

(No Model.)

2 Sheets—Sheet 1.

N. H. ROBERTS.
DEVICE FOR JOINTING AND DRESSING SAWS.

No. 438,184.

Patented Oct. 14, 1890.

Fig. 1.

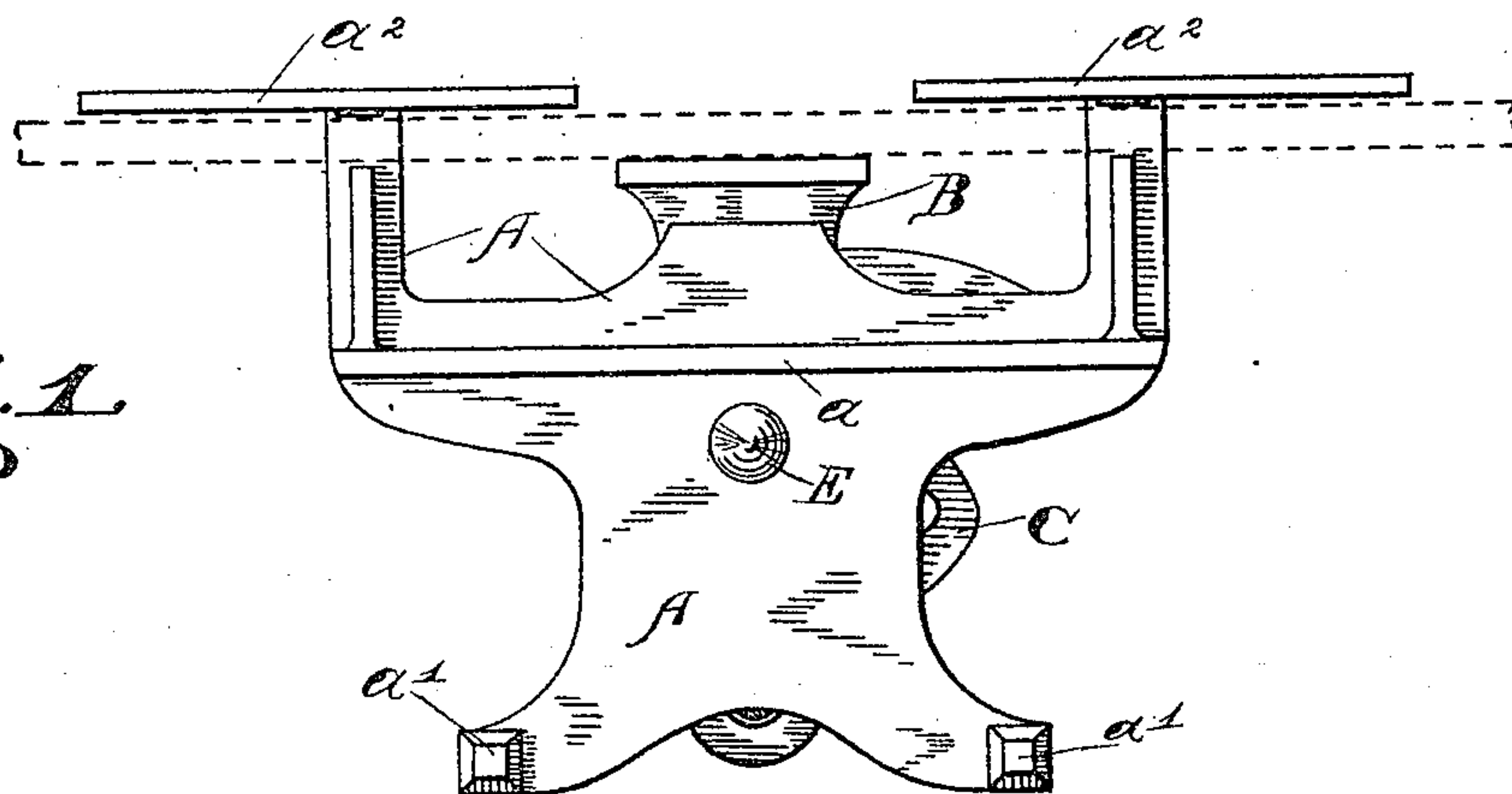


Fig. 2.

