

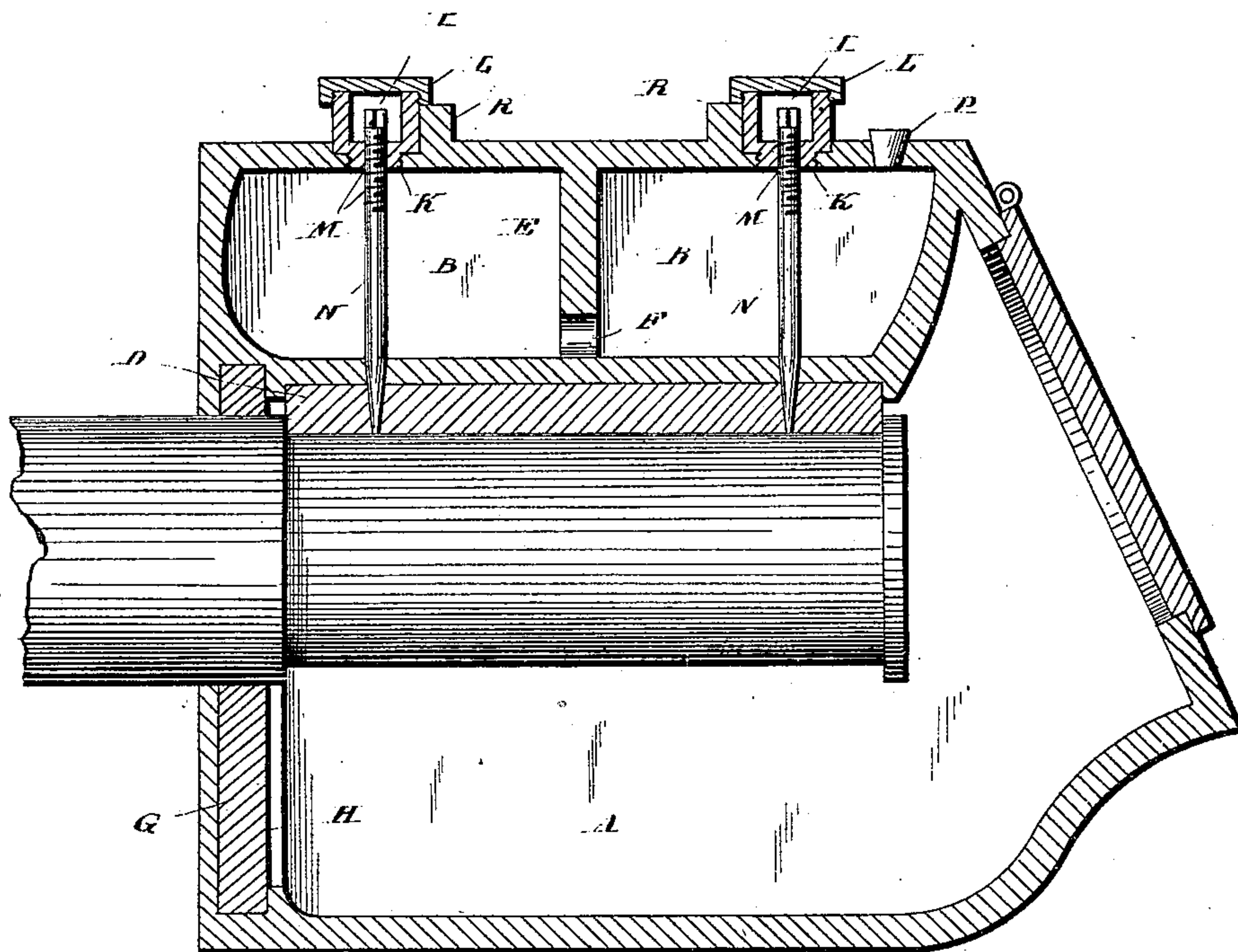
(No Model.)

W. F. GRASSLER.

CAR AXLE BOX.

No. 270,421.

Patented Jan. 9, 1883.



Witnesses.  
Edwin L. Yerville.  
H. A. Paulmin

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# UNITED STATES PATENT OFFICE.

WILLIAM F. GRASSLER, OF WILLIAMSPORT, PENNSYLVANIA.

## CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 270,421, dated January 9, 1883.

Application filed November 11, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM F. GRASSLER, of Williamsport, in the county of Lycoming, and in the State of Pennsylvania, have invented certain new and useful Improvements in Car-Axle-Journal Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to certain improvements in car-axle boxes; and it has for its objects to provide for automatically supplying the lubricant to the journal of the axle, and for retaining and saving the waste, as more fully hereinafter specified. These objects I attain by the means illustrated in the accompanying drawing, in which is illustrated a vertical sectional view of one of my improved axle-boxes, showing an elevation of one of the journals of the car-axle located therein.

In the said drawing, the letter A indicates the axle-box, consisting of a suitable shell of metal or other suitable material. The said shell is formed with two compartments, the upper one of which, (indicated by the letter B) forms a receptacle for oil or other lubricant. The bottom of said oil or lubricant receptacle is formed with a recess, C, in which sets the journal-bearing D of the box. The oil-receptacle is divided by a vertical partition, E, which has an opening, F, by means of which communication is established between the two chambers. The shaft passes through an opening at one side of the box, and also through a packing-plate, G, secured in a suitable recess, H, near one side of the box, which prevents the access of dust around the axle and the escape of oil from the lower part of the box. The axle-box at the top of the oil-receptacle is provided with chambers I, which have screw-threaded shanks K, whereby they are secured in suitable screw-threaded openings in the top of the chamber. Said chambers are provided with screw-threaded caps L, by means of which they may be closed. They are also provided with screw-threaded openings M, through which extend the screw-plugs N. These plugs are pointed or tapered at their lower ends, and extend into tapering openings through the

bottom of the oil or lubricant receptacle and the journal-bearing, as indicated, in such manner that when adjusted they will permit the oil to flow to the journal in suitably-regulated quantities.

The letter P indicates an opening through which the oil or lubricating chamber may be charged, and which may be closed by a plug or other suitable means. The lower portion of the box is provided with a hinged