

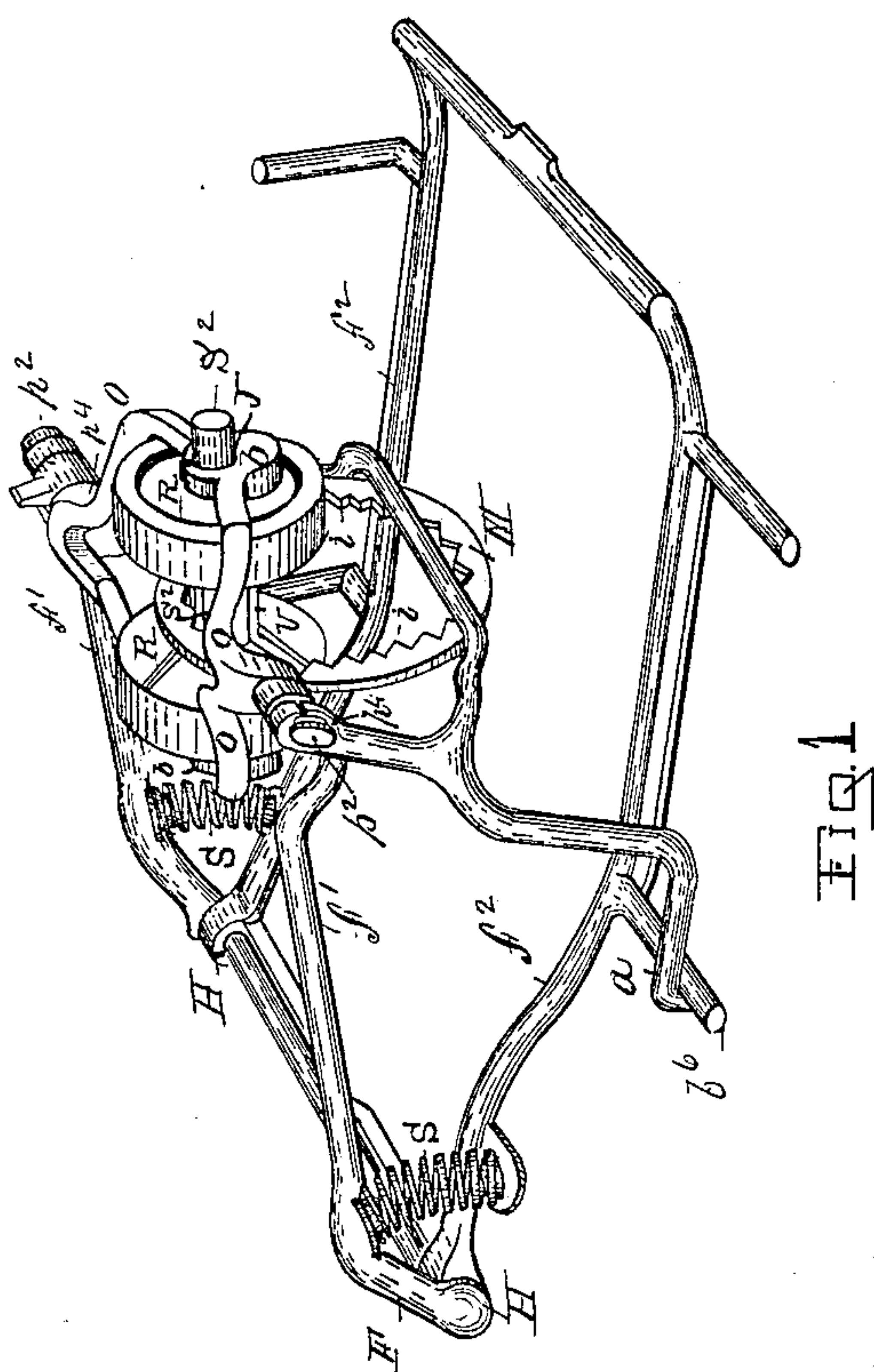
(No Model.)

2 Sheets—Sheet 1.

J. GIBBONS.
OILER FOR CAR AXLES.

No. 365,063.

Patented June 21, 1887.



