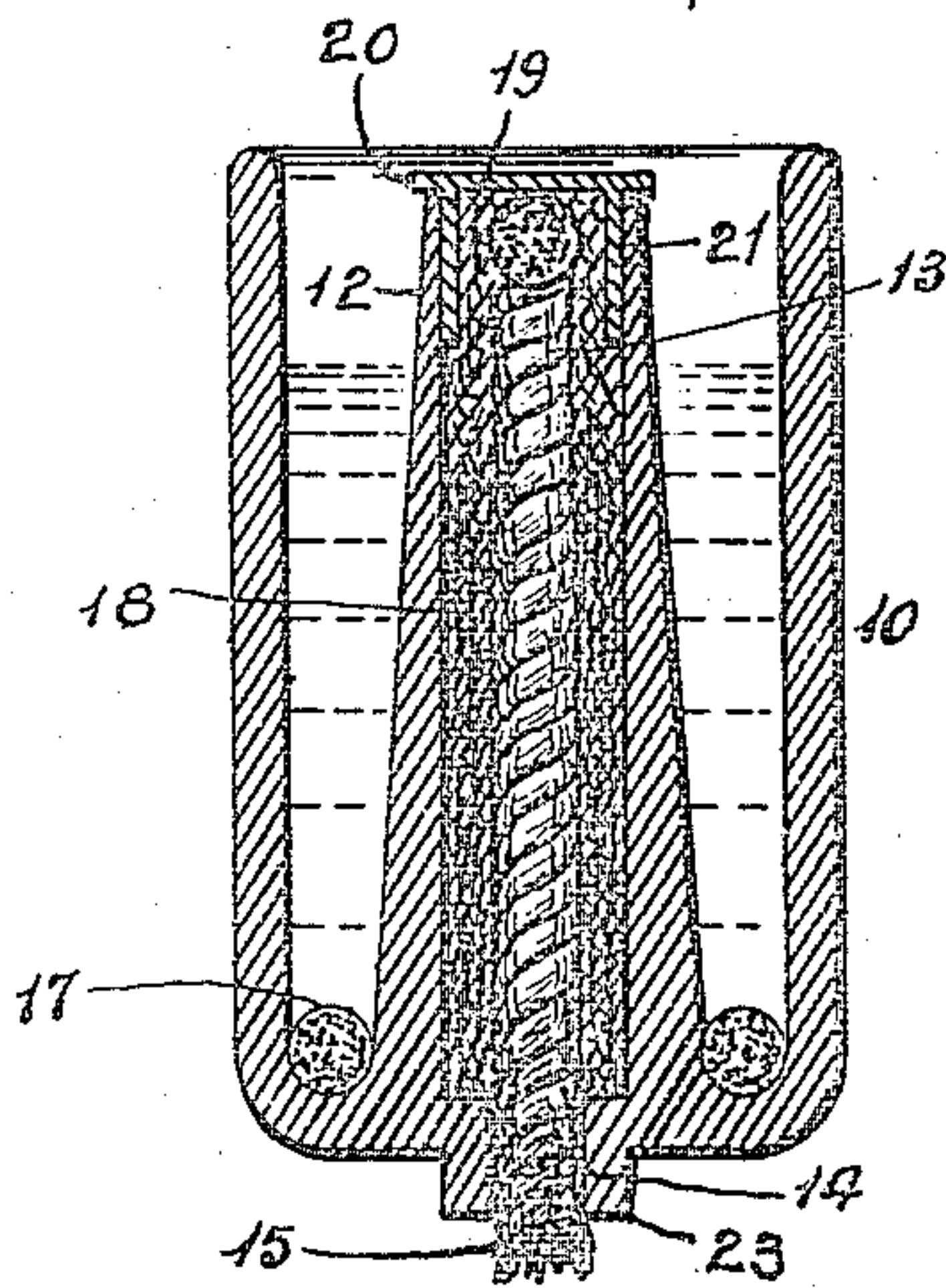
