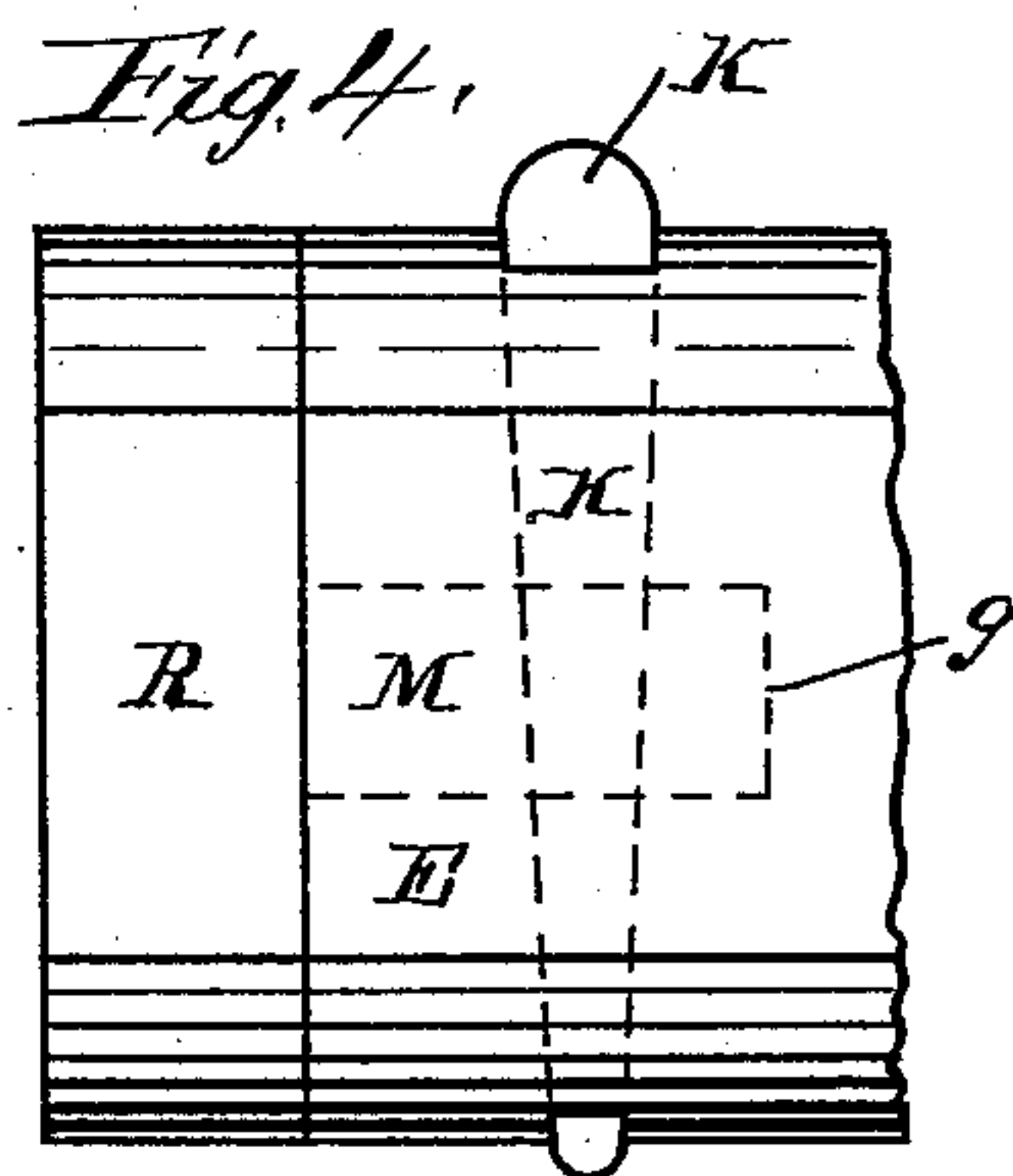
