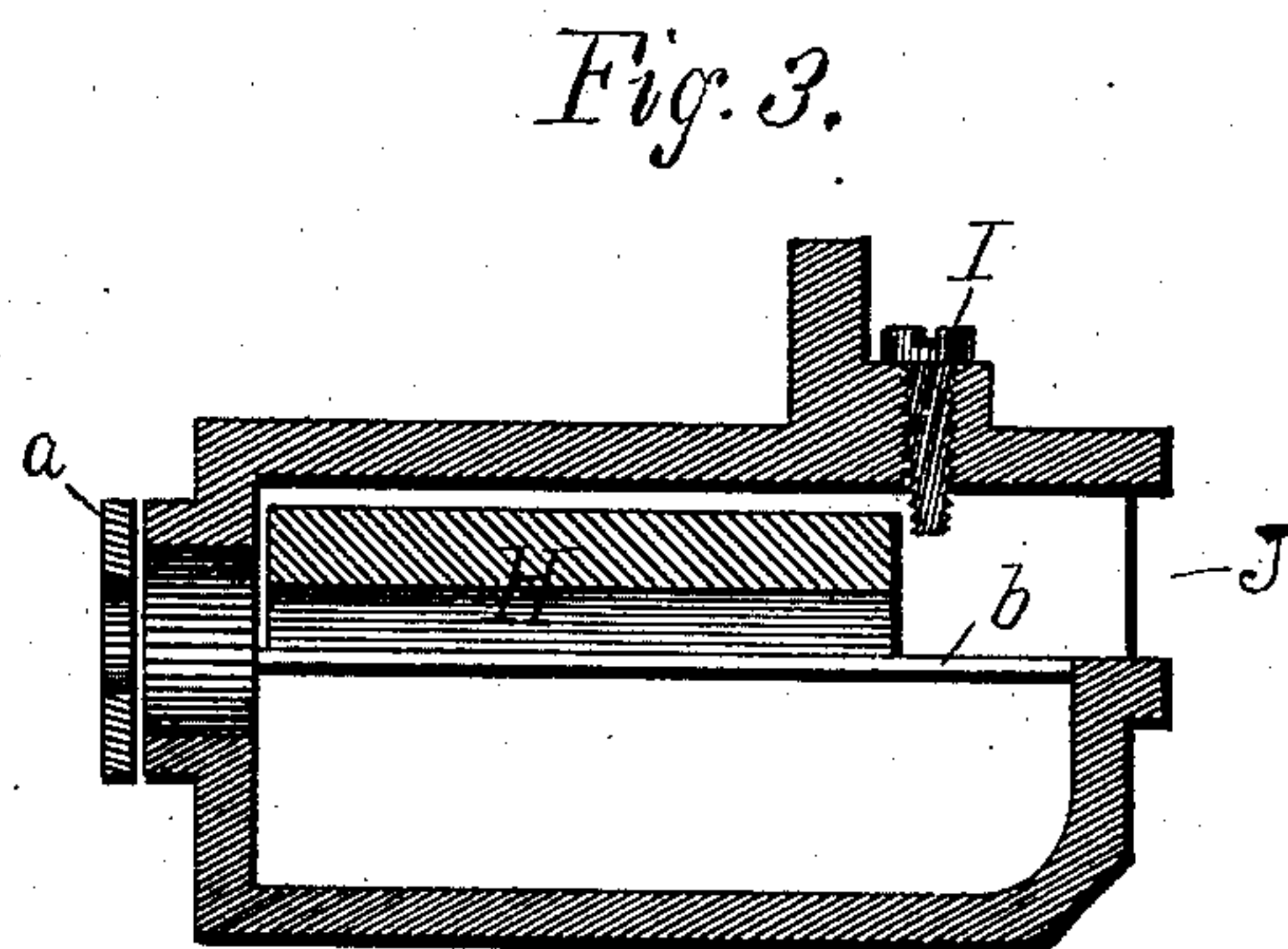
