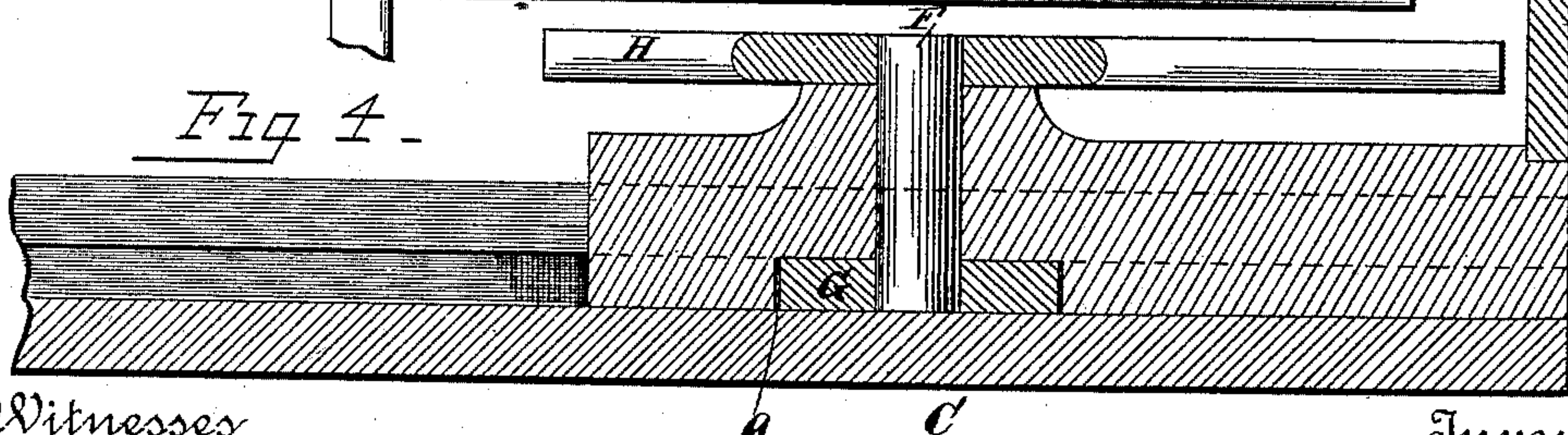
