

(No Model.)

W. H. WRIGHT.
CAR AXLE LUBRICATOR.

No. 518,384.

Patented Apr. 17, 1894.

Fig.1

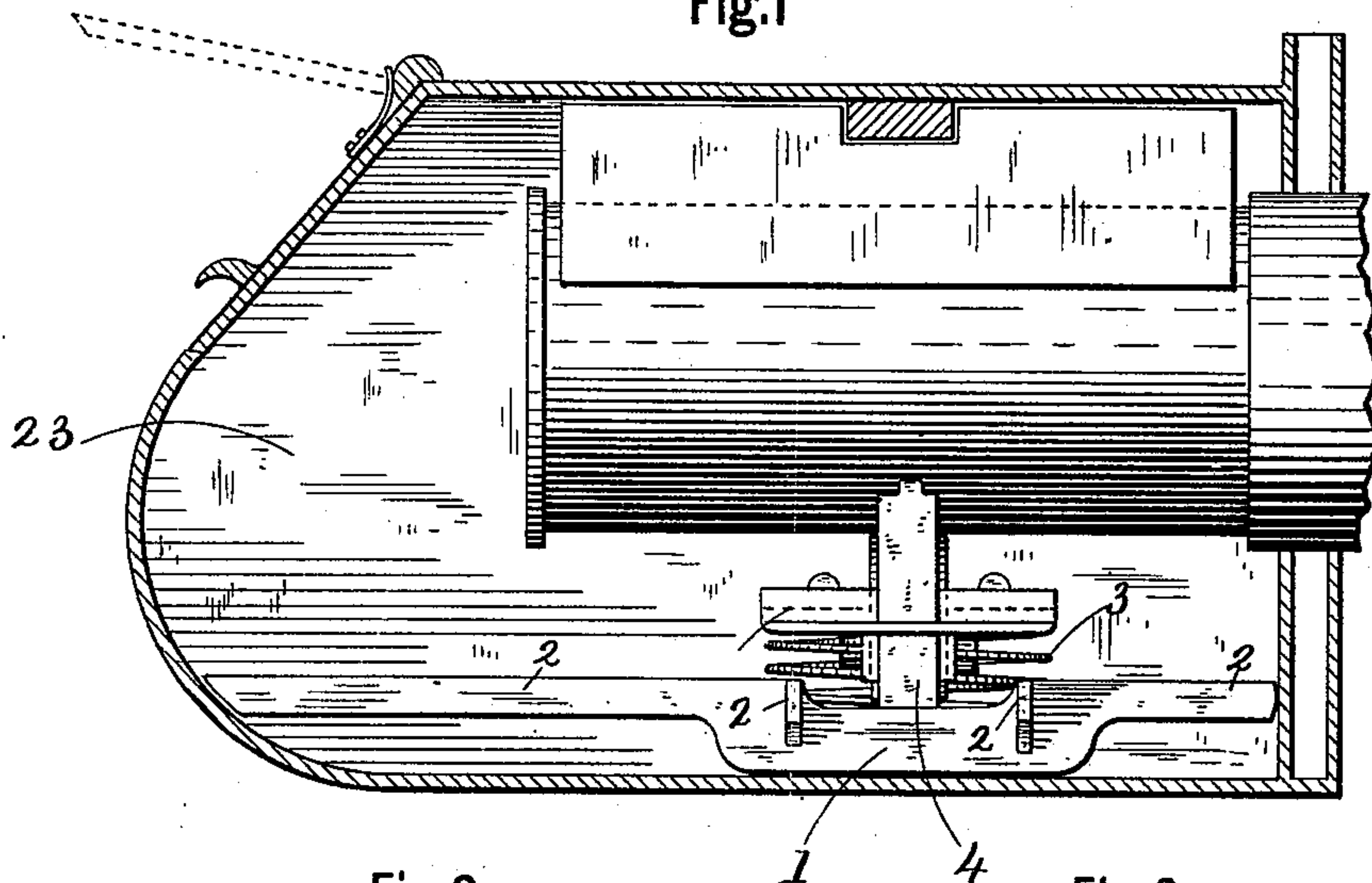


Fig.2

