the arrow indicating the movement of the brush in the opposite direction. Figs. 4 and 5 are front and section views, respectively, of the grip-weight device. Fig. 6 shows two views of a slight modification of the means on the grip-weight for attachment of the brush.

In bolting-machines however constructed there is usually employed a sieve with a bolting-cloth in a box, a spout, and a flour-pan below the sieve. Now by my invention I provide an improved self-acting brush to move along the under surface of the bolting-cloth and clean the latter.

The letter A designates any suitable form of box used in bolting-machines; *b*, the bolting-cloth; *c*, the spout, and *d* the flour-pan below the sieve.

Below the bolting-cloth *b* the walls of the box have slideways *e*, on which the brush is supported and whereon it slides back and forth. The brush shown comprises a rectangular frame consisting of two cross-bars *f*, separated or spaced apart and having upward-projecting bristles *f'*, and said two bars are suitably connected together, in this instance by side rods *g*, one rod being at each side. This brush-frame sets upon the slide-

ways *e* and is movable thereon, and the bristles are in contact with the under surface of the bolting-cloth, and when the brush moves the surface of said cloth will be freed and the meshes opened.

Below the bolting-cloth and extending longitudinally of the box A is a bar *h*, one end of which is suitably supported at *i* at one end of the box and the other end supported on a cross-bar *j* about in the middle of the box. This bar *h* constitutes the surface on which the sliding grip *k* takes effect. The sliding grip *k* is pivoted at *l*, so as to swing when free. It carries a weight *m*, which affords momentum when the device swings and causes the grip part *k* to take effect on the said surface and also causes the grip to reverse its set when it comes to the notch at the limit of its traverse. The sliding grip moves with the brush. A saddle-shaped head C rests loosely upon the longitudinal bar *h*, and the grip *k* is pivoted between the two depending sides *n* of said saddle-shaped head, so that the saddle-head is above and the pivoted grip below the bar *h*. The saddle-head slides along the top of the bar *h*, while the grip *k* impinges against and slides along the bottom of the said bar. The saddle-head on top has means for connection with the brush. This means consists of a top cross-groove *o*, into which one of the bars *f* sets loosely. Normally the sliding grip *k* and its weighted end *m* will hang tilted or inclined at one side or the other with respect to the line of the sliding surface *h*. (See Figs. 2 and 3.) In these positions the edge of the grip *k* is set tightly against the said surface and the effect is to permit movement of the brush in one direction only so long as this "set" or tilted position is maintained. When the brush reaches the end of the slideway, the sliding grip is caused to reverse its set or grip position, and thereupon the effect is to allow the brush to move only in the opposite direction. The means which causes the grip to change its set and to reverse its tilted position at each end of its traverse is a notch or cut-away *p p'* on the sliding surface, one notch being at one end and the other at the opposite end. It will be seen that when the grip *k* reaches the notch it will have no surface to bear against, and consequently at such notch the pivoted

grip device will be free to tilt. The oscillatory motion of the box will cause the weighted end *m* to swing to the opposite tilted position, and thereupon the brush will begin to move
 5 back in the opposite direction.

Fig. 6 shows a pivot-pin *o'*, projecting up from the top of the saddle-head instead of a cross-groove, as in Fig. 5. This pivot-pin is intended to take into one of the bars *f* of the
 10 brush. By this slight modification the device is better adapted to traverse back and forward on a curved sliding surface, such as a curved rod, as would be necessary in upright cylindric bolters whose motion is gyratory.

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

1. In a bolting-machine the combination of a box; slideways at opposite vertical sides of
 20 said box and elevated above the bottom; a brush-carrying frame supported on said elevated slideways and movable back and forth thereon; a stationary surface parallel with the slideways and extending through the box
 25 beneath said brush-frame; and a grip device moving with said brush-frame and having a

weight at one end and an impinging jaw or point at the opposite end and pivoted so that the weighted end will keep said jaw or point
 30 impinging against said stationary surface, as set forth.

2. In a bolting-machine the combination of a box having a bottom; slideways at opposite sides of said box and elevated above the bottom; a brush-carrying frame suspended
 35 on said elevated slideways and movable back and forth thereon; a bar parallel with the slideways and extending through the box beneath said frame, said bar provided with two notches, *p*, *p'*; and a grip device attached to
 40 said brush-frame and having downward-projecting ears which take on either side of said bar, and a weight pivoted between said ears and having a jaw or point which impinges
 45 against said bar, for the purpose set forth.

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

ABRAM WILLIS GROFF.

Witnesses:

GEORGE KOETHER,
 CHAS. B. MANN.