WITNESSES:
Geo. A. Darby.
Charles S. Buntzall

INVENTOR
John Gibbons
By W. E. Hagan his atty

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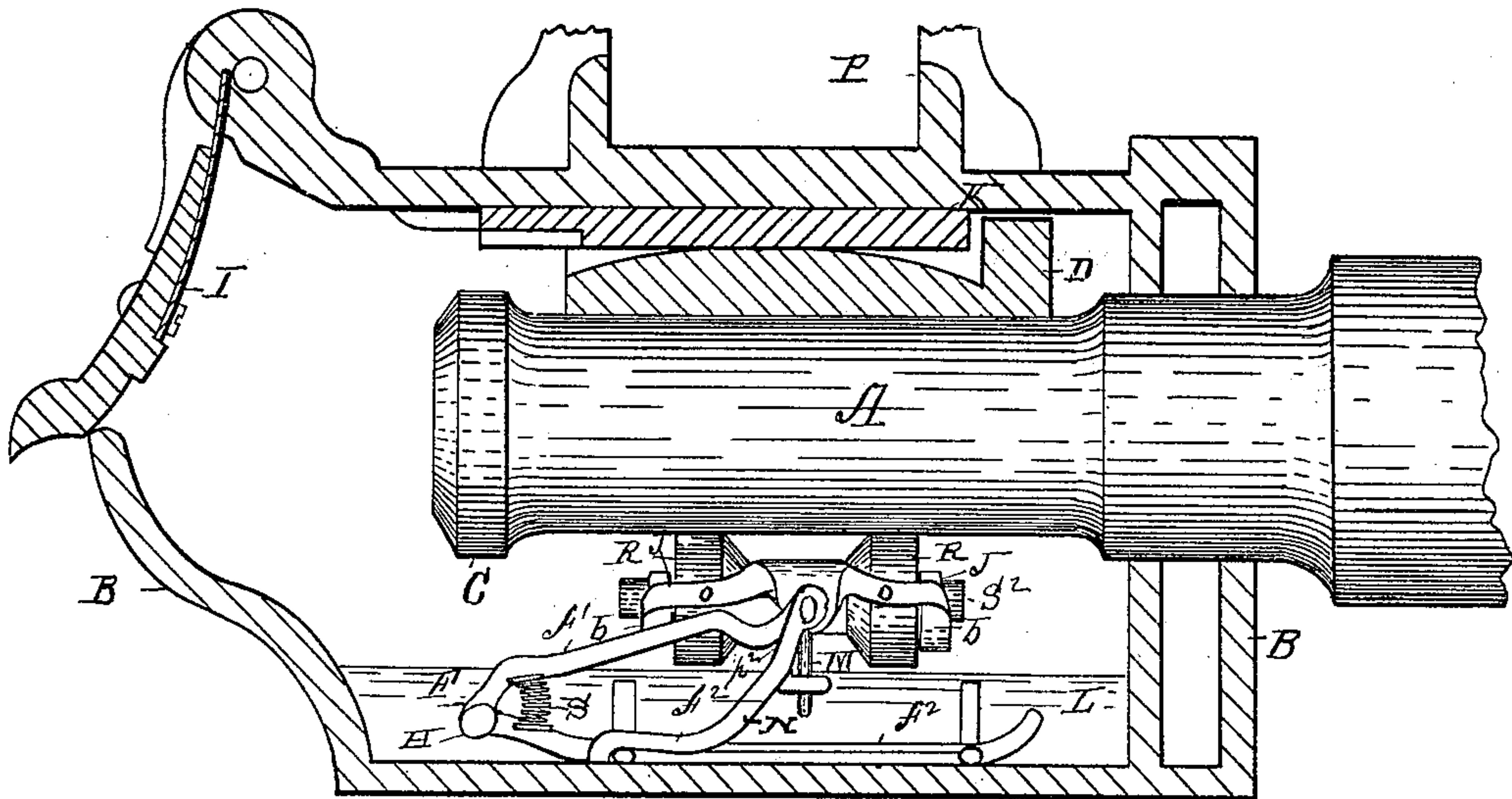


