

F. G. WALLACE.

Mill-Trams.

No.156,001.

Patented Oct. 13, 1874.

Fig.1.

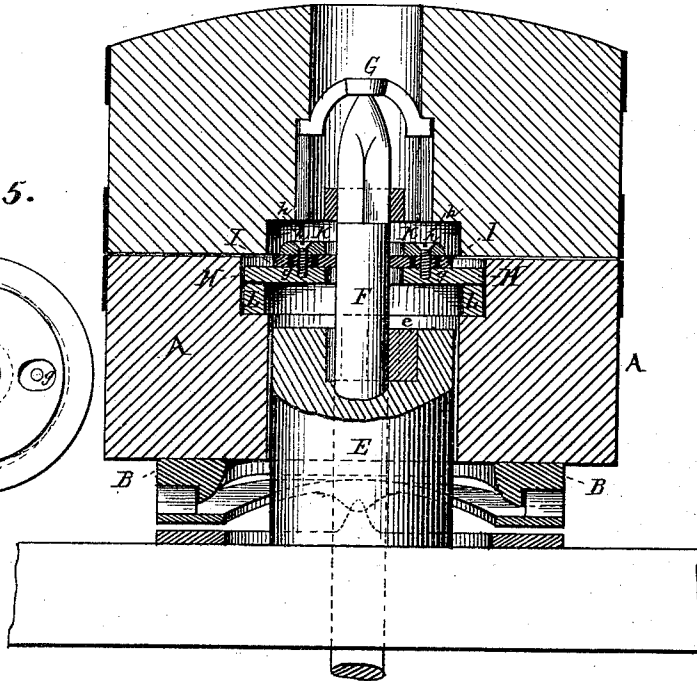


Fig.5.

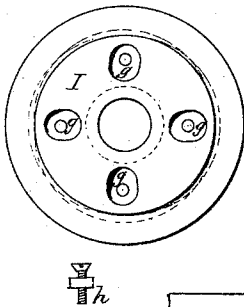


Fig.2.

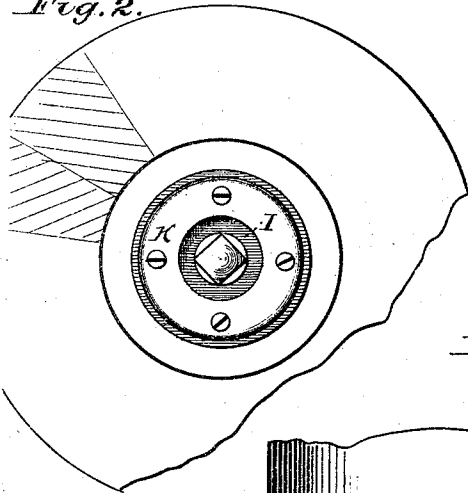


Fig.3.

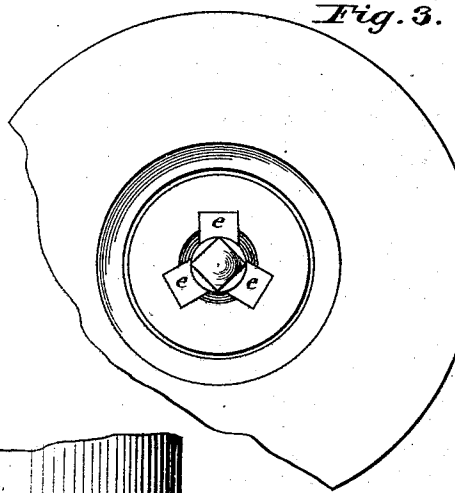
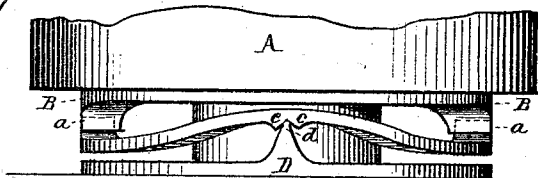


Fig.4.



Attest.

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Inventor:

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By James L. Norris, Atty.

UNITED STATES PATENT OFFICE.

FERRAND G. WALLACE, OF WATERLOO, IOWA, ASSIGNOR OF ONE-HALF
HIS RIGHT TO WALTER L. HITCHCOCK, OF SAME PLACE.

