

(No Model.)

J. V. LEWELLEN.
BALL BEARING OAR LOCK.

No. 581,214.

Patented Apr. 20, 1897.

Fig. 1.

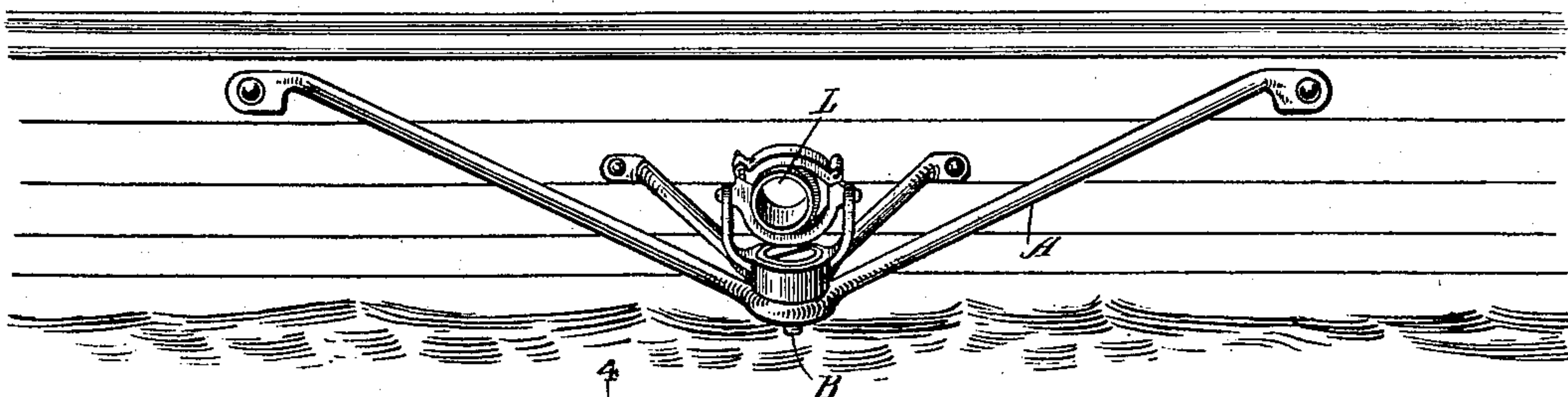


Fig. 2.