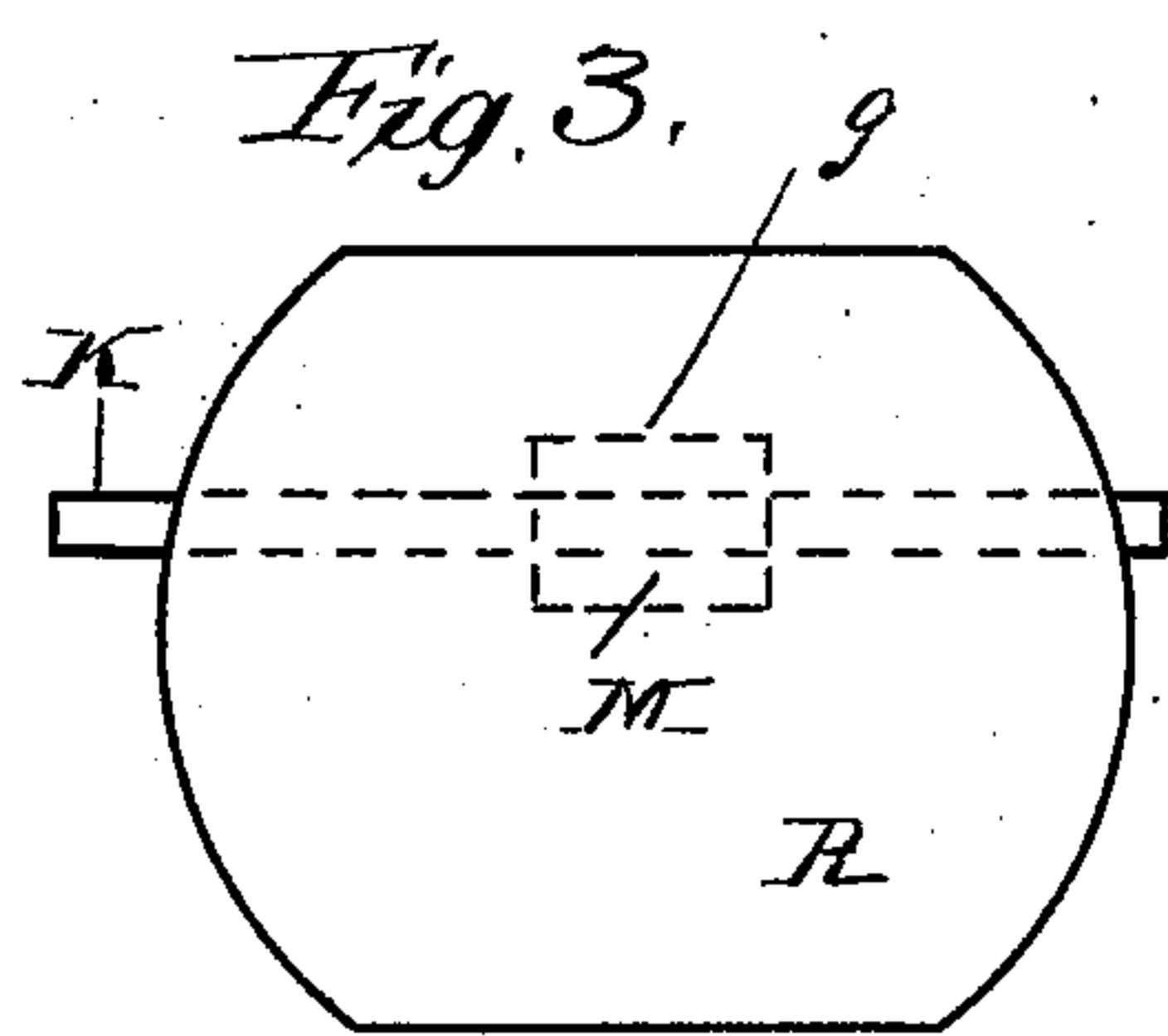
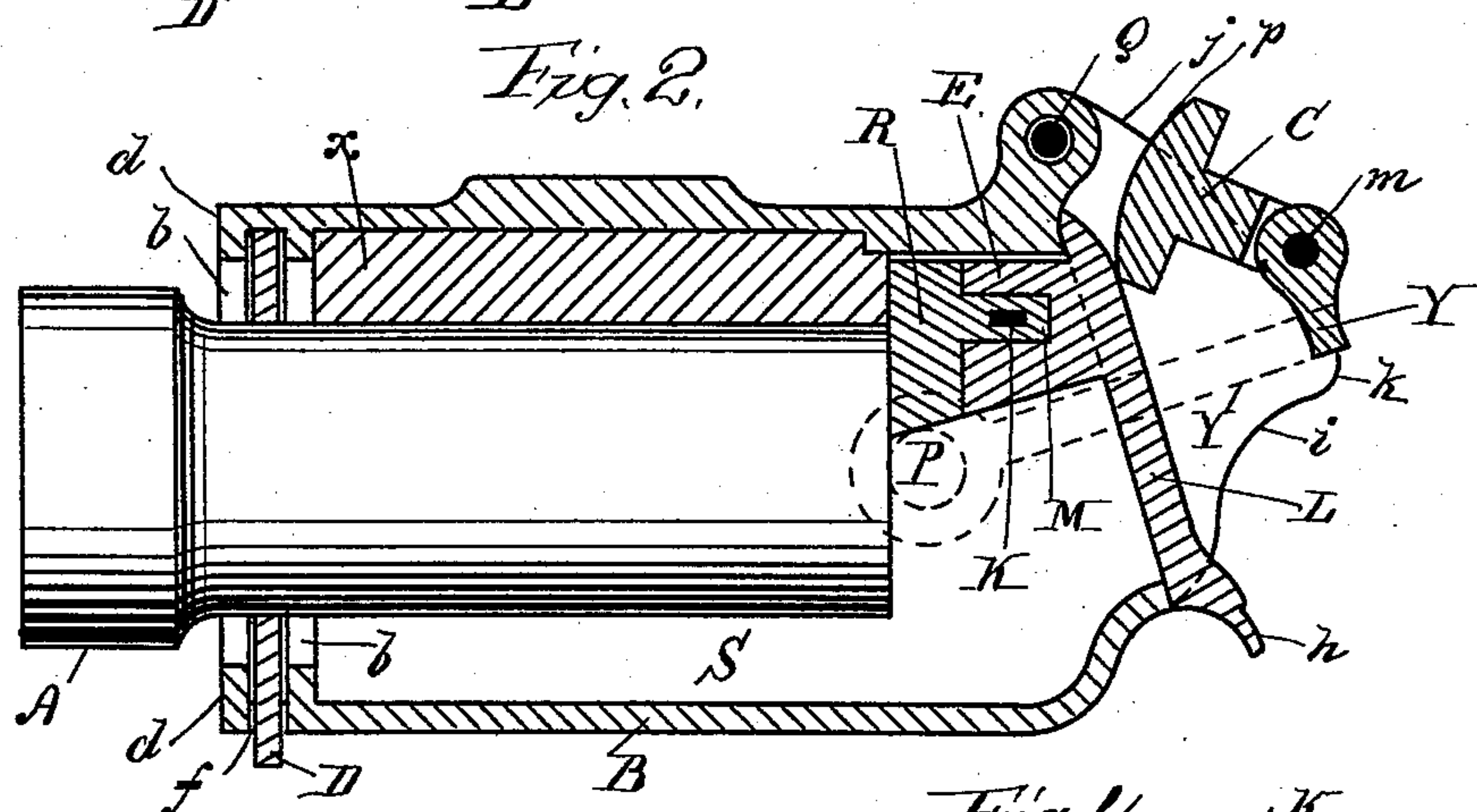
