F. A. HUNTINGTON.

Divided Nut-Devices for Feed-Screws.

No. 143,626. Patented Oct. 14, 1873.

Fig. 1.

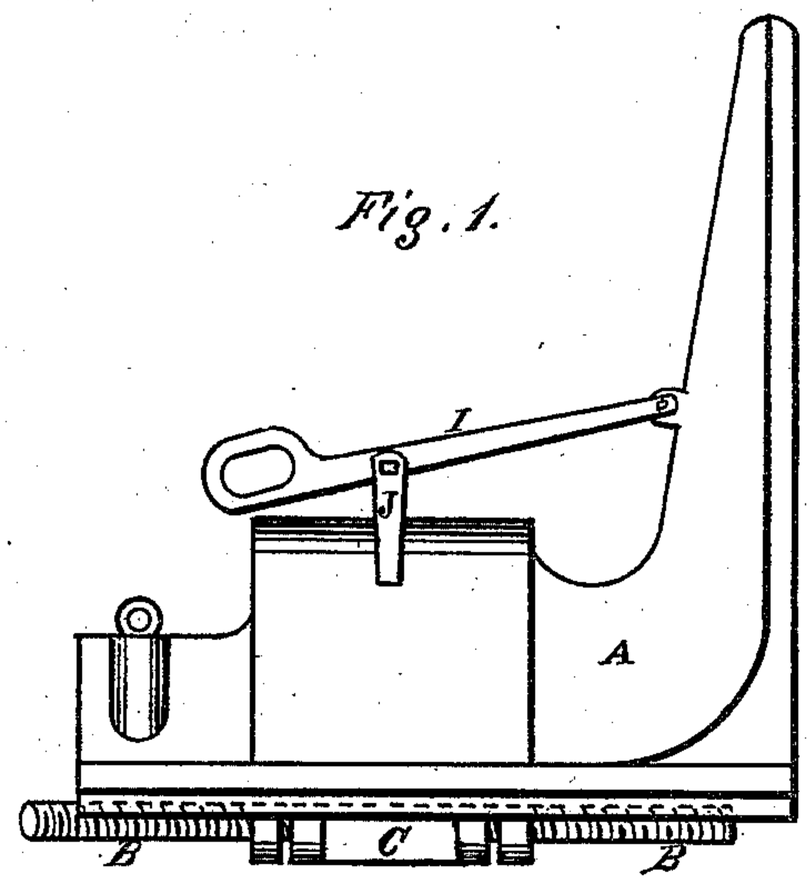


Fig. 2.

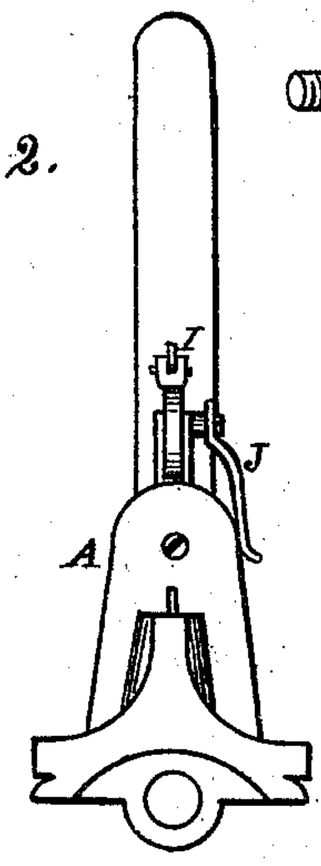


Fig. 4.