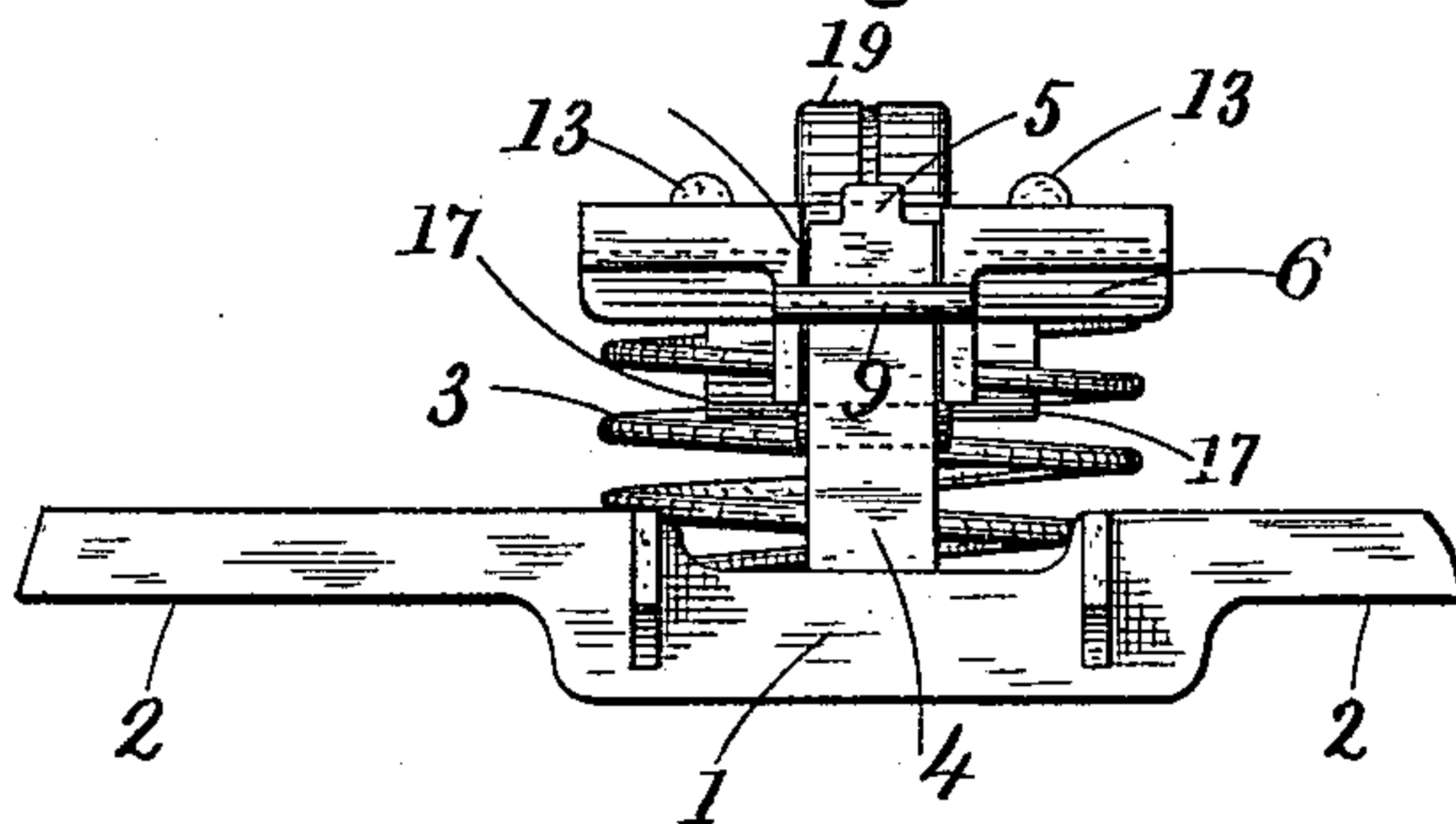


Fig.3

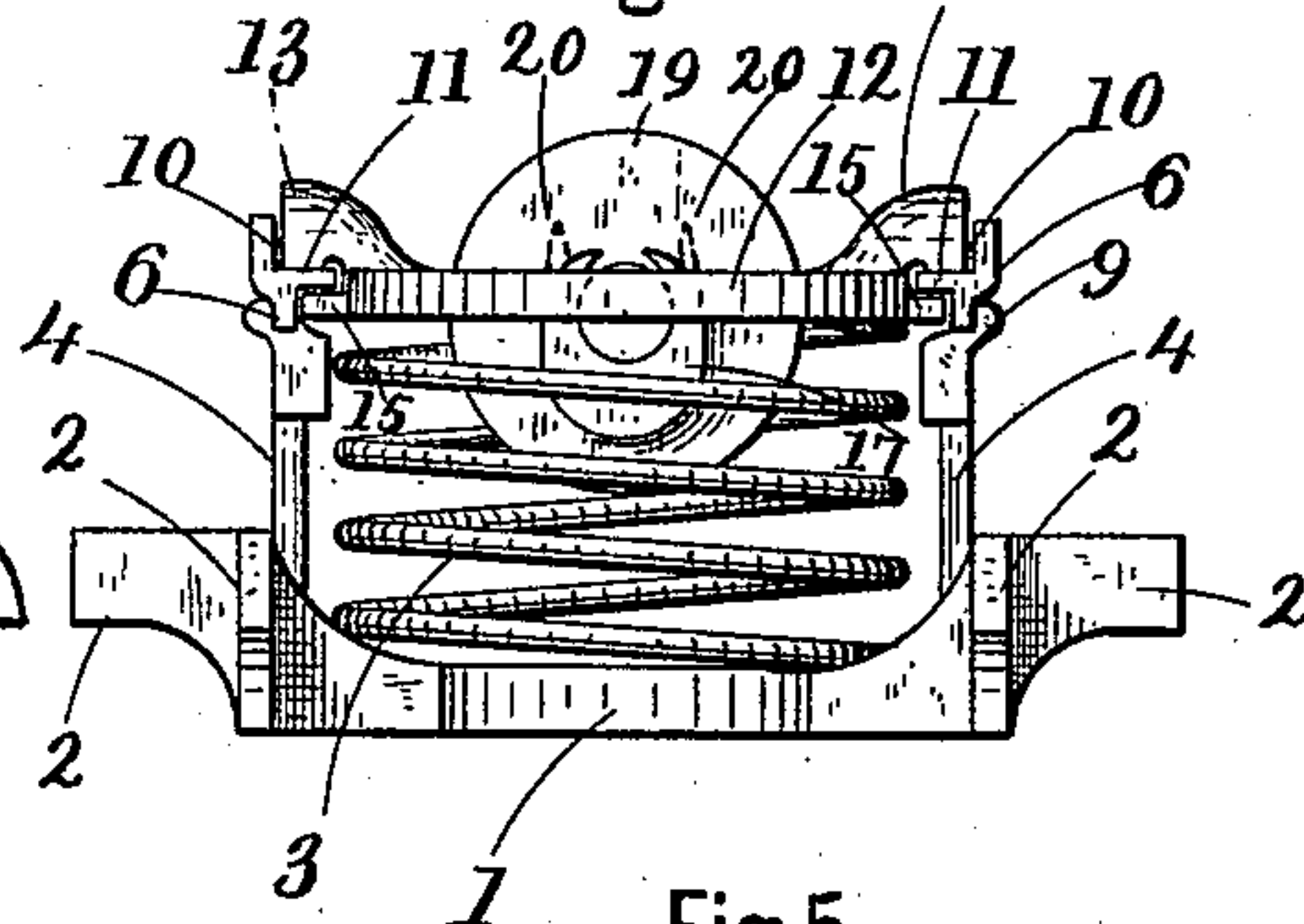


Fig.4