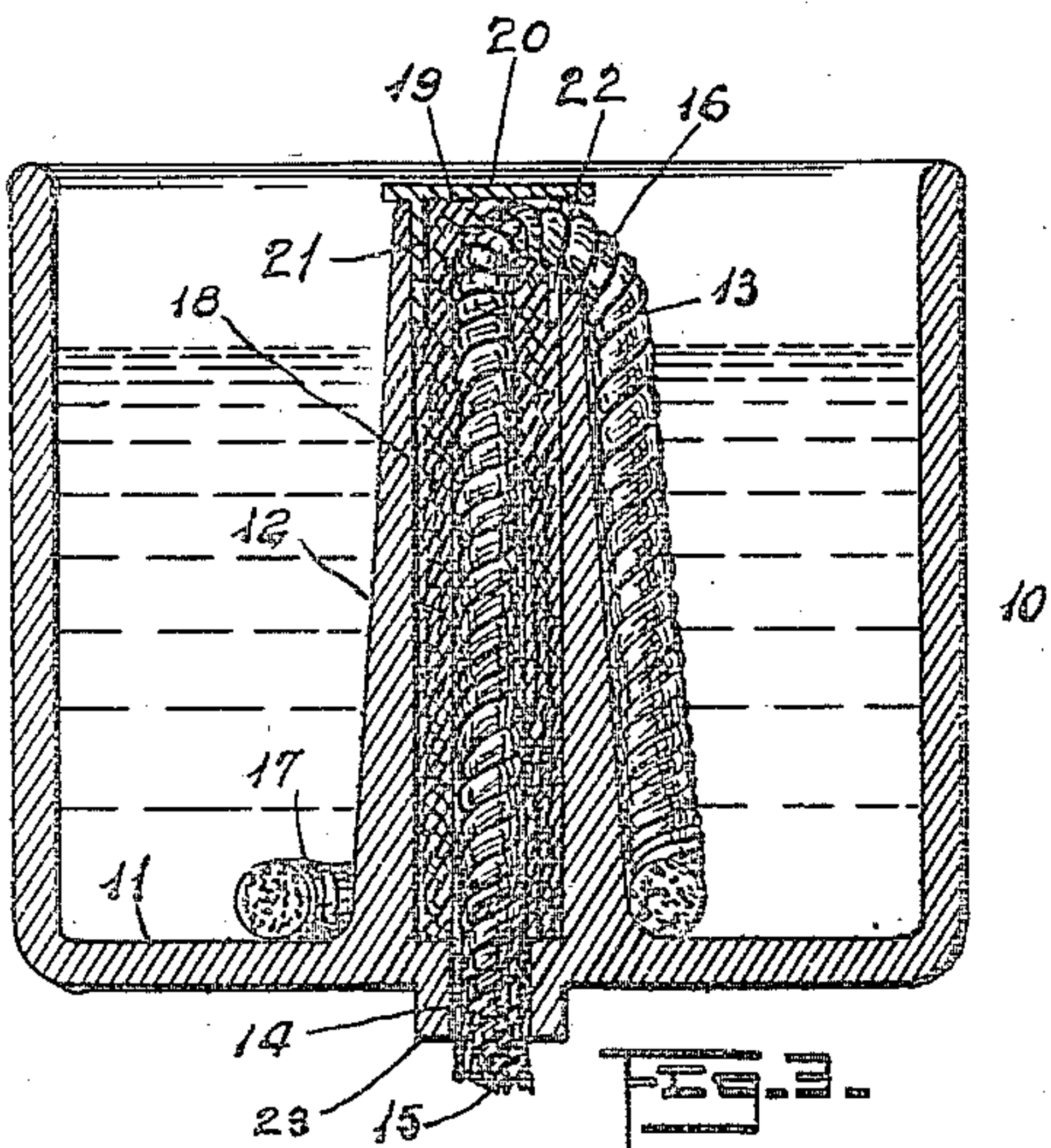