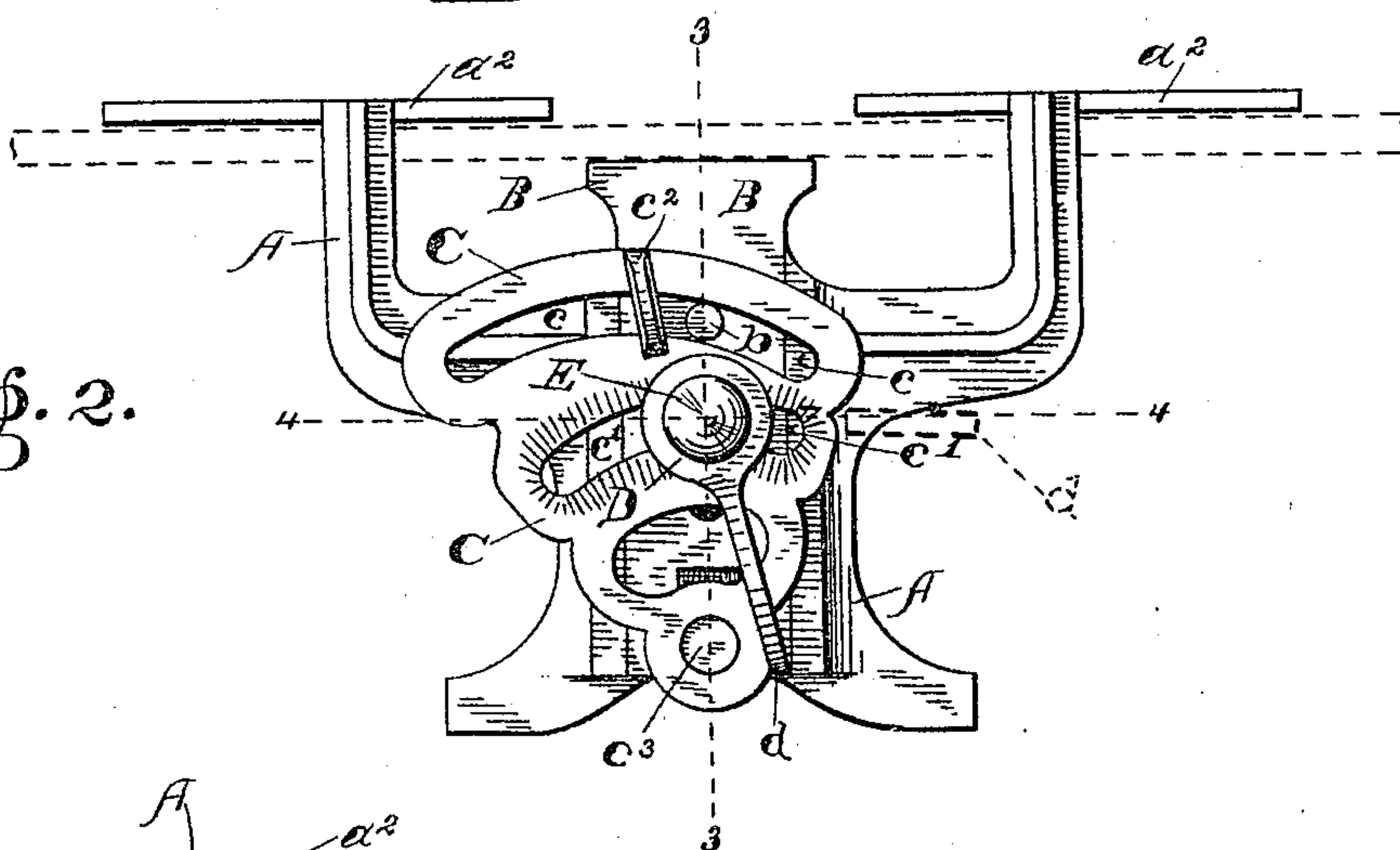


Fig. 3.