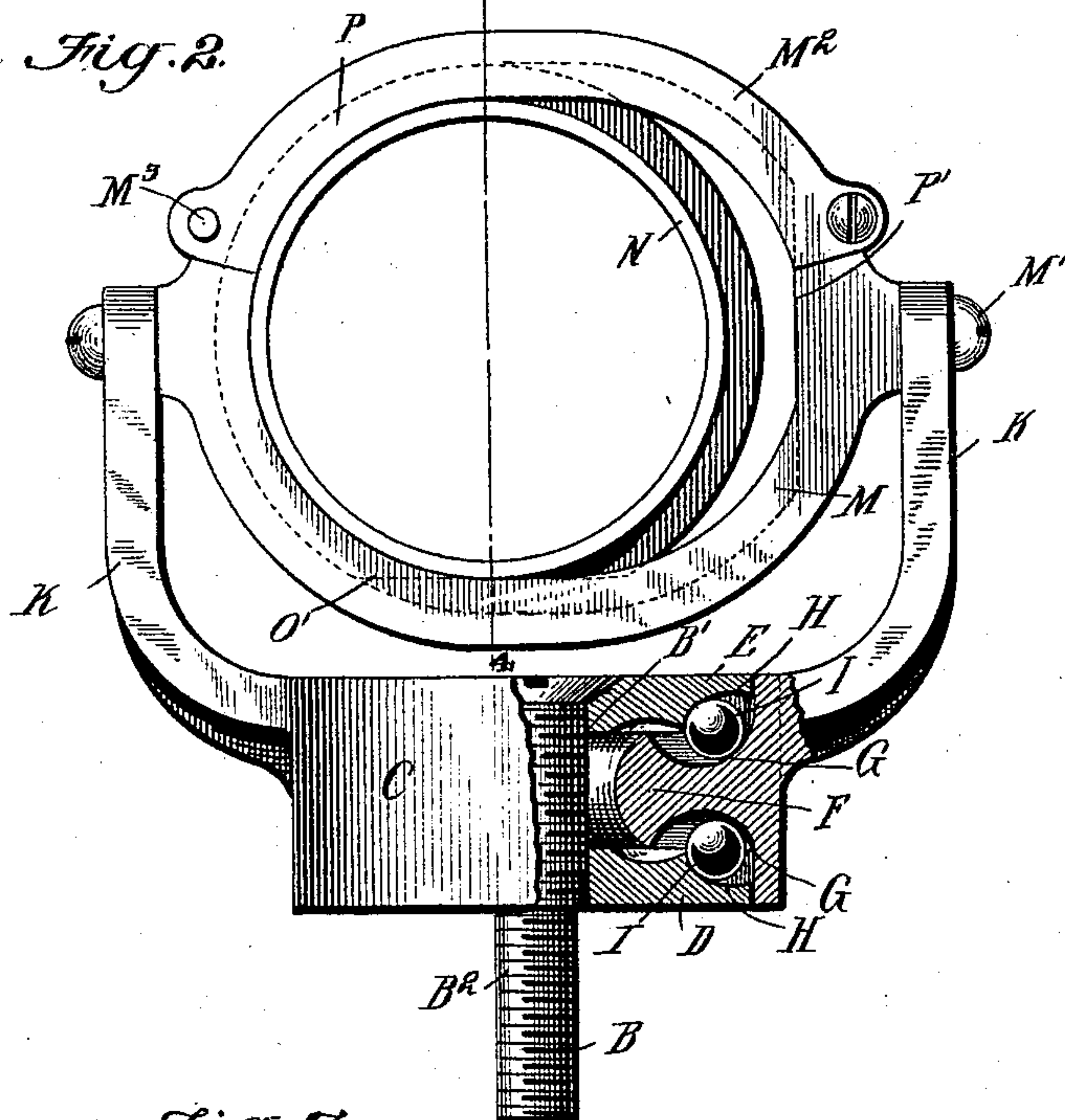


Fig. 3.