Fig. 3

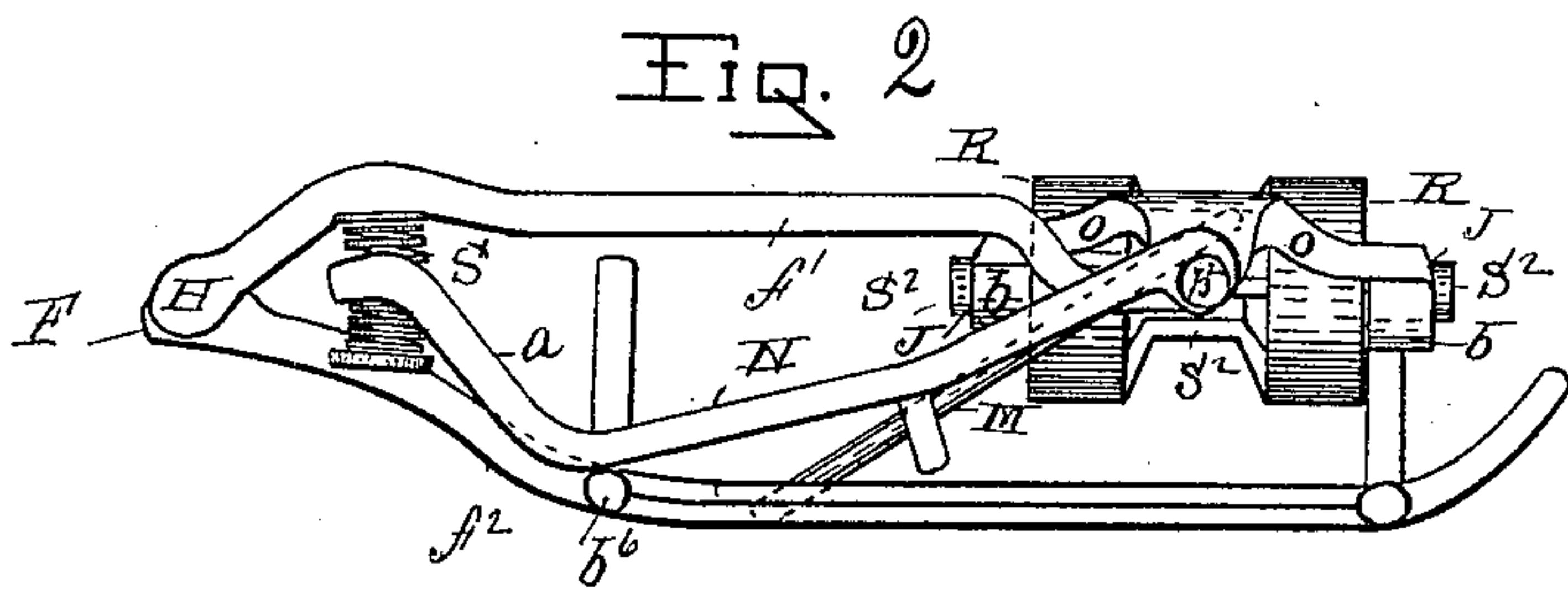


Fig. 2

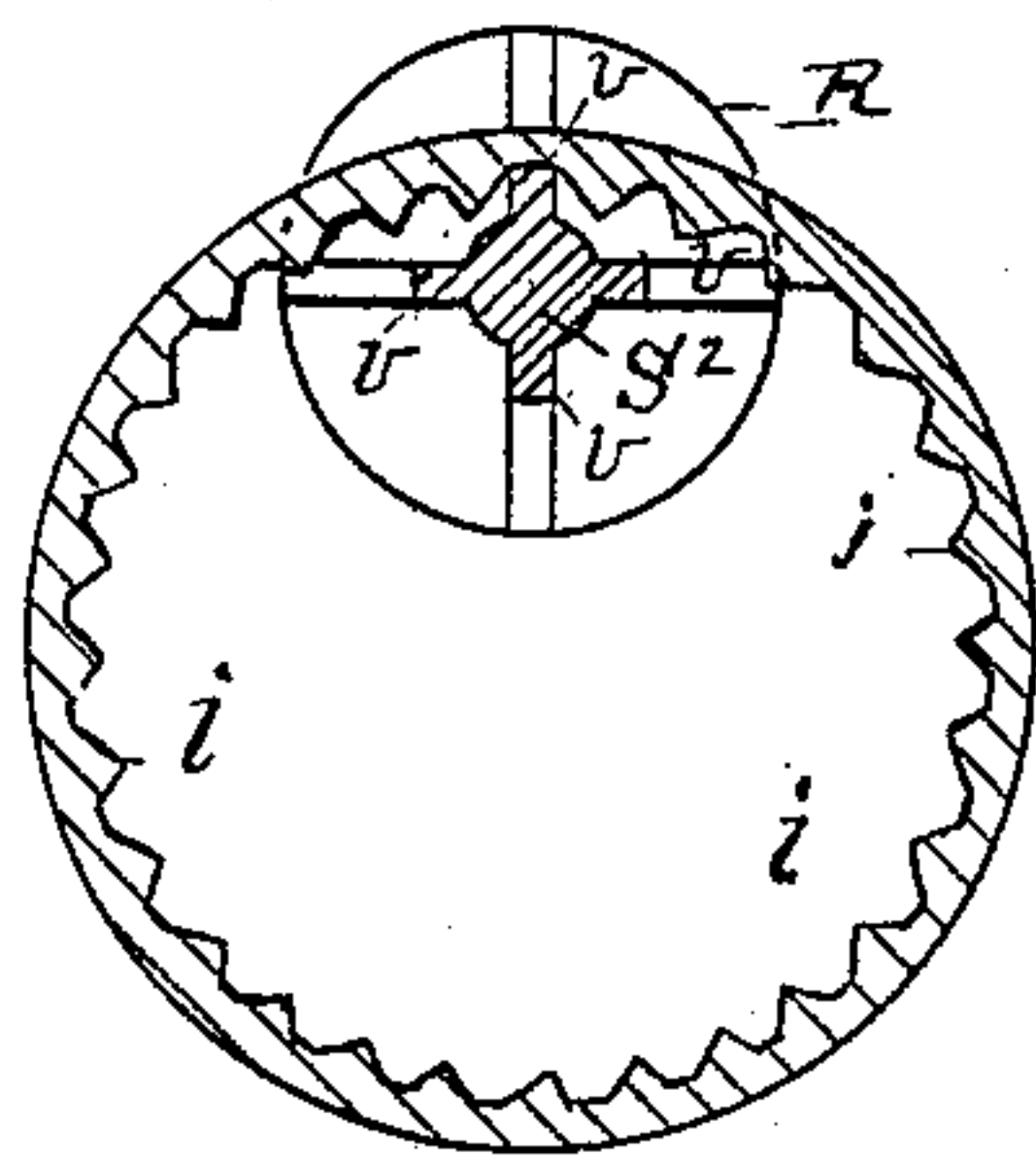


Fig. 4

WITNESSES:

Geo. A. Darby.

Charles S. Brintnell

INVENTOR

John Gibbons
by W. E. Hagan his atty

UNITED STATES PATENT OFFICE.

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

OILER FOR CAR-AXLES.

SPECIFICATION forming part of Letters Patent No. 365,063, dated June 21, 1887.

Application filed November 20, 1886. Serial No. 219,437. (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 improvements in that class of car-axle oilers in which the lubricant is brought to contact with the axle by
10 means of rollers turning with their surfaces impinging upon the axle. As heretofore constructed this class of devices is made to distribute oil to the rollers by means of a chain belt, which at its upper stretch runs on the
15 roller-shaft between the rollers, with its lower stretch running in the lubricant in the journal-box, the rollers being forced upwardly to contact with the axle either by means of a spring or a weighted arm, the chain by its movement
20 taking up lubricant and conveying it to the roller-shaft, from which it was distributed to the axle. When a chain is thus used, if fibers of waste or leaves, dirt, or any other material of like kind enter the journal-box they serve to
25 interfere with the proper working of the chain, and to remedy these difficulties is the object of my invention.

Accompanying this specification, to form a part of it, there are two plates of drawings
30 containing four 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 an oiler mechanism containing my invention, shown as removed from the journal-box. Fig. 2 shows a side elevation of the mechanism illustrated at Fig. 1, but in this representation shown with the two parts of the frame pressed together for insertion within
40 the journal-box, or as it would appear in jacking up the car. Fig. 3 shows a side elevation of the mechanism inserted within the car-axle journal-box with the latter and its connected parts shown in section. Fig. 4 shows a section of the lubricating-ring taken parallel to its side faces, and a cross-section of the ribbed shaft on which the lubricating-rollers are arranged.

The several parts of the mechanism thus
50 illustrated are designated by letter-reference,

and the function of the parts is described as follows:

The letter A designates the car-axle; B, the car-axle journal-box.

D indicates the bearing; C, the axle-collar; 55 I, the journal-box cover; P, the pedestal-jaw, and K the journal-bearing key.

The letter F designates a frame composed of the upper part, f' , and the lower, f'' . These two parts of the frame are hinged, as shown at 60 H, and the letters S designate springs arranged between these two parts of the frame, as shown in Letters Patent granted to me February 10, 1885.

