

(No Model.)

G. WILCOX.

AUTOMATIC ADJUSTING DEVICE FOR JOURNAL BEARINGS.

No. 471,346.

Patented Mar. 22, 1892.

Fig. 1.

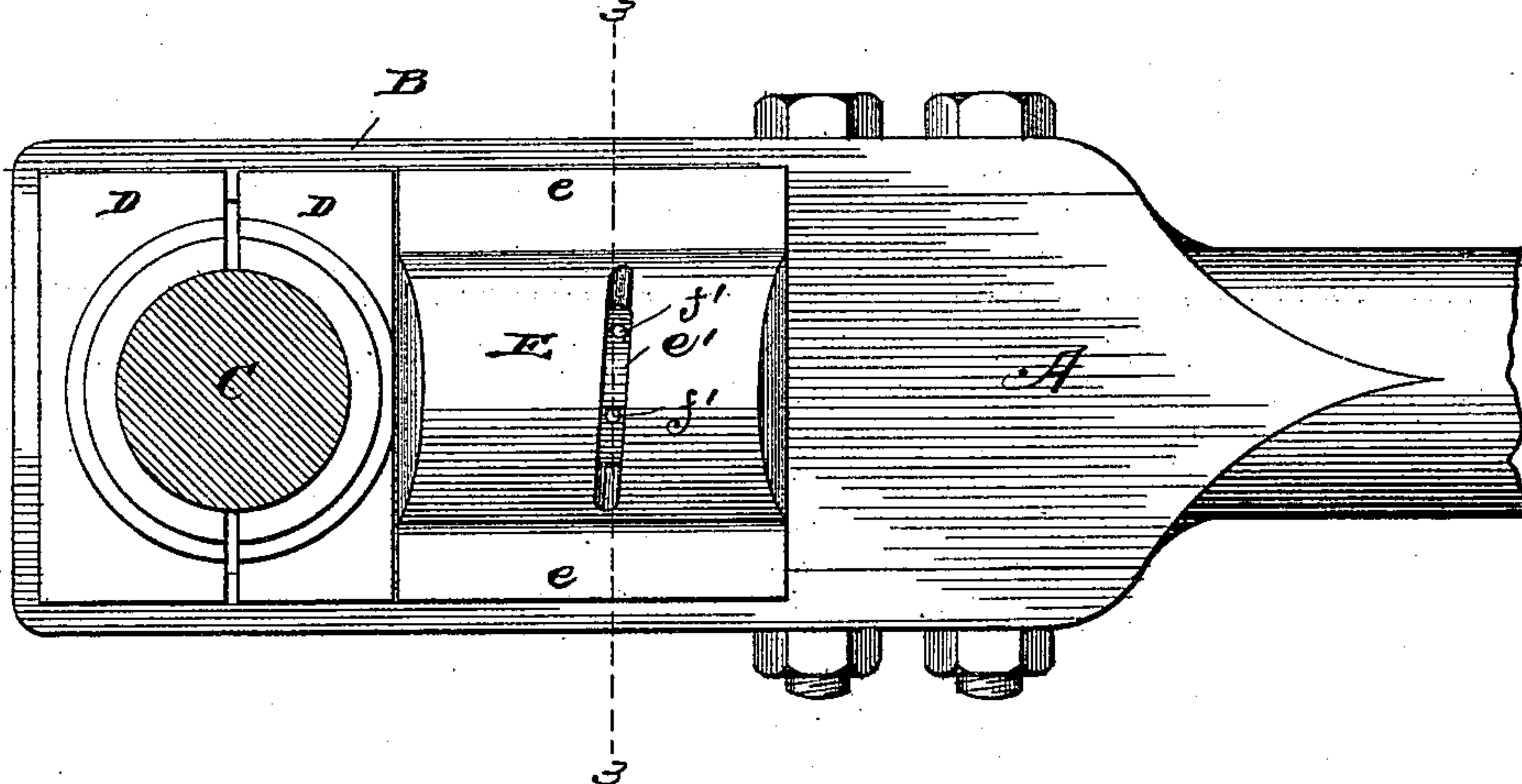


Fig. 2.

