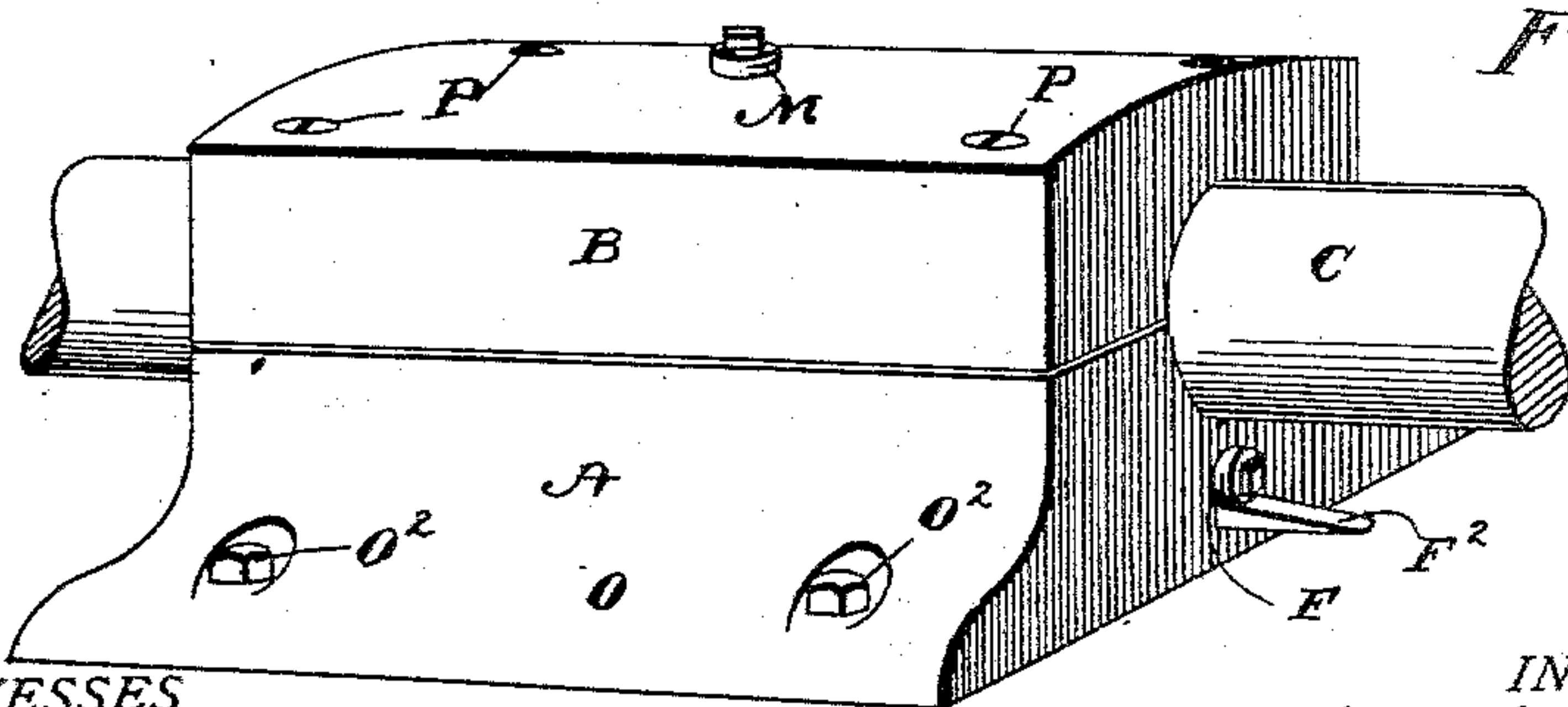


J. J. BURKE.
JOURNAL BOX.

No 597,797.

Patented Jan. 25, 1898.



WITNESSES
John Buckler,
A. C. McLaughlin.

