

(No Model.)

J. N. PATTON.
OIL CUP.

No. 441,376.

Patented Nov. 25, 1890.

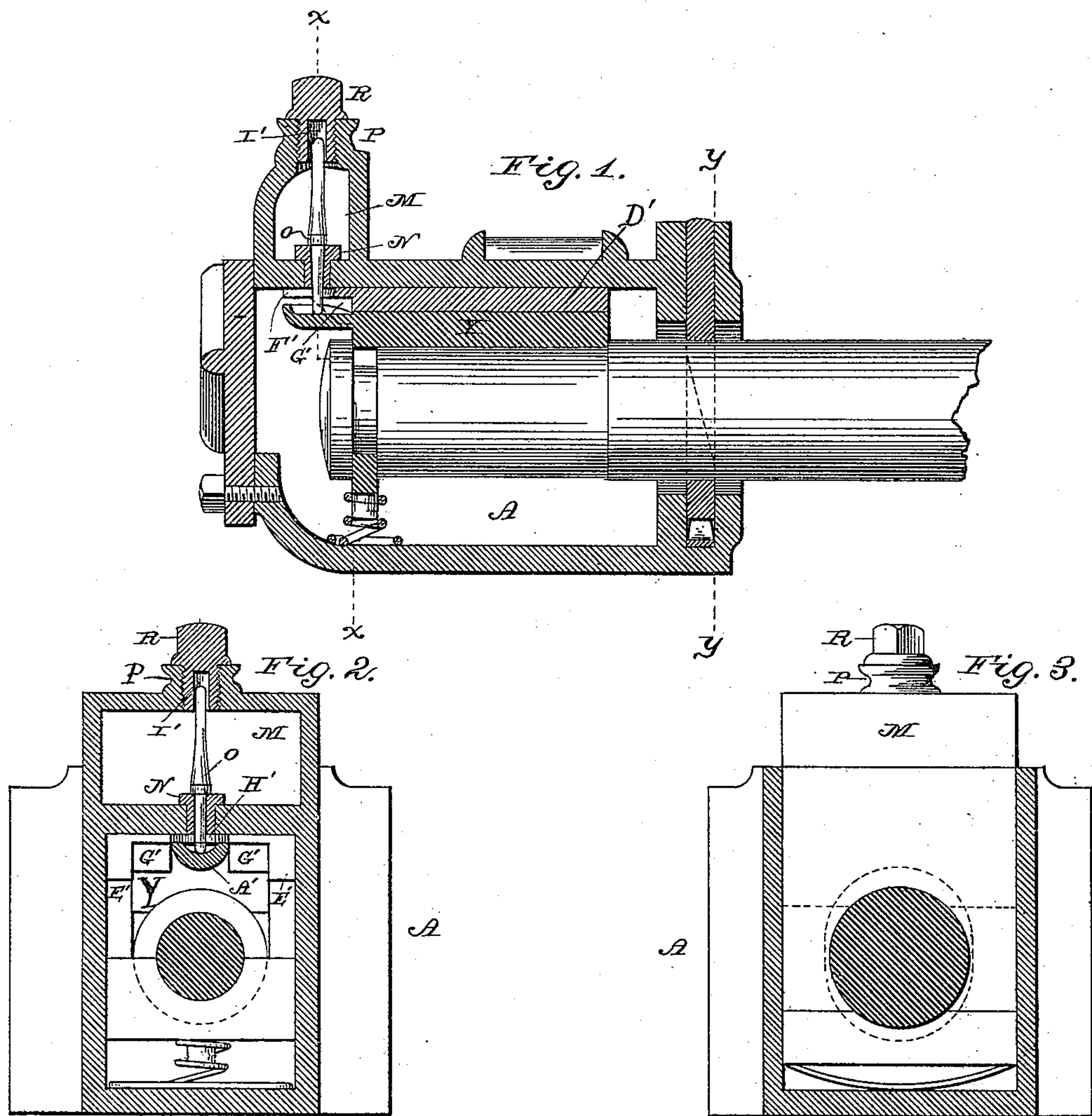
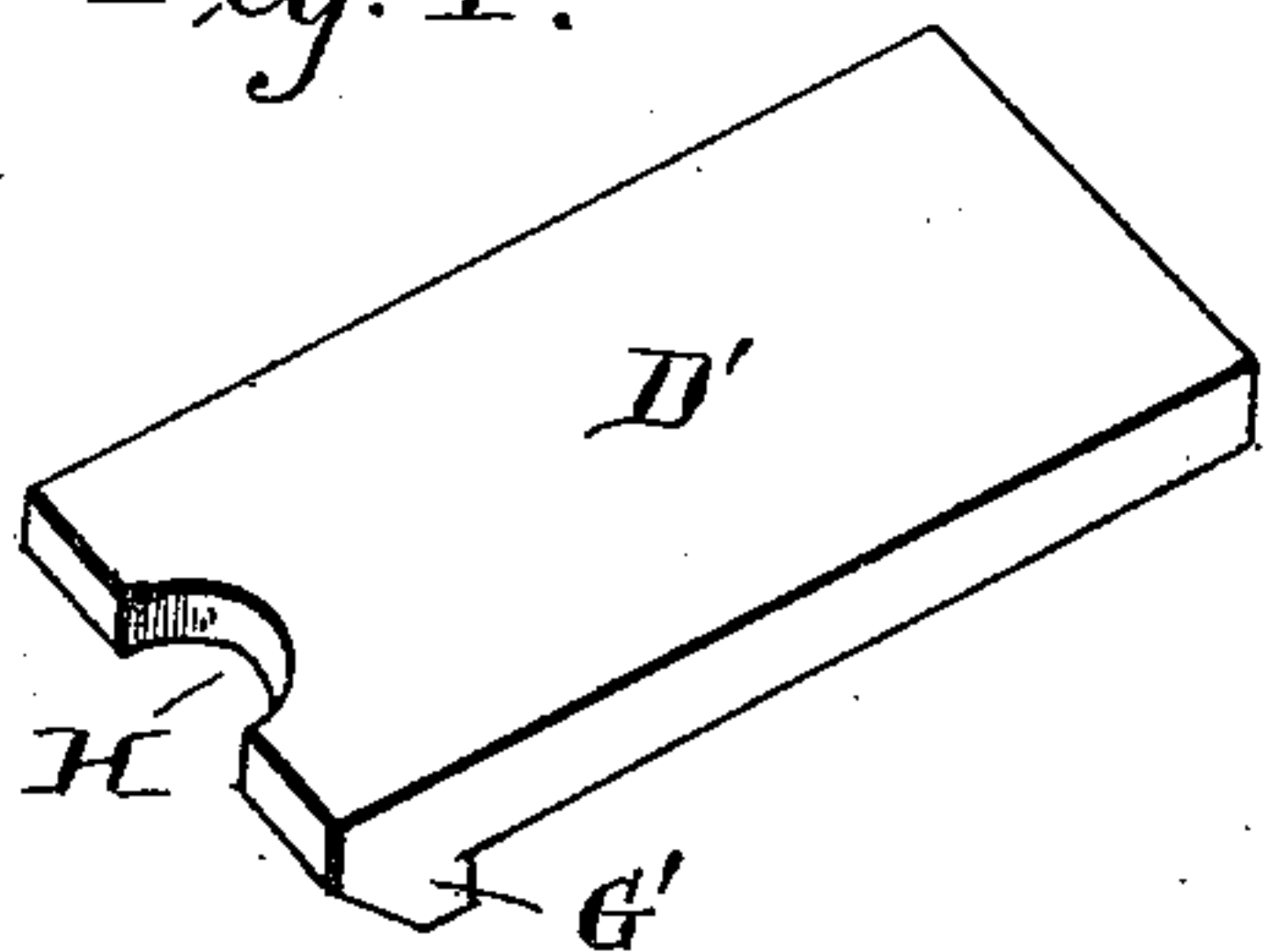


