

No. 753,269.

PATENTED MAR. 1, 1904.

G. D. HUNTER.
STONE SAWING MACHINE.
APPLICATION FILED MAY 26, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

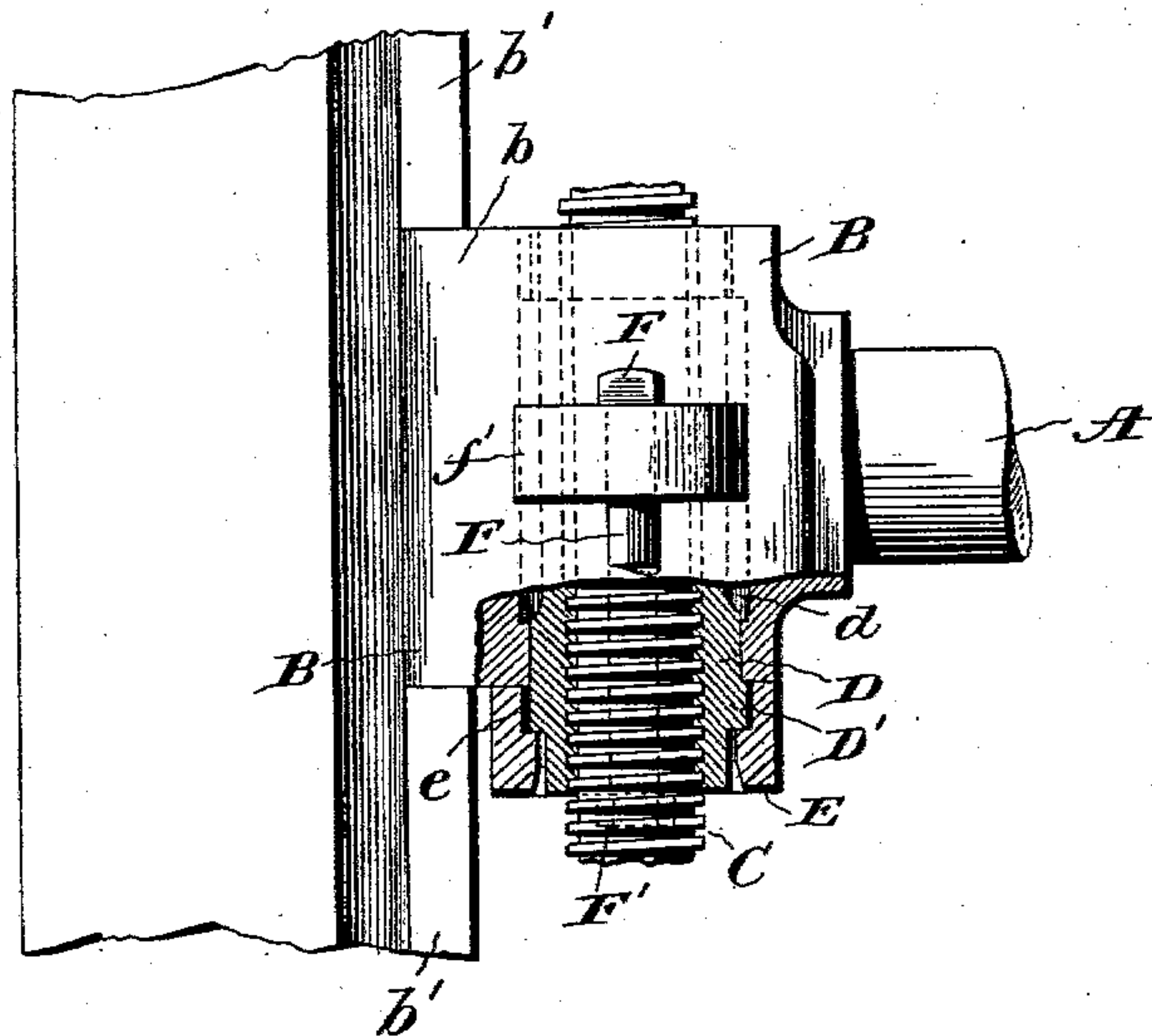
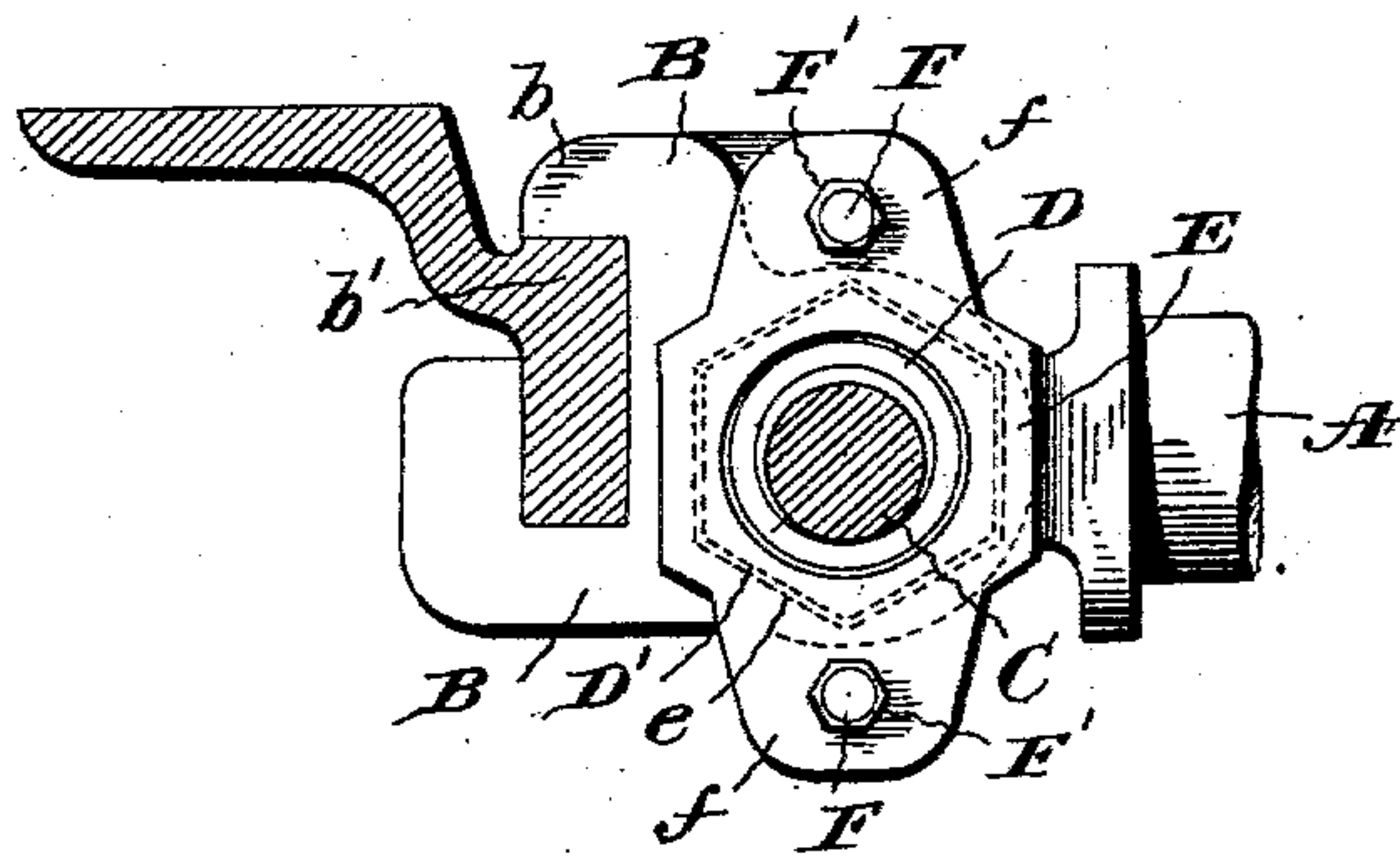


