

(No Model.)

L. A. PETERS.  
OIL CUP.

No. 568,920.

Patented Oct. 6, 1896.

Fig. 3.

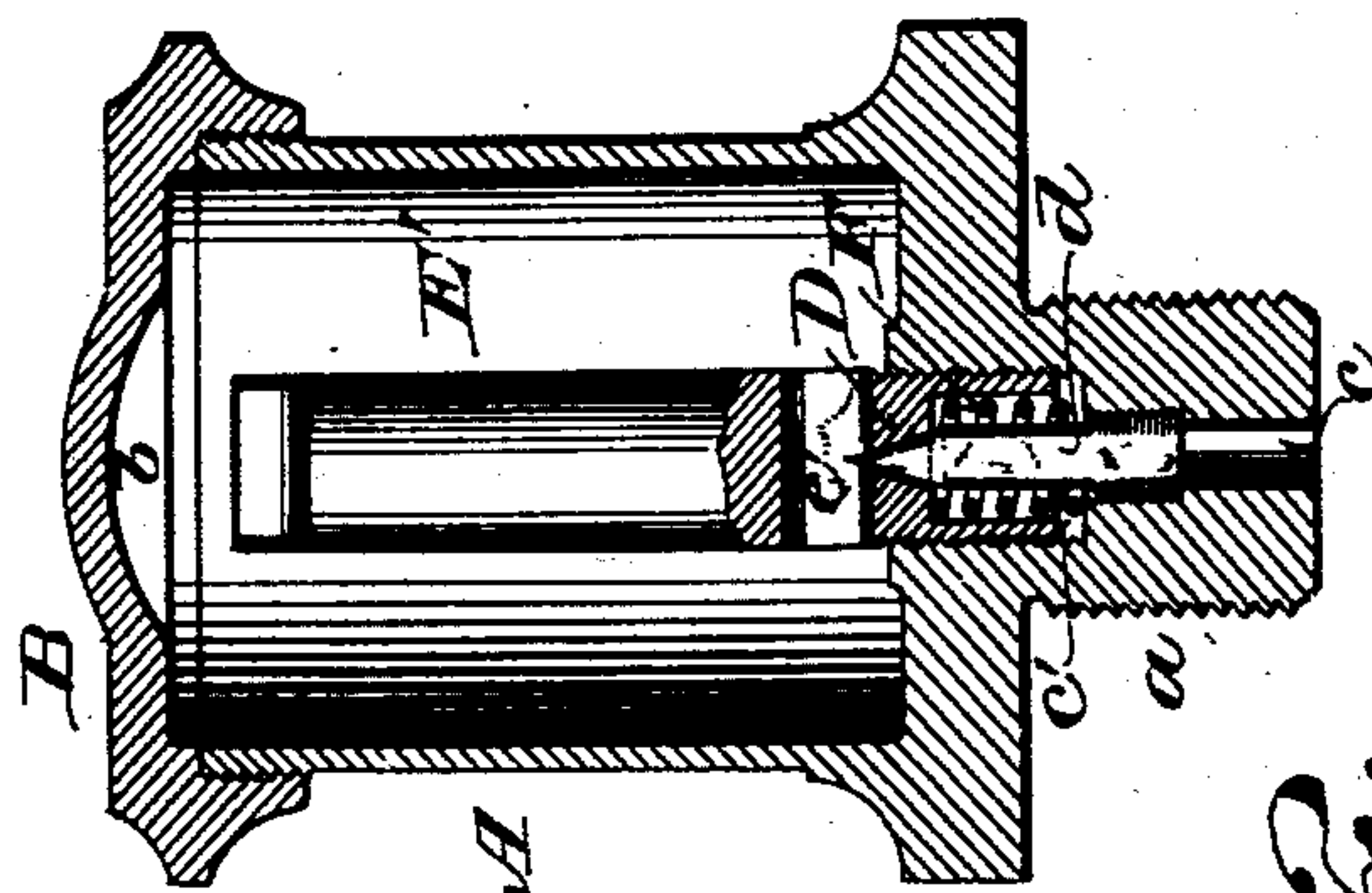


Fig. 2.