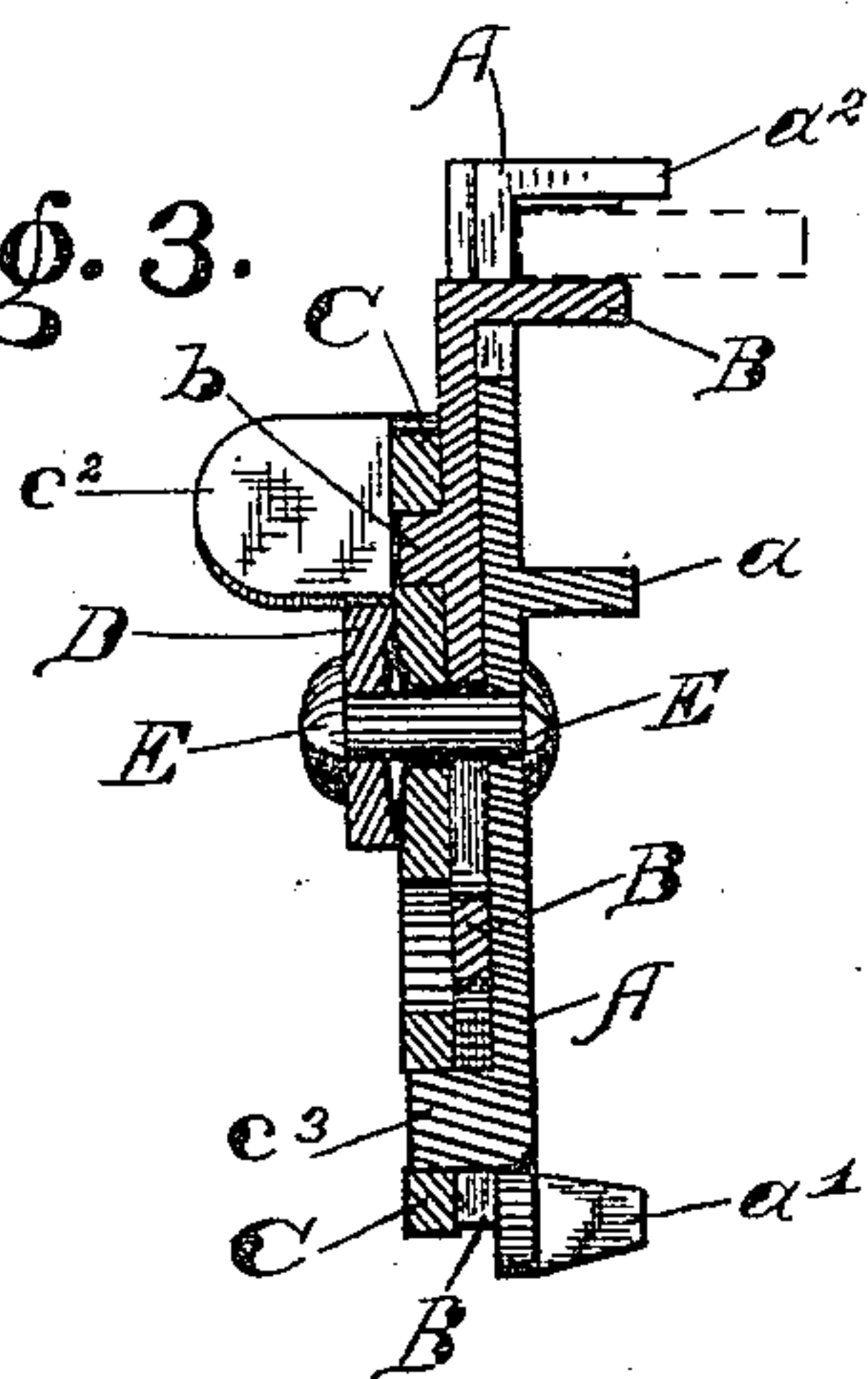
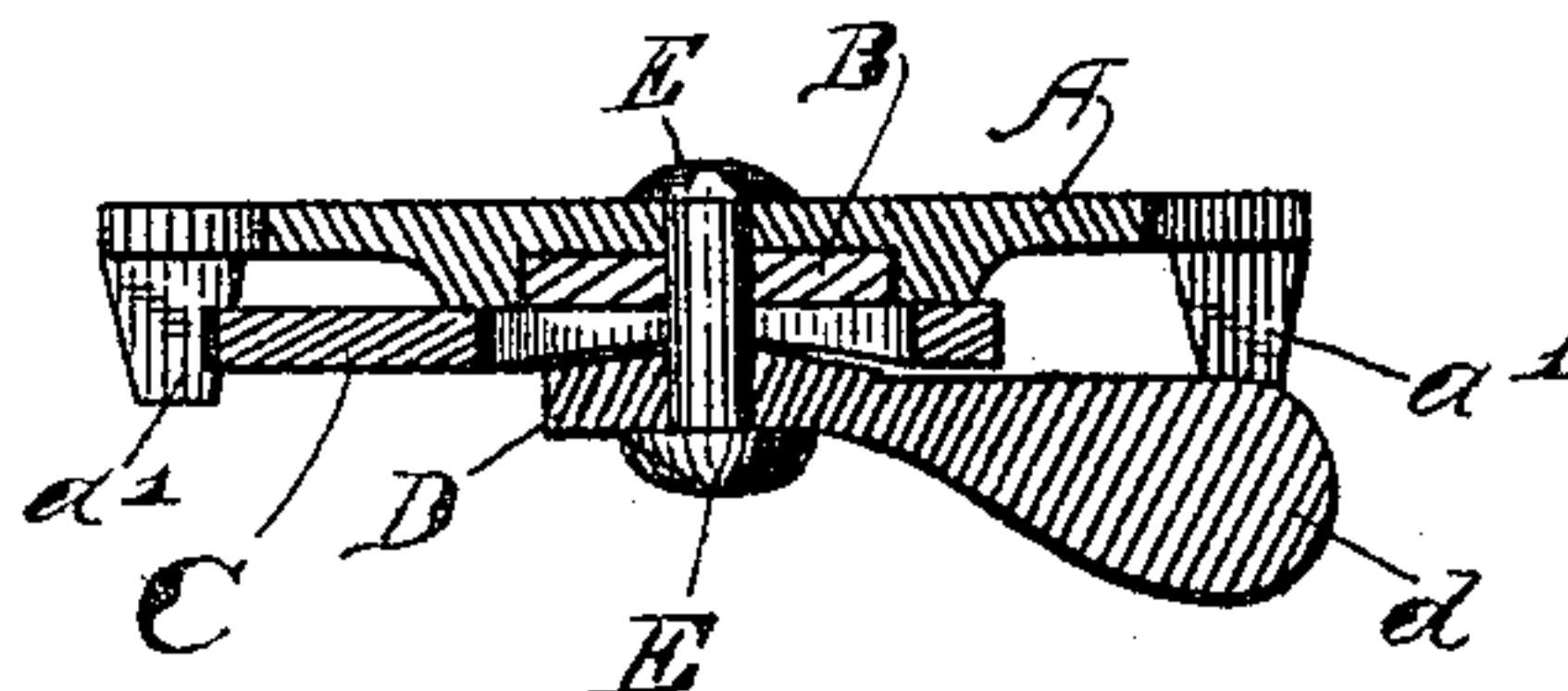