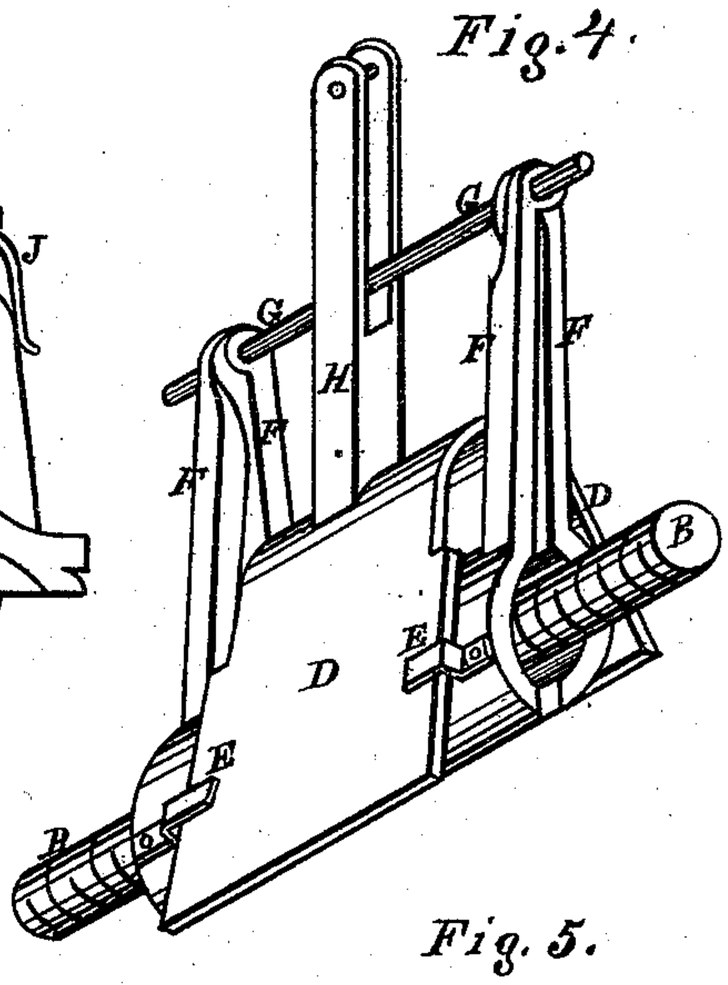


Fig. 3.

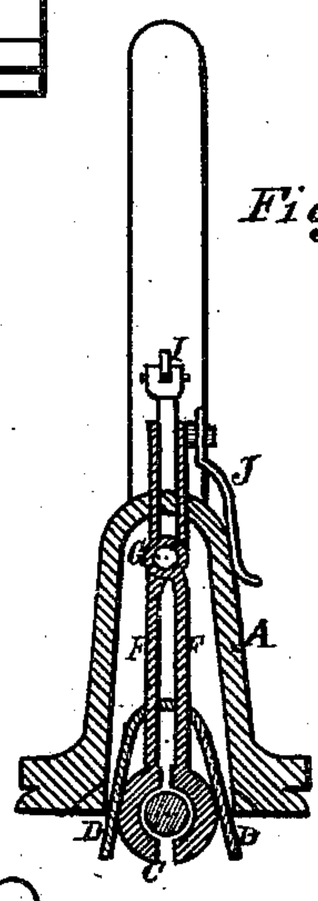
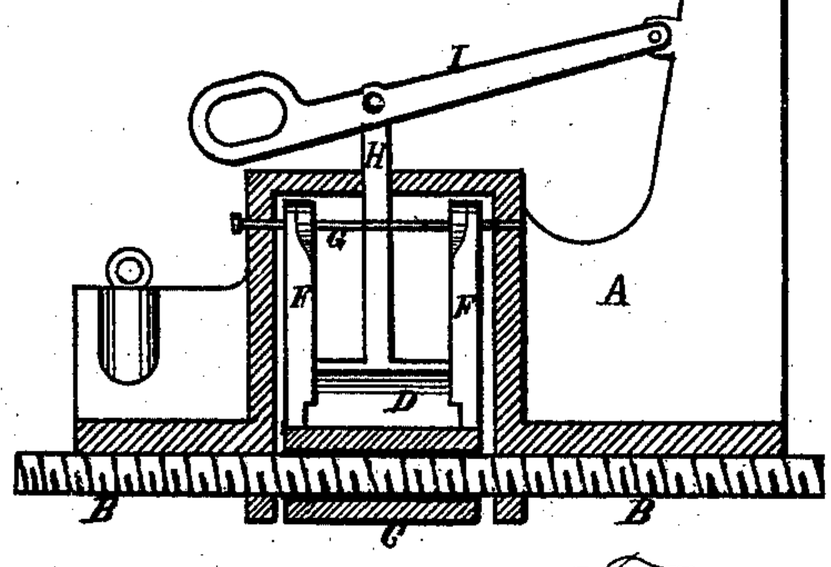