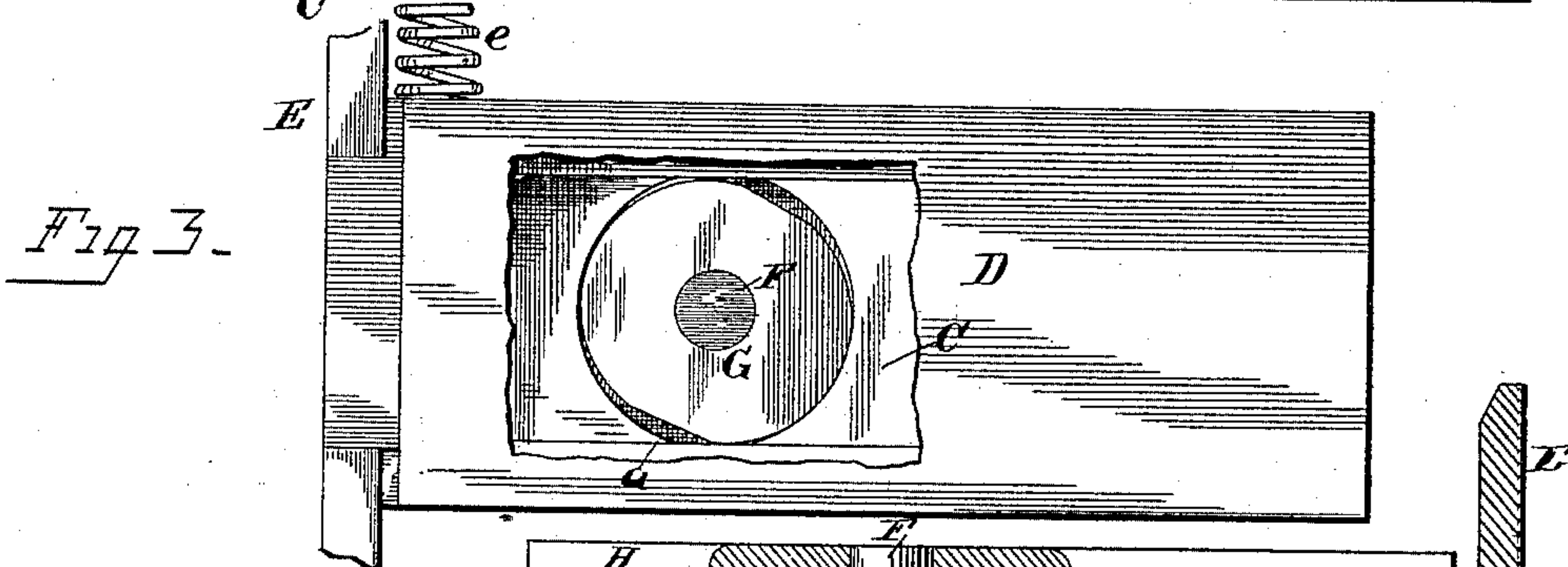
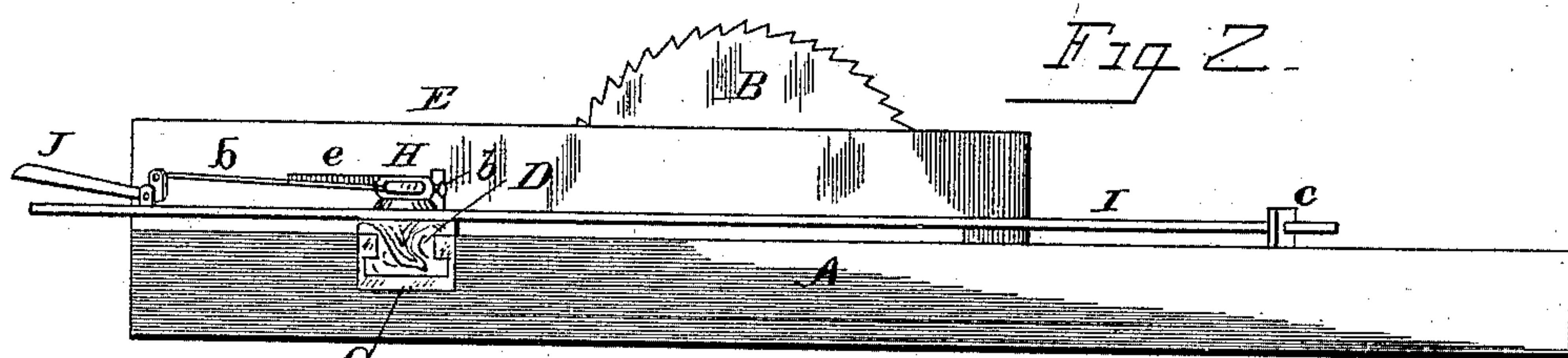