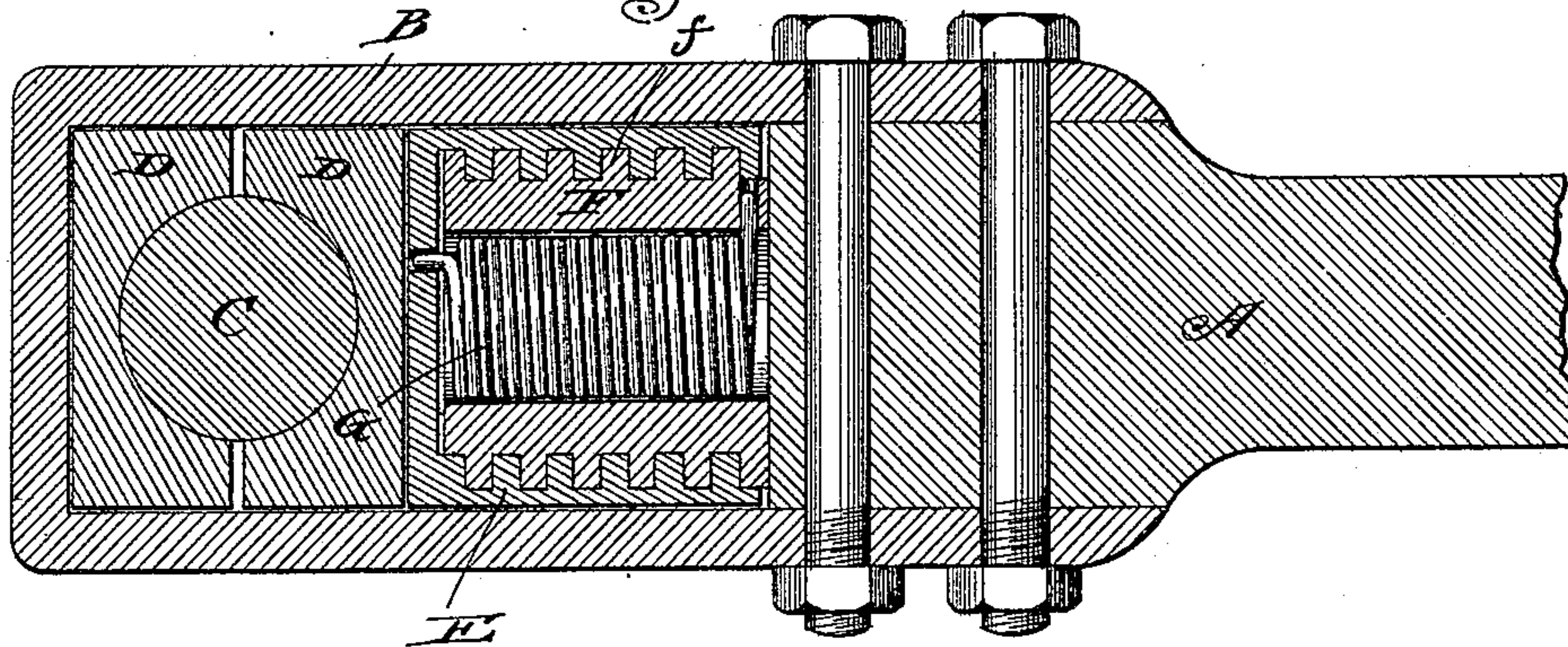