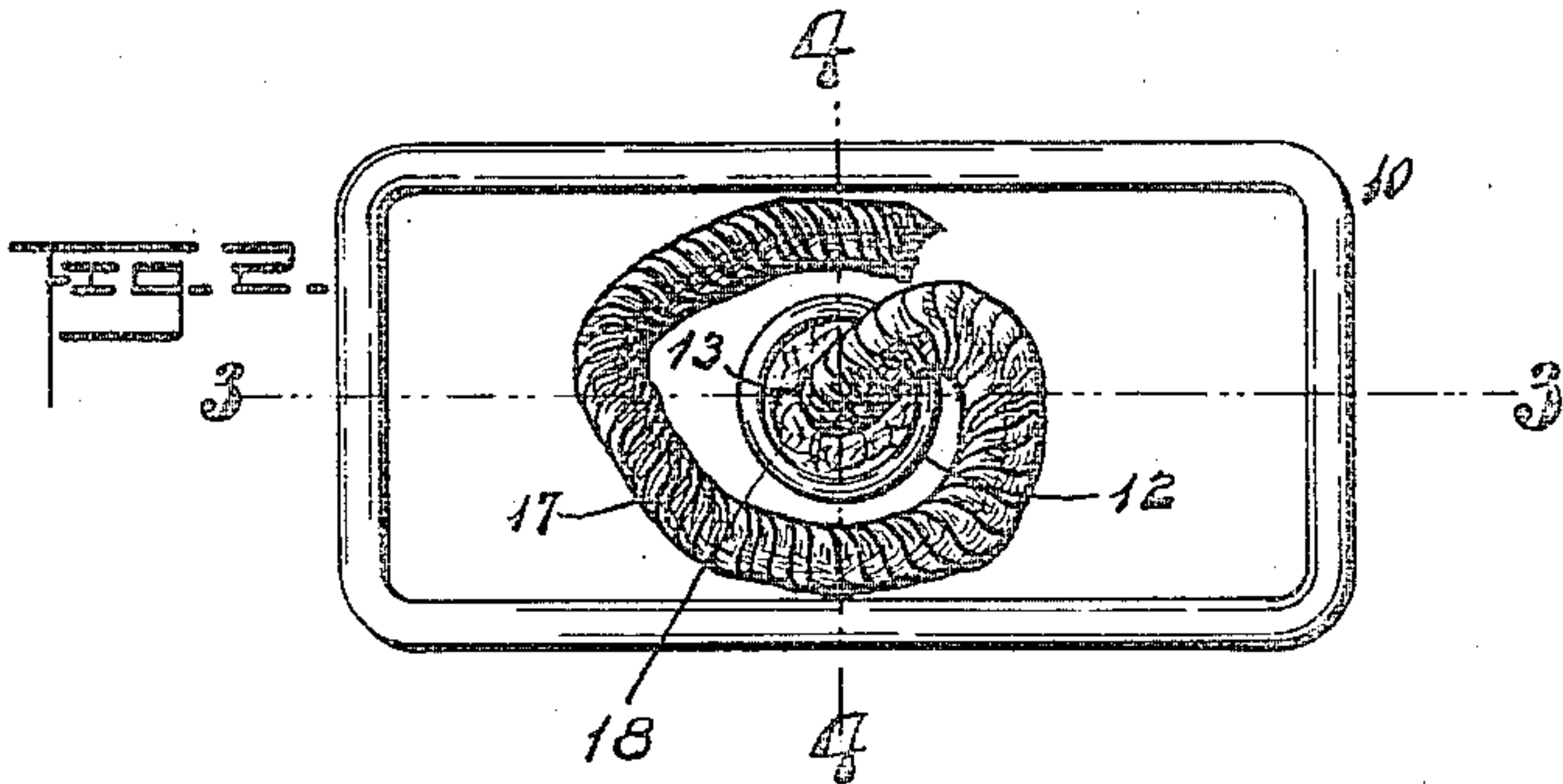
