

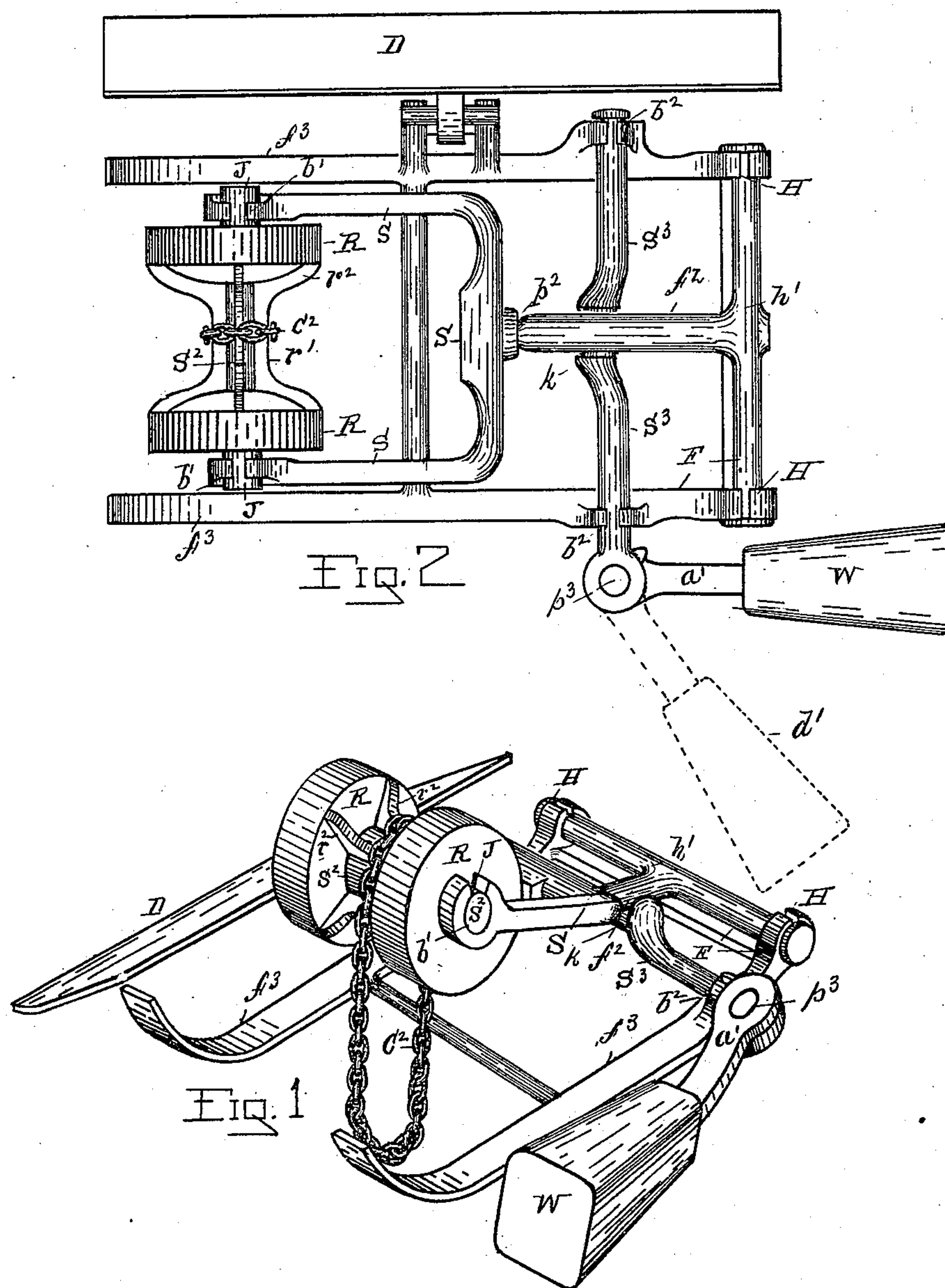
(No Model.)

2 Sheets—Sheet 1.

J. GIBBONS.
CAR AXLE OILER.

No. 355,313.

Patented Jan. 4, 1887.



WITNESSES

Geo. A. Garby.

Charles S. Buntzall.