The letters R designate rollers having a 65 shaft, S^2 , which shaft is ribbed or grooved longitudinally where between the rollers at v , and is made with journals J, where extended beyond the rollers. These journals have bearings b made in the saddle O, which latter at 70 p^2 is pivoted to the sides of the upper frame part, f' , so that the roller-shaft and its rollers R are free to turn in its bearings, and the saddle, in which the latter are arranged, is free to adjust pivotally in the frame part f'' . 75

The letters M designate a ring, that on its inner edge is serrated, as indicated at i , and this ring is arranged to rest interiorly on the outer surface of the shaft S^2 of the rollers R, so that as said rollers and shaft are turned by the 80 traction engagement of the rollers with the axle the ribs v in said shaft will engage with the inner serrated edge of said ring and cause it to rotate also. The lower part of this ring M is immersed in the lubricant L, contained 85 in the journal-box, and as said ring is turned, as before described, it carries up and deposits lubricant upon the shaft S^2 , from which it is distributed to the rollers R, and thence to the axle A. This ring M hangs loosely on the 90 shaft S^2 in a vertical position.

The letter N indicates a tripping-frame, adapted to engage with one side of said ring when the two-part frame is pressed together, as in the position shown in Fig. 2, and for 95 the purposes of swinging the ring M out from under the rollers to allow the two parts of the frame to approach each other when brought together for insertion within the journal-box. This tripping-frame N is pivoted to the upper 100

frame part, f' , at p^t , and the letter a designates a cam-arm arranged on the side of the said tripping-frame, that is adapted to engage with the bar b^6 on the inner frame part when the two frame parts are brought together, which engagement causes the lower part of the tripping-frame to swing from under the rollers, and in so doing to engage with the side of the ring N , so as to also swing it out from under the rollers.

The operation of the mechanism thus described and illustrated is as follows: The journal-box having been supplied with lubricant, the mechanism is pressed together on its hinged connection, (the tripping-frame automatically swinging out laterally the lubricating-ring from under the rollers to allow the frame parts to approach each other, as shown at Fig. 2,) and while thus positioned the mechanism is inserted within the journal-box, when by the action of the springs S the parts assume the position shown at Fig. 3. When the axle is revolved, the rollers R making a traction engagement therewith through the agency of the springs S , or by any other means which will force them to contact, the rollers R and their shaft S^2 are actuated to turn, which moves also the lubricating-ring M , as the teeth i of the latter on its inner edge engage with the ribs v on said roller-shaft. This movement of the ring M carries up lubricant and deposits it on the shaft S^2 , from whence it passes to the rollers R , to be delivered upon the axle A .

While I have shown my invention as relating to the serrated ring M and the ribbed shaft S^2 , combined with a tripping-frame as applied to lubricating-rollers that are forced to contact with the axle by means of springs, the operation of the ring and shaft, as I construct and arrange them, would be the same whether the rollers were forced to contact with the axle by the means shown or by a weighted crank-arm, or by any other known means for performing the same office; hence I do not limit my invention of the lubricating-ring, as I construct and

arrange it, to co-operate with a ribbed roller-shaft, to the further combination of these factors with the means for forcing the rollers to a traction contact with the axle.

As the ring M is constructed to operate in connection with the construction of the roller-axle, it would perform a specific office whether the tripping-frame which I employ were used or some other equivalent means that would swing the bottom of the ring out laterally; hence I do not limit my invention of the lubricating-ring, as constructed and arranged to operate in connection with the ribbed shaft of the rollers, to their further combination with the tripping-frame.

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

1. In a car-axle oiler, the combination, with rollers that are arranged to make a traction contact with the axle, of longitudinal ribs made on the roller-shaft between the rollers, and a ring having teeth upon its inner edge adapted to engage with the ribs on the roller-shaft, with the lower part of said ring immersed in lubricant in the journal-box, substantially as shown and described.

2. The combination, with lubricating-rollers having an intermediate shaft provided with longitudinally and externally arranged ribs, of a ring arranged upon said shaft between said rollers, and having teeth upon its inner edge adapted to engage with the ribs of said shaft and to receive motion therefrom, and a tripping mechanism constructed and arranged to operate in connection with said ring, substantially as and for the purposes set forth.

Signed at Troy, New York, this 10th day of August, 1886, in the presence of the two witnesses whose names are hereto written.

JOHN GIBBONS.

Witnesses:

CHARLES S. BRINTNALL,
GEO. A. DARBY.