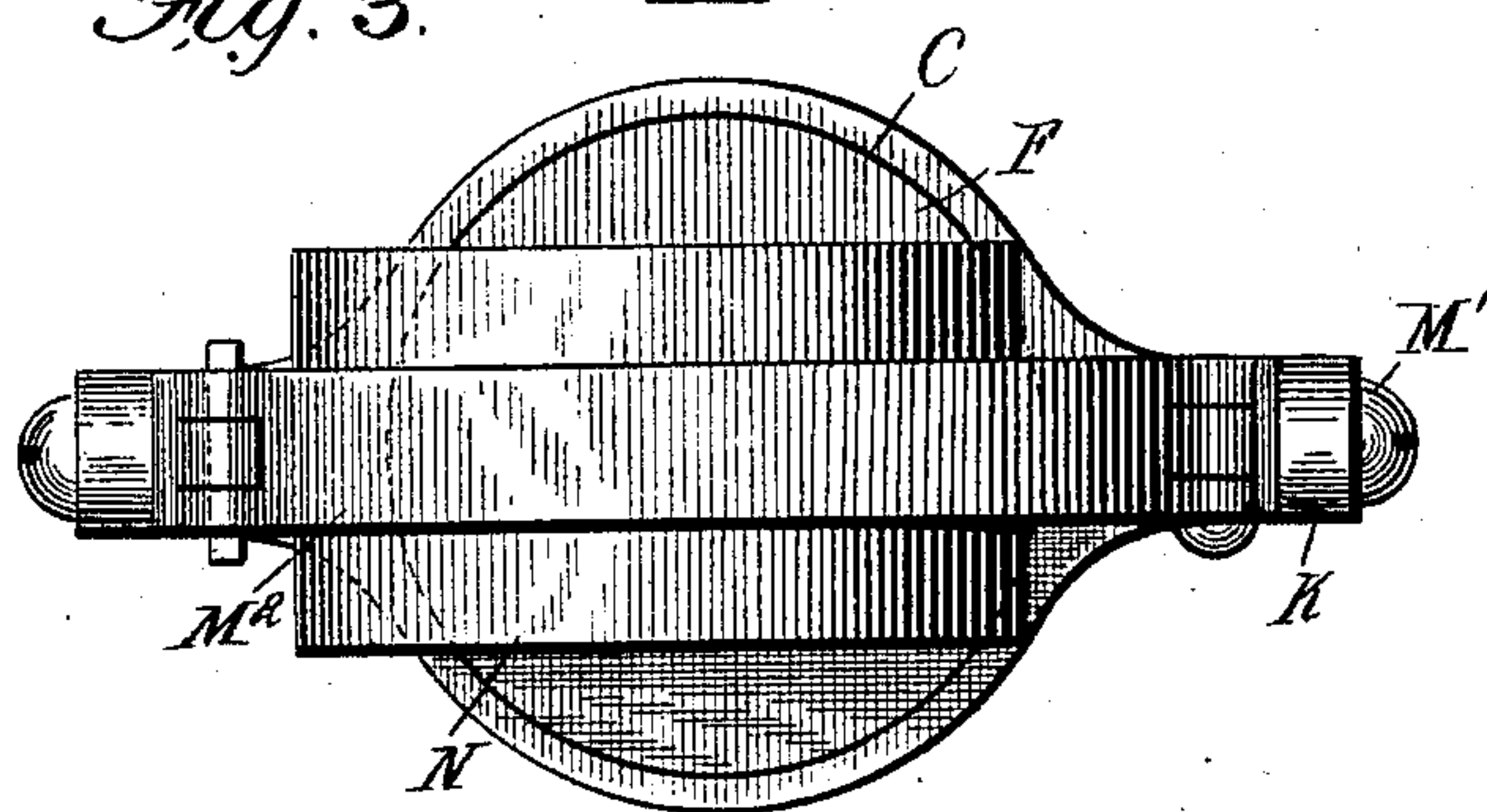
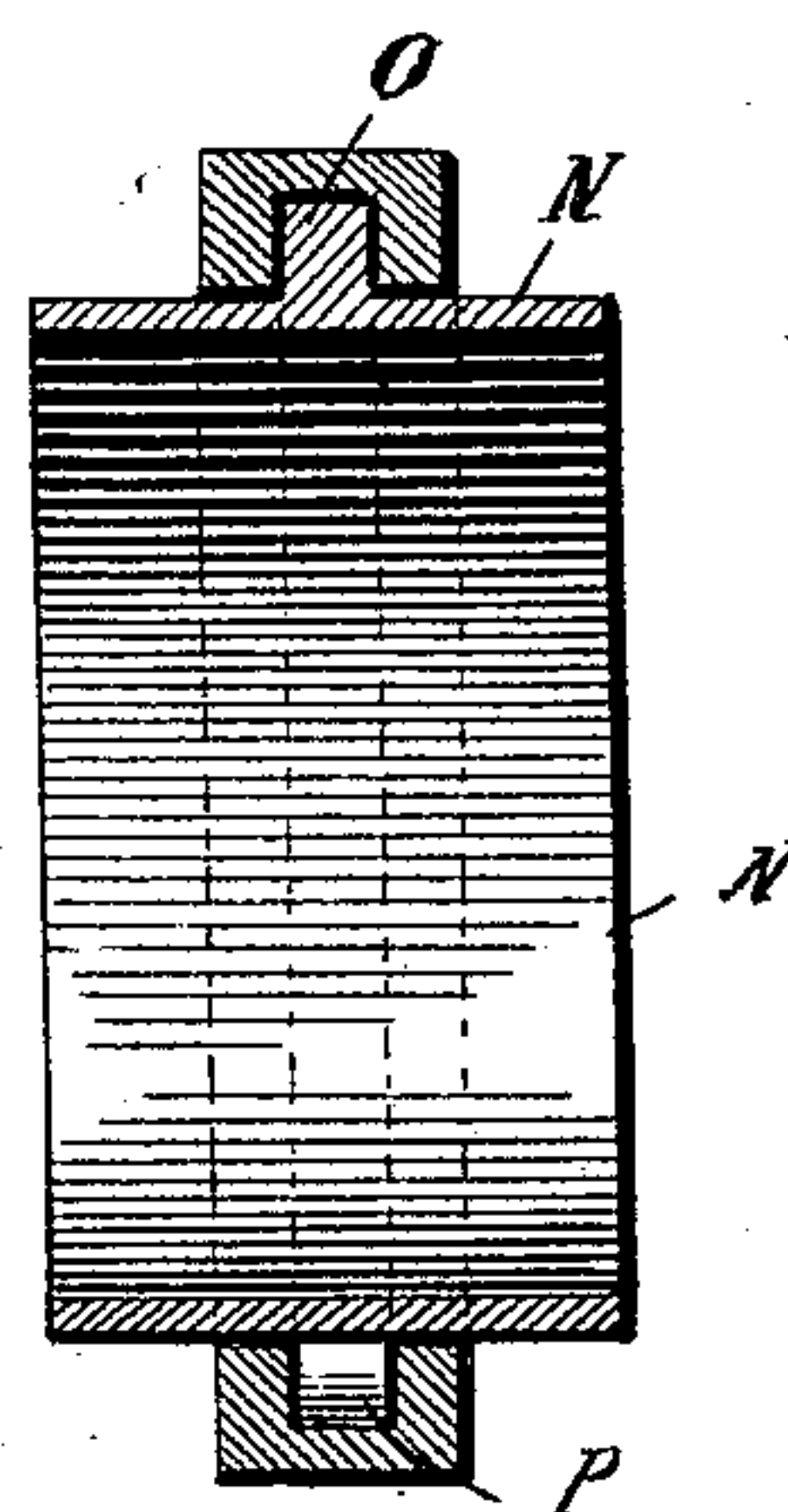