INVENTOR

John Gibbons Jr

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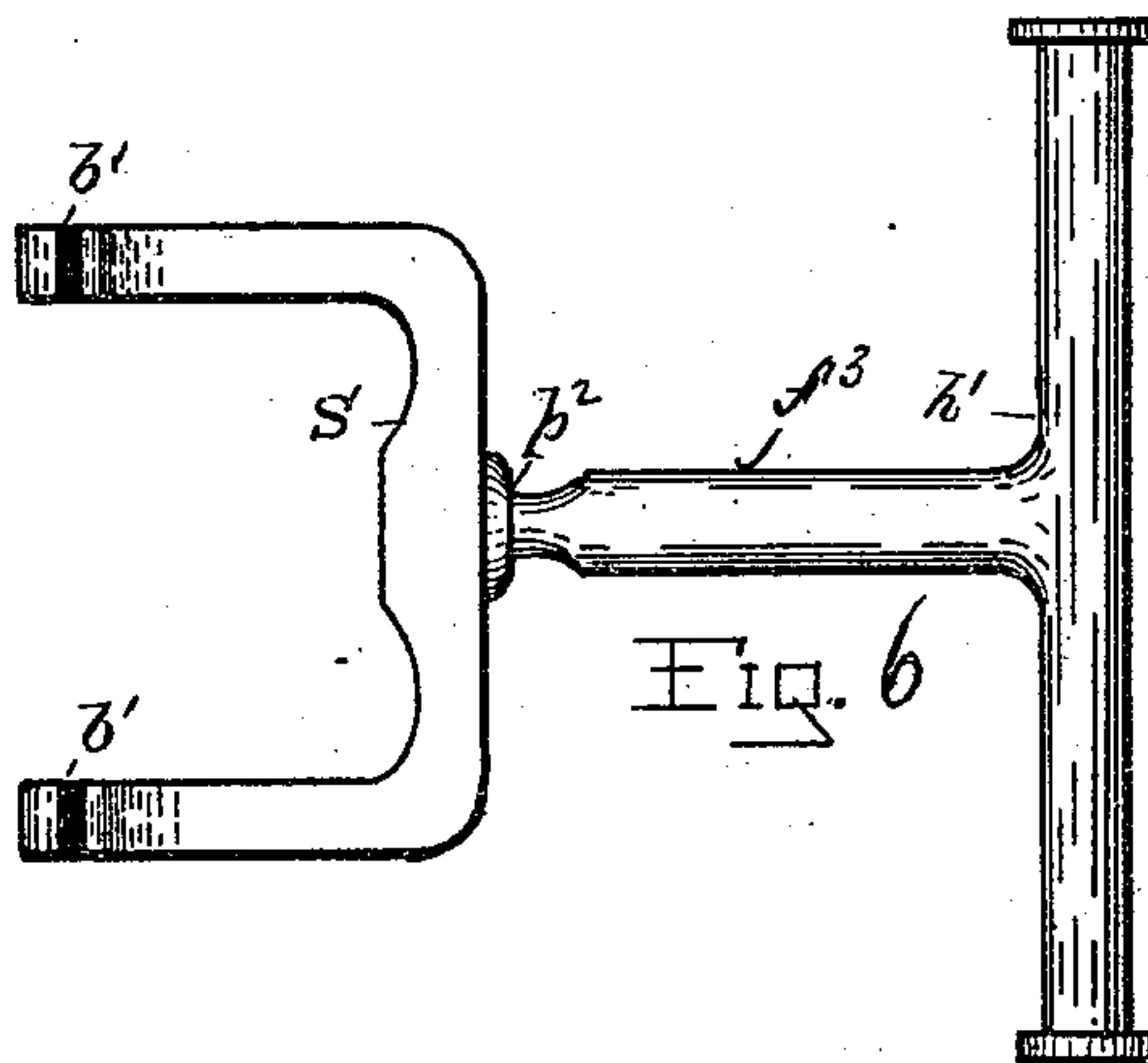
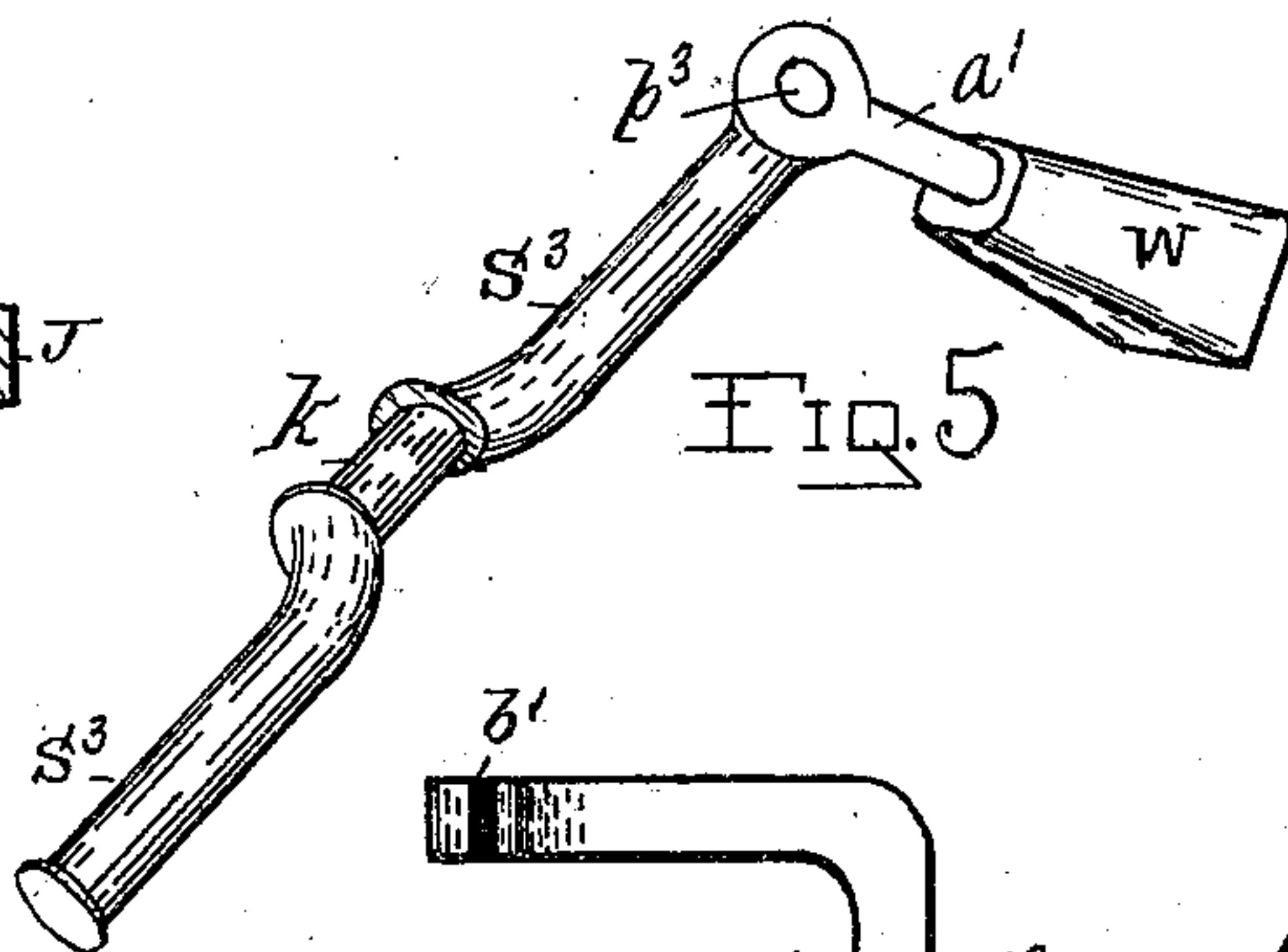