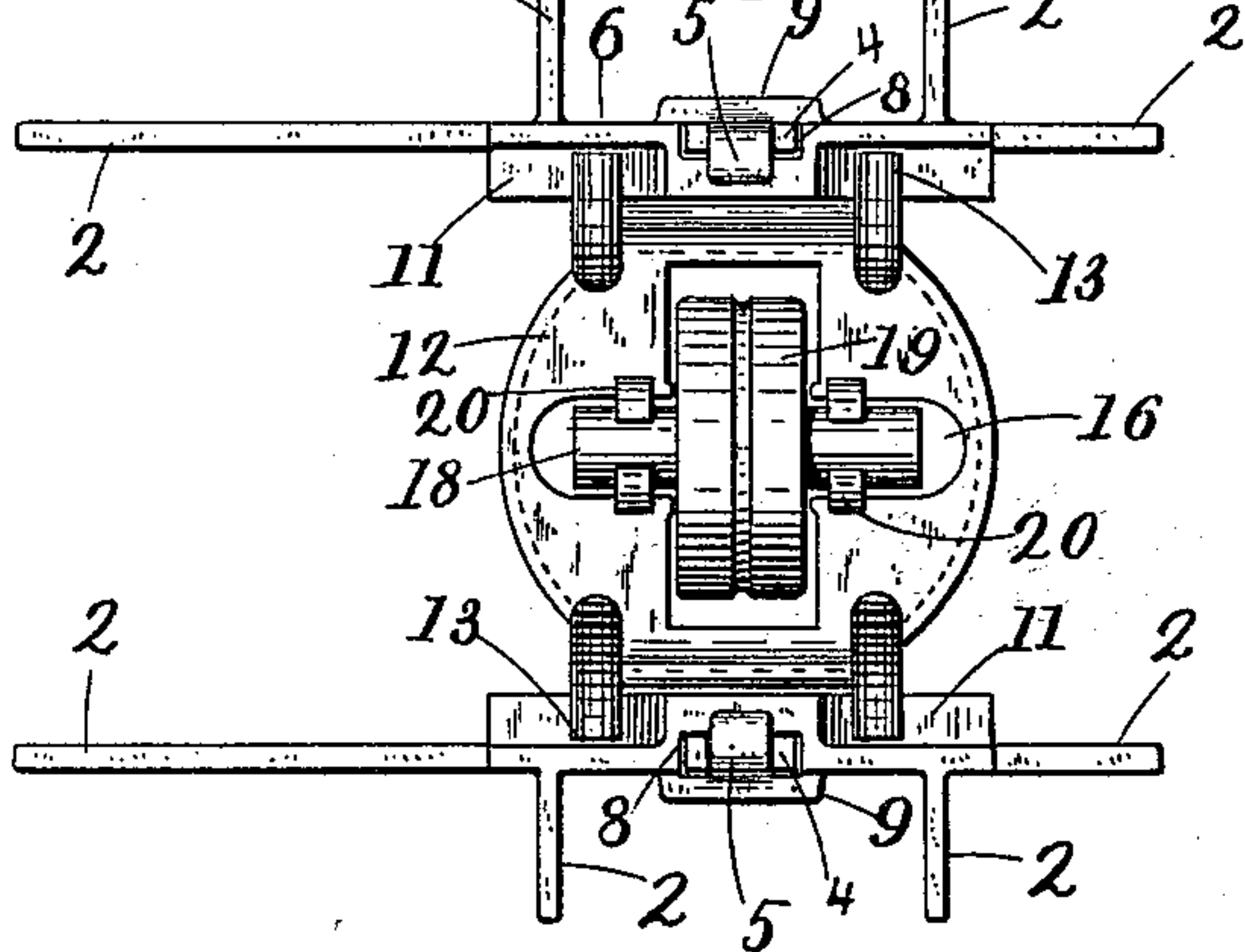
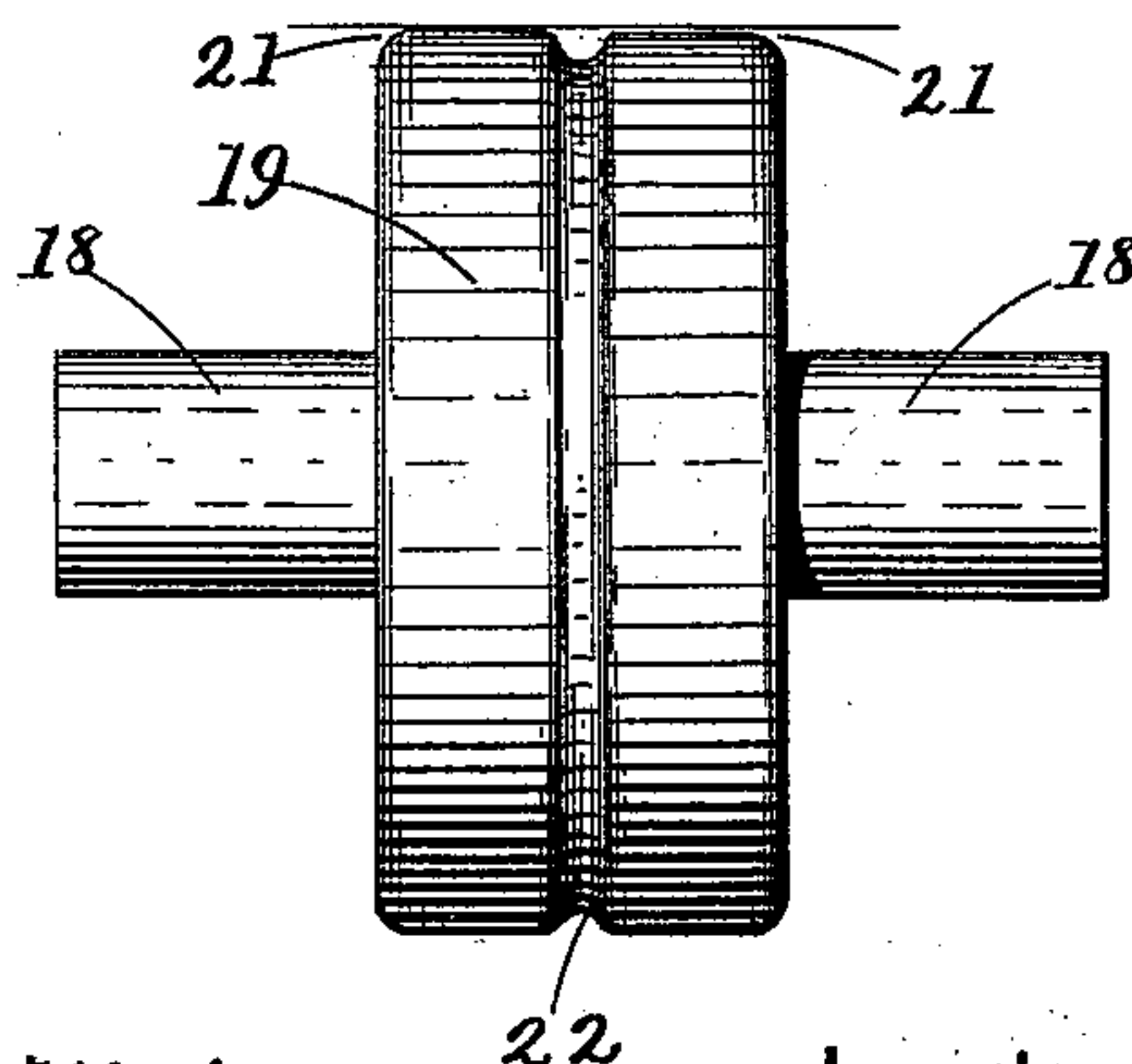