INVENTOR
John J. Burke,
by Edgar L. Lott Attorneys

J. J. BURKE.
JOURNAL BOX.

No. 597,797.

Patented Jan. 25, 1898.

Fig. 6.

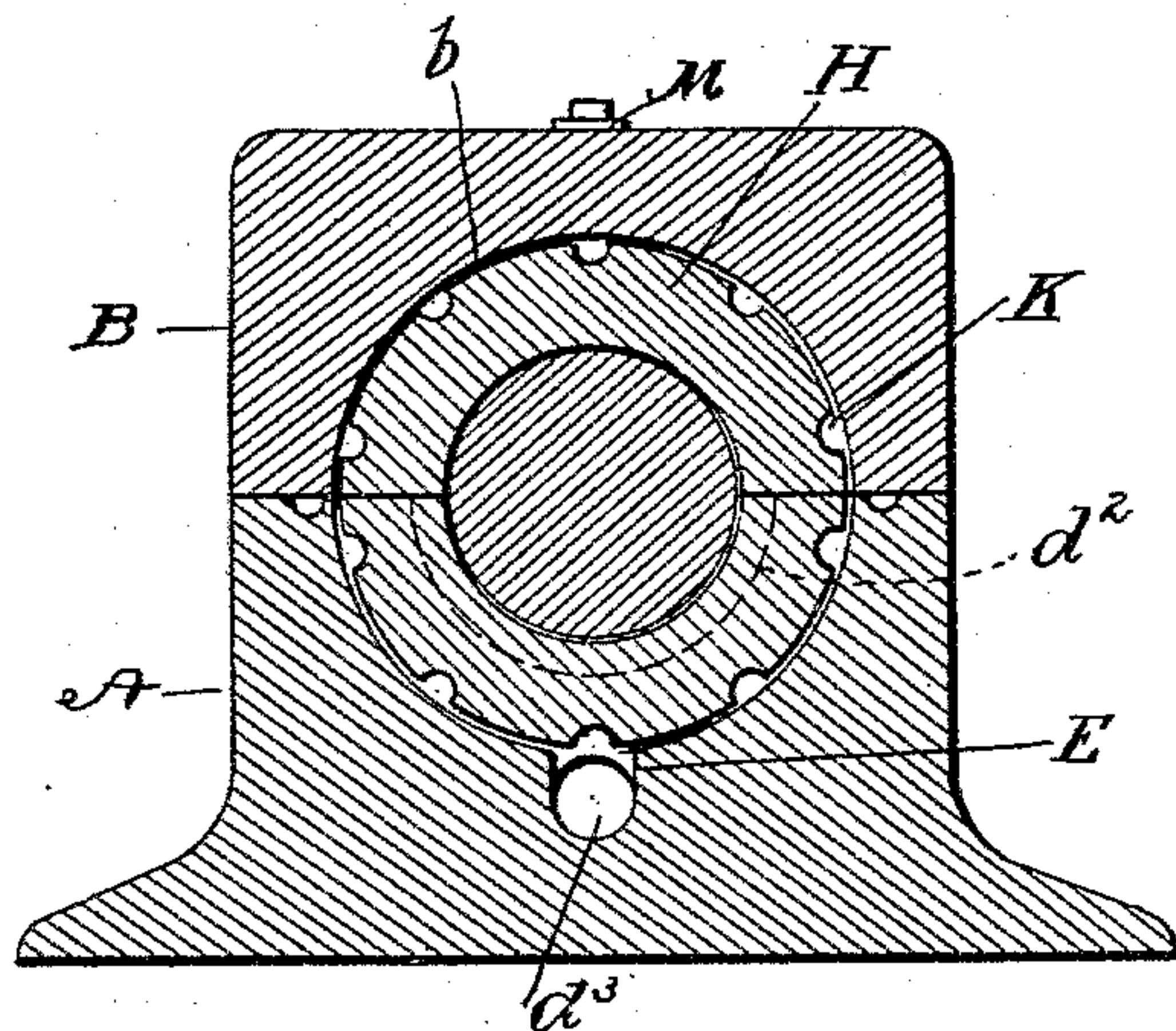


Fig. 4.