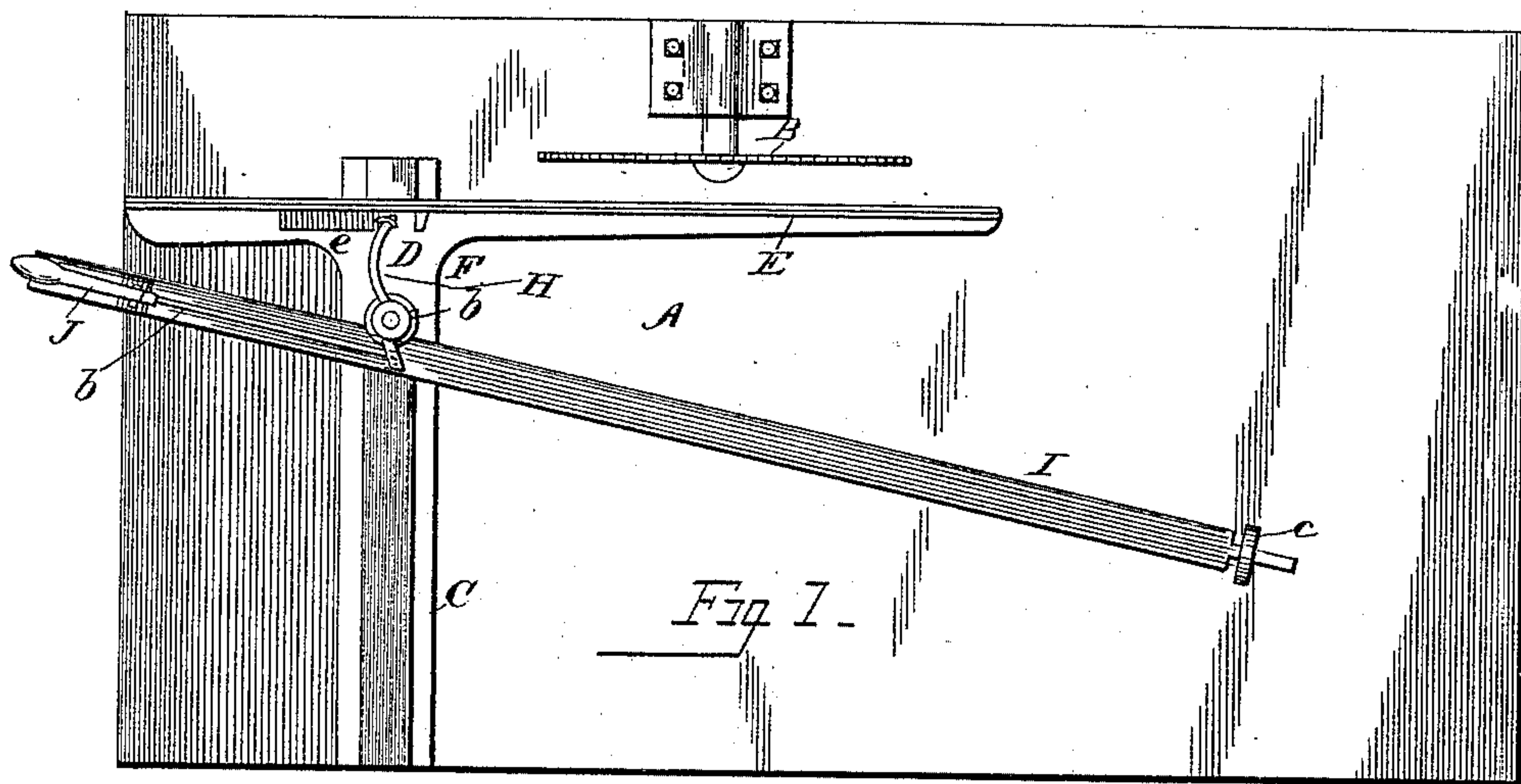


