

C. TYSON.

Boot and Shoe Screw-End Nipping Devices.

No. 149,010.

Patented March 24, 1874.

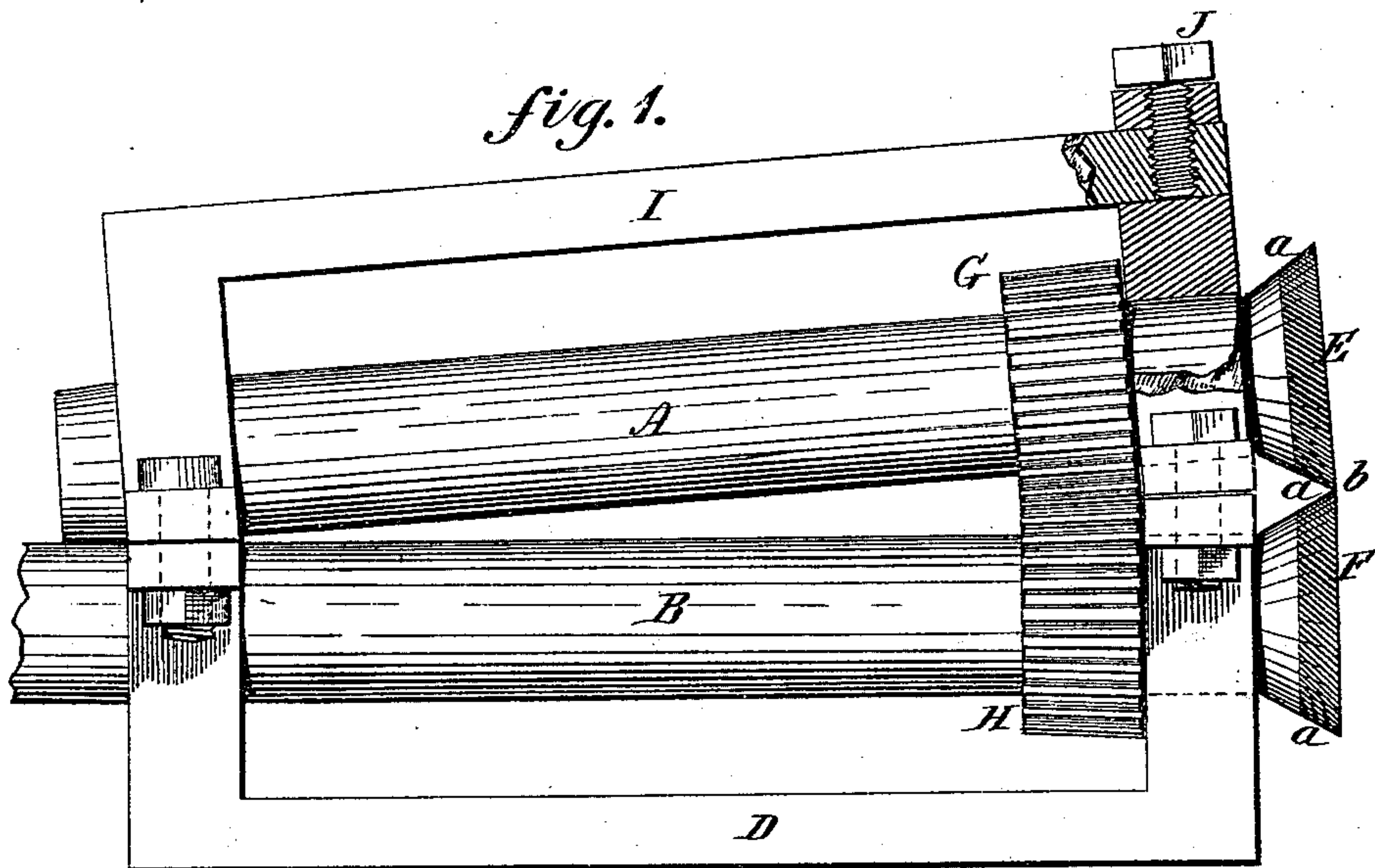
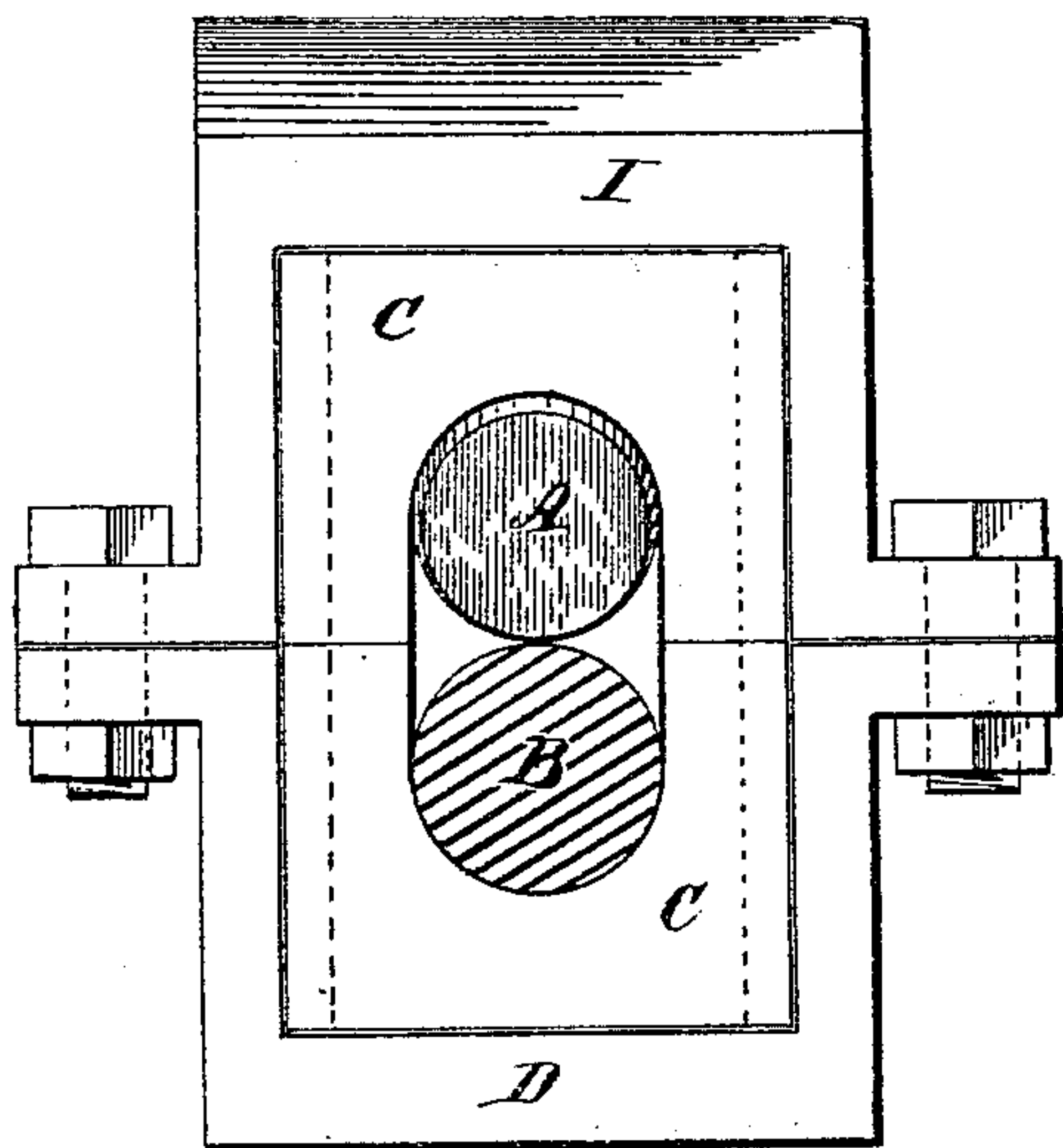