Fig. 4.



WITNESSES.

Dean Rhodes,
James Walsh.

Nate H. Roberts,
per E. W. Bradford.

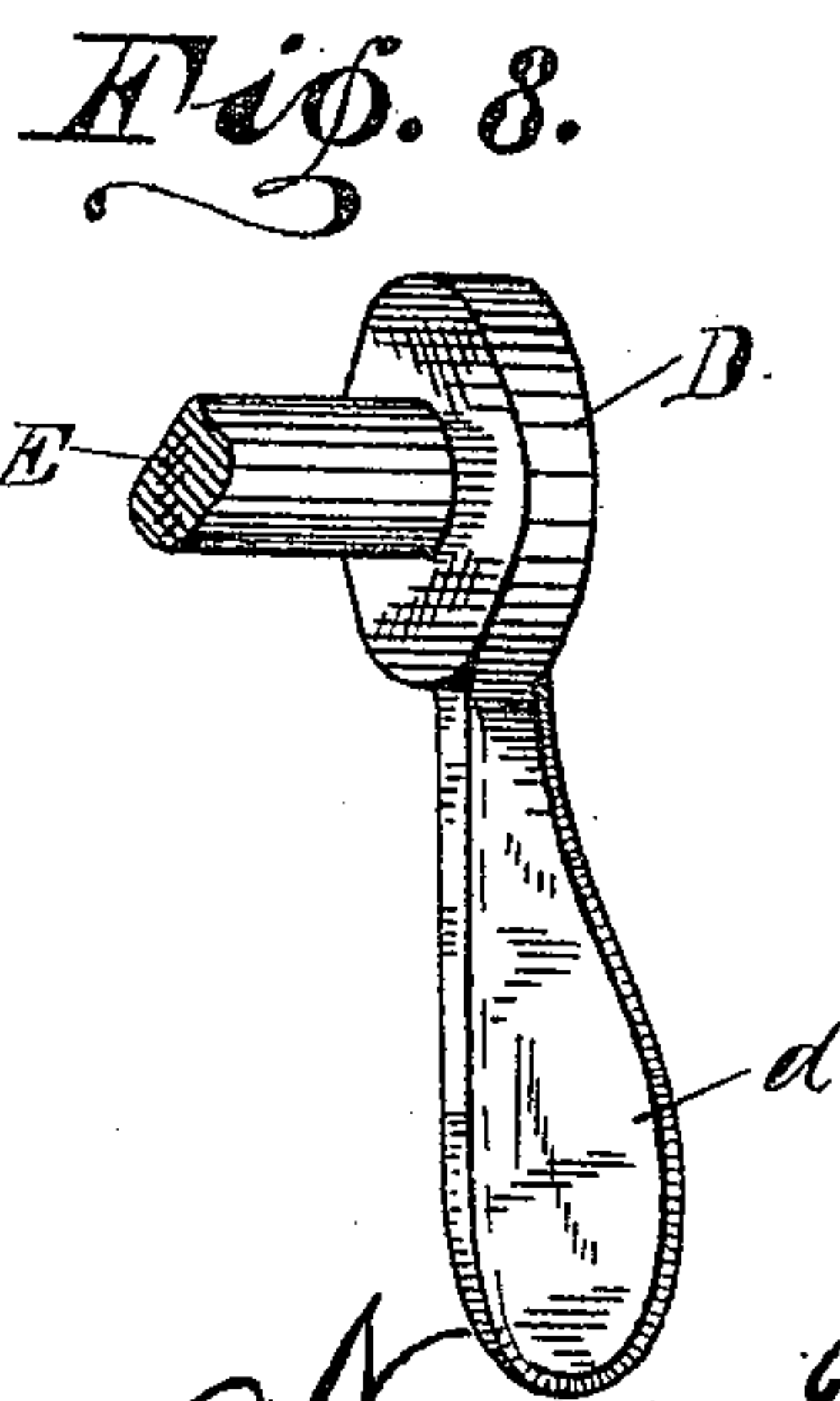
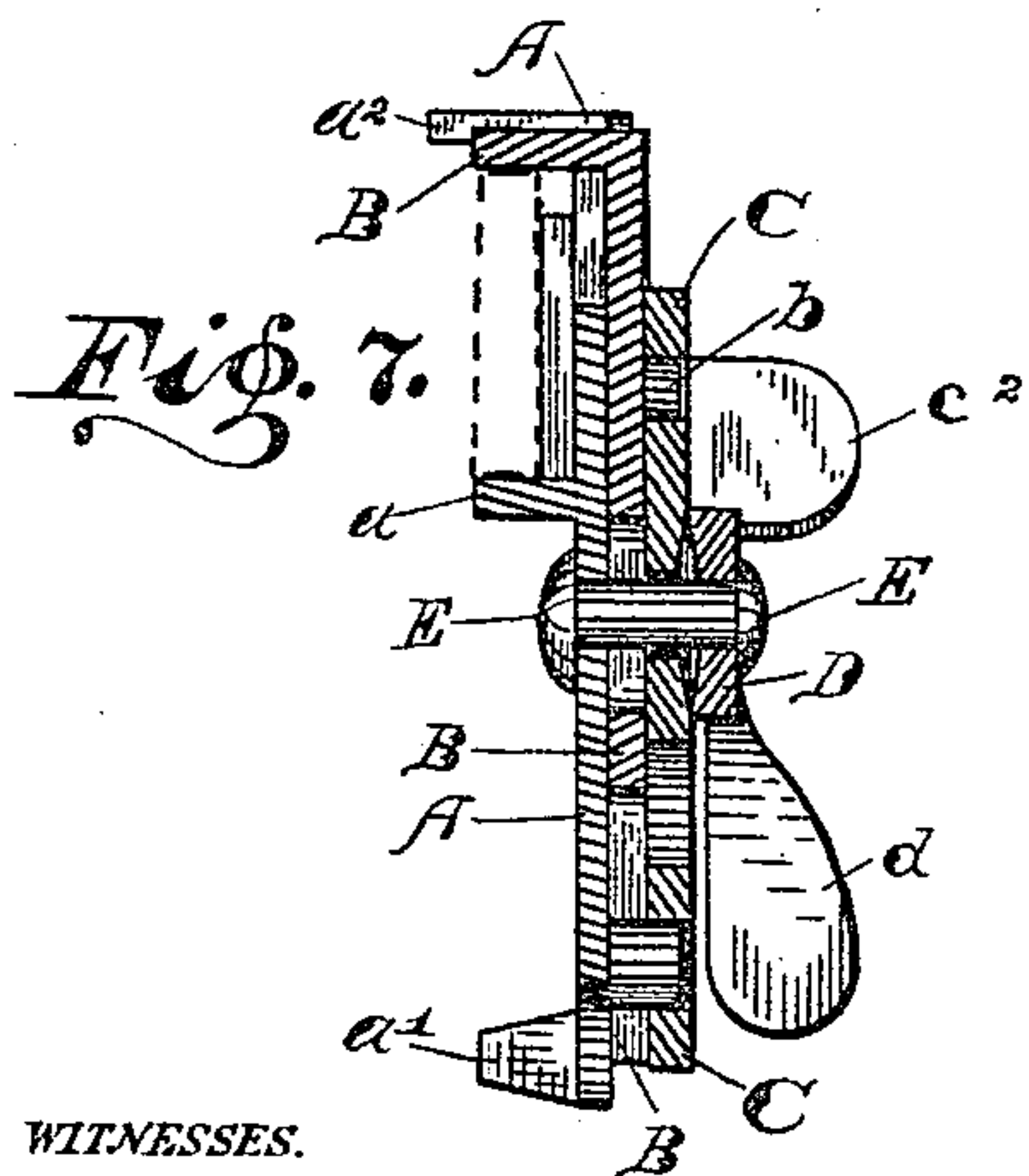