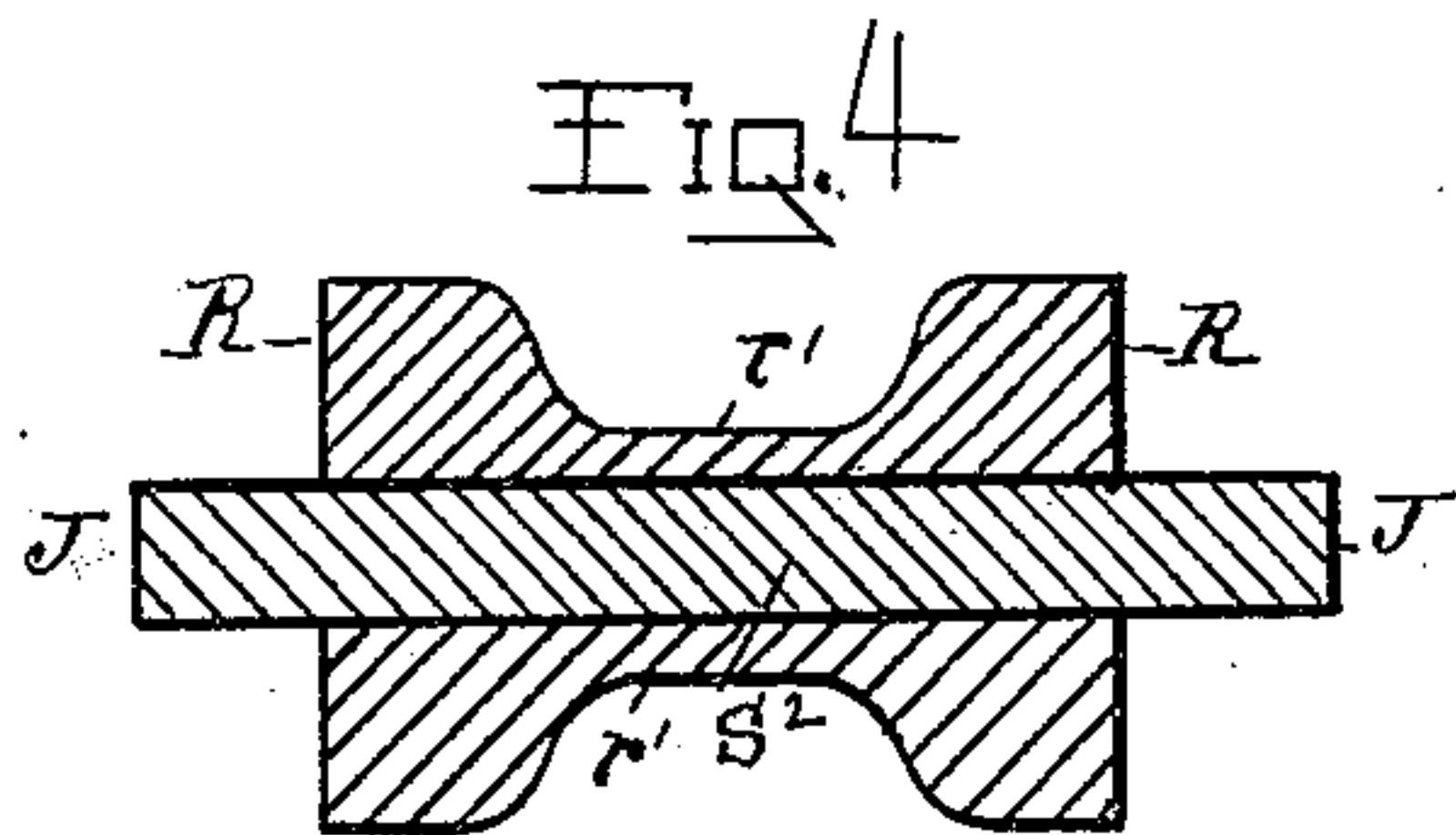
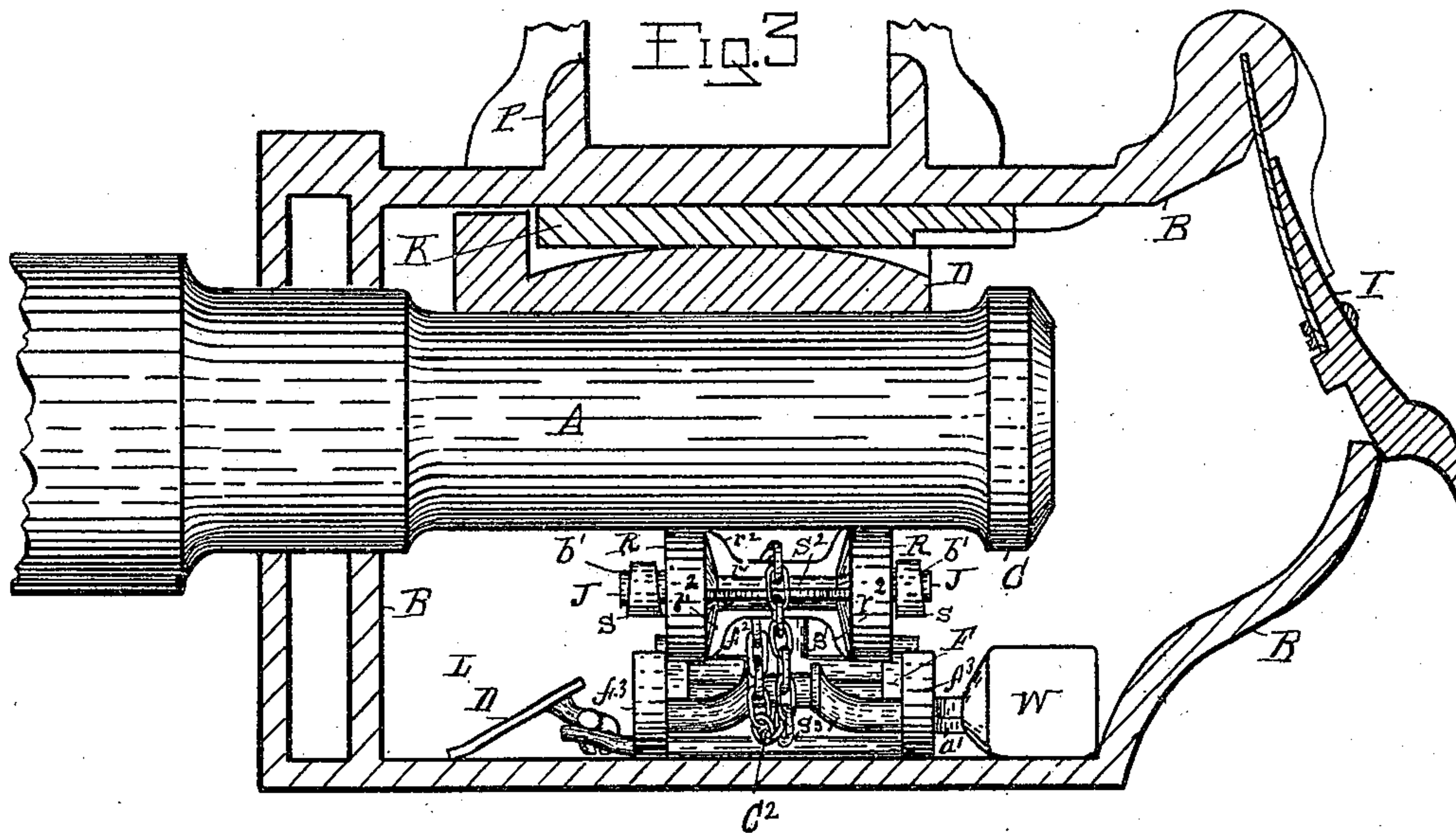
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UNITED STATES PATENT OFFICE.