Fig.5



Witnesses.

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WILLIAM H. WRIGHT, OF BUFFALO, NEW YORK.

CAR-AXLE LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 518,384, dated April 17, 1894.

Application filed July 6, 1893. Serial No. 479,729. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. WRIGHT, a citizen of the United States, residing in Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Car-Axle Lubricators, of which the following is a specification.

My invention relates to that class of lubricators in which a wheel is used to raise and transfer the oil from the oil reservoir to the axle, and will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 represents a vertical longitudinal central section through a car axle box, showing a side elevation of my lubricating device connected therewith. Fig. 2 is a side elevation of my improved car axle lubricator, separate from the axle. Fig. 3 is an end view of the same, showing a side elevation of the transferring roller. Fig. 4 is a top or plan view of the lubricator, showing the transfer roller, the means for keeping it in place in its box, also other details of construction. Fig. 5 is an enlarged detached side elevation of the transferring roller, for illustrating the shape of the periphery of the roller more clearly.

This invention is designed as an improvement on the invention described and claimed in Letters Patent No. 308,123, granted to me November 18, 1884. The stationary supporting frame, 1, is provided with a series of wings, 2, which are made sufficiently long and thin enough to be clipped so that they can be easily clipped to bring the device to the required dimension to fit axle boxes of different sizes. At the bottom of the stationary supporting frame is a shallow socket in which the bottom of the spiral spring 3, rests. On each side of the stationary supporting frame, 1, is a single upright bar, 4, the two bars being at opposite sides of the supporting frame and forming a part of it. It will be noticed that I employ only two vertical supporting bars, 4. The object of this construction is, that these two vertical supporting bars act as vertical slideways for the horizontal slideways as will hereinafter appear, and as such slideways, they are not so liable to cramp or catch while they are being forced downward by the transfer wheel as they would be if four of such vertical slideways were used as in

my Patent No. 308,123, the point of contact between the wheel and axle being in the center of the vertical bars and central between them.