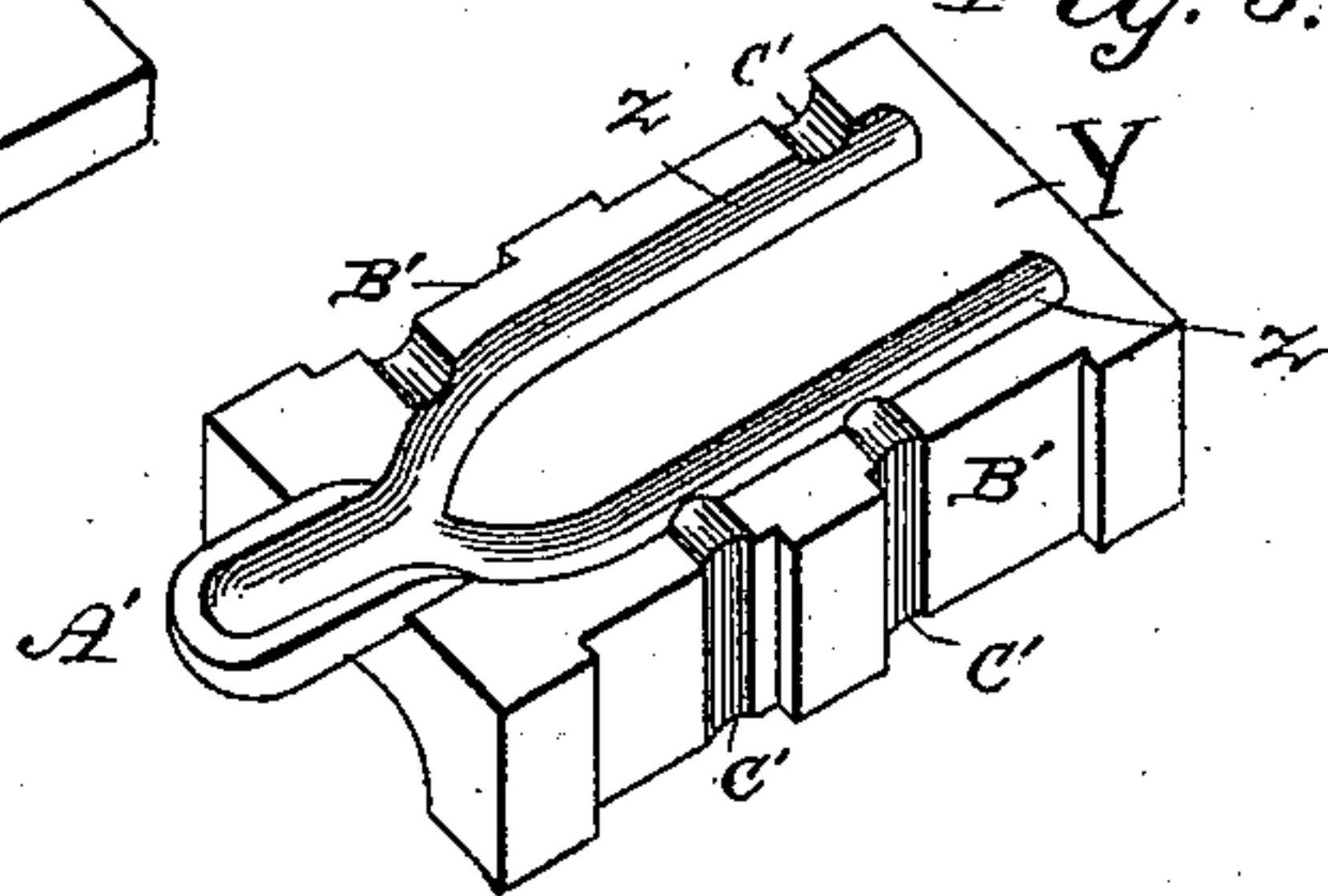
Fig. 4.



Witnesses

J. W. Garner
J. R. Jones

Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES N. PATTON, OF LOVELAND, OHIO, ASSIGNOR OF ONE-HALF TO
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OIL-CUP.