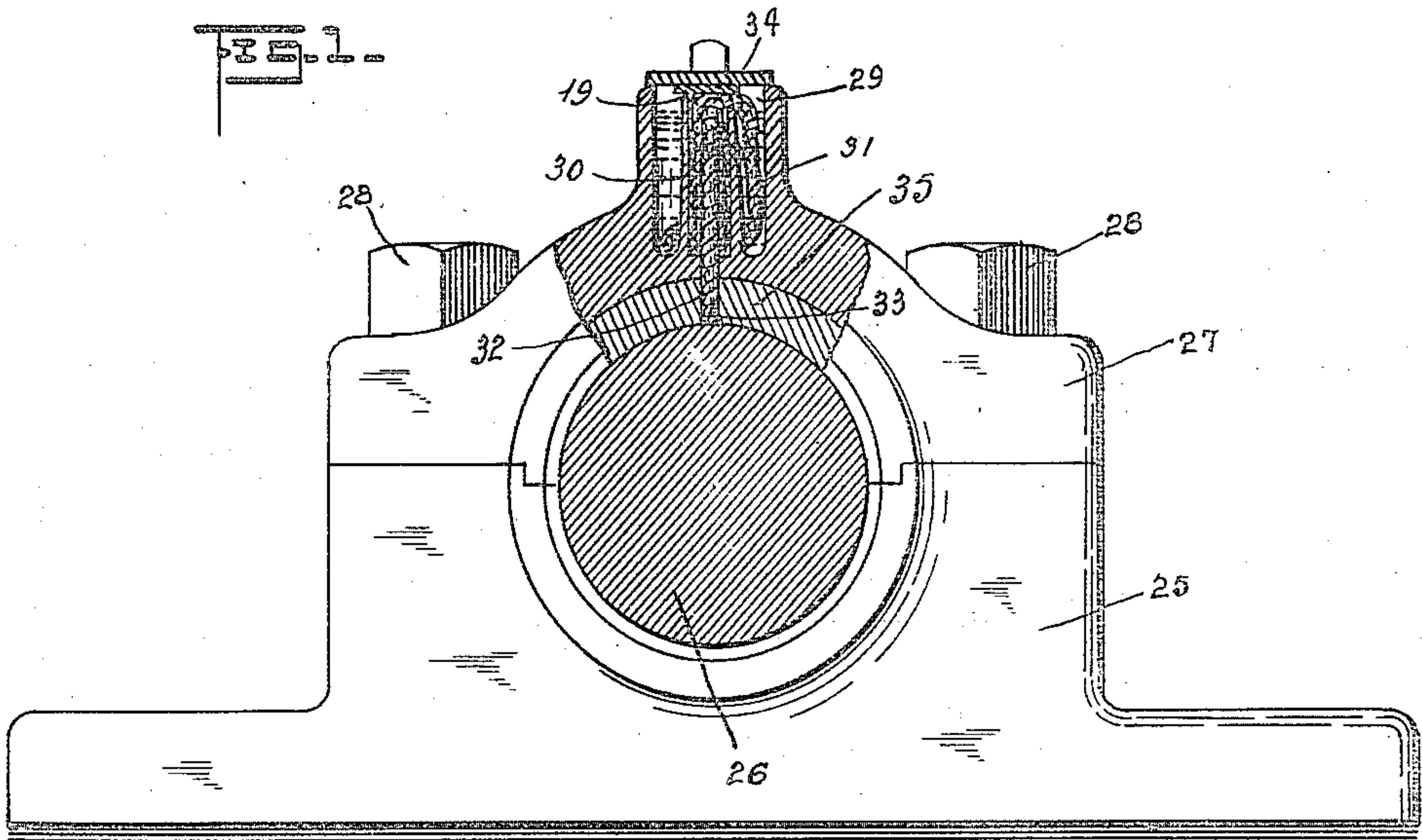


