

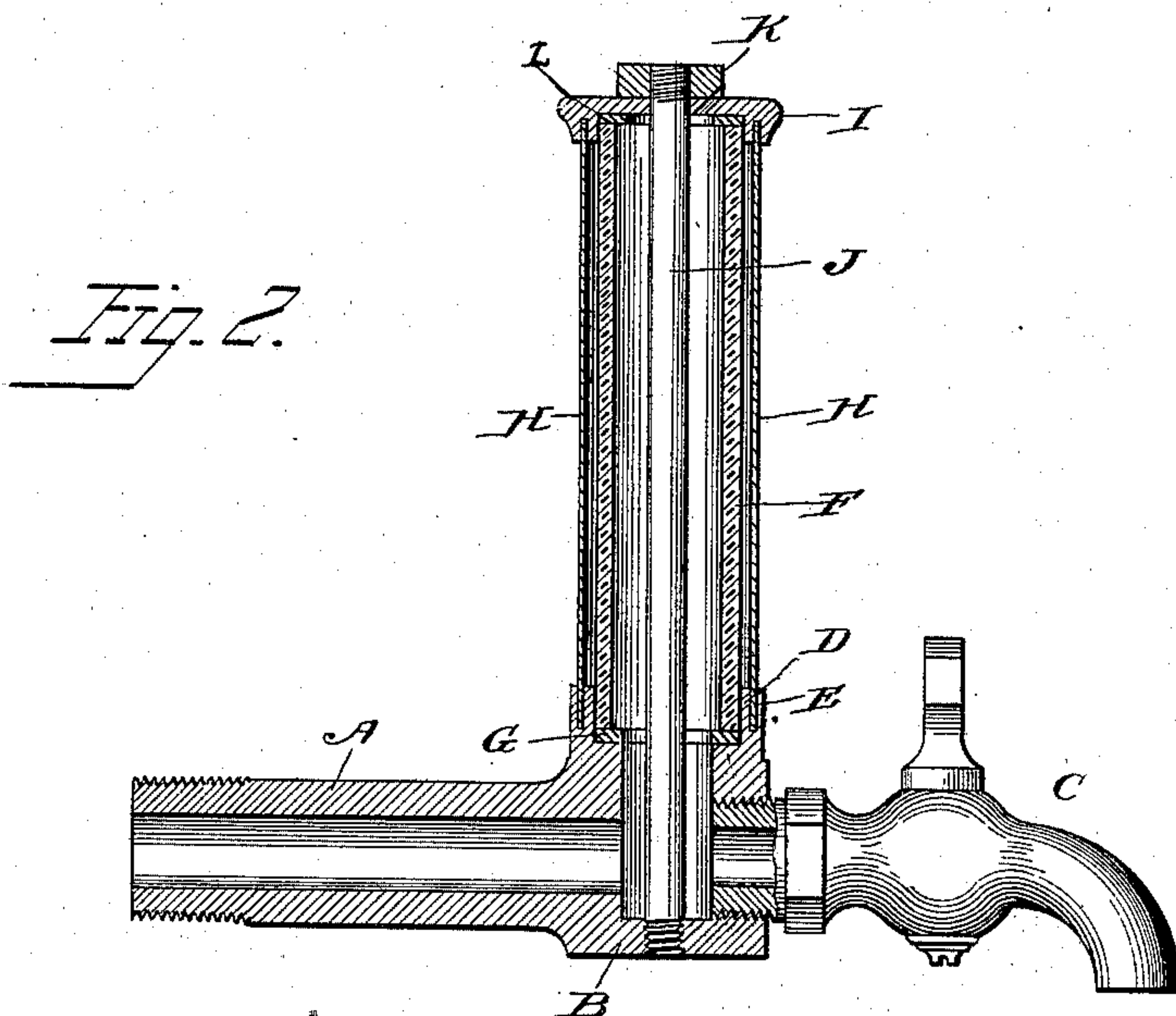
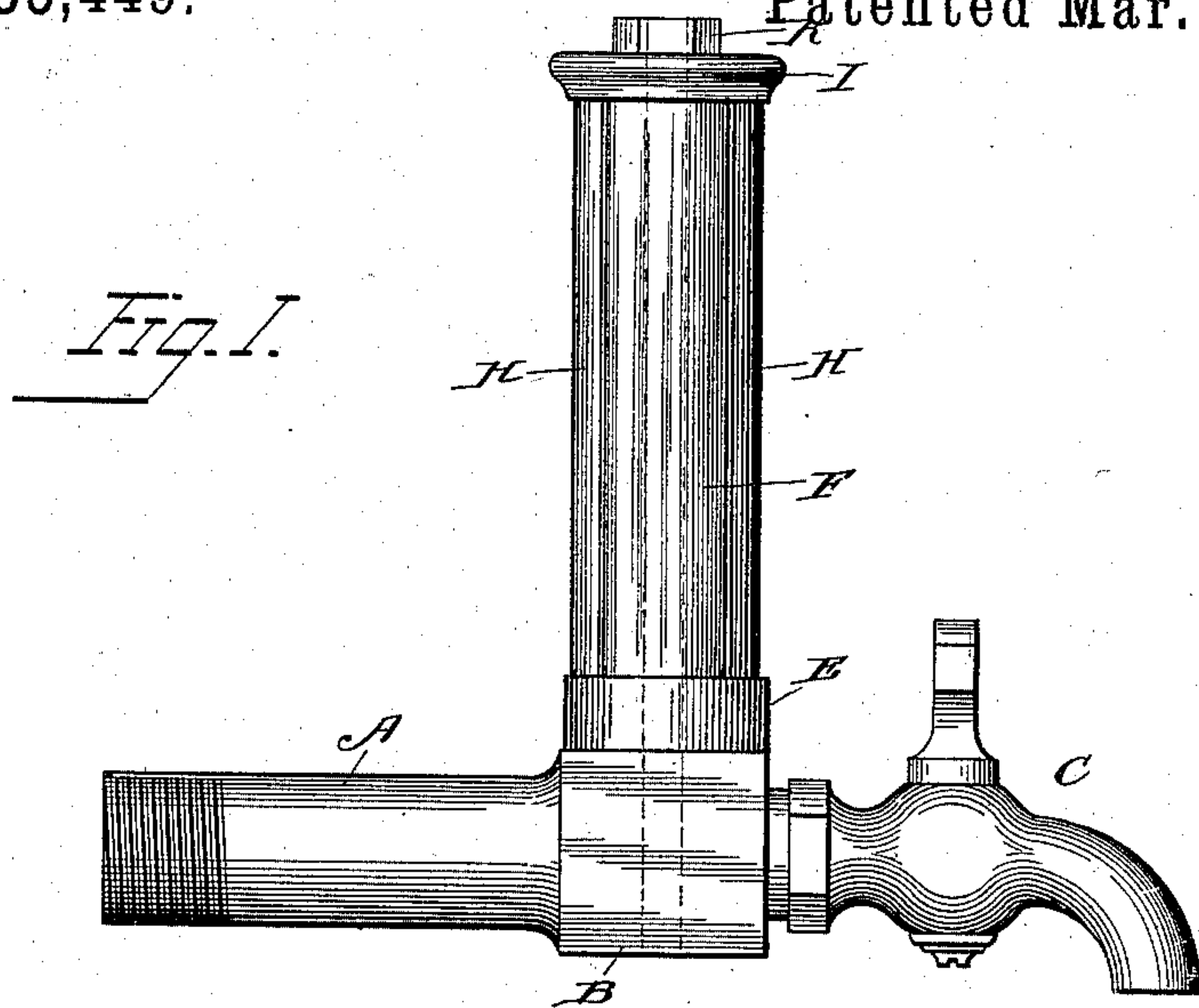
(No Model.)