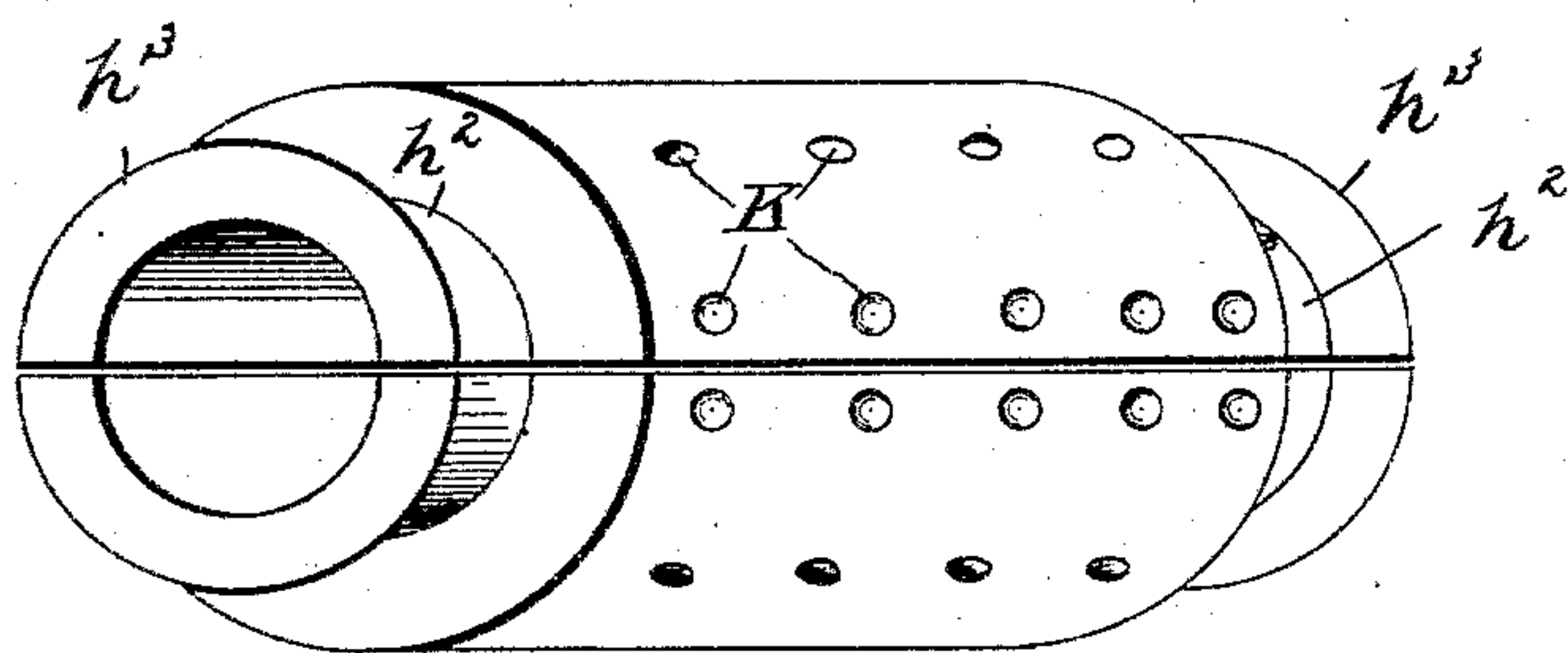
