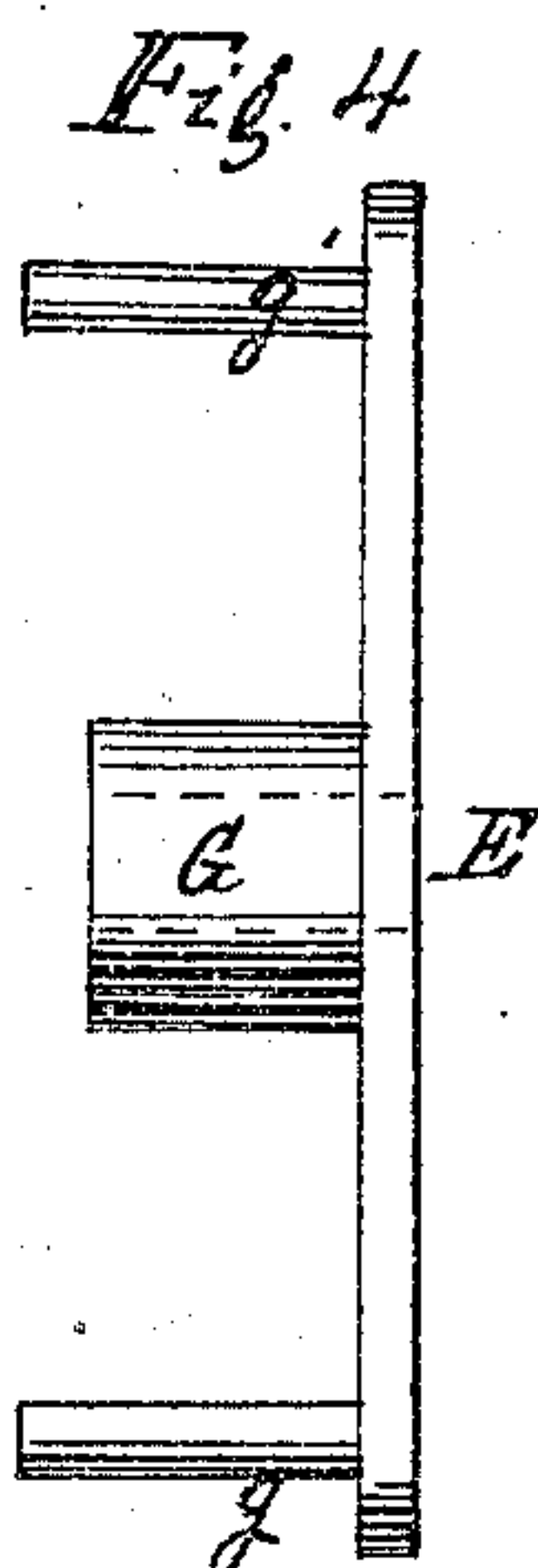