2 Sheets—Sheet 1.

E. H. LUNKEN.
OIL GAGE.

No. 535,449.

Patented Mar. 12, 1895.



Witnesses
Martin H. Olsen,
John Leo Fay

Inventor
E. H. Lunken
by Edward Rector
his atty

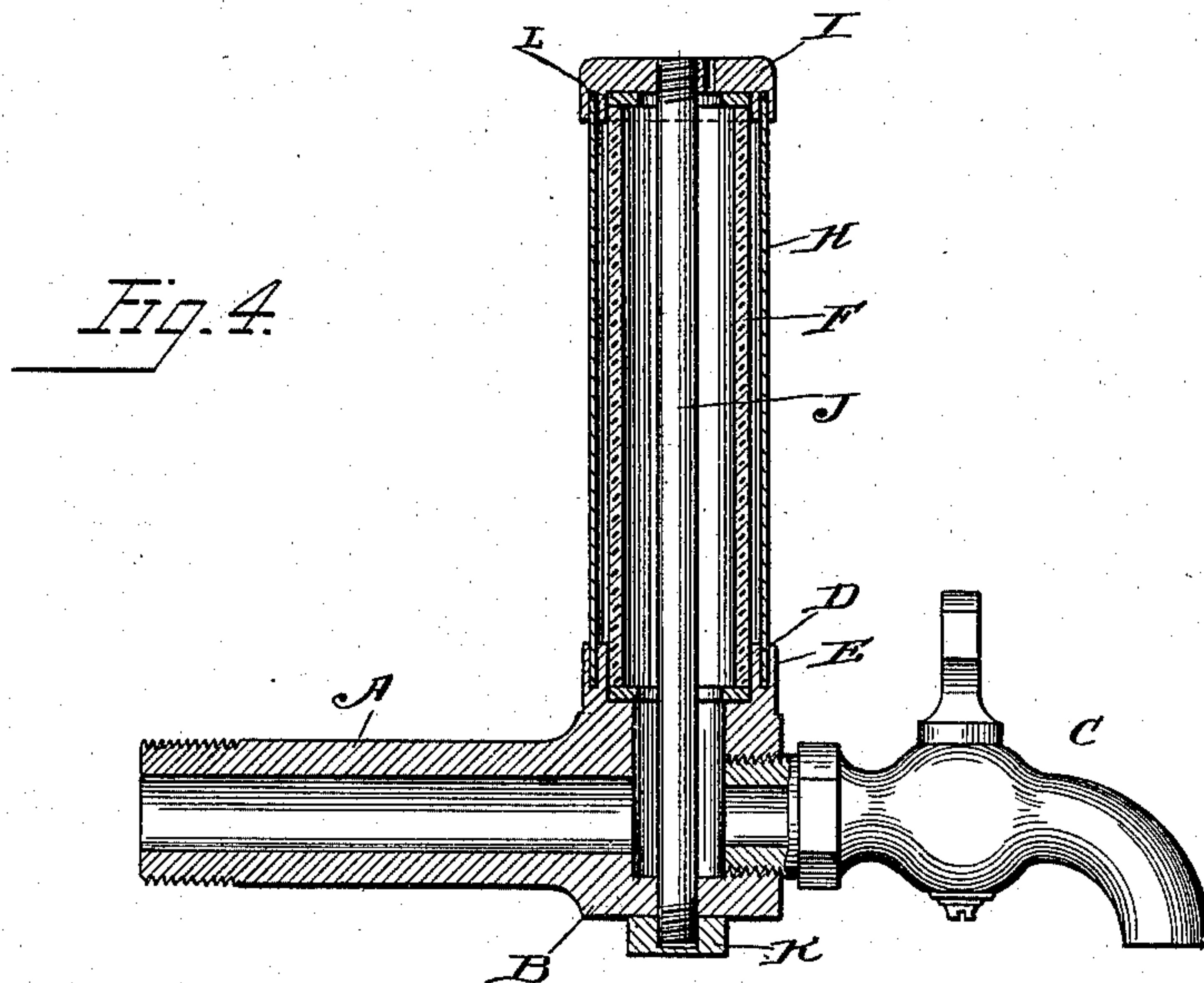
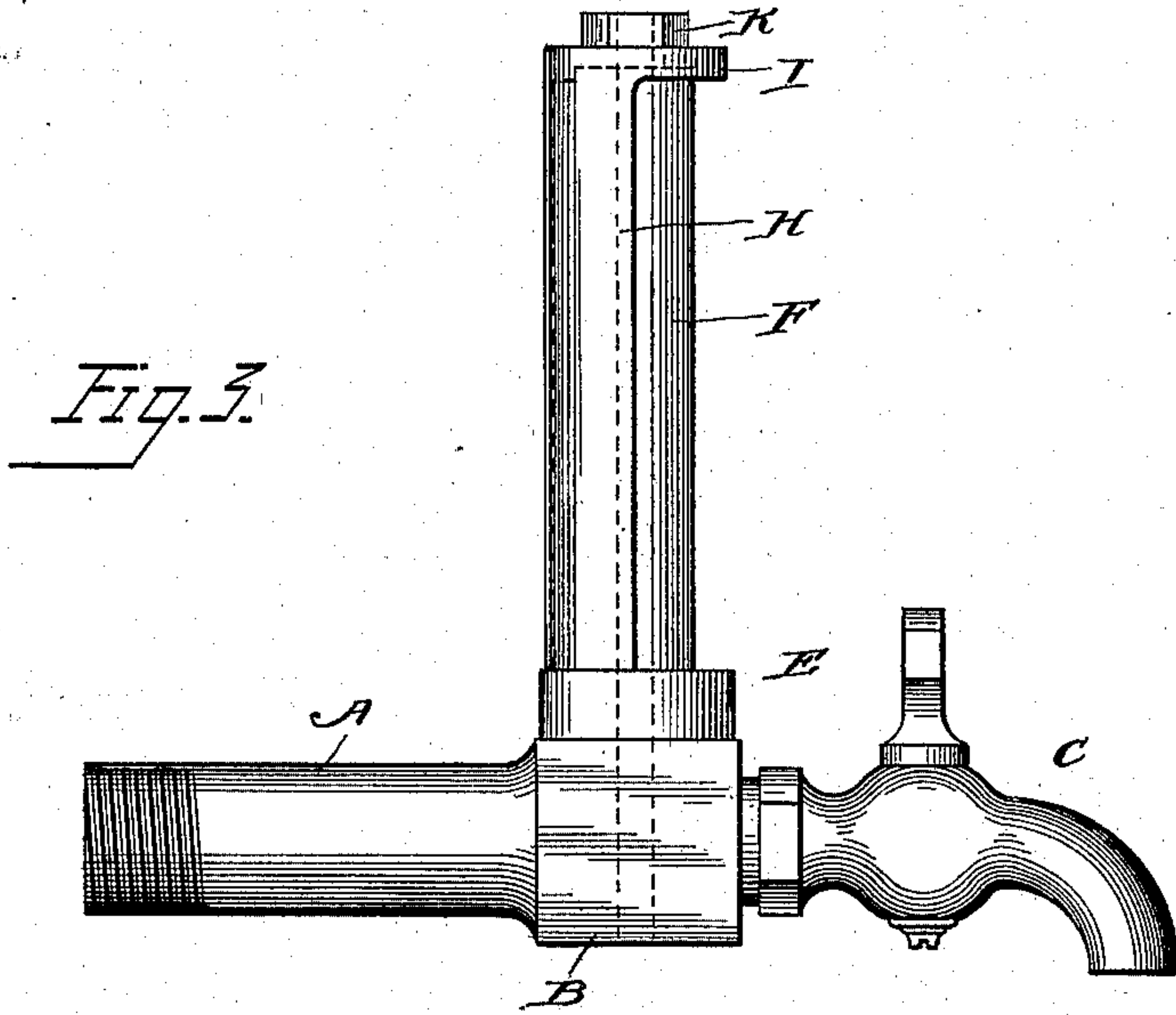
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2 Sheets—Sheet 2.