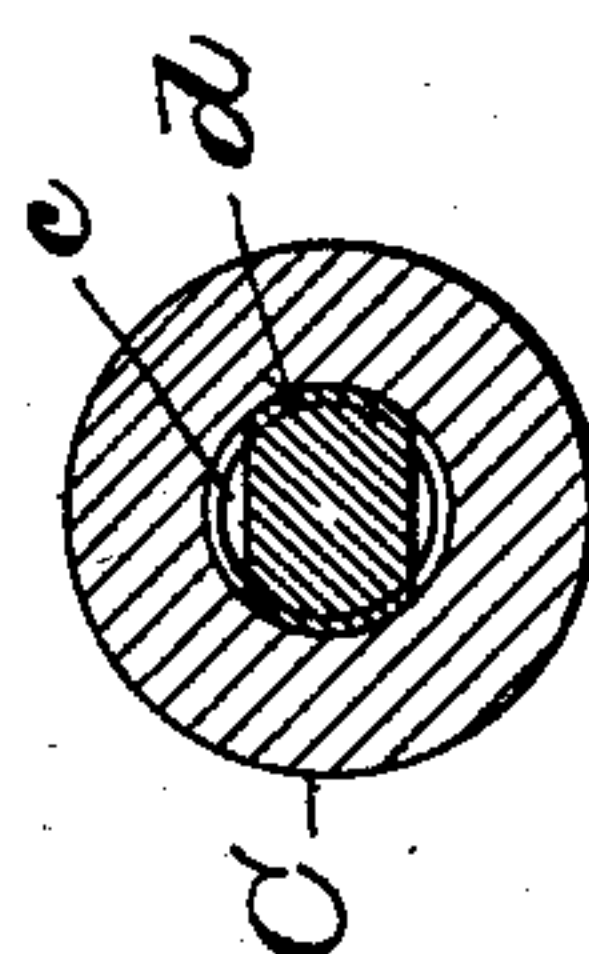
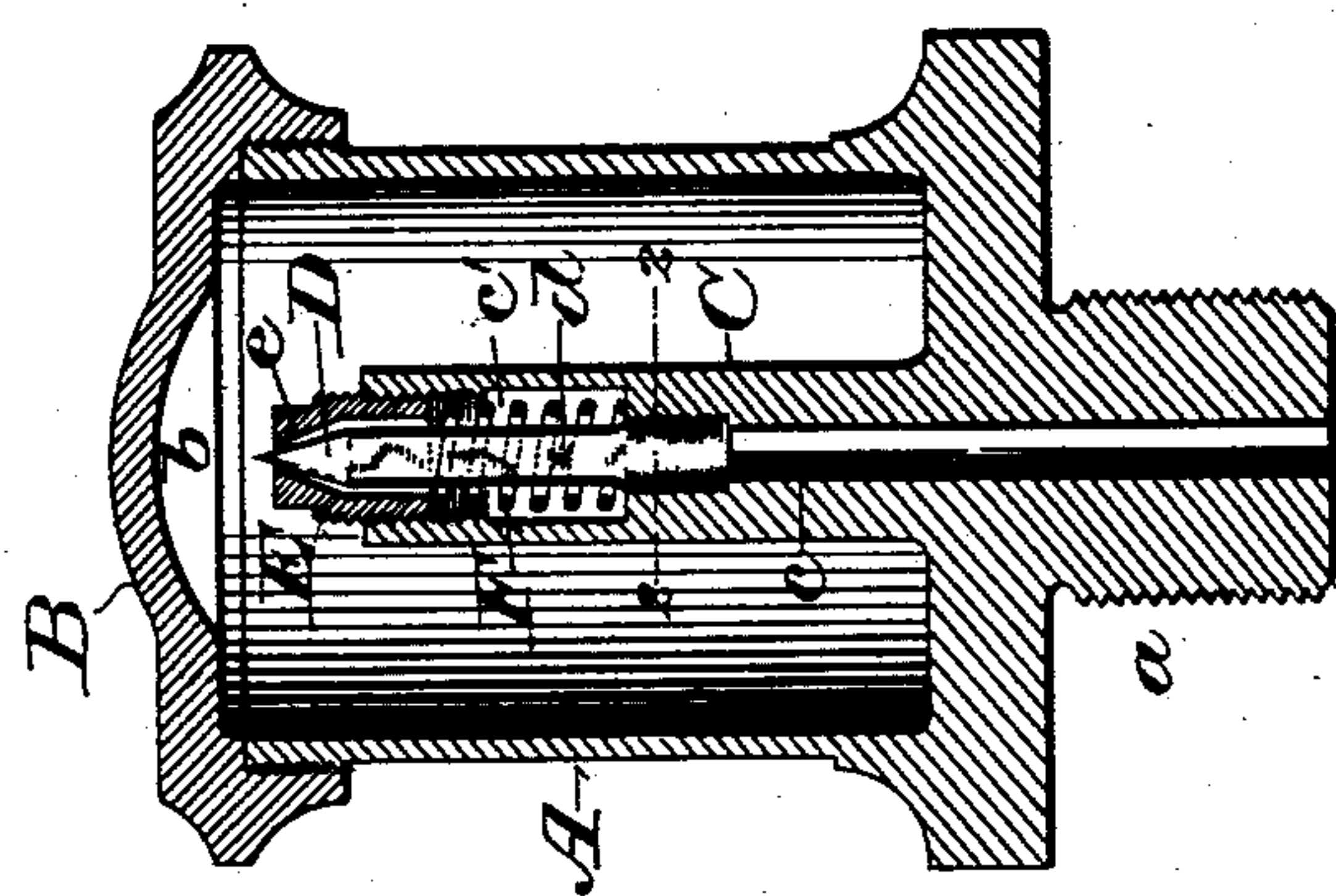


Fig. 1.



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# UNITED STATES PATENT OFFICE.

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## OIL-CUP.

SPECIFICATION forming part of Letters Patent No. 568,920, dated October 6, 1896.