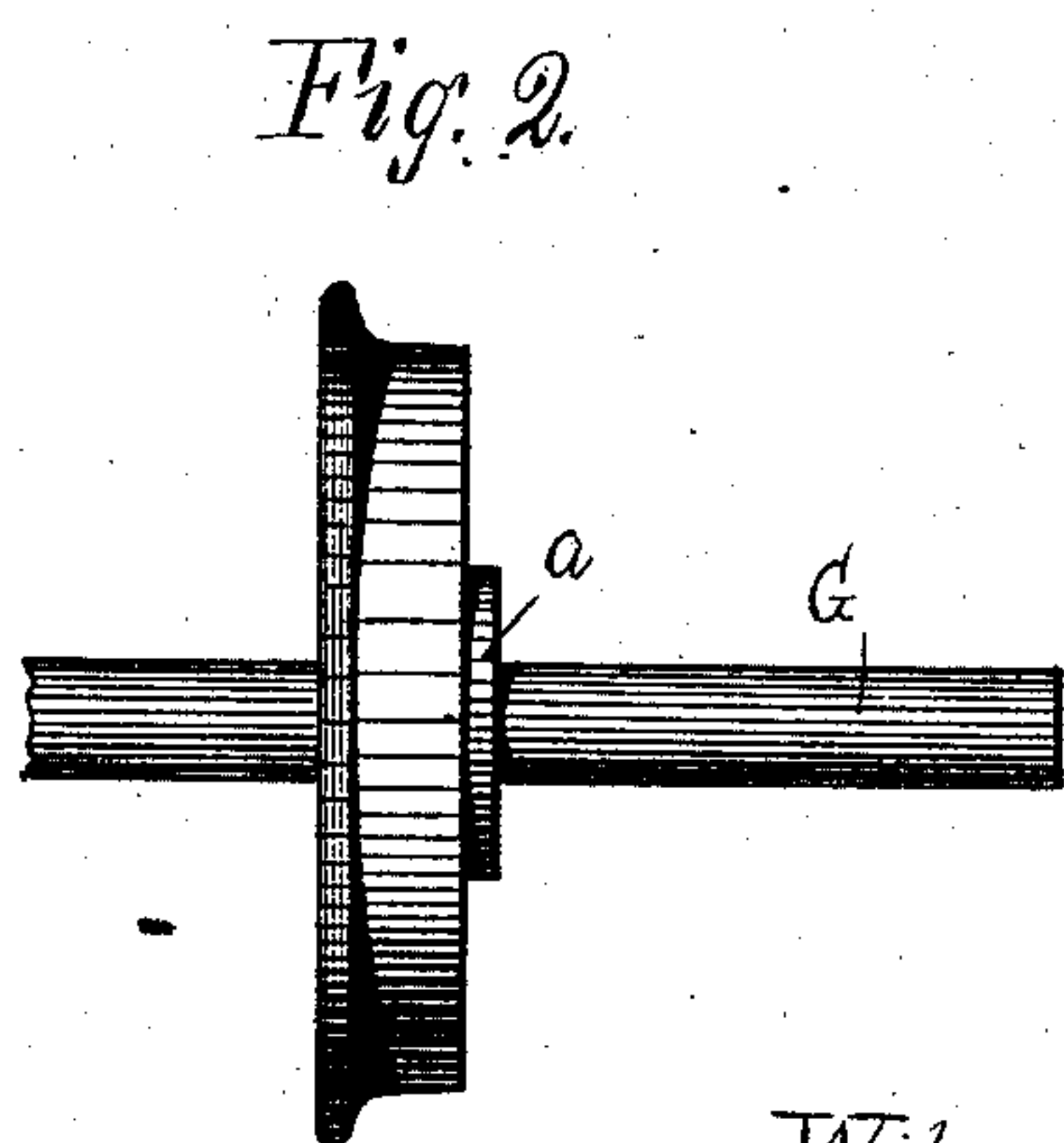