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN V. LEWELLEN, OF CALIFORNIA, PENNSYLVANIA.

BALL-BEARING OAR-LOCK.

SPECIFICATION forming part of Letters Patent No. 581,214, dated April 20, 1897.

Application filed September 18, 1896. Serial No. 606,235. (No model.)

To all whom it may concern:

Be it known that I, JOHN V. LEWELLEN, residing at California, in the county of Washington and State of Pennsylvania, have invented a new and useful Ball-Bearing Oar-Lock, of which the following is a specification.

This invention relates generally to oar-locks, and more particularly to an oar-lock adapted to be applied to a racing-boat, the objects being to reduce the friction and also provide an oar-lock which will hold the oar in its proper position both while feathering and pulling.

With these various objects in view my invention consists, essentially, in constructing the oar-lock with ball-bearings, whereby the oar can be properly swung back and forth; and my invention consists also in constructing the lock proper with a groove having a flat face at the rear side, providing the oar sleeve or thimble with a flange having a flat face at one side adapted to engage the flat face of the groove when the oar is being pulled through the water.

The invention consists also in certain details of construction and novelties of combination, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a view showing the portion of a boat with my improved oar-lock applied thereto. Fig. 2 is a detail view of the oar-lock attached to the outrigger, a portion of the casing being broken away to expose the ball-bearings. Fig. 3 is a top plan view, and Fig. 4 is a sectional view on the line 4 4 of Fig. 2.

In carrying out my invention I employ any desired construction of outrigger A, which carries the screw B, by means of which the oar-lock is applied to the outrigger. The screw B is formed with an upper or larger portion B' and the lower or reduced portion B², said lower or reduced portion being screwed into the outrigger and by means of which the oar-lock is adjusted vertically as desired. Arranged about the upper portion of the screw is a circular case C, said case having a removable bottom D and removable top E, which are screwed upon the upper portion B' and closely fit within the circular case C, said case having a central interior annular

flange F, the upper and lower faces of which are grooved, as shown at G, and the upper and lower faces of the top and bottom plates are also grooved, as shown at H, thereby providing an annular cavity in which the anti-friction-balls I are arranged, so that as the case is vibrated during the operation of rowing the friction will be materially reduced by the use of these anti-friction-balls, it being of course understood that the top E and bottom D remain stationary with the screw B and that the case C turns back and forth thereon.