Application filed May 24, 1895. Serial No. 550,568. (No model.)

*To all whom it may concern:*

Be it known that I, LEONARD A. PETERS, of Wauwatosa, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Oilers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The objects of my invention are to provide a constant finely-regulated supply of oil to a bearing, to facilitate adjustment of the feed, and to prevent obstruction of the feed-passage by impurities contained in the oil.

It consists of certain peculiarities in the construction and arrangement of the component parts of the oiler, as hereinafter particularly described, and pointed out in the claim.

In the accompanying drawings like letters designate the same or similar parts in the several figures.

Figure 1 is a vertical medial section of an oiler embodying my improvements and particularly designed for use with crank-pins and similar bearings. Fig. 2 is a horizontal section on an enlarged scale on the line 2 2, Fig. 1; and Fig. 3 is a sectional view, similar to Fig. 1, of a modified form of the oiler, designed for use in connection with the cross-head guides of an engine or other similar bearings.

Referring to Figs. 1 and 2, A designates an oil cup or receptacle of the usual or any suitable shape and material and formed or provided at the base with the usual screw-threaded neck *a* for its attachment to the bearing or part to be lubricated. It is also provided in the usual manner with a screw-threaded cap B, which is preferably concaved or recessed on the under side, as at *b*, for the purpose of directing the oil thrown against it by the movement of the crank-pin or other part to which the oiler is applied into the aperture in the upper end of the feed-passage. The cup is formed or provided in-

side with a post or column C, having a feed-passage *c* extending through the neck *a* and terminating at its upper end in an opening in the top of said post. The bore of said feed-passage is enlarged in the upper end of said post to form a recess or chamber *c'* and is screw-threaded at its upper end.

D is a cone-shaped valve formed with a stem *d*, threaded at its lower end into the upper end of the reduced portion of the feed-passage *c*, and cut away on one or both sides, as shown in Fig. 2, to permit the flow of oil past it through said passage.

By means of its threaded stem the valve D is centrally and stationarily held in said feed-passage with its apex projecting upwardly.

E is a cover, made in the present instance in the form of an externally-screw-threaded plug, which is fitted to engage the screw-thread in the upper end of post C and is formed with an inverted valve-seat *e*, terminating at the top of the plug or cover in a contracted aperture. The plug is flattened or squared at its upper end, as shown, or provided with any suitable means for turning it in and out of the post C for the purpose of moving the valve-seat *e* toward and from the valve D, and thereby varying the area of the aperture through which the feed-passage communicates with the interior of the oil-cup.

F is a spiral spring inserted in the recess or chamber *c'* of the feed-passage and bearing at its lower end upon the bottom of said recess and at its upper end against the plug E. It is made of sufficient strength to prevent the plug from being readily turned and thus disturbing its adjustment when properly made.

By the construction and arrangement of parts above described the aperture controlling the admission of oil to the feed-passage is in clear view during the operation of adjustment, thereby rendering it possible to make the adjustment with much greater ease and accuracy than is possible with a regulating valve or device which is concealed from view. The clogging and obstruction of the contracted feed-aperture are also avoided, since the opening between the tapering faces of the conical valve and valve-seat increases in



size or enlarges downwardly and thus prevents the retention of any impurities which can enter the aperture in the top of the plug.

Referring to Fig. 3, showing a modification of the oiler for cross-head guides for engines and other similar bearings which are either stationary or do not move in such a way as to throw the oil against the cap of the cup, the feed-passage *c*, passing through the neck *a*, terminates at or near the bottom of the cup in an enlarged threaded portion or recess *c'*. Into the upper end of the smaller portion of this passage is screwed the threaded stem *d* of the tapering or cone-shaped valve *D*, like or similar to that shown in Fig. 1, and into the enlarged threaded portion of said passage opening into the cup is screwed a plug *E'*, formed near the bottom of the cup with a transverse opening or passage *e'* and in its lower end with a longitudinal bore terminating in an inverted valve-seat, which communicates through a contracted aperture with the passage *e'*. Plug *E'* is extended above said passage *e'* to a point near the top of the cup and is formed or provided at its upper end with a flattened or squared head or other means for turning it so as to move the valve-seat in its lower end toward and from the valve *D* and thus vary the area of the feed-

opening. This form of the oiler is essentially like that shown in Fig. 1, except that the valve-controlled feed-aperture in the adjustable plug is located at or near the bottom instead of at or near the top of the cup.

I claim—

In an oiler the combination with an oil cup or receptacle having a feed-passage extending through the base and neck and terminating at its upper end in an enlarged screw-threaded portion or recess, a conical or tapering valve having a threaded stem adapted to be screwed into the upper contracted portion of said passage with its apex projecting upwardly, a plug externally threaded to engage the thread in the enlarged portion or recess of said passage and formed or provided with an inverted valve-seat terminating at its upper end in a contracted aperture and a spiral spring inserted in said recess so as to press at its upper end against said plug, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

LEONARD A. PETERS.

Witnesses:

CHAS. L. GOSS,  
A. W. HARD.