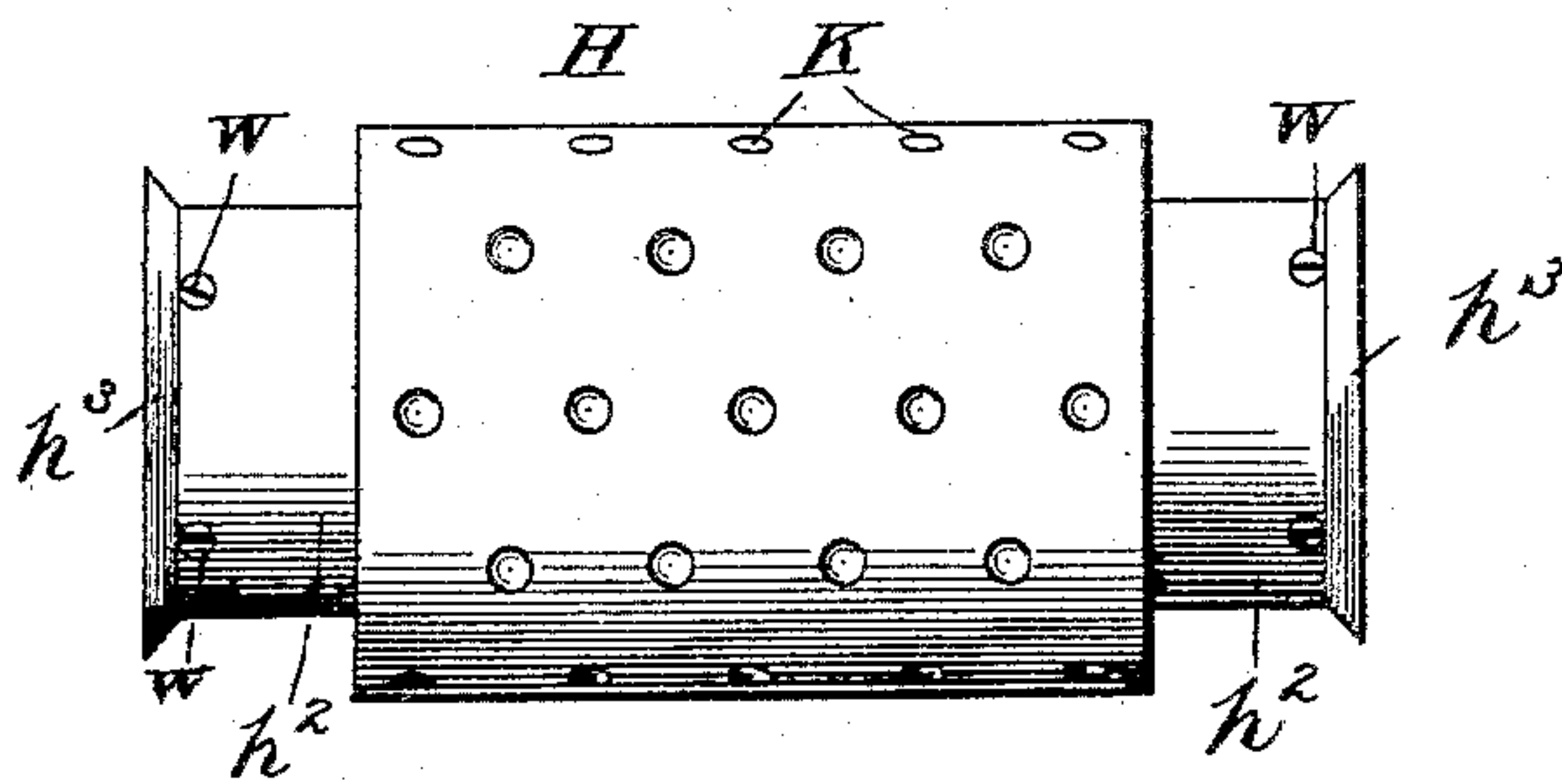