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

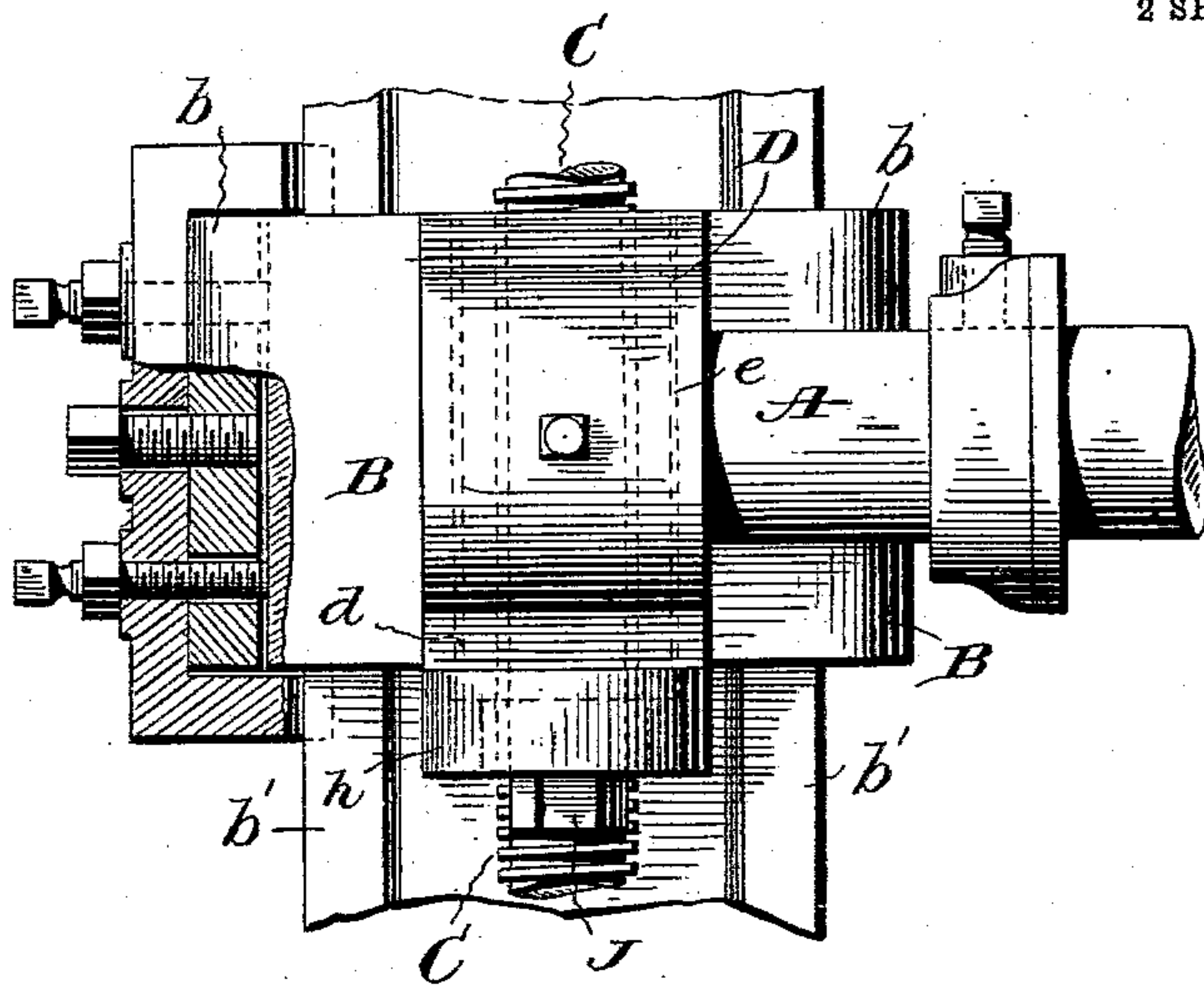


Fig. 4.