JOHN GIBBONS, OF WEST TROY, NEW YORK, ASSIGNOR TO THE MENEELY
HARDWARE COMPANY, OF SAME PLACE.

CAR-AXLE OILER.

SPECIFICATION forming part of Letters Patent No. 355,313, dated January 4, 1887.

Application filed April 10, 1886. Serial No. 198,432. (No model.)

To all whom it may concern:

Be it known that I, JOHN GIBBONS, of the village of West Troy, county of Albany, State of New York, have invented new and useful
5 Improvements in Car-Axle Oilers, of which the following is a specification.

My invention relates to certain improvements in car-axle oilers; and my invention consists (as will be more fully detailed herein-
10 after in connection with its illustration, and defined in the claims) in the combination, with a frame that is composed of two parts which are hinged together at one of the adjacent ends of each part, the upper part of said frame con-
15 taining the material or mechanism which distributes lubricant to the car-axle, of a shaft that is constructed with a cam and having its bearings in the lower part of the frame and a crank-arm that is weighted at its outer end
20 and connected to said shaft, so that when the weighted outer end of the said crank-arm is descending by gravity it will, by its connection with said cam-shaft, so operate the latter to turn, and in turning to engage with the
25 upper frame part to force the latter and the lubricant-distributing material or mechanism arranged thereon to contact with the car-axle.

My invention also consists (as will be defined in the claims) in the combination, with
30 the upper part of a two-part frame that is operated to rise by means of a cam-shaft and connected weighted crank-arm on its hinged connection, of two rollers arranged with bearings in a saddle that is pivoted to the said upper
35 part of the frame, and a chain-belt arranged to run with its upper stretch on a shaft between said rollers, and with its lower stretch within lubricant contained in the journal-box.

My invention also consists (as will be defined in the claims) in the subcombination of the parts illustrated and described where they perform specific function.

It is the object and purpose of my invention to use a weighted crank-arm to force the
45 lubricant-distributing material or mechanism to contact with the car-axle, and to so construct the mechanism that it may be applied to an ordinary journal-box without jacking up the car for its insertion or removal.

Accompanying this specification, to form a part of it, there are two plates of drawings
50 containing six figures illustrating my invention, with the same designation of parts by letter-reference used in all of them.

Of these illustrations, Figure 1 is a perspective of the mechanism shown as removed
55 from the journal-box and with the oil-distributing rollers illustrated as raised up by the cam-shaft and weighted crank-arm. Fig. 2 is a plan view of the mechanism shown as
60 removed from the journal-box and with the oil-distributing rollers shown as down. Fig. 3 is a longitudinal central vertical section of the mechanism as applied to a car-axle journal-box, showing the latter and the car-axle. 65
Fig. 4 is a longitudinal and central section of the oil-distributing rollers, their shaft, and its journals. Fig. 5 is a perspective of the cam-shaft and weighted crank-arm, shown as detached from the lower frame part. Fig. 6 is a
70 plan view of the upper frame part and saddle.

The several parts of the apparatus thus illustrated are designated by letter-reference, and the function of the parts is described as follows:

The letter A indicates the car-axle, made with the collar C, and the letter B indicates the journal-box.

The letter D indicates the bearing, I the journal-box cover, P the pedestal-jaw, and K
80 the journal-bearing key, all the foregoing being of the usual and well-known kind.

The letter F indicates the frame, f^2 the upper frame part, and f^3 the lower frame part. The upper frame part, f^2 , is hinged to the lower part
85 at H, so that the upper frame part may swing up from the lower part on its hinged connection.

The letter S designates a saddle that is pivoted at p^2 to the arm h' of the upper frame part, f^2 , and this saddle is provided with bear-
90 ings b' at each side.

The letters R designate two rollers, which have an intermediately-arranged shaft, S^2 , the latter being constructed to pass through the rollers R, so as to subtend them and thereat
95 to produce the journals J, which are adapted to turn in the bearings b' of the saddle S. The shaft S^2 of the rollers is made with radial ribs

r' , that at each end connect with radially-arranged ribs r^2 , constructed in the inner opposite faces of the rollers. The function of these ribs upon the shaft is to receive lubricant brought up by the chain belt to deliver it to the radially-arranged ribs on the inner faces of the rollers, from whence, by the action of these ribs upon the rollers as they are rotated, the lubricant is thrown outwardly onto the outer edge of the rollers, where it is brought in contact with the car-axle.

The letter C^2 designates a chain belt that passes around the shaft S^2 on its upper stretch, with its lower stretch adapted to run in lubricant L , contained in the journal-box. The function of this chain is to convey lubricant to the ribs upon the shaft, and, if desired, instead of the chain belt, any other well-known device performing the same office may be used for this purpose.

The letter D indicates an oil-deflecting plate, which is made the subject of another application, which was filed February 15, 1886, and is numbered as Serial No. 191,943. The upper frame part, f^2 , makes a T-form connection with its hinged part h' .

The letter S^3 designates a shaft having bearings b^2 in the frame part f^3 , and this shaft is constructed with a cam, k , which, as said shaft is turned, engages with the upper frame part f^2 and causes the latter to raise up on its hinged connection H .