E. H. LUNKEN.
OIL GAGE.

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John Leo Day

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UNITED STATES PATENT OFFICE.

EDMUND H. LUNKEN, OF CINCINNATI, OHIO, ASSIGNOR TO THE LUNKEN-HEIMER COMPANY, OF SAME PLACE.

OIL-GAGE.

SPECIFICATION forming part of Letters Patent No. 535,449, dated March 12, 1895.

Application filed October 8, 1894. Serial No. 525,273. (No model.)

To all whom it may concern:

Be it known that I, EDMUND H. LUNKEN, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Oil-Gages, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates more particularly to oil gages such as are used on the self-oiling journal boxes of dynamos, motors and other machines, such oil gages consisting of a horizontal bottom fitting connected at one end to the journal box and communicating with the oil reservoir therein, and usually provided with a drain cock at its opposite end for drawing off the oil from the journal box when desired, and a vertical glass gage tube suitably supported in said horizontal fitting and communicating with the interior thereof, so that the oil will rise in the tube to the level of the oil in the journal box. Various means for supporting the glass tube in the bottom fitting and protecting it from injury have been employed, and it is to improved means for this purpose that my invention relates. Its novelty will be hereinafter explained and particularly pointed out in the claims.

In the accompanying drawings Figure 1 is a side elevation of my improved gage in its preferred form; Fig. 2, a vertical section of the same; Fig. 3, a side elevation of a modified form of the gage; and Fig. 4, a vertical section of a further modification.

The same letters of reference are used to indicate identical parts in all the figures.