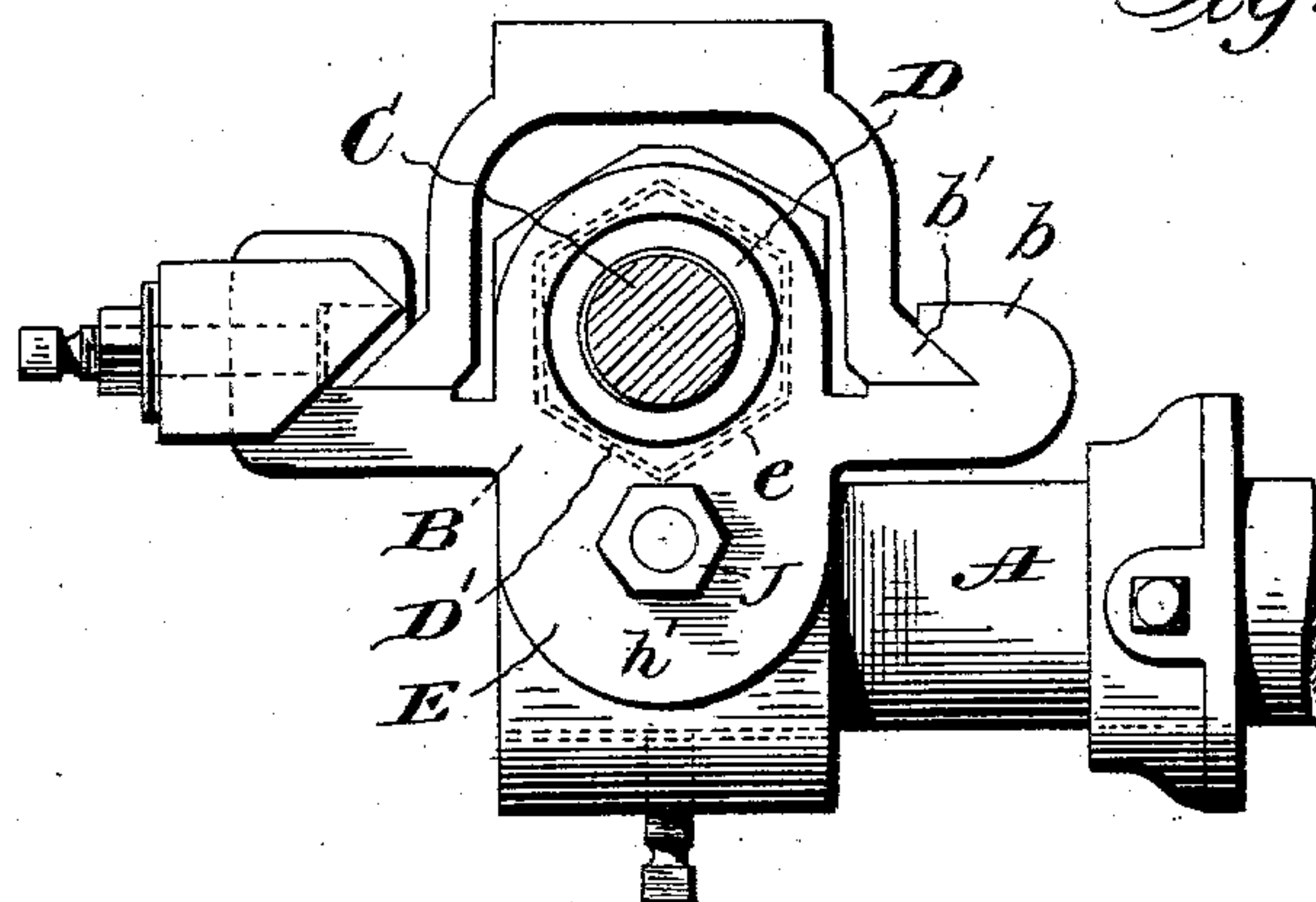
