W. L. TETER.
Flour Bolts.

No. 210,275. Patented Nov. 26, 1878.

Fig. 1

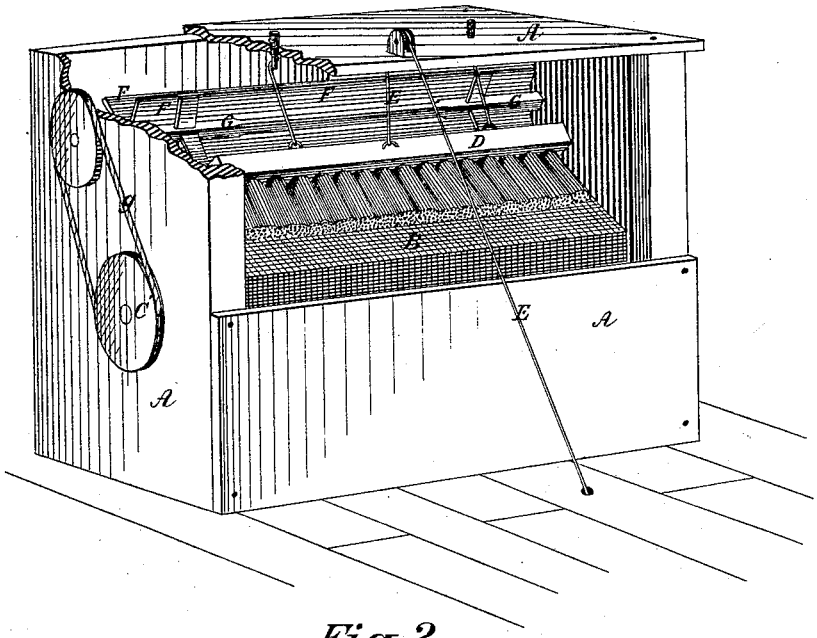
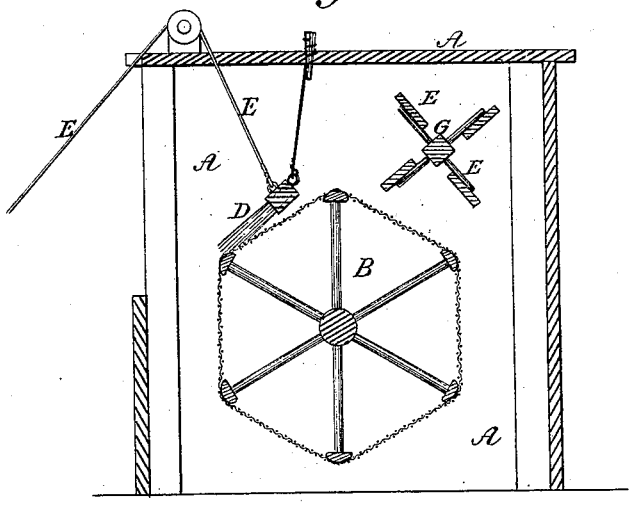


Fig. 2



Witnesses:—
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UNITED STATES PATENT OFFICE.

WILLIAM L. TETER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN FLOUR-BOLTS.

Specification forming part of Letters Patent No. **210,275**, dated November 26, 1878; application filed August 23, 1878.

To all whom it may concern:

Be it known that I, WILLIAM L. TETER, of the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Flour-Bolts, of which the following is a specification:

My invention relates to revolving bolts, and its object is to provide means for keeping the bolting-cloth free from all obstructing material, to prevent the flour from "caking" upon the cloth, and also to dislodge and prevent bugs and insects from secreting themselves in the meshes of the cloth and destroying it.

It is well known that the normal temperature of flour when it goes to the bolt, either when coming directly from the burrs or when stored in bulk, is such that it readily cakes and will clog the meshes of the bolthing-cloth, so that the cloth must frequently be brushed. The higher the grade of the flour the greater tendency will it have to cake upon the cloth, so much so that in rebolting flour that has but little speck it has been necessary heretofore to mix a sufficient quantity of bran with the flour, which serves in a measure to lessen the difficulty by separating the particles.

My invention consists, first, in providing a brush that rests flat upon the outer surface of the bolting-reel, and is suspended by adjustable and flexible connections from the bolting-chest.

My invention further consists in arranging, in connection with such brush, a fan upon the outer side of the bolt, and revolving with it within the bolting-chest, and extending alongside the entire length of the bolt, so that the flour may be cooled and prevented from caking on the bolting-cloth.

In the accompanying drawings, Figure 1 is a perspective view of a bolting-chest partly broken away, showing my improvements; Fig. 2, a transverse vertical section of the same.

The bolting-chest A A is of ordinary construction, and may be provided with the usual spouts and appliances for feeding the material to the bolt and delivering the tailings and flour to their respective compartments.

The bolt B is revolved with its shaft, and may be of any well-known form and construction. An overhung brush, D, swung from the casing of the bolting-chest by flexible straps or cords, rests upon the upper portion and outer surface of the bolt, and is properly weighted to bear with sufficient force upon the cloth to effect its purpose.

Either end of the brush may be raised or lowered and adjusted to bear properly upon the surface of the reel by winding and twisting the cord around its securing-pins; and if straps are employed suitable buckles may be employed to adjust the brush. When the brush is suspended in this manner the hairs of the brush will lie nearly or quite flat upon the cloth, and give to it a much longer and smoother sweeping action. The back of the brush serves also as a weight, to give an elastic pressure of the hairs against the cloth.

A strap, E, or other suitable device, is connected to the brush in such manner that the brush may be raised or lowered from contact with the surface of the bolt when desired.

The fans F F are attached to a shaft, G, which is made to revolve with the reel, in this instance by means of its pulley G′, operated by a belt, *g*, passing over a pulley, C′, on the reel-bolt shaft.

I am aware that brushes have been applied to the outer surface of the bolt to clear it, and do not broadly claim such a device; neither do I broadly claim the use of an air-blast to clear the meshes of the screen and cool the flour.

The fan-wheel may be cheaply applied, and its action within the bolting-chest, to produce fan-waves against the outer surface of the cloth, serves most effectually to clear the cloth of obstructions without agitating too much the flour within the bolt. By placing them outside the bolt, as herein described, the bugs and insects which secrete themselves in the cloth and destroy it are effectually prevented from finding a lodgment, as the material in the bolt sweeps them from the inner surface and the brush from the outer surface, while the blast of air from the fan also serves to discomfort and force them back into the interior of the bolt to be discharged with the tailings.

By means of the devices herein described,

a higher grade of flour is obtained than by ordinary bolting-reels, and the flour may be thoroughly rebolted without the use of bran or ship-stuff as a means to prevent it from caking upon the bolting-cloth.

I claim as my invention and desire to secure by Letters Patent—

1. The arrangement within a bolting-chest of a reel-bolt and an overhung brush, suspended by flexible cords or straps from the bolting-chest, so that the brush may rest obliquely upon the outer surface of the reel, as herein described.

2. The combination and arrangement within a bolting-chest of a revolving bolt and an inclined brush resting against it, and a fan-wheel extending along the upper and outer surface of the bolt, and revolving toward it in such manner that its air-waves may strike the cloth, in the manner and for the purpose described.

WILLIAM L. TETER.

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