The letter a' indicates a crank-arm that is attached to the shaft S^3 , and by which the latter is actuated to turn to the extent of half a revolution between the extremes of traverse made by the crank-arm. The latter is weighted at its outer end, as indicated at W , and when the crank-arm is by gravity drawn down so as to be beside by side with the lower part of the frame f^3 , then the shaft S^3 , by means of its cam k , forces the upper part of the frame toward the car-axle, as shown at Fig. 1, and when the crank-arm a' is turned over and down away from the frame, then the shaft and cam k do not operate on the upper part of the frame, and it rests on the lower part of the frame, as shown at Fig. 2. This crank-arm a' is pivoted at p^3 to the shaft S^3 , so as to be swung out horizontally, as indicated by the dotted line d' of Fig. 2.

To insert the frame and the lubricating material or mechanism which it holds within the journal-box, the weighted crank-arm a' is thrown upwardly and frontwardly, as indicated by the dotted line d' , and the apparatus is then inserted within the journal-box, when the crank-arm is turned so as to fall down on the bottom of the journal-box alongside of the frame, and in which position the upper part of the frame is actuated to rise and force to a contact with the car-axle the means for lubrication.

To remove the apparatus, the crank-arm is raised and drawn out frontwardly on its pivoted connection with the shaft S^3 . This releases the cam engagement of the shaft S^3 with

the upper part of the frame, so that the latter falls down on the lower part, when the apparatus is easily drawn out of the journal-box.

While I have shown and described the hinged two-part frame which I employ in combination with a cam-shaft and weighted crank-arm as a distinctive means to raise two rollers having an intermediate chain-belt, these same factors could as well be used as I construct and arrange them to raise waste or other lubricant-absorbent and lubricant-distributing material; and hence I do not limit my invention of the combined two-part and hinged frame, the cam-shaft, and weighted crank-arm, as I arrange them to operate, to their combination with the rollers and chain-belt, with which I illustrate them as connected.

I am well aware that the rollers R , which I illustrate and describe, are an old device. I am also aware that two rollers have been used in connection with an intermediately-placed chain belt, and I make no claim to these factors apart from their combination with a pivotal connection made between the saddle in which said rollers have their bearings and the frame which supports the saddle.

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

1. In a car-axle-oiler mechanism, the combination, with a frame having two parts that are hinged together at one of the adjacent ends of each part with the upper frame part constructed to deliver lubricant, of a shaft having its bearings in the lower frame part and constructed with a cam arranged to engage with the upper frame, part when said shaft is rotated, and a weighted crank-arm on the said cam-shaft, said parts being constructed and arranged to operate substantially in the manner as and for the purposes set forth.

2. In a car-axle-oiler mechanism, the combination, with a frame having two parts that are hinged together at one of the adjacent ends of each part, the upper part of said frame being arranged to deliver lubricant, of a shaft having its bearings in the lower frame part and constructed with a cam adapted to engage with the upper frame part when said shaft is rotated, and a crank-arm that is weighted at its outer end and pivotally connected to said cam-shaft so as to be swung out laterally thereon, said parts being constructed and arranged to operate substantially in the manner as and for the purposes set forth.

3. In a car-axle-oiler mechanism, the combination of the frame F , made with intermediately-hinged upper and lower frame parts, f^2 and f^3 , the saddle S , pivotally connected to said upper frame part, the shaft S^3 , having its bearings in said lower frame part and constructed with the cam k , and the weighted crank-arm a' , attached to said cam-shaft, said parts being constructed and arranged to operate substantially in the manner as and for the purposes set forth.

4. In a car-axle-oiler mechanism, the com-

5 bination of the saddle S, constructed with bearings b' , and having the pivotal connection p^2 , the rollers R R, made with the radial ribs r^2 , the shaft S^2 , made with the longitudinally-arranged ribs r' , and journals J, and the chain belt C^2 , said parts being constructed and arranged to operate substantially in the manner as and for the purposes set forth.

Signed at Troy, New York, this 6th day of March, 1886, and in the presence of the two witnesses whose names are hereto written.

JOHN GIBBONS.

Witnesses:

CHARLES S. BRINTNALL,
VICTOR M. WITMER.