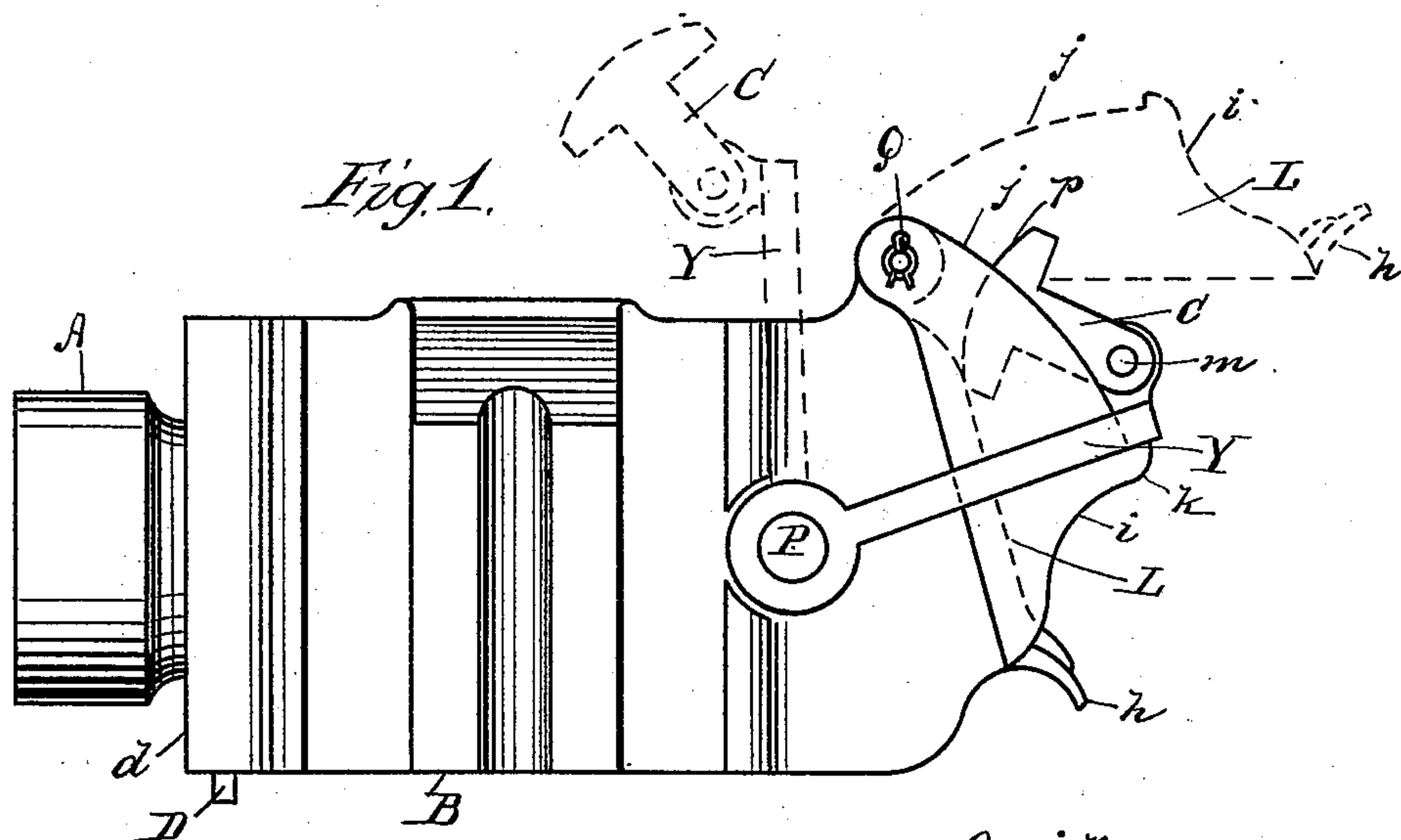