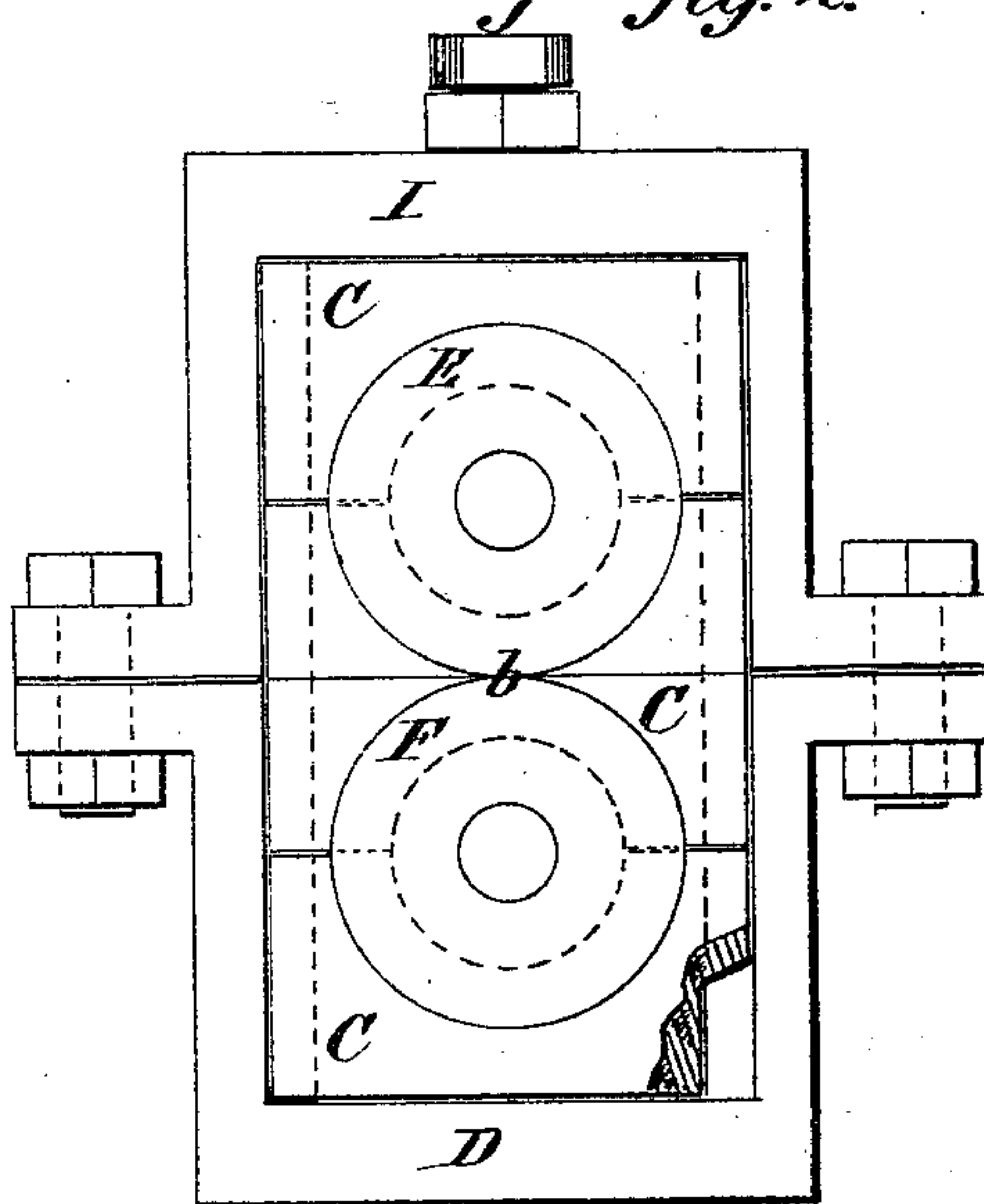
fig. 3.