At the top of each bar, 4, is an upward projecting piece, 5, the object of which will appear farther on. On each of the vertical parts or bars, 4, is a transverse or horizontal angle bar, 6, each transverse bar 6, is provided with a slideway portion, each being provided with a vertical recess, 8, shown in Fig. 4, and a cross bar, 9, thereby leaving a rectangular opening adapted to pass over and allow the bars, 6, to move easily up or down on said bars, 4. The top portion of each transverse bar, 6, is made angular so that the parts 10 and 11, form slideways. On the top of the slideways 11, is mounted the roller supporting plate 12. It is made in circular form and is provided with holding pieces 13, projecting outward, two at each side, each pair being directly opposite each other. The parts, 13, are adapted to rest on the top of the slideways, 11. At the bottom of the roller supporting plate is also another projecting portion, 15, on each side of the roller plate, directly below the holding pieces, 13, so that the flange or slideway passes between the two and the roller plate is thereby held securely in place on the slideways, 11, but is free to move laterally either way thereon.

In the center of the roller plate or thereabout is an opening, 16, and below are the journal boxes, 17, see Figs. 2 and 3, in which is mounted the shaft or trunnions 18, of the transferring roller, 19, after the roller is placed in the boxes, the upwardly projecting portions, 20, shown by dotted lines in Fig. 3, are bent down as shown in Figs. 3 and 4, thereby keeping the roller securely in its place. The under side of the roller plate is provided with a shallow annular recess, in which the top of the spring 3, rests, this recess is made in any well known way to receive the end of the spiral spring 3. To keep the angle bars, 6, from being pushed up off from the vertical bars, 4, the upward projecting pieces, 5, are bent down so as to lap over the top of said bars.

It will be noticed that the edges of the lubricating wheel are rounded so as to leave an opening, 21, at each side, (see Fig. 5) and the center of the face of the wheel is provided with

a surrounding groove, 22, also having rounded edges, of which there may be one or more. The object of this construction is to provide the means whereby more oil will be carried up and transferred to the axle than a plain faced wheel would do.

By the construction above described all the parts can be made of malleable cast iron (or brass) and then put together without filling or fitting, neither bolts nor screws being used, thereby insuring cheapness of construction besides rendering the parts less liable to get out of order than they would be if screws were used to screw the parts together.

The operation of the device is clearly shown in Fig. 1. The oil being put in the box, 23, until it is nearly up to the axle, and as the axle turns the oil is brought up and transferred to the axle as will be readily understood.

It will be noticed that the stationary frame with its wings and vertical bars are all formed in one piece of cast metal.

I claim as my invention—

1. A car axle lubricator supporting frame consisting of a stationary frame provided with a series of longitudinal and transverse wings adapting it to be easily fitted to the axle box and provided with two vertical bars each having an upward projection at the top adapted to be bent over the top of the slideways for holding it down against the force of the spring, the whole being formed in one piece of cast metal, substantially as described.

2. In a car axle lubricator, the combination of a stationary frame provided with longitudinal and transverse wings thereby adapt-

ing it to be easily fitted to a car axle box, two vertical supporting bars forming part of said frame, two transverse bars having cross bars adapting them to be movable up or down on the vertical supporting bars, a slideway on each transverse bar and projecting portions on the vertical supporting bars adapted to be bent over the vertically sliding bars for limiting the upward movement of the horizontal slideways, a roller supporting frame adapted to fit and slide on the horizontal slideways so as to be capable of a lateral movement, a transfer roller mounted in boxes in the roller supporting frame, and a spring interposed between the base of the stationary frame and the roller supporting plate, substantially as and for the purposes described.

3. In a car axle lubricator, the combination with a supporting frame having two upright bars, two horizontal angle bars having slideways slidable on the upright bars, a roller supporting plate mounted on said slideways, so as to be capable of a lateral movement thereon, a means consisting of the bent projections at the top of the vertical supporting bars for holding the several parts in place, a spring interposed between the roller plate and the bottom of the stationary frame, and a grooved transfer roller mounted in boxes in the roller plate frame and having the two edges of its face rounded, substantially as described.

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Witnesses:

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