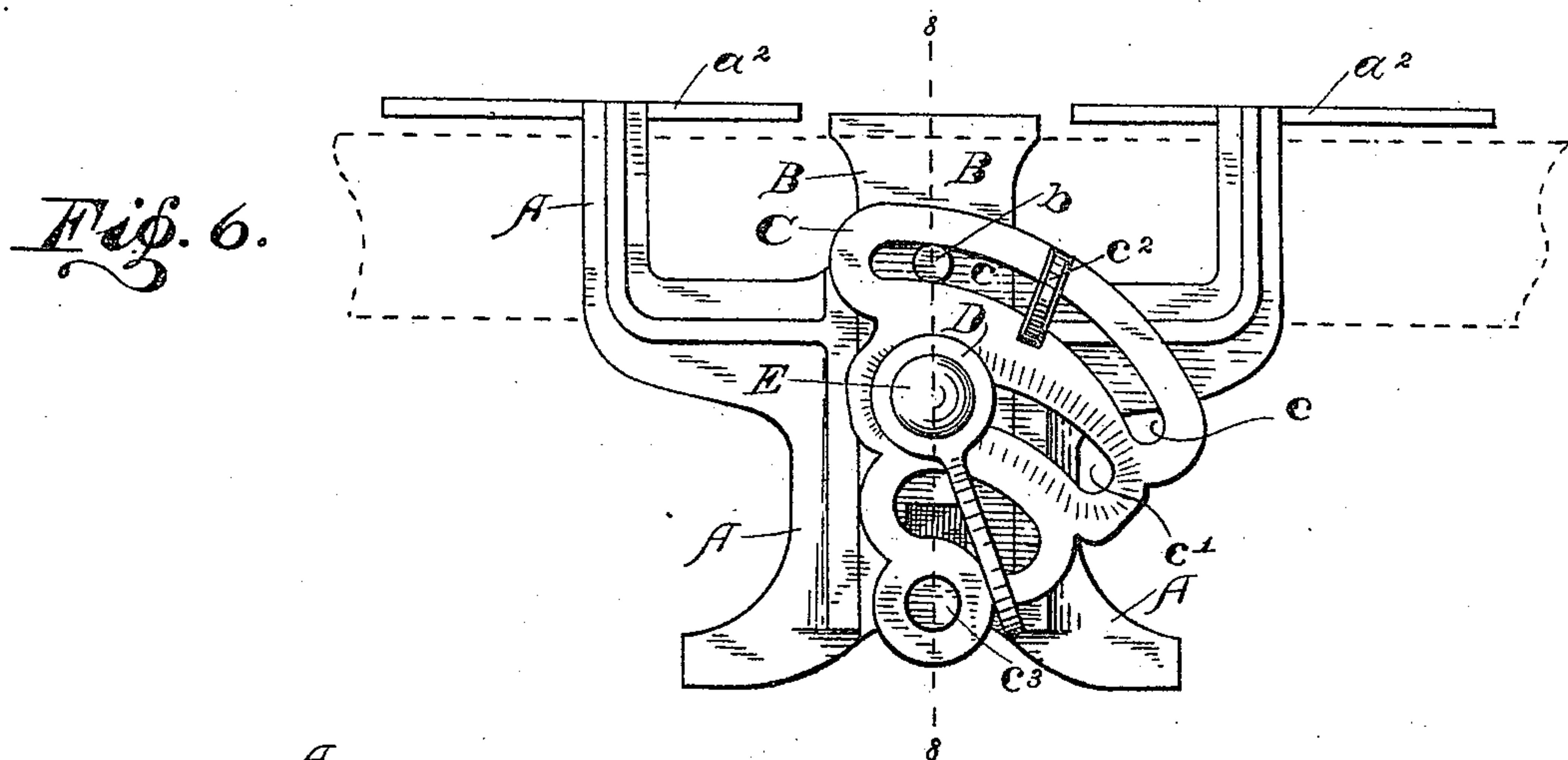
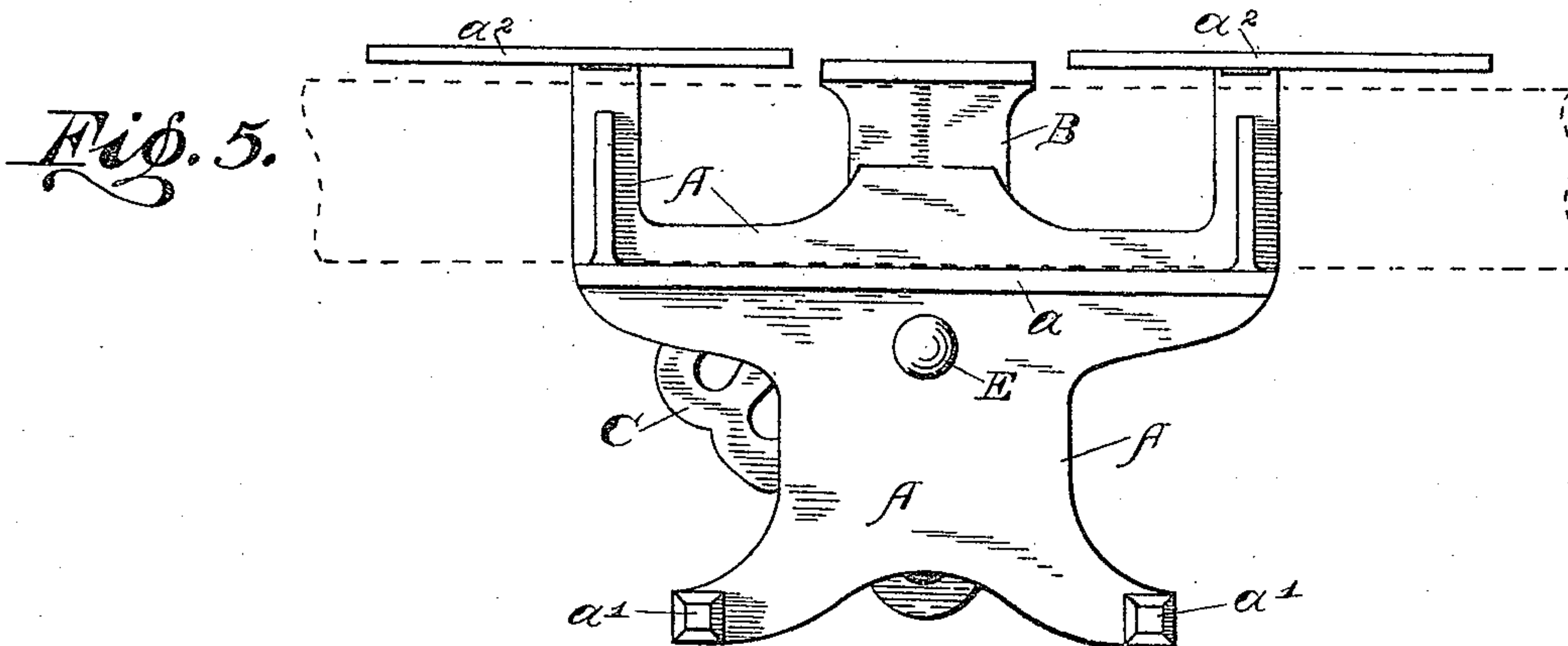
INVENTOR.