Fig. 5.



WITNESSES
John Buckler
H. C. McLaughlin.

INVENTOR
John J. Burke,
by *Edgar White* Attorneys.

UNITED STATES PATENT OFFICE.

JOHN JOSEPH BURKE, OF NANTICOKE, PENNSYLVANIA.

JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 597,797, dated January 25, 1898.

Application filed May 27, 1896. Serial No. 593,328. (No model.)

To all whom it may concern:

Be it known that I, JOHN JOSEPH BURKE, a citizen of the United States, and a resident of Nanticoke, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Journal-Boxes, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which
10 similar letters of reference indicate corresponding parts.

My invention relates to journal-boxes, and has for its object to provide a device of this nature in which a head is fixed upon the shaft to cooperate with the box and revolve therein.
15

In the drawings forming a portion of this specification, and in which like letters of reference indicate similar parts in the several views, Figure 1 is a longitudinal section of a box constructed in accordance with my invention, a shaft carrying a head being shown in elevation. Fig. 2 is a plan view of the lower portion of a box. Fig. 3 is a perspective view of the box with the shaft in place.
20 Fig. 4 is a perspective view of the modified form of the head made in two pieces. Fig. 5 is a plan view of the upper half of the head shown in Fig. 4. Fig. 6 is a transverse section of line 6 6 of Fig. 1.

30 In operating in accordance with my invention I form a box comprising a base portion A and an upper cap or cover B, the result being a box divided centrally and horizontally.

35 In the base A and longitudinally thereof I form a depression d , semicircular in cross-section, which depression is bounded at its ends by walls A' , which walls form the ends of the box-base. In the end walls A' are cut
40 semicircular openings C^2 , as shown in Fig. 2, forming, in connection with similar openings in the cap B, a circular passage at each end of the box in which the shaft works. Transversely of the depression d and adjacent each
45 end thereof is a semicircular rib d^2 , those portions of the depression d lying between the ribs and the walls A' being somewhat broader than the portion lying intermediate the ribs and forming compartments D. A groove E
50 at the base of the depression d is formed semicircular in cross-section and terminates in openings through the walls A' , said openings

being normally closed by means of plugs F. The depression E is continuous, passing through the lower portions of the ribs d^2 with the formation of arches d^3 .
55

Upon reference to Fig. 1 of the drawings it will be seen that the upper portion B of the box is formed to cooperate with the lower portion, ribs d^4 , corresponding to ribs d^2 , being arranged above the latter. The ribs d^4
60 are separated by a semicircular interspace b , similar to the depression d , while intermediate the ribs d^4 and the ends of the cap are angular depressions h^4 . The inner faces of
65 the ribs d^4 are unbroken.

Referring again to the ribs d^2 , as shown in Fig. 2 of the drawings, it will be noted that grooves g are formed laterally of the upper
70 faces thereof, which grooves open rearwardly in pairs at opposite sides of the depression d into connecting-grooves G, said grooves g terminating inwardly at the annular faces of the ribs d^2 with flaring mouths g^2 .

In operating I may form the head employed
75 by me integral or in a plurality of pieces. If formed integral, I proceed by making a casing H, comprising a central cylindrical body having diminished ends h^2 , terminating in angular flanges h^3 . The central portion is
80 provided with a series of hemispherical depressions K, and the entire device is slipped upon the bearing portion of a shaft C and held against rotation thereon by means of a key h
85 or other suitable device. The operation of this form of my invention will be readily understood, and it will be seen that upon plac-
ing the shaft C with its head within the box the diminished portions h^2 will lie upon the
90 ribs d^2 , the central portion will lie intermediate the ribs d^2 , and the flanges h^3 will lie in the angular grooves h^4 , the entire head turning with the shaft and having bearing upon the ribs d^2 and the face of the depression d .

