2 Sheets, Sheet 1.

J. L. Post,

Mill Gearing.

No. 108,515. Patented Oct. 18, 1870.

Fig. 1.

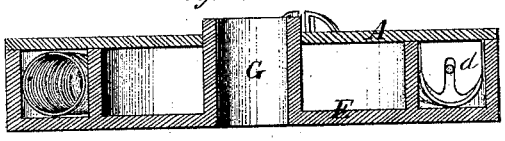


Fig. 2.

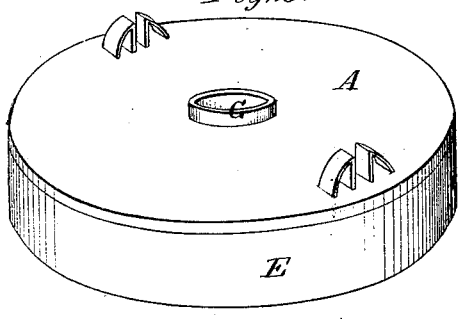


Fig. 3.

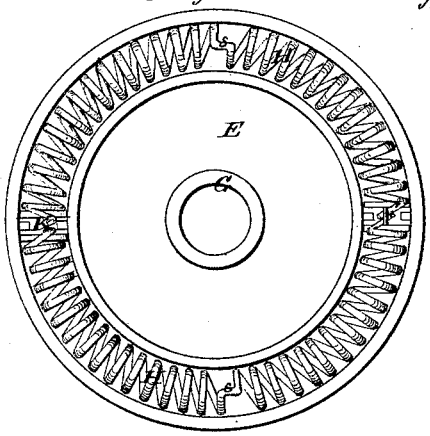


Fig. 4.

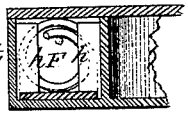
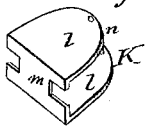


Fig. 5.



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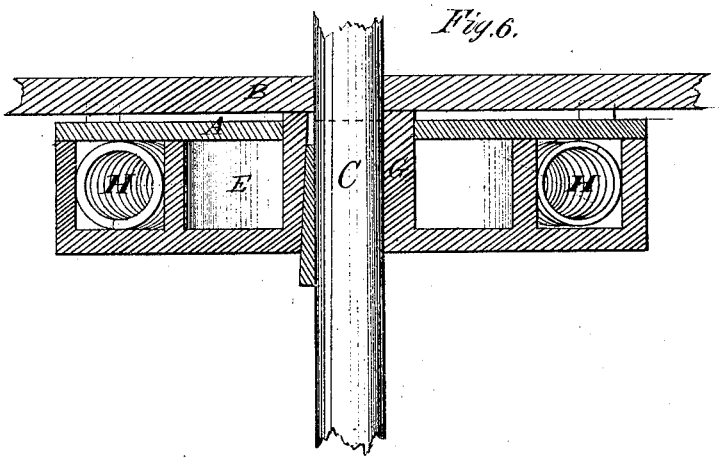
2 Sheets, Sheet 2.

J. L. Post,

Mill Gearing.

No. 108,515. Patented Oct. 18. 1870.

Fig. 6.



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JOHN L. POST, OF ASHLEY, ILLINOIS.

Letters Patent No. 108,515, dated October 18, 1870.

IMPROVEMENT IN BACK-LASHES FOR MILL-GEARING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN L. POST, of Ashley, in the county of Washington and State of Illinois, have invented a new and valuable Improvement in Devices for Preventing Back-Lash; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a central vertical section of my invention.

Figure 2 is a perspective view of the same.

Figure 3 is a view of the spring-case, with driving-plate removed.

Figures 4, 5, and 6 are details.

My invention relates to an improvement in means for preventing the back-lash or irregular movement of millstones; and

It consists in the construction and novel arrangement of devices designed to increase the action of the springs, to prevent undue friction, and to sustain the weight of the false pinion.

The letter A of the drawing designates the driving-plate, secured firmly to the pinion B, which is loose upon the shaft C of the millstone.

To the under side of the plate A are secured the forked lugs *d*, arranged to engage with the semicircular springs hereinafter described.

E represents the lower case, which contains the springs, and rotates with the shaft of the millstone, to which it is firmly keyed.

F designates the circular chamber in which the springs lie. This chamber is rectangular in its cross-section, and the object of giving it this form is to obviate as much as possible the friction of the walls against the springs.

G is the central sleeve, which embraces the shaft. It is designed to project upward through the driving-plate A, and to form a bearing for the pinion B, thereby sustaining its weight and that of the driving-plate A, and thus in an important manner lessening the friction.

The chamber F is subdivided into two semicircular compartments by the slotted partition-plates *h*, securely attached to the lateral walls of the chamber.

H H represent the coiled springs which operate to prevent the back-lash. They are designed to extend from one partition, *h*, to the other, a distance of one hundred and eighty degrees. The ends of these two semicircular springs are secured together by means of the coupling K. This coupling consists of two vertical cheeks, *l l*, connected at their lower ends by a plate, *m*, notched at each side to admit the edges of the slot of the partition-plate *h*. They are also connected at the top by a cross-bar, *n*.

The end of each coil-spring is turned within the cheek which lies on the same side of the partition *h*. Thus the springs are secured firmly together at their ends.

At about the middle of each spring a set-off, *s*, or horizontal extension of the coil-wire, is formed. On each side of this set-off descend the ends of the forked lugs *d* of the driving-plate A, thus forming the engagement between this plate and the springs.

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

1. The spring-case E, provided with the sleeve G, projecting above the driving-plate to form a bearing for the loose pinion B, as an improvement in machinery for preventing back-lash, as specified.

2. The semicircular springs H, connected by the coupling-slides K, and each provided with the set-off *s* at about its middle portion, in combination with the transverely-rectangular spring-chamber F, having the slotted partition *h*, and with the driving-plate A provided with the forked lugs *d*, substantially as shown and described, and for the purposes specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

JNO. L. POST.

Witnesses:

JAS. M. DURHAM,

JNO. T. SHOWALTER.