ATTORNEY.

N. H. ROBERTS.
DEVICE FOR JOINTING AND DRESSING SAWS.

No. 438,184.

Patented Oct. 14, 1890.



WITNESSES.

Dean Rhodes.
James Walsh.

per Nate H. Roberts,
per E. W. Bradford.

INVENTOR.

ATTORNEY.

UNITED STATES PATENT OFFICE.

NATE H. ROBERTS, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO THE E. C. ATKINS & COMPANY, OF SAME PLACE.

DEVICE FOR JOINTING AND DRESSING SAWS.

SPECIFICATION forming part of Letters Patent No. 438,184, dated October 14, 1890.

Application filed December 10, 1889. Serial No. 333,204. (No model.)

To all whom it may concern:

Be it known that I, NATE H. ROBERTS, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Saw-Tools, of which the following is a specification.

The object of my said invention is to produce a saw-tool which while efficient and durable shall be light, inexpensive in construction, and efficient in operation. Said invention will first be fully described, and then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof and on which similar letters of reference indicate similar parts, Figure 1 is a front elevation of a saw-tool embodying my said invention, with the file held in the position therein it occupies when the tool is used for jointing the ends of the points of the teeth; Fig. 2, a rear elevation of the same; Fig. 3, a central vertical sectional view looking toward the left from the dotted line 3 3 in Fig. 2; Fig. 4, a horizontal sectional view on the dotted line 4 4 in Fig. 2, the handle of the locking device being raised to a horizontal position; Figs. 5 and 6, views similar to Figs. 1 and 2, except that the file is shown therein in position to joint the sides of the points of the teeth instead of their ends; Fig. 7, a view similar to Fig. 3, but looking toward the right; and Fig. 8 a perspective view of the cam locking device.

In said drawings, the portions marked A represent the frame of the tool; B, the clamping device, which also serves as a clearing-tooth gage; C, the operating device for the clamp; D, the locking device by which the parts when brought to the desired position are there securely held, and E a rivet or bolt by which the parts are secured together.

The frame A is provided with a ledge a and two projections a' a' , which rest against the sides of the saw when the device is in use, and two overhanging ledges or projections a^2 a^2 , which come in contact with the upper surface of the file. The seat or recess for the file between the ledge a and the ledges or projections a^2 a^2 is capable of receiving the file either edgewise or sidewise, as will be seen by an examination of the drawings, and hold it

equally well in either position, the position of the clamping device only being changed. This arrangement is superior to that wherein two separate recesses or seats for the file are used, as it permits of a comparatively smaller and lighter frame, it only being necessary that the lower part of the frame should be large and strong enough to serve as a support to the other parts of the the tool.