(No Model.)

J. J. ANDERSON.
CAR AXLE BOX.

No. 414,746.

Patented Nov. 12, 1889.



WITNESSES:

Wm. Shaw.
E. F. McCarty.

INVENTOR:
John J. Anderson
PER *Arthur P. Cushing*
ATTY.

UNITED STATES PATENT OFFICE.

JOHN JAY ANDERSON, OF MEXICO, MEXICO.

CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 414,746, dated November 12, 1889.

Application filed July 13, 1889. Serial No. 317,493. (No model.)

To all whom it may concern:

Be it known that I, JOHN JAY ANDERSON, a citizen of the United States, now residing in the city of Mexico, Republic of Mexico, have
5 invented new and useful Improvements in Car-Axle Boxes, of which the following is a specification.

My invention relates to an improvement in axle-boxes which are provided with yokes and end stops or buffers in that portion of the axle-box known as the "yoke," which holds down the lid of the box, and also in that portion known as the "end stop" or "buffer" on the innerside of the lid, against which the axle
15 end plays; and the objects of my improvements are respectively to prevent the yoke from being gradually forced upward out of place, thus allowing the lid or cover to swing open and admit dust, and, secondly, to afford
20 an easy method of renewing the friction-surface of the end stop when worn out without replacing the whole cover. The means by which I attain these objects are illustrated in the accompanying drawings, in which—

25 Figure 1 is a side elevation of my improved axle-box, showing the lid closed, with the yoke and catch in position; Fig. 2, a vertical longitudinal section of the same; Fig. 3, an end view of the removable end piece or wear-plate, enlarged; and Fig. 4, a top plan view
30 of a portion of the buffer, showing the method of attaching the wear-plate.

