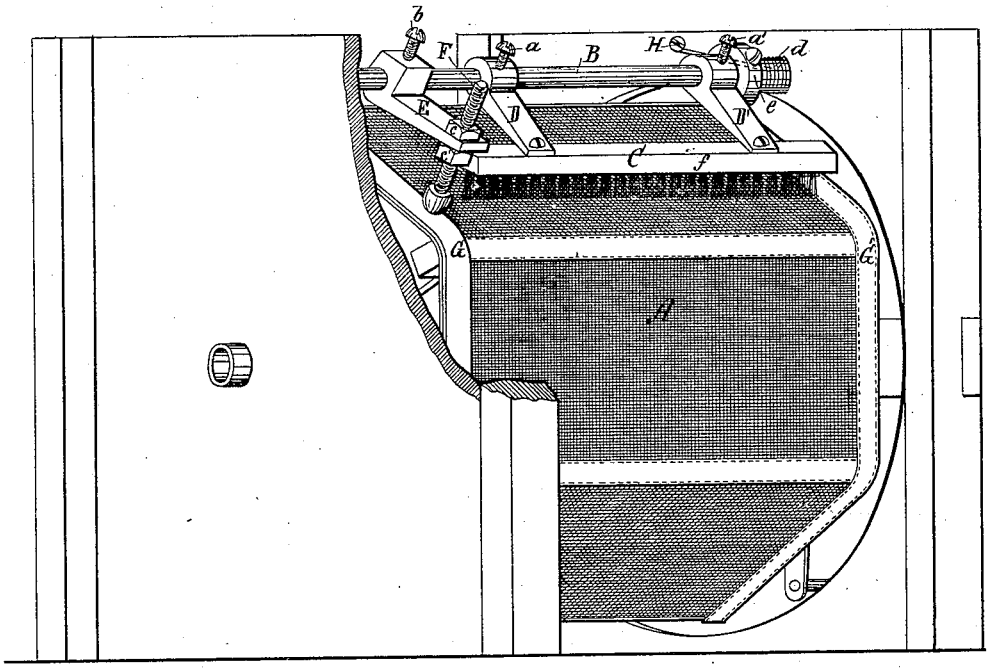
M. C. COGSWELL & W. H. FINN.

Flour-Bolt.

No. 205,476. Patented July 2, 1878.




Witnesses:

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# UNITED STATES PATENT OFFICE.

MORTIMER C. COGSWELL, OF BROOKLYN, AND WILLIAM H. FINN, OF OSWEGO, NEW YORK.

## IMPROVEMENT IN FLOUR-BOLTS.

Specification forming part of Letters Patent No. **205,476**, dated July 2, 1878; application filed February 4, 1878.

*To all whom it may concern:*

Be it known that we, MORTIMER C. COGSWELL, of Brooklyn, Kings county, State of New York, and WILLIAM H. FINN, of Oswego, Oswego county, in said State, have jointly invented a new and useful Improvement in Apparatus for Cleaning the Bottom Cloth in Flour-Bolts, of which the following is a specification, reference being had to the accompanying drawing, forming part of the same.

Our invention relates to an apparatus designed to keep the meshes of the cloth of bolts in flouring-mills open and clear in operation; and it consists of a brush placed in such relation to the bolt that as the latter revolves, its outer surface will be swept by the brush, the brush being actuated by the reel-head as it revolves, or by a similarly-shaped cam on the axial shaft of the bolt, receding from and approaching toward such axis, so that it will conform to the plane sides of the bolt and sweep the latter with a uniform contact throughout the entire revolution of the bolt.

The drawing is a perspective view of an ordinary six-sided bolt, being bolting-cloth stretched on a six-armed reel, constructed to revolve with axle in bearings within a suitable inclosure.

A is the bolt. B is a shaft arranged to rock in bearings over the bolt. C is a brush attached to arms D D′, fixed on the shaft B by means of set-screws *a a′*. E is an arm, also fixed on said shaft by the set-screw *b*. F is a rod arranged in the end of the arm E. A screw-thread is cut on this rod, and also in the hole in the arm, through which it passes. It is furnished with jam-nuts *c c′*, to fix it securely in place when set as desired. The lower end rests on the rim G of the bolt A, the outer face of said rim being made smooth, and preferably of iron, thus performing the office of a cam to actuate the brush.

*d* is a spiral spring, one end of which is fixed on the frame H and the other in the collar *e*, which is made fast to the shaft B by a set-screw. This spring is so arranged that its resiliency will tend to rock the shaft B in the direction to press the brush C down toward the bolt.

It is evident that by the construction and arrangement of the parts now described the said brush may be set so that the end of the bristles will be in contact with the surface of the bolt with any desired degree of pressure, and that as the bolt is revolved the brush will alternately rise and fall, and be kept in uniform relation to the surface of the bolt, so as to sweep the surface of the several plane sides with uniform contact with them throughout the entire revolution of the bolt.

We have above described what we regard as the best form and construction of our improvement; but we do not intend to limit our claim to the precise form and arrangement of the devices shown in the drawing. They are susceptible of various modifications without departing from the essence of our invention. For example, the brush might be made to move to and from the bolt by having the ends of its back *f* arranged to slide in fixed ways, with arms secured to it, one at each end, extending down and resting upon the rims G G′, and a spring or springs arranged in any suitable way to press the brush toward the bolt.

It is evident, also, that in place of using the rims G G′ of the bolt itself, similarly-shaped cams, separate from the bolt, may be placed on the axle-shaft of the bolt, and employed to actuate the brush.

We are aware that a brush for cleaning the cloth in flour-bolts has been used attached to swinging arms, and self-adjustable to the bolt by its own weight.

Our claim is limited to the combination and arrangement of a brush with a bolt, which we have shown and described, wherein the brush is guided and adjusted to the bolt throughout its entire revolution without resting by its weight upon it, with a spring acting to press the brush toward the bolt.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination, with a flour-bolt, of the brush C, a cam (one or more) on the axle-shaft of the bolt, corresponding in form to the perimeter of the bolt, and a spring arranged to press the brush toward the bolt, all constructed to operate as and for the purpose described.

2. The combination of the bolt provided with

the rims or cams G G′, (one or more,) the swinging brush C, arm E, and screw shaft or bolt F, made adjustable in said arm, whereby the brush is made adjustable to the bolt, all as described.

3. The combination of the bolt provided with the rims or cams G G′, (one or more,) the swinging brush C, the arm E, the shaft B, the spring *d*, with the adjustable collar *e*, whereby the tension of said spring may be varied, all as and for the purpose described.

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