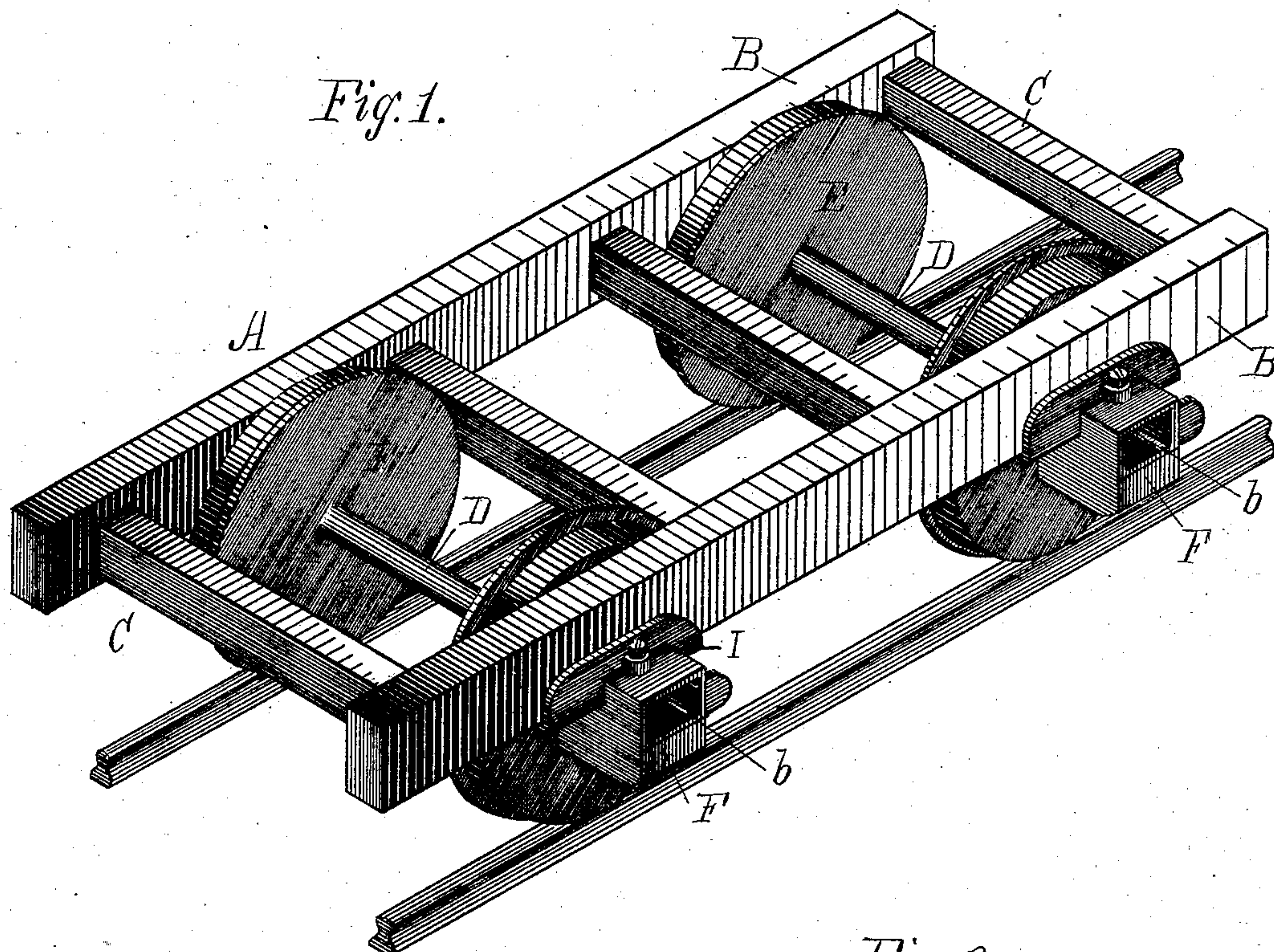