Similar letters refer to similar parts throughout the several views.

35 In the drawings, A represents the car-axle, and B the axle-box. The box is preferably rectangular in cross-section, and is provided with an enlarged axle-opening *b* in one end *d*. The end *d* is provided with a
40 vertical groove or socket *f*, opening at the bottom, and in which a dust-guard D, is fitted to slide loosely, said guard being provided with a circular opening for the axle, around which it closely fits. The car-axle A revolves
45 within the axle-box B, which is supported thereon by an ordinary bushing X, secured in the top thereof, the space S below said axle being filled with lubricating-packing. The end of the box is closed by the lid L, which
50 is hinged at Q to the outer end of the box. This lid is held down in place by a yoke Y, hinged at P to the sides of the box. A buffer

E projects inwardly from the lid L near its top, said buffer being provided centrally with a longitudinally-arranged horizontal socket *g*.
55 A wear-plate R is provided with an arm M, adapted to enter the socket in said buffer, in which it is secured by a detachable pin K, passing transversely through the buffer and plate-arm. The lid L is provided at its lower
60 edge with a lip or thumb-piece *h*, and at each vertical edge with an outwardly-projecting flange *i*, the outer edges *j* of said flanges being curved vertically. A lug *k*, formed at the lower end of each curved edge of said flanges,
65 supports the yoke Y when the lid is closed and locked. Hinged centrally at *m* to the outer end of the yoke there is a T-shaped catch C, the outer face *p* of which is curved, said catch being of sufficient length to en-
70 gage the lid L when closed.

In boxes of this class as ordinarily constructed the buffer is quickly worn away by the friction of the axle. To replace it, it becomes necessary to substitute a new lid C,
75 said buffers being made integral therewith. Moreover, the constant blows and jarring of the axle against the buffer frequently causes the yoke Y to work upward and release said lid. In my improvement these objections are
80 overcome. By constructing the buffer to receive a detachable wear-plate, as described, which may be easily removed and substituted by a new one as rapidly as worn, a great saving is effected. The catch C falls of its own
85 weight inwardly between the lid-flanges *i*, and its head *p* engages the face thereof, securely locking it and preventing the yoke from being thrown upward by the action of the axle, in a manner which will be readily
90 understood without a more explicit description. The dust-guard D, sliding in its chamber in the box and following the vertical movements of the axle, around which it closely fits, prevents sand or grit from working into the
95 box and wearing away the axle and bushing.

Having thus described my invention, what I claim is—

1. In an axle-box, a body provided with a bushing, a hinged lid closing the outer end
100 thereof, a buffer on said lid provided with a horizontal socket, and a detachable wear-plate having an arm secured in said buffer-socket, substantially as described.

2. In an axle-box, a body having a hinged lid, in combination with a yoke hinged to the sides of said body and provided with a gravity-catch engaging the face of said lid, substantially as and for the purpose set forth.

3. In an axle-box, the combination of a body, a hinged lid closing the outer end thereof, curved vertical flanges on said lid provided with yoke-lugs, a yoke hinged to said body and adapted to engage said lugs, and a gravity-catch on said yoke, substantially as and for the purpose set forth.

4. In an axle-box, the combination of a body, a hinged lid having an inwardly-projecting buffer, a detachable wear-plate on said buffer, outwardly-projecting flanges at the vertical edges of said lid, a yoke hinged to said body and engaging lugs on said flanges, and a gravity-catch hinged to said yoke, substantially as and for the purpose set forth.

5. In an axle-box, the body B, in combina-

tion with the lid L, having the buffer E, formed integral therewith and provided with the socket *g*, the wear-plate R, and key-pin K, substantially as and for the purpose set forth.

6. The box B, provided with the hinged lid L, having the flanges *i* and lugs *k*, in combination with the yoke Y, having the hinged catch C, arranged to operate substantially as and for the purpose set forth.

7. The box B, provided with the opening *b*, socket *f*, and bushing X, the lid L, having flanges *i*, the buffer E, provided with socket *g*, the wear-plate R, having the arm M, the key-pin K, the yoke Y, and catch C, constructed and arranged to operate substantially as and for the purpose set forth.

JOHN JAY ANDERSON.

Witnesses:

LOUIS C. SIMONDS,
F. R. GUERNSEY.