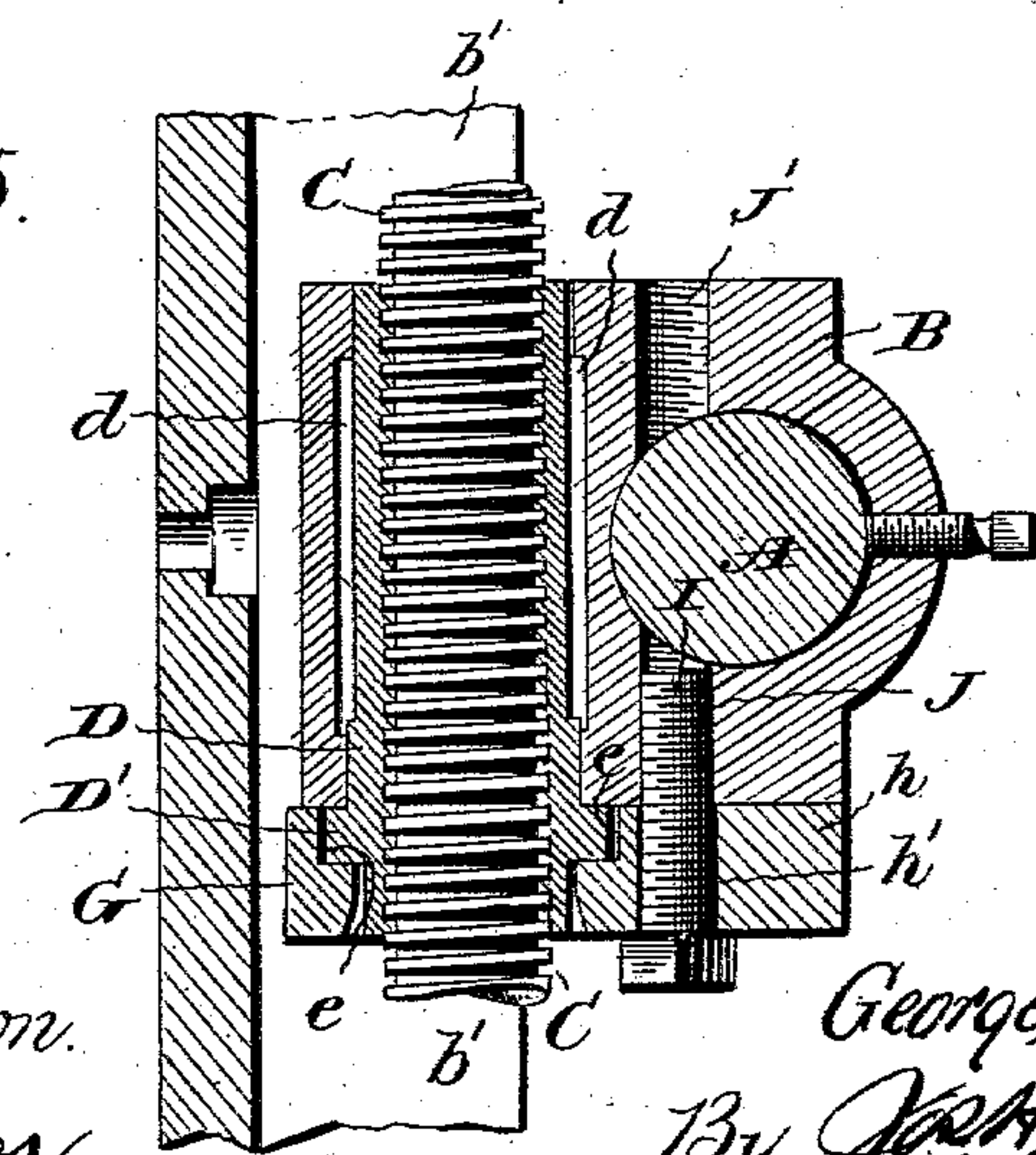


Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE D. HUNTER, OF BLOOMINGTON, INDIANA.

STONE-SAWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 753,269, dated March 1, 1904.

Application filed May 26, 1903. Serial No. 158,861. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. HUNTER, a citizen of the United States, residing at Bloomington, in the county of Monroe and State of Indiana, have invented certain new and useful Improvements in Stone-Sawing Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improvement in the screw-threaded coupling or connection which is employed between the supporting-frame for a gang-saw of the swinging type and its feeding-screw.

Heretofore in the art the swinging frames in sawing-machines of the character described have had secured rigidly to the opposite ends of the upper connecting-bar thereof screw-threaded boxes, the threads being formed directly upon the interior of the boxes, so that should they become worn or damaged it is frequently necessary to renew the whole casting or box, which is obviously very expensive.

It is the primary object of the present invention to provide these boxes or castings with a removable independent screw-threaded member adapted to be secured on the interior of the respective boxes and which will be readily removable when worn and replaced at comparatively little expense.

The invention further embraces the idea of constructing the screw-threaded members for the boxes or castings that they may have a slight lateral play in the boxes, so that should the feed-screws become bent the said screw-threaded members will readily adjust themselves to the screws without undue strain upon the upper connecting-rod of the frame or the castings.

Novel details in the arrangement and construction of the several parts will be apparent from the detailed description hereinafter when taken in connection with the accompanying drawings, forming part hereof, and the appended claims.

In the drawings the preferable embodiment of the invention is delineated for the purpose

of illustration, and when hereinafter referring to the same like reference characters will designate corresponding parts in the several views.

Figure 1 is an elevation of the upper portion of the connecting-bar, one of the feed-screws, and a casting or box embodying the present improvement, parts being shown in section. Fig. 2 is a bottom plan view, and Figs. 3, 4, and 5 are respectively an elevation, partly in section, a bottom plan, and a vertical section of a modification of the invention.

Referring more specifically to the drawings, A designates the top cross-bar, designed to support a swinging saw-frame of any usual or desired type, the latter, not of the essence of the present invention, being omitted from the drawings. To the respective ends of this connecting-rod are secured boxes or castings B, provided with suitable guides *b*, adapted to engage over the guide strip or flange *b'* in the usual manner.

C designates one of the elongated feed-screws designed to be rotated to cause the boxes to travel vertically thereon, and thus raise or lower the connecting-bar associated therewith and the saw-frame supported therefrom.

The casting B is provided with a through-opening *d*, in which an interiorly-screw-threaded sleeve D is adapted to loosely fit. This sleeve is arranged to directly engage the threads of the feed-screw and is prevented from rotation by means of an angular head *D'*, fitting in a corresponding recessed portion of a retaining-cap E. The cap is in turn secured in place to properly confine the sleeve through the medium of locking-bolts F, passing through suitable ears *f*, projecting from opposite sides of the cap and corresponding ears *f'*, arranged in alinement with said first-mentioned ears and projecting from the sides of the casting or box B. The bolts are clamped by the usual nuts *F'*. Inasmuch as the locking-bolts loosely engage the ears on the casting it will be obvious that the screw-threaded sleeve may be readily inserted into

the casting either from its top or bottom, as may be found expedient, and secured in position in either instance by the same locking means.

5 It frequently happens that the feed-screw C becomes bent or the thread thereon worn at irregular intervals, and to facilitate a self-adjusting of the castings or boxes to such irregularities the sleeve is made with a diameter considerably smaller than the diameter of
10 the through-opening in the casting, whereby the sleeve, although at all times held against independent vertical movement, is permitted a lateral play within the casting.