C. BARRETT.
Car-Axle Box.

No. 224,986.

Patented Mar. 2, 1880.



Witnesses.
Geo. L. Hall
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CHARLES BARRETT, OF SOMERVILLE, MASSACHUSETTS.

CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 224,986, dated March 2, 1880.

Application filed November 23, 1879.

To all whom it may concern:

Be it known that I, CHARLES BARRETT, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain
5 new and useful Improvements in Railway Freight-Cars, of which the following is a specification.

This invention relates to the journal-boxes of railway freight-cars, in which a single truck
10 extending the entire length of the car is employed, as distinguished from a pair of trucks each of which is swiveled to the car-body.

The drawings accompanying this specification represent, in Figure 1, a perspective
15 view of a railway freight-car truck containing my improvements, while Fig. 2 is an elevation of a car-wheel and axle, showing the soft-metal collar or washer; and Fig. 3, a longitudinal section through one of its journal-
20 boxes.

In such drawings, A represents the car-truck, of which B B are the side and C C the end
25 sills or beams, D D the axles, and E E the wheels, the journal-boxes being shown at F F, &c., as bolted rigidly to the side sills, B B.

The journals of the axles are shown at G G, each being of smooth surface and uniform
30 diameter, in lieu of having a peripheral groove turned upon it, as has heretofore been the practice, and the interior of each box being sufficiently long to permit of the requisite end-play of the journal to adapt the truck to passing curves in the railway-track.

The upper and loose bearing-plate employed
35 in my axle-boxes is shown at H as disposed between the upper surface of the journal and the top of the box, while in lieu of the wedges now or heretofore used to retain this bearing-plate in place within the box I employ a screw
40 or bolt or other suitable stop, I, passing down from the upper part of the outer end of the box and across the open mouth of the latter, such stop intercepting the bearing-plate and preventing escape of the latter from the box.
45 When it is desired to remove the bearing-plate the stop I is raised until its lower end is removed from the path of the plate, and the latter may be drawn out.

The use of the stop avoids the use of the

wedge heretofore employed above the bearing-plate, and is a simple and durable construction; but its importance is seen in the fact that the bearing-plate, when secured in this manner in lieu of by a wedge, cannot get
50 out of position when the wheels are off the track. 55

As the thrusts upon the axles are borne by the collars or washers (which are shown at a a in the drawings) before named operating between the box and wheel-hub, the box is
60 protected from wear, and its original condition preserved intact, while, for the same reason, I am enabled to do away with the peripheral groove in the journal and preserve the full diameter of the latter, thereby greatly
65 increasing its strength and providing a long bearing, while the lateral play between the wheel-hubs and boxes may be regulated by the thickness of the washers a or their number. 70

To prevent the bearing-plate from dropping too low within the box when the journal may be out of the latter, I create in opposite sides of the interior of the box parallel ledges b b,
75 upon which the lower edges of the bearing-plate may rest.

Said axle-box is provided at its outer end and near the top with an aperture, J, of somewhat greater size than the cross-section of bearing H. Longitudinal flanges b, which
80 support said bearing, extend to said opening at the bottom thereof.

When stop I is withdrawn said bearing may be slipped along over said flanges and out at
85 said opening J. Said flanges serve as guides both in the withdrawal and the insertion of said bearing, as well as supports therefor.

The stop I, when screwed down behind the outer end of the bearing H thus inserted, prevents said bearing from being thrust out
90 through said opening by the action of the axle-journal. It will, however, allow a certain amount of play to said axle and will not be subjected to as much strain as a stop screwed into the said bearing H. It will also be more
95 easily withdrawn.

I claim—

1. The combination of loose bearing H with

car-axle journal G and axle-box F, having internal longitudinal ribs, *b*, and removable screw I, extending into said box at a point beyond the outer end of said bearing.

- 5 2. The combination of loose bearing H with car-axle journal G, removable screw-stop I, located beyond the outer end of said bearing,

and axle-box F, having longitudinal internal ribs, *b*, and opening J, to which said ribs guide the bearing for removal.

CHARLES BARRETT.

Witnesses:

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