In oiling the oil is poured upon the central
95 portion of the head through an opening in the cap B, which opening is normally closed by means of a plug M or other device and lodges in the depressions K, through the
medium of which it is distributed through
100 the bearing-surfaces. A portion of the oil also leaves the depression and passes into the grooves G, from which it runs through g and upon the annular faces of the ribs d^2 . The

excess of oil of course runs to the bottom of the depression d , from which it passes into the groove E and may be drawn off when either of the plugs F is removed, spouts F^2 being provided to facilitate the operation.

As shown in Figs. 4 and 5 of the drawings, if desired the head may be made in two parts, in which case such parts may be held together by means of screws w , the advantage of this construction being that in the event of one section of the head becoming broken it may be removed and another substituted therefor; also, the head may be put into position without removing the shaft, which is not practical at all times.

As will be readily understood, the box A may be held fixedly by means of bolts O^2 , or in any other desired manner, and also that the box may be in the form of a hanger instead of a pillow-block, or may have any other general form without departing from the spirit of my invention.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a journal-box having a central longitudinal bore or opening, a shaft or axle, the bottom portion of the box being provided with a central semicircular chamber, an inwardly-directed semicircular rib, at each end thereof, between which and the ends of the box are semicircular grooves, and the upper portion of the box being also provided with a central semicircular groove, a journal-head on the shaft, said journal-head being cylindrical and tubular in form, and being secured to said shaft, and being provided at each end with tubular extensions, at the outer end of each of which is an annular flange or rib, said parts being constructed, combined, and arranged, substantially as shown and described.

2. The combination of a journal-box having a central longitudinal bore or opening a shaft or axle, the bottom portion of the box being provided with a central semicircular chamber, and inwardly-directed semicircular ribs, at each end thereof, between which and the ends of the box or casing, are semicircular grooves, and the upper portion being also provided with a central semicircular groove, a journal-head on the shaft, said journal-head being cylindrical and tubular in form, and being secured to said shaft, and being provided at each end with tubular extensions, at the outer end of each of which is an annular flange or rib, and the upper portion of said box or casing being provided with a bore or passage through which a lubricant may be poured onto said journal-head, and said jour-

nal-head being provided with a plurality of cup-shaped cavities or depressions in the surface thereof, substantially as shown and described.

3. The combination of a journal-box having a central longitudinal bore or opening, a shaft or axle, the bottom portion of the box being provided with a central semicircular chamber, an inwardly-directed semicircular rib at each end thereof, between which and the ends of the box or casing, are semicircular grooves, and the upper portion being also provided with a central semicircular groove, a journal-head on the shaft, said journal-head being cylindrical and tubular in form and being keyed to said shaft, and being provided at each end with tubular extensions, at the outer end of each of which is an annular flange or rib, and the upper portion of said box or casing being provided with a bore or passage through which a lubricant may be poured onto said journal-head, and said journal-head being provided with a plurality of cup-shaped cavities or depressions in the surface thereof, and the bottom portion of said box or casing being provided with longitudinal grooves adjacent to the central chamber formed therein, into which the oil also passes, and which communicates with grooves formed in the ribs at the end of said chamber, substantially as shown and described.

4. The combination of a base portion A, a cap or cover B, both of which are provided with a longitudinal semicircular groove or recess to receive a shaft, said base having formed therein semicircular end grooves D, having longitudinal grooves or openings, screw-plugs F to close said openings, projecting lips F^2 , below said openings, semicircular ribs d^2 forming a central chamber d , having longitudinal grooves G, in communication with transverse grooves g , said ribs d^2 , having formed in the curved surface thereof grooves g^2 , communicating with the groove g , said cap or cover having a semicircular chamber b , and a journal-head H, a shaft carrying said head and provided with tubular extensions h^2 , having annular flanges h^3 , fitting grooves h^4 , in the cap or cover, said journal-head having cup-shaped recesses and said cap or cover having an opening L, and a screw-plug, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 2d day of May, 1896.

JOHN JOSEPH BURKE.

Witnesses:

RIGHTER WILLIAM BRIDLEMAN,
TIMOTHY REAGAN.