15 From the above description it will be apparent that by employment of the laterally-adjustable screw-threaded sleeve rather than form the threads directly upon the casting much, if not all, of the strain incident to the
20 employment of the latter style of casting heretofore known in the art is avoided, and also that should the threads become worn or otherwise impaired a new sleeve may be readily inserted with but slight expense, while heretofore
25 it has been necessary to provide an entirely new casting.

In the embodiment shown in Fig. 3 the arrangement of the several parts of the casting is in the main the same as that shown in the
30 other figures. A slightly-different form of retaining device for the sleeve is, however, provided. This retaining device comprises a cap G, adapted to receive the angular head of the sleeve, as in the former instance; but instead
35 of having the oppositely-projecting ears an extension *h* is formed on the cap, which has a suitable vertically-disposed opening *h'*. A screw-threaded locking-bolt I is adapted to pass through said opening in the projection
40 into a corresponding screw-threaded opening J in the body of the casting. The screw passes loosely through the extension *h* and locks the same with the collar or nut in position by being screwed into the opening in the casting.

45 Directly above the opening J in the casting is a corresponding oppositely-screw-threaded opening J', designed to be used when the sleeve is inserted from the top of the casting rather than from the bottom thereof, as illustrated.
50 Although special details of constructions have been disclosed herein, it is not the intention that the invention be limited thereto, inasmuch as various changes in the details and arrangement of the several parts may be made
55 without in the least departing from the spirit of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

60 1. In combination with a casting of the character described having a vertical opening therein, a non-rotatable interiorly-threaded sleeve removably inserted into the casting

from one end thereof, and transversely movable therein in operation, and means at said
65 end for retaining the sleeve in place, the opposite end of the sleeve being free.

2. In combination with a casting of the character described having a vertical opening therein, a non-rotatable interiorly-threaded
70 sleeve removably inserted into the casting, and transversely movable therein in operation, and means at one end of the sleeve for retaining the same in place, the opposite end of said sleeve being free.

3. In combination with a casting of the character described having a vertical opening therein, a non-rotatable interiorly-threaded
75 sleeve removably inserted into the casting from either end thereof, and transversely movable therein in operation, and means for engaging one end of the sleeve to secure the same in place, with the other end of the sleeve free.

4. In combination with a casting of the character described having a hollow interior, an
85 interiorly-screw-threaded sleeve in said hollow interior, means engaging one end of said sleeve to secure the same in place with the opposite end thereof free.

5. In combination with a casting of the character described, having a longitudinally-disposed opening passing through one end thereof, a non-rotatable screw-threaded sleeve inserted through said end into said opening, and
90 means for securing the sleeve in place, comprising a collar fitting thereover, and holding means for the collar engaging said open end of the casting, substantially as described.

6. In combination with a casting of the character described having a hollow interior, an
100 interiorly-screw-threaded reversible sleeve in said hollow interior, means engaging one end of said sleeve to secure the same in place with the opposite end thereof free.

7. In combination with a casting of the character described, having a through-opening, oppositely-disposed ears projecting from the surface thereof, a screw-threaded sleeve inserted in said opening, and means for holding
105 the sleeve in place comprising an angular head thereon, a cap having an angular recess engaging the said head, ears on the cap in alignment with the ears on the casting, and means for engaging the ears to secure the cap in position, substantially as described.

8. The combination of a casting of the character described having a longitudinally-disposed opening passing through both ends thereof, a non-rotatable screw-threaded sleeve inserted in said opening from either end, a
120 cap adapted to engage the end of the casting for holding the sleeve in place, and means engaging the cap and casting for securing the cap in place, substantially as described.

9. In combination with a casting of the character described having a longitudinally-dis-

posed passage opening through the end thereof, a sleeve of slightly-smaller diameter than the width of the passage in the casting inserted thereinto through the opening in the
5 end thereof, means engaging the outer end of the sleeve for securing the same in place with the opposite end thereof free.

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

GEORGE D. HUNTER.

Witnesses:

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