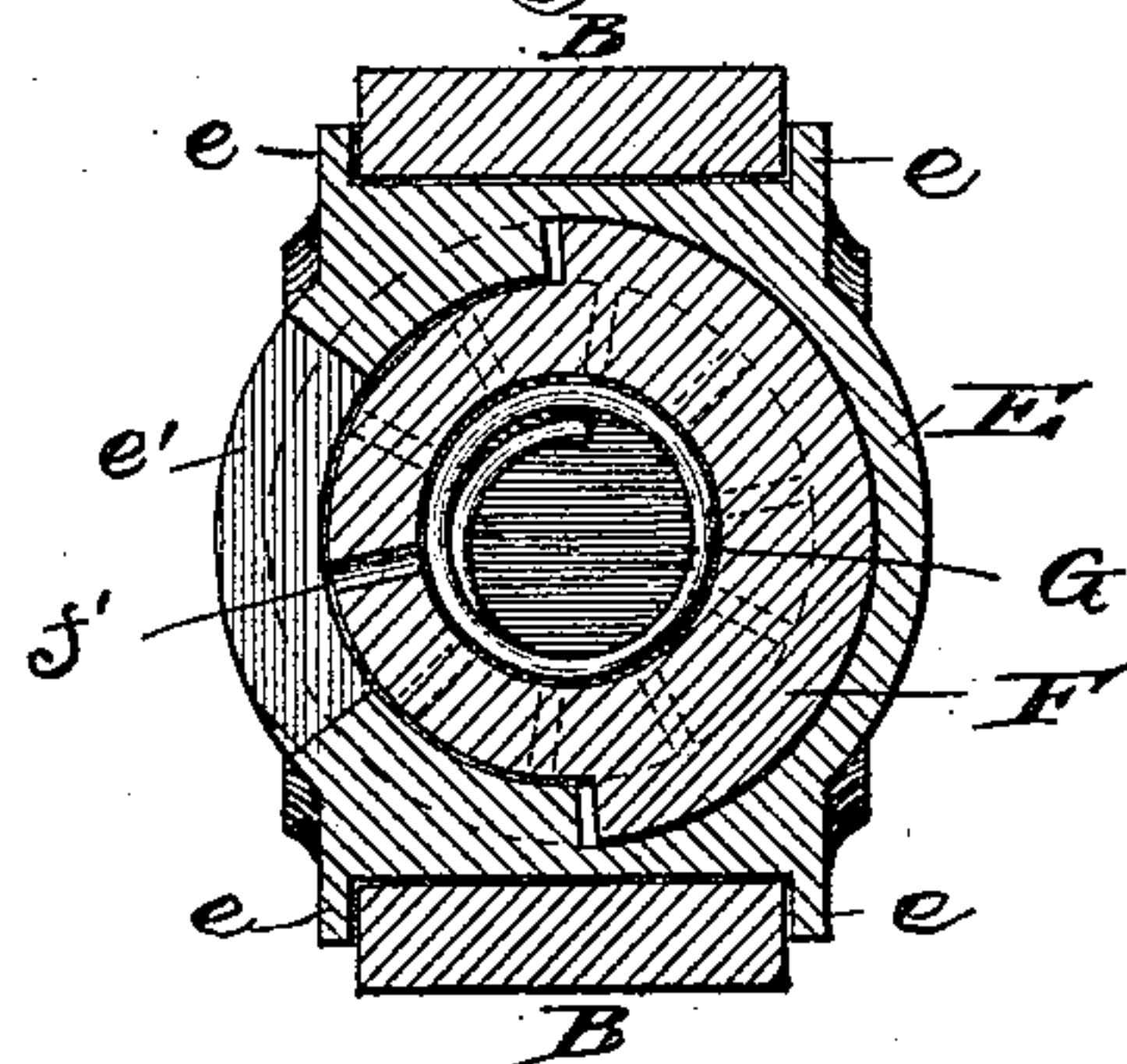