The clamping device B is mounted in a seat or way, preferably on the rear side of the frame A, and is moved vertically up and down in said groove or way by the operating device, as will be presently explained. It is provided with a stud or projection b , by which it is operated, and has a slot in the center, through which the rivet which holds the parts together passes, and is bifurcated at the lower end to pass astride the stud or pivot of the operating device. It is held in position solely by being placed between the frame and the operating device, there being no screws or other fastening devices necessary. This clamping device also serves as a clearing-tooth gage, and is adjusted to the required position to serve this purpose by the same operating device that forces it to clamp the file. A scale or gage is provided on its inside face, as shown in Fig. 1, by which its position may be determined.

The operating device C is mounted on the stud c^3 on the frame, which serves as a pivot therefor, and is provided with a concentric slot c , which passes over the rivet E, by which the parts are secured together, and an eccentric slot c' , which passes over the stud or projection b on the clamping device, whereby said clamping device is operated. It has an ear c^2 , by which it is conveniently moved. That portion of its surface which is immediately adjacent to the slot c is beveled somewhat toward said slot, as shown most plainly in Figs. 2 and 6, which form cam-surfaces, whereby the cam locking device is enabled to operate thereon to hold it firmly to the position to which it has been moved in any of the various manipulations of the device.

The locking device D is mounted on the pivot, (usually a rivet E, which holds the parts together,) and consists of a hub having two of its sides beveled toward the center, and an

appropriate handle *d*, by which it may be turned. When this device is in the position shown in Fig. 4, the highest parts of its surface are in line with the groove *c* in the operating device C, while its beveled or cut-away sides are adjacent to the beveled surface on said operating device alongside said slot. When, however, this locking device is turned to or near to the position shown in Fig. 2, the highest or most prominent portions of its surface are forced up the inclines formed by the bevels on the surface alongside the slot *c*, and thus holds said device C firmly against the frame A and locks it securely in position.

These parts are generally secured together by a simple rivet E, which passes through them all, as shown most plainly in Figs. 3, 4, and 6. A bolt or any other similar part might be substituted, if desired; but I prefer a rivet as simpler and less expensive, while it is equally efficient.

The operation of my said invention is as follows: When I desire to secure a file in position in this tool, the cam locking device D is moved so that the parts are free from its operation and the operating device C is moved nearly or quite to its extreme position in one or the other direction, according to whether it is desired to hold the file in position to joint the ends or sides of the points of the teeth. The file is thus placed in the desired position, and the operating device C is forced in the desired direction by means of its handle *c*², which by means of its eccentric slot *c*¹, engaged with the stud or projection *b*, forces the clamping device B against the file, and the locking device D is then turned down to the position shown most plainly in Figs. 2 and 6, which clamps all the parts together.

In the construction of this tool, when good smooth castings are obtained, the labor of finishing is very slight, as the parts should all fit together after being simply cleaned up from the sand, when a single rivet E, being put in place and headed down, holds all the parts together securely and in condition for use.

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

1. In a saw-jointer, the combination of the frame formed with a single seat or space for

the file, adapted to receive said file both side-wise and edgewise, said file, and a single clamping device whereby said file may be held in said seat or space in either of said positions, substantially as set forth.

2. The combination, in a saw-tool, of the frame A, the clamping device B, mounted in a way in said frame and provided with a projection, and an operating device mounted on a stud or pivot and provided with an eccentric slot which engages with said stud or projection on the clamping device, whereby said clamping device is operated, substantially as set forth.

3. The combination, in a saw-tool, of the frame A, the clamping device B, the operating device C, and a cam locking device D, whereby the parts may be locked firmly in position.

4. The combination, in a saw-tool, of the frame, the clamping device, an operating device which operates eccentrically on said clamping device, and a locking device having a cam-surface which engages with a corresponding cam-surface on the operating device, substantially as set forth.

5. In a saw-tool, in combination with the frame and clamping device, an operating device mounted on a stud or pivoted on the frame and provided with a slot concentric to said pivot, beveled surfaces alongside said slot, and a locking device having corresponding beveled surfaces and secured on a pivot passing through said slot, substantially as set forth.

6. The combination, in a saw-tool, of the main frame and the adjustable combined clamping device and clearing-tooth gage B, provided with a scale or indicating-marks on its face, and an appropriate edge or portion on said main frame adjacent to said indicating-marks, whereby the position of said device as a clearing-tooth gage may be accurately determined.

In witness whereof, I have hereunto set my hand and seal, at Indianapolis, Indiana, this 5th day of December, A. D. 1889.

NATE H. ROBERTS. [L.S.]

Witnesses:

E. W. BRADFORD,
JAMES WALSH.