N. L. CHALMERS.
LUBRICATOR.

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983,025.

Patented Jan. 31, 1911.



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NATHANAEL L. CHALMERS, OF NEWARK, NEW JERSEY.

LUBRICATOR.

983,025.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, NATHANAEL L. CHALMERS, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain Improvements in Lubricators, of which the following is a specification.

This invention especially relates to means for lubricating the bearings of shafts in their journals, such as axles and the like, and more particularly the bearings of trolley cars.

The objects of the invention are to secure a constant supply of lubricant to the bearing; to regulate the amount of lubricant supplied, and to prevent more than necessary being supplied to the bearing; to thus economize lubricant, and effect a saving in expense as well as labor; to secure perfect lubrication, simply and cheaply, and to obtain other advantages and results as may be brought out in the following description.

Referring to the accompanying drawings, in which like numerals of reference indicate corresponding parts in each of the several figures, Figure 1 is an end elevation, partly in section, of a shaft bearing provided with a lubricator of my improved construction, said lubricator being an integral part of the cap of the bearing; Fig. 2 is a plan of a lubricator constructed independently of any bearing and adapted to be applied to a bearing at pleasure, no cover for the reservoir and no cap for the wick-tube being shown, and Figs. 3 and 4 are vertical sections taken on lines 3—3 and 4—4, respectively, of Fig. 2; with said wick-tube cap.

In said drawings, and particularly Figs. 2, 3 and 4 thereof, 10 indicates a reservoir adapted to contain lubricant and which I have shown in the drawings as cast in one integral piece, although obviously it could be put together in any suitable and well-known manner. Said reservoir 10 has projecting up from its floor or bottom 11 a tube 12, the top of which is substantially flush with the top of the reservoir. A wick 13 is inserted in the said tube 12 and passed downward at the bottom thereof through a hole 14 in the bottom of the reservoir 10, the end 15 of the wick below the said reservoir extending as desired to the bearing which is to be lubricated, and the said wick at the upper end of the tube 12 being bent through a lateral recess or aperture 16 in said tube and allowed to depend into the

reservoir 10, preferably extending to the floor 11 around said tube 12, as at 17. The perforation 14 in the bottom of the reservoir 10 is smaller than the bore of the tube 12 and receives the wick 13 easily, so that the same can slide freely therein, while above the floor 11 the wick 13 is held central in the tube 12 by an annular packing 18 of waste or the like and which is forced tightly into place as shown in the drawings. Preferably a little cap 19 closes the top of the tube 12, and the one I have shown in the drawing comprises a disk 20 with a hollow shank 21, or flange, adapted to project into the tube, said shank or flange being slotted at one side, as at 22, to receive the wick 13.

It will be understood that the reservoir 10 is to be mounted on top of a bearing and the lower end 15 of the wick 13 extend to, or nearly to, the bearing surfaces. I have shown in the drawings a boss 23 upon the bottom of the reservoir around the wick which facilitates the mounting of the device upon a bearing, although it is not absolutely necessary. The reservoir being filled with oil nearly to the top of the tube 12 feeds the same gradually to the bearing, through the wick 13, and with great evenness and regularity. There is no waste of oil, and it is necessary only to see that the reservoir 10 is kept supplied.

In Fig. 1, I have shown a lubricator of my improved construction applied to a bearing, and made an integral part of the same, instead of separate. Here 25 indicates the lower member of the bearing for the shaft 26 and 27 is the cap adapted to be secured by cap screws 28, 28. My reservoir 29 is formed in the top of said cap and has the interior tube 30 with wick 31 arranged therein as previously described in connection with the reservoir 10. The end 32 of said wick extends downward through a passage 33 in the cap 27 and its lining 35, if there be one, to close proximity to the shaft 26. A cover 34 is shown provided for the reservoir 29, and obviously a cover can always be used if desired to keep out dirt.

Having thus described the invention, what I claim is:

1. A lubricator comprising a reservoir having an aperture in its wall, a tube in said reservoir of larger bore than said aperture imperviously connected at one end to the wall of the reservoir around said aper-

ture and extending at its other end to the upper part of the reservoir, a wick extending through said tube and aperture with one end outside the reservoir and the other end reaching to the lower part of the reservoir chamber, said wick fitting the aperture and extending centrally through the tube, and an annular packing of waste or the like packed tightly around said wick in said tube.

10 2. A lubricator comprising a reservoir having an aperture in its wall, a tube in said reservoir of larger bore than the said aperture and imperviously connected at one end to the wall of the reservoir around said aperture, said tube extending at its other end to the upper part of the reservoir and hav-

ing a lateral recess or notch in the edge of said last-mentioned end, a wick extending through said aperture and tube and lateral recess or notch thereof with one end outside the reservoir and the other reaching to the lower part of the reservoir chamber, said wick fitting the aperture and lateral recess or notch and extending centrally of the tube, an annular packing of waste or the like packed tightly around said wick in said tube, and a cap for closing the top of said tube.

NATHANAEL L. CHALMERS.

Witnesses:

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