The case C is formed with the upwardly-projecting yoke-arms K, between which is pivoted the lock proper, L, said lock consisting of the elliptical-shaped ring M, hinged between the arms K by means of the bolts M'; said elliptical-shaped ring having a hinge-section M², adapted to swing open to receive the oar and its sleeve or thimble N, the hinge portion M² being locked to the fixed portion by means of a pin M³.

The thimble N is formed of metal and is rigidly attached to the oar in any suitable manner. This thimble is provided with an annular flange O, said flange being cut off at one side, as most clearly shown at O', and an elliptical-shaped ring, together with the hinge-section, is constructed with a groove P, adapted to receive the flange O, but at the rear side this groove is filled up or cut short, as most clearly shown at P'.

Now in operation the hinge-section M² is thrown open and the oar, with its thimble, inserted into the elliptical ring, the flange O being placed in the groove P, and the section M² is then turned down and locked by means of the pin M³.

In rowing the oar is turned so as to bring the flat portion O' at the bottom during the operation of feathering, but when it is desired to dip the blade into the water the oar is turned sufficiently to bring the flat portion O' into contact with the flat portion P', thereby insuring a flat bearing-surface during the stroke and holding the blade in the proper position during the entire stroke, thereby preventing the blade of the oar dipping too low.

The elliptical ring rocks freely back and forth between the yoke-arms K and the entire oar-lock swings freely about the boat B,

inasmuch as the casing is provided with anti-friction ball-bearings.

It will thus be seen that I provide an exceedingly cheap and simple construction of
5 oar-lock—one that is strong and durable, one that will reduce the friction to a minimum, and one that will hold the oar in the proper positions during the operations of feathering and pulling.

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

1. In an oar-lock, the combination with the pivotal bolt, the casing surrounding the same
15 and provided with ball-bearings, said casing carrying the yoke-arms for supporting the oar-lock, substantially as shown and described.

2. In an oar-lock, the combination with the
20 pivotal bolt, of the surrounding case adapted to turn about the said bolt, the fixed top and bottom, the ball-bearings contained within the case and adapted to bear against the top and bottom of the case, and the oar-lock sup-
25 ported by the said case, substantially as shown and described.

3. In an oar-lock of the kind described, the combination of the pivotal bolt, of the movable case, the fixed top and bottom, said movable case having an interior annular flange,
30 the ball-bearings arranged between the said annular flange, and the top and bottom of the case, the supporting-arms, and the lock proper pivoted between the said supporting-
35 arms, substantially as shown and described.

4. In an oar-lock, the combination with the supporting-arms, of the elliptical ring pivoted therebetween, said ring having a hinge-section, and the thimble having an annular flange, the elliptical ring having a groove
40 adapted to receive the annular flange, substantially as shown and described.

5. In an oar-lock, the combination with the supporting-arms, of the elliptical ring pivoted therebetween, having a hinge-section,
45 said elliptical ring having a central groove, said groove being filled up or made flat at the rear end, the oar thimble or sleeve having an exterior annular flange, said flange being cut off or made flat at one side, substantially as
50 shown and described.

6. In an oar-lock, the combination with the pivot-bolt of the surrounding case having an interior annular flange, the top and bottom of the case secured upon the bolt, the anti-
55 friction-balls arranged between the top and bottom, and the interior annular flange, the yoke-arms extending upward from the case, the elliptical ring pivoted between the said yoke-arms, said elliptical ring having a hinge-
60 section and provided with a central groove, said groove being filled out or flattened at one end, the oar thimble or sleeve having an exterior annular flange, said flange being cut off or made flat at one side, substantially as
65 shown and described.

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Witnesses:

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