SPECIFICATION forming part of Letters Patent No. 441,376, dated November 25, 1890.

Application filed June 2, 1890. Serial No. 354,026. (No model.)

To all whom it may concern:

Be it known that I, JAMES N. PATTON, a citizen of the United States, residing at Loveland, in the county of Clermont and State of Ohio, have invented certain new and useful Improvements in Oil-Cups; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in oil-cups; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical longitudinal central sectional view of a journal-box, showing the application of my oil-cup. Fig. 2 is a vertical transverse sectional view of the same, taken on the line *xx* of Fig. 1. Fig. 3 is a similar view taken on the line *yy* of Fig. 1. Fig. 4 is a detail perspective view of the bearing-key. Fig. 5 is a similar view of the bearing block or plate.

The journal-box A may be of any known and approved construction, except as hereinafter specified. On the upper side of the journal-box, at the outer end thereof, is formed an oil-cup M, which is arranged transversely on the journal-box, as shown, and in the bottom of the oil-cup is a seat or opening N for the needle O. Formed in the top of the oil-cup in line with the needle is an extension P, through which oil may be introduced to the oil-cup. A plug R screws into this extension to close the same and exclude dust and dirt.

On the upper side of the journal bears a bearing-plate Y, which should be made of brass or other suitable material. Oil-channels Z are made in the upper side of the said plate parallel with and near the sides thereof, said channels converging at the outer end of the plate and communicating with the grooved upper side of an arm or receiver A', with which the bearing-plate is formed. Recesses B' are made in the sides of the bearing-plate, so that only a minimum amount of its surfaces are in contact with the sides of the journal-box, and oil-channels C' are made vertically in the said recesses, which communi-

cate at their upper ends with the channels Z and serve to conduct oil to the upper side of the journal, where it is diffused evenly over the face of the journal by the rotation thereof, as will be readily understood.

On the upper side of the bearing-plate Y is a key D', which serves to cover the bearing-plate and to maintain the latter in position on the journal. Said bearing plate and key fit between horizontal shoulders E' in the sides of the journal-box, and the outer end of the key engages shoulders F', which serve to prevent it from moving forward. The key has depending shoulders G' at its front end, which engage the outer end of the bearing-plate, and in the front end of the key is an opening H' to clear the lower end of the needle O. The latter serves to conduct oil from the oil-cup to the grooves on the bearing-plate in sufficient quantities for lubricating purposes, as will be readily understood. The upper end of the needle fits in a socket I' in the lower end of the plug R, and thereby the needle is maintained in a vertical position.

The valve-seat N is raised above the bottom of the oil-cup, as clearly seen in Figs. 1 and 2, so as to prevent the flow or ingress of sediment into the journal-bearing. This I consider an important feature.

When the car is at rest, the needle is down, as shown in Fig. 1, and prevents the flow of oil from the oil-cup M. When the car is in motion, however, its oscillation causes the needle to play in its place, thus allowing oil to flow from the oil-cup to the bearing-plate.

Having thus described my invention, I claim—

1. A journal-box having the oil-cup on its upper side, in combination with the plate bearing on the journal and having the oil-channels, the key-plate covering the bearing-plate, and the needle to conduct oil from the oil-cup to the bearing-plate, substantially as described.

2. A journal-box having the oil-cup, in combination with the plate bearing on the journal and having the oil-channels and the communicating grooved arm at its outer end, the key-plate on the bearing-plate and having

the shoulders at its outer end engaging the latter, and the needle in an opening in the bottom of the oil-cup, the lower end of the needle bearing in the grooved arm, substantially as described.

5 3. A journal-box having an oil-cup on its upper side, in combination with the plate bearing on the journal and having oil-channels, the key-plate covering the bearing-plate,
10 the needle-seat raised above the bottom of

the oil-cup, and the needle to conduct oil from the oil-cup to the bearing-plate, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES N. PATTON.

Witnesses:

N. P. TURNER,
I. V. CUSHING.