The bottom fitting B of the gage is provided at one end with a tubular shank A, preferably formed integral with it and threaded at its extremity for attachment to the journal box, through which shank the oil passes from the reservoir in the journal box to the gage. At its opposite end the fitting B has screwed into it the usual drain cock C, though this may be omitted. Formed integral with the upper side of the fitting B are two circular flanges D E, one within the other, with a narrow annular space between them for a purpose presently explained. The lower end of

the vertical glass gage tube F fits within the inner flange D, preferably resting at its bottom upon a leather packing washer G seated in the fitting and having a central hole through which passes the tie-rod hereinafter referred to, and through which hole the oil passes from the fitting to the gage tube. Confined at its lower end between the two flanges D E but free to be turned therein about the tube F is an approximately semi-cylindrical sheet metal shield H extending upward to the top of the glass tube. Fitting upon the upper end of this shield and the glass tube is a circular cap I, having a vent hole through it and provided upon its under side with a circular groove in which fits the upper end of the shield H, the end of the glass tube fitting within the ring or flange forming the inner wall of the groove. A washer L is preferably interposed between the upper end of the tube F and cap I. Extending longitudinally through the center of the glass tube is a tie-rod J firmly screwed or otherwise secured at its lower end in the bottom of the fitting B and having its threaded upper end projecting through a central hole in the cap I. A nut K applied to this threaded upper end of the rod serves to bind the parts together and hold them in position. The shield H has a bright inner surface, being suitably polished or plated, so that it will reflect the light and clearly show the oil in the tube.

From the foregoing description of my invention in its preferred form it will be seen that I have produced a very simple gage, which can be economically manufactured and readily taken apart and assembled, and which is exceedingly efficient and convenient in use. Heretofore the shield for the glass tube has generally consisted of a tubular casting surrounding the tube and screwed over the bottom fitting, having its top closed by a plug or otherwise, and provided with one or more longitudinal slots in its sides to permit the oil to be seen in the glass tube. This shield was necessarily much thicker and heavier than mine, and consequently more expensive, while the slots in it could not expose the oil in the gage so clearly as does the entire open side of my shield. Moreover, the shield neces-

sarily remained in fixed position on the gage, so that when the latter was attached to the journal box on the machine where it was to be used the light might be such that the oil
 5 could not be readily seen through the slots in the shield. Again, the shield being in fixed position relatively to the glass tube the latter could only be cleaned in streaks opposite the slots in the shield, leaving the body of the
 10 glass subject to indefinite accumulation of oil and dirt, which made it very difficult to keep the glass clean even opposite the slots, and entirely obstructed any reflection of light upon the oil from the inner surface of the
 15 shield.

In my improved gage, as above described, the shield can be readily turned about the gage, to permit the light to fall directly upon the oil in the glass tube, no matter in what
 20 position the gage may be placed in use, or from what direction the light may come. So, too, the shield may be readily turned about the tube to permit the latter to be thoroughly cleaned on all sides, a piece of cloth or bunch
 25 of waste applied at the opening in the shield and turned with the latter around the tube a few times serving to clean the tube.

The particular arrangement of parts shown in Figs. 1 and 2 may be varied somewhat with-
 30 out departing from my invention. Thus, the shield and top cap may be made in one piece, as shown in Fig. 3, or the top cap and binding nut may be made in one piece; or the binding nut may be applied to the lower end of the
 35 rod, as in Fig. 4, the rod being secured at its

upper end in the top cap; all as will be readily understood.

Having thus fully described my invention, I claim—

1. An oil-gage for self-oiling journal boxes, 40 composed of a bottom fitting having a horizontally projecting tubular shank by which the gage is attached to the journal box and through which the oil passes to the gage, a vertical glass tube seated at its lower end in 45 said bottom fitting, a cylindrical metal shield surrounding the tube throughout its length and provided in one side with a longitudinal opening for the exposure of the oil in the tube, a cap at the upper end of the tube and shield, 50 and a central tie-rod extending longitudinally through the tube for holding the cap in place, substantially as described.

2. In an oil-gage for self-oiling journal boxes, the combination of the bottom fitting 55 B, the vertical glass tube F seated at its lower end in said fitting, the cap I at the upper end of the tube, the central tie-rod J extending longitudinally through the tube for holding the cap in place, and the cylindrical metal 60 shield H surrounding the tube F and confined between the cap I and fitting B and free to turn about the tube F, said shield having a longitudinal opening in one side for the exposure of the oil in the tube, substantially as 65 and for the purpose described.

EDMUND H. LUNKEN.

Witnesses:

C. F. LUNKENHEIMER,
 WM. H. MUENCH.