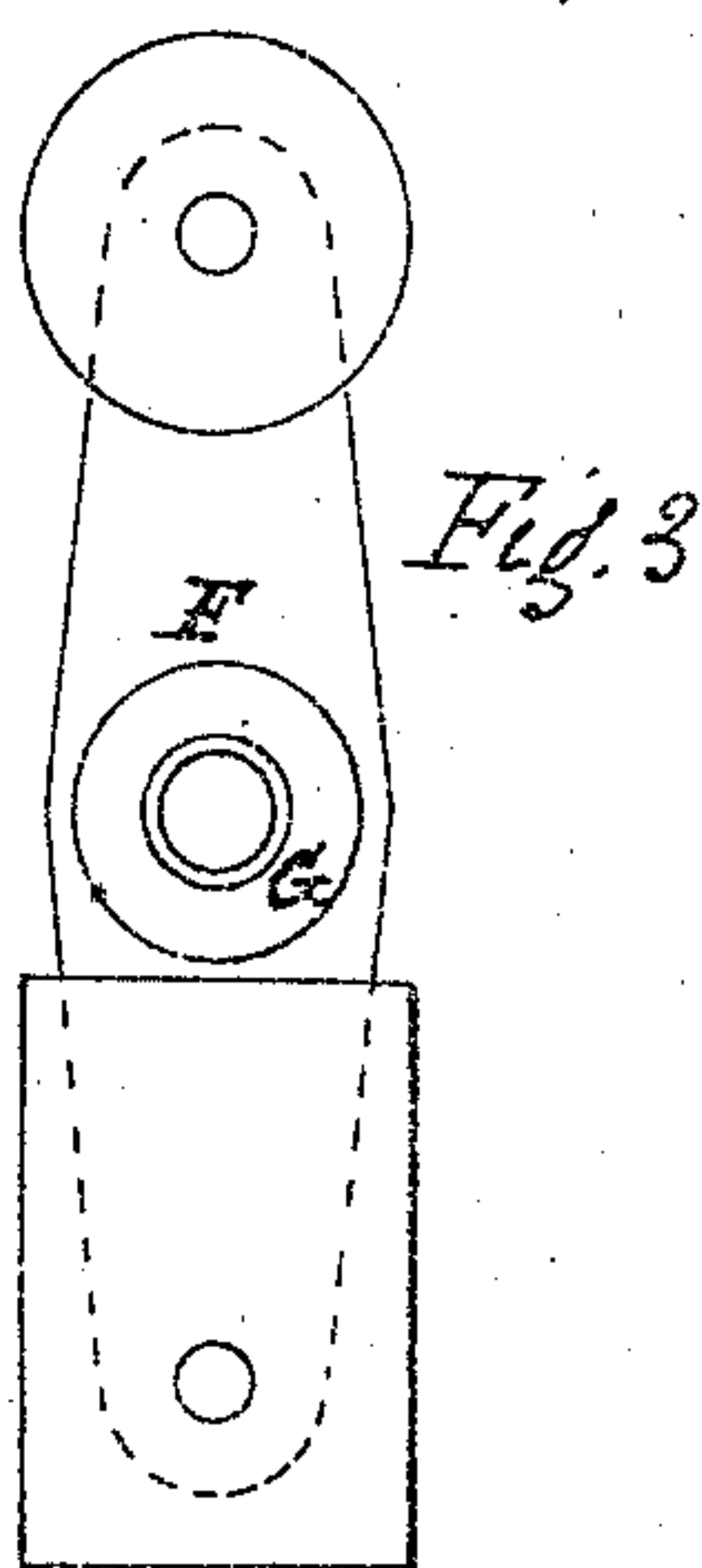
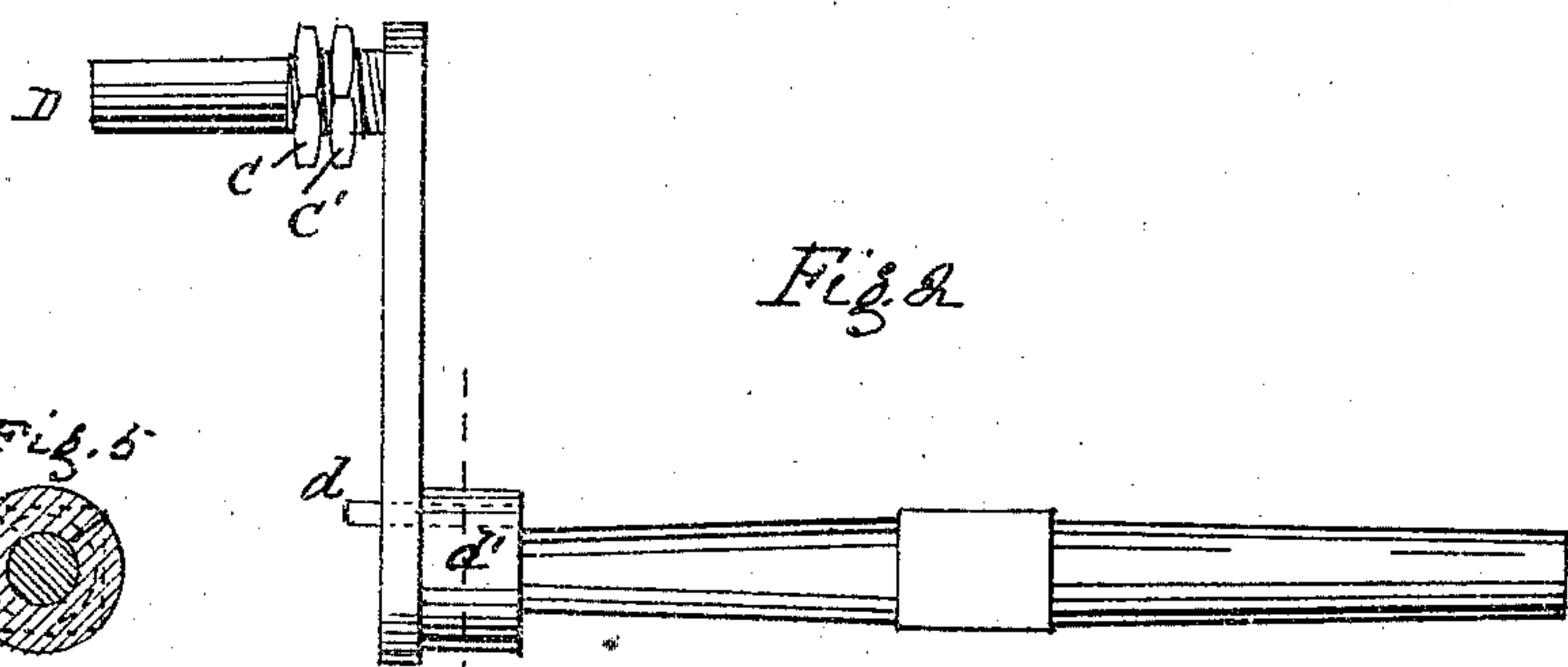