Witnesses.

J. West Wagner,
G. A. Lutherford.

fig. 2.



Inventor.

Charles Tyson

By Johnson and Johnson
his Attorneys

UNITED STATES PATENT OFFICE.

CHARLES TYSON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO JOHN MUNDELL, OF SAME PLACE.

IMPROVEMENT IN BOOT AND SHOE SCREW END-NIPPING DEVICES.

Specification forming part of Letters Patent No. 149,010, dated March 24, 1874; application filed September 23, 1873.

CASE D.

To all whom it may concern:

Be it known that I, CHARLES TYSON, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a certain new and useful improvement, being a device for nipping the projecting ends of screws of machine-screwed boots and shoes, of which the following is a specification:

The object of my invention is to rapidly nip or cut off the projecting ends of the screws by which the soles and heels of boots and shoes are secured, of machine-made work, by a device consisting of a pair of rotary nippers, carried by spindles geared together, one of which forms the driver, and is driven by a belt from a line-shaft used for operating the machinery, the said nippers having milled head surfaces for effecting the feed of the screw end between them as it is being nipped, as shown in the side elevation, Figure 1, of the accompanying drawings, Fig. 2 being a front end view, and Fig. 3 a rear end view, full size.

The nipper-carrying spindles A B are mounted in suitable bearings C of a bed, D, which is bolted in any convenient place upon a bench. Upon the ends of these spindles are secured steel circular nippers or cutters E F, with their nipping-edges in line, and nearly in contact, so as to receive between them and sever, as they are revolved, the ends of screws projecting from the surface of the leather. Back of these nipping-edges the surface *a* inclines inward to form the cutters, and is milled in order to seize the end of the screw, and feed it in between the nippers by their revolution. The nippers project sufficiently for this purpose from their bearing C, and their spindles are coupled by two pinions, G H, which give equal motion to the nippers, derived from the steam-power by a belt on the driven pulley of one of the spindles, which is made the longest for that purpose. The spindles A B are not parallel but inclined, so as to touch each other at the ends opposite from the cutters, in order to produce an obtuse angle of the outer faces of the nippers, and cause their contigu-

ous or acting edges *b* to project, and their in active faces to recede from the nipping-point *b*, whereby the acting-point *b* is alone brought in contact with the surface of the leather, and thus effect a close cut of the screw ends.

In the device shown, the spindles are held from axial movement in their bearings by the arrangement of the nipping-heads E F, and the coupling-pinions G H on the opposite sides of the bearing-support, but this may be effected in any suitable way. The rotary nippers are secured upon their mandrels by right and left screws, in order to counteract their tendency to unscrew under the resistance of the nipping action. The holders D I, for the separate spindles, may be in separate parts, and secured together to obtain the proper angle of the nippers, and in which the bearing-frame will be parallel with the spindle which it carries. The boxes are secured in place in any suitable manner, and the nippers can be adjusted by a set-screw, J, bearing upon the box.

The device is simple, of little expense, and the work of nipping may be done by a small boy, with great rapidity and little labor, as compared with the hitherto mode of removing the screw ends by filing, which is not only laborious, but very detrimental to the health of the operator from inhaling the filings, and is also wasteful of the brass by its powdered condition and its mixture with leather filings.

Having described my invention, I claim—

1. The nipping device, consisting of the rotary nippers E F *a*, their supporting-bearings C, and the coupling-pinions G H, substantially as described.

2. The rotary nippers E F, arranged upon inclined spindles A B, to cause their acting edges *b* to make a close cut, substantially as described.

In testimony whereof I have hereunto set my hand this 23d day of August, A. D. 1873.

CHARLES TYSON.

Witnesses:

A. E. H. JOHNSON,

J. W. HAMILTON JOHNSON.