IMPROVEMENT IN MILL-TRAMS.

Specification forming part of Letters Patent No. **156,001**, dated October 13, 1874; application filed
August 3, 1874.

To all whom it may concern:

Be it known that I, FERRAND G. WALLACE, of the city of Waterloo, in the county of Black Hawk and State of Iowa, have invented certain Improvements in Mill-Trams, of which the following is a specification:

This invention has reference to that class of mill-trams in which the bed-stone is set on a universal or rocking joint, so as to enable the same to adjust itself perfectly to the face of the runner; and the object of the invention is to provide means whereby the proper rocking or oscillating movement of the bed-stone may take place without interfering with the rotation of the spindle, so that no flour or dust can pass down below the bed-stone at the point where the spindle passes through the same.

The invention consists in a packing device for the runner-spindle, which is fixed to the bed-stone at the eye or central opening thereof immediately above the bush on which the bed-stone is mounted, and through which the spindle passes, said packing device consisting of a ring cemented or otherwise secured below the face of the bed-stone, and having a top plate which is provided with a large central opening and with a series of projections or points for retaining a flexible or elastic packing-disk, above which is placed a clamping-plate secured by screws passing into the projections of the lower plate.

The object of this construction is to provide effectual means for preventing the downward passage of flour or dust at the joint of the spindle and bed-stone, as the elastic packing-disk hugs the spindle closely, while not preventing the free oscillating movement of the bed-stone.

In the accompanying drawing, Figure 1 is a vertical sectional view of a pair of mill-stones having my improvement applied thereto. Fig. 2 is a top view of the bed-stone, showing the spindle and packing device. Fig. 3 is a top view of the bed-stone bush through which the spindle passes. Fig. 4 shows the rocking plates employed for securing a rocking movement of the bed-stone. Fig. 5 is a detail view

of the spindle-packing device, with the top clamping-plate removed.

The bed-stone A bears on its lower side a plate, B, having projections *a*, with V-shaped notches which fit on correspondingly-shaped projections on the upper surface of a working plate, C. The rocking movement of this plate is secured by providing it with bottom projections *c*, having V-shaped notches which are received by knife-edges *d* of a fixed bottom plate, D. The notches and knife-edges are so located that the bed-stone can rock independently of the rocking plate C in one direction, and with the same in an opposite direction, so as to produce a perfect universal motion designed to permit the bed-stone to adjust itself perfectly to the face of the runner. The bed-stone is provided with an enlarged central opening for the reception of a stationary tubular bush, E, having adjustable bearing-blocks *e*, which encircle the spindle F, passing up through said bush.

The runner G is mounted on the top of the spindle in the ordinary manner, and it will be perceived that the bed-stone can oscillate or rock without affecting the movement of the runner.

The top of the eye of the bed-stone is enlarged or provided with a shoulder or ledge for supporting an annular ring, L, which is cemented or otherwise secured to the bed-stone below the top surface of the same. A horizontal plate, H, is secured to the ring by means of screws, and in certain instances both may be formed in one piece. The plate H is formed with projections or studs *g* on its top surface, which are designed to retain an elastic packing-disk of rubber or leather, I, having openings corresponding to the projections. The packing-disk is secured by a superposed ring-shaped clamping-plate, K, having openings for the passage of fastening-screws *h*, which enter the projections or studs on the lower plate, thus securing all the parts firmly together. The packing-disk hugs the runner-spindles closely, and thus effectual provision is made for preventing the downward passage of flour, &c., through the eye or central open-

ing of the bed-stone. Furthermore, the packing-disk will yield readily in all directions whenever any rocking movement of the bed-stone takes place, so as not to interfere with the proper rotation of the spindle.

Rocking bed-stones are in use, but they have been found defective, owing to the fact that no means are provided for preventing the downward passage of the flour at the eye thereof.

What I claim is—

In combination with a rocking bed-stone, A, runner G, spindle F, and bush E, the spindle-packing device, consisting essentially of a slotted elastic packing-disk secured between plate H, having projections *g*, and plate K, applied to the bed-stone at the center thereof, as and for the purpose set forth.

FERRAND G. WALLACE.

Witnesses:

S. BAGG,

M. N. BAGG.