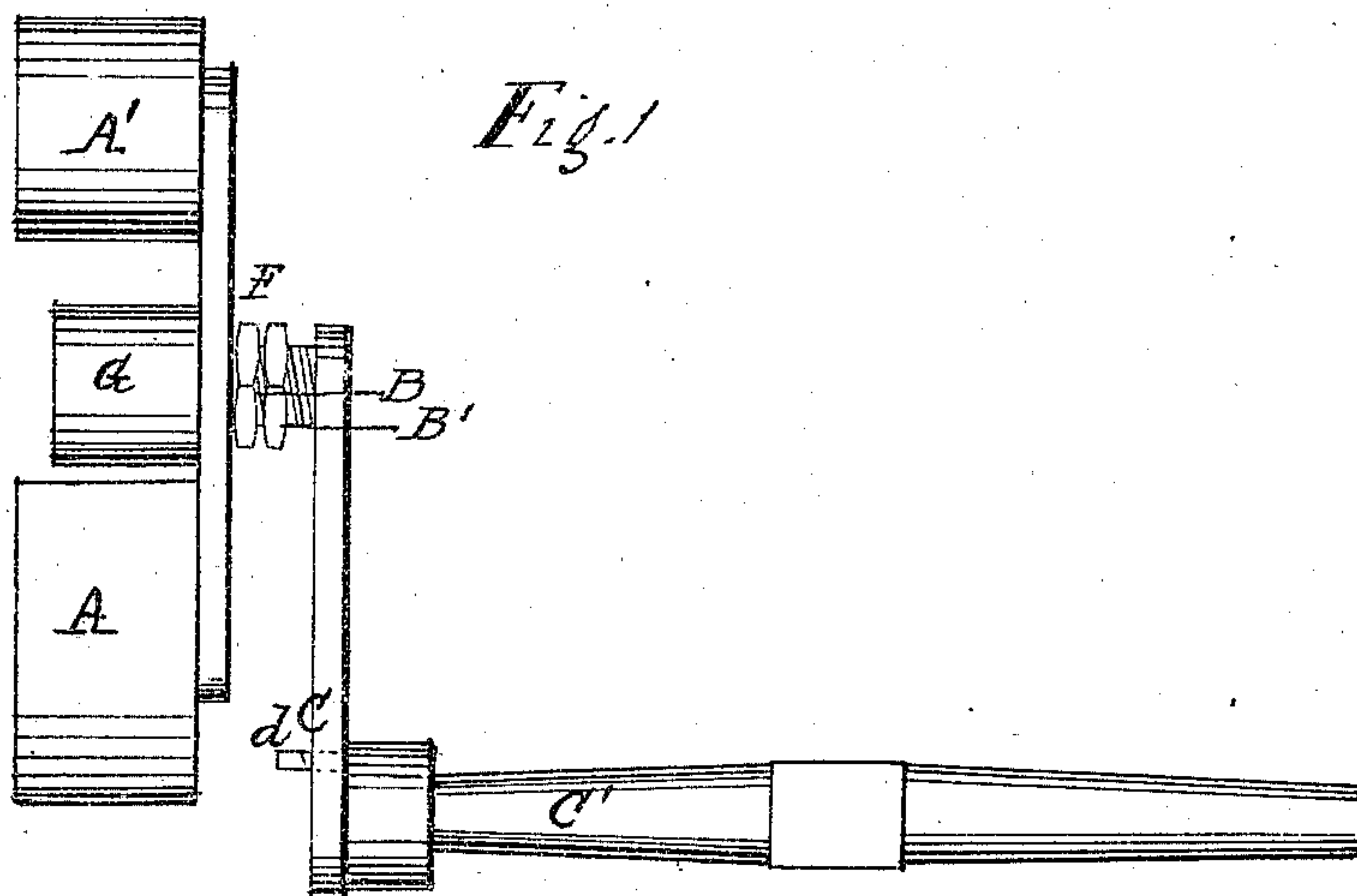


A. P. Barlow
Saw Mill.

Nº 88,535.

Patented Apr. 6. 1869.



Witnesses.
Alex. Heath
H. H. Doolittle

A. P. Barlow
Inventor

UNITED STATES PATENT OFFICE.

ASHBEL P. BARLOW, OF KALAMAZOO, MICHIGAN.

IMPROVEMENT IN ROCK-SHAFT FOR GANG-SAWS.

Specification forming part of Letters Patent No. 88,535, dated April 6, 1869.

To all whom it may concern:

Be it known that I, ASHBEL P. BARLOW, of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented a new and useful Improvement in Saw-Mills; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

My invention consists in the construction of the rock-shaft, its connection with guide-blocks, and the construction of the guide-blocks themselves.

Heretofore the rock-shafts employed for this purpose have been made in such manner that there was no way to adjust the oscillation of the guide-blocks, because the arms were fixed, and could not be changed in the extent of throw, or always had the same length of arm, while my improvement is such that the arm may be detached from the shaft and a shorter or longer arm put in its place, which permits a greater or less oscillation of the saw.

This improvement is applicable to all reciprocating saws, whether in gangs, single, or in sash or muley ways.

Figure 1 is a longitudinal view of the rock-shaft, with jam-nuts, face-plate, and guide-blocks attached. Fig. 2 is a view of the same without the face-plate and guide. Fig. 3 is a view of cross-section of face-plate and guide. Fig. 4 is a side view of face-plate and guide-pins without the guide-blocks; and Fig. 5 is an end view of shaft C', and shows how arm C is attached.

A and A' are the guide-blocks, attached on either side of the crank-pin D, which are centrally attached to pins *g g'*, and can turn on said pins, so as to allow the guide-blocks to easily, and at all times, accommodate themselves to the change of direction of the guide-ways. C' is the shaft or bar, to which the detachable arm C is attached by the hole through the arm and hub *d'*, and is secured in its place by a key, *d*, driven into a key-seat, in the ordinary manner. B B' are jam-nuts, working on a screw-thread on pin D. These jam-nuts are used to regulate the extent of the side motion to the shaft or rod, upon which either gang or muley saws are attached, and enable me to keep the saws steady in the direction of their cut, consequently making straighter and smoother lumber—an object attained, by this simple means, of great im-

portance, in producing better and more perfect lumber. E is the face-plate, with hub G, which receives the pin D, and holds pins *g g'*, to which guide-blocks A A' are attached. Pins *g g'* are equidistant from the center of hub G.

The changing the length of the arm, in order to give greater or less oscillation to the saw-bar, is a great advantage in the sawing of different-sized logs, and no provision has heretofore been made for such contingency, while the change is easily and quickly made, by driving out the key *d* and shifting arm C, for a longer or shorter one, as the case may be.

The guide-blocks A A' may be of any shape desired, either round, square, or of any other shape to work in the guide-ways.

I am aware that it is not new to so construct a crank-shaft that the arm may be removed from the shaft, so as to place a longer or shorter arm upon said shaft; and I do not claim for such construction generally, or broadly; nor do I lay any claim to the manner of fastening such arm to the shaft, for the key or spline driven into grooves for such purpose is old; and I only lay claim to the application of such means as I have described for controlling the amount of oscillation of the saw, to better adapt the saw to different sizes of logs, and greater or less feed of the log to the saw, I being the first to make such application.

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

1. Making the oscillation of the saw greater or less by means of the adjustable rock-shaft device, consisting of the removable arm C and pin D, when attached to the shaft or bar C', in the manner and for the purpose set forth.

2. Regulating the side motion of the bar C', with relation to the face-plate E and guide-blocks A A', by means of nuts B B, substantially as set forth.

3. The guide-blocks A A', when constructed and arranged to operate in the manner, and with face-plate E, pin D, and arm C, substantially as described.

ASHBEL P. BARLOW.

Witnesses:

ALEX. MAHON,

H. H. DOUBLEDAY.