Fig. 3.



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UNITED STATES PATENT OFFICE.

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AUTOMATIC ADJUSTING DEVICE FOR JOURNAL-BEARINGS.

SPECIFICATION forming part of Letters Patent No. 471,346, dated March 22, 1892.

Application filed October 24, 1890. Serial No. 369,182. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WILCOX, a citizen of the United States, residing at Harvey, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Automatic Adjusting Devices for Journal-Bearings, of which the following is a specification.

My invention has for its object to provide means whereby journal-bearings are automatically adjusted as worn, whereby "pounding" and lost motion are obviated and a saving of lubricant effected.

The preferred means comprise a sleeve having a threaded connection with a barrel and a bearing on one of the brasses or journal-bearings, and the barrel abutting upon a part which is fixed with relation to the said brass or bearing. Within the barrel is placed a coiled spring, whose ends are secured, respectively, with said sleeve and the barrel, and the normal tendency of the spring is to cause said barrel to turn within the sleeve, whereby the former is forced into contact with the brass. The brass is therefore sustained by engagement with the sleeve, the threads whereof furnish an unyielding abutment, while the tendency of the spring to uncoil advances the sleeve to compensate for the wear. Means are provided for adjusting the tension of the spring. The device may be applied to any bearing and can be applied to the bearings for the side rods of locomotives without any change whatever in the construction of said rods.

In the accompanying drawings, Figure 1 is a side elevation of the journal end of a side rod with my improved adjusting device applied thereto and showing the journal in cross-section. Fig. 2 is a longitudinal sectional elevation, and Fig. 3 a section on line 3 3 of Fig. 1.

In the drawings, A represents the end of a locomotive side rod, used in the illustration to show one application of my invention. B represents the strap thereof; C, the journal, and D the journal-bearings or brasses.

E represents a threaded sleeve, having in the present instance flanges *e*, which embrace the strap B to hold and guide the sleeve. The closed end of the sleeve bears against the inner of the brasses D and its threads engage

threads *f* on a barrel F, so that the sleeve may be moved by the turning of the barrel, the inner end of which abuts against the end of the rod A.

Within the hollow of the barrel is the coiled spring G, whose coils are normally open, but when applied are closed or tight wound, so as to exert a constant tendency to unwind. One end of the spring is secured with the barrel and the other with the sleeve, the connection being so made that the spring exerts a normal tendency to turn the barrel, and thus advance the sleeve outwardly, exerting a constant pressure upon the brass. In order to set or adjust the parts, the sleeve E has the slot *e'* and the barrel F has the holes *f'* registering with the slot *e'*. A lever may be inserted in these holes to adjust the tension of the spring.

The form of the parts will be modified to adapt them to the situation and construction of the journal-bearing, and I do not therefore limit my invention to the precise details of construction.

It is obvious that the sleeve E and barrel F might be turned end for end, in which case the barrel would be advanced against the bearing.

The taking up of the wear of course obviates lost motion and pounding and the maintenance of a tight bearing results in a great saving of lubricant.

I claim—

1. An adjusting device for journal-bearings, comprising a sleeve adapted to abut against one member of the bearing; a barrel having a threaded engagement with the sleeve and adapted to abut against a fixed part, and a spring having one of its ends engaged with the sleeve and the other secured with the barrel, so as to normally tend to advance the sleeve, whereby to automatically take up the wear of the bearing, substantially as described.

2. An adjusting device for journal-bearings, comprising, in combination, a sleeve having an abutment against one member of the bearings or brasses, a barrel having a threaded connection with the sleeve, and a spiral spring having its coils normally open and secured within the barrel in a close-wound condition and having one of its ends secured with the

sleeve and the other with the barrel, whereby the sleeve is adapted to be advanced automatically to compensate the wear of the bearing, substantially as described.

5 3. An adjusting device for journal-bearings, comprising, in combination, a sleeve having an abutment against one member of the bearing and engaging lugs to prevent its rotation, a barrel having a threaded connection
10 with the sleeve, and a spring connected with the barrel and the sleeve and adapted to advance the latter against the bearing, whereby to automatically take up the wear thereon, substantially as described.

15 4. The combination, in a journal-bearing-adjusting device, of a sleeve adapted to abut upon the bearing, a barrel having a threaded connection with the sleeve, and a coiled spring within the barrel and having one of its ends
20 secured therewith and the other with the sleeve, said barrel having apertures therein

and said sleeve having elongated slots registering with said apertures, whereby the tension of the spring may be adjusted by means of a lever projected through the slot of the sleeve into the aperture of the barrel, substantially as described. 25

5. An adjusting device for journal-bearings, comprising, in combination, two parts or members having a threaded engagement with each other and one of them adapted to bear upon one member of the journal-bearing, and a spring having its ends secured with said threaded parts, respectively, and normally
30 tending to advance the part in contact with the bearing, whereby to automatically take up the wear thereof, substantially as described. 35

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