(No Model.)

J. I. HALES.
LOCK FOR GAGES.

No. 426,617.

Patented Apr. 29, 1890.



Witnesses

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JOHN I. HALES, OF WILLIAMSPORT, PENNSYLVANIA.

LOCK FOR GAGES.

SPECIFICATION forming part of Letters Patent No. 426,617, dated April 29, 1890.

Application filed June 17, 1889. Serial No. 314,531. (No model.)

To all whom it may concern:

Be it known that I, JOHN I. HALES, a citizen of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Locks for Gages; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to various new and useful improvements in locks or fasteners for gages.

My improved lock or fastener is applicable for use with gages of any variety; but I make particular emphasis as to its adaptability for use with the set works or gages of circular-saw mills, and in the description following hereinafter I will describe my invention as it would be put in use in this latter connection.

The disadvantages attendant to the use of the locks for gages heretofore made has been that in one class where a notch-lever is used the gage can be locked only at certain points, and in another variety in which a hand-wheel is employed a great deal of time, comparatively, is required to lock the gage in any position. By the use of my invention no such disadvantages as these will occur, since the gage can be securely locked at any point in its path of movement, and this engagement will be entirely automatic, and when it is desired to move the gage to another position all that is necessary is a simple movement of an ordinary lever.

The advantages of my improved fastener over the locks heretofore made are cheapness of manufacture, durability in use, efficiency of operation, simplicity of construction, and ease of manipulation.

Although I will describe my invention as it would be used as a lock for a saw-mill-set work or gage, it should not be understood that I thereby limit the capacity of my improvement to that particular construction, as it can be used in connection with any variety of gages whatever.

For a more thorough understanding of my invention, taken in connection with the description following hereinafter, attention is invited to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a top elevation of my improvement illustrating its relation to the saw and accompanying mechanism; Fig. 2, an end elevation of the same; Fig. 3, a bottom elevation of the detached gage-block, showing the form of the clamping-cam; and Fig. 4 a sectional view taken on the lines *xx* of Fig. 1.

In all of the above views the corresponding elements of the device are designated by corresponding reference-letters.

A represents the saw-bench, within which is mounted the usual saw B. Extending in a perpendicular plane to this saw and to one side thereof is a dovetailed track C, having its upper face on a line flush with the top of the saw-bench. Engaging within this dovetail track C is a sliding block D, so arranged that it is capable of a sliding lateral movement within said track. This sliding block D carries a guide-piece E at its forward end, and the two together constitute the gage proper. At the central portion of the sliding block D is an annular passage-way, within which is located a vertical shaft F. Said shaft carries at its lower end a cam G, which is secured rigidly to said shaft. This cam works in a suitable recess or chamber *a*, formed in the bottom of said sliding piece D, as shown in Fig. 3. The construction of this cam G is preferably that illustrated in the drawings, which consists of a disk of the general shape of a flattened ellipse, so arranged that when it is partially rotated a greater surface will be presented to each side of the bottom of the sliding block. By this means it will be apparent that when this cam is turned partly around it will be caused to engage with the sides of the dovetailed track and will be jammed in position therein, and will thus be held immovable. This movement of the cam is instituted by rigidly securing a lever H at the upper end of the shaft F. This lever H is held in position, preferably, by a set-screw *b*, though it will be apparent that any equivalent device may be substituted, and which is normally held in position to lock the cam by means of a spiral spring *c*, arranged substantially as shown. A long hand-lever I is pivoted by means of a suitable pin or bolt to the upper face of the sliding block and bears at its lower extremity within a pivoted sleeve *c*, secured to the bench A. This sleeve *c* is necessary,

since there is a certain amount of lateral movement of the hand-lever I, when the latter is forced to the right or left to position the gage at any point on the track C. A right-angled lever J is pivoted to the handled portion of the lever I, and is so arranged that its long arm may be easily depressed by the thumb or forefinger of the operator. The short or vertical arm of this right-angled lever is connected to one of the ends of the lever H by means of a connecting-rod *d* in such a manner that when the long arm of the lever J is depressed the vertical arm thereof will be forced backwardly, the connecting-rod will move the lever H, and the cam can be partially rotated, so as to be withdrawn from engagement with the sides of the dovetailed track C, all of which movements will be evident to one skilled in mechanics. Said cam will be normally held in engagement with said track C by means of an ordinary coiled spring *e* connected to the other end of the lever H.

By means of the arrangement I have just described it will be apparent that the gage can be moved to any position on the track C, and will be automatically locked in such position by means of the cam. The arrangement I have

described of controlling said cam is preferable for this particular purpose; but any other well-known mechanical equivalents may be substituted, and for this reason I do not wish to be limited to any definite construction for this purpose.

Having now described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. A lock for gages, consisting of a base A, a track C, a sliding block D, carrying a guide-piece E, a cam adapted to engage with the sides of said track, a lever H, controlling said cam, and a spring adapted to normally keep said cam into engagement with said track.

2. A lock for gages, consisting of a base A, a track C, a sliding block D, carrying a guide-piece E, a cam, a lever H controlling said cam, a lever I for moving said sliding block D, and a thumb-lever and connecting-rod connected to said lever H.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN I. HALES.

Witnesses:

C. B. LOMISON,
JOHN H. WATSON.