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

FRANK A. HUNTINGTON, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN DIVIDED-NUT DEVICES FOR FEED-SCREWS.

Specification forming part of Letters Patent No. **143,626**, dated October 14, 1873; application filed May 3, 1873.

To all whom it may concern:

Be it known that I, FRANK A. HUNTINGTON, of San Francisco city and county, State of California, have invented a Device for Opening Nuts for Head-Blocks and other Machinery; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My invention relates to an improvement in devices for opening and closing divided nuts; and it is more especially applicable to the nuts which are employed upon the feed-screw for the head-blocks of saw-mill carriages. These are made in two parts, so that they can be opened after the log has been run up, and the head-block can be instantaneously moved back to receive another log, without waiting to move it back by the slow operation of the screw.

My invention consists in the employment of double-inclined planes, which operate upon the two halves of the nuts by means of lugs, so as to open and close them. A suitable lever operates the inclined planes from the outside.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a side elevation of my device. Fig. 2 is an end view. Fig. 3 is a transverse section of the head-block, showing the device. Fig. 4 is a perspective view of the device. Fig. 5 is a longitudinal section.

A is the head-block of a saw-mill carriage, and B is the screw by which it is fed gradually forward as each cut of the log is made. This screw operates through a nut, C, which is made in two parts. These parts are opened when the head-block has been fed close up to the saw, and thus the screw is freed from the nut, and the block can be moved back at once to allow a new log to be placed.

In order to open and close this nut rapidly and firmly, I employ a double-inclined plane, consisting of two legs, D D, spreading out from each other like a fork, as shown. One leg D passes outside of each half of the nut, and, as these legs are made thick and stiff, a light flange upon their outside edges is made to pass beneath the bent lugs E, which are cast upon each half-nut. Arms F F extend upward from the half-nuts, and are hinged together at some point above, as shown at G. The inclined planes have an arm, H, extending upward through the block A, and this arm is pinned to a lever, I, by which it is moved up or down. When it is necessary to open the nut, the lever is simply raised. This movement raises the arm H and the inclined planes, which, by their increased spread at the bottom, operate on the lugs E, thus separating the two halves of the nut.

A spring, J, or other suitable device may be employed to retain the lever I in its elevated position until the head-block has been run back. The nut is closed by pressing down upon the lever I, the approaching sides of the planes thus pressing the half-nuts together. At the point where the inclined planes have closed the halves of the nut, the planes may be made parallel for a short distance, or the upper part of the fork may be finished by a half-circle, so that there will be no tendency of the planes to slip up and allow the halves of the nut to open at the wrong time.

My device is applicable to lathes and other machinery in which long feed-screws are employed, where it is sometimes necessary to move the screw or nut quickly.

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

1. In combination with the divided nut C, the inclined planes D D, when constructed to operate upon the half-nuts by means of the lugs E, or an equivalent device, substantially as and for the purpose herein described.

2. The inclined planes D D, having the arm H, in combination with the operating-lever I, when constructed to open and close the half-nuts C, substantially as and for the purpose herein described.

3. In combination with the arm H of the inclined planes D D and the lever I, the spring J for retaining the planes in an elevated position, substantially as and for the purpose herein described.

In witness whereof I hereunto set my hand and seal.

FRANK ATWOOD HUNTINGTON. [L. S.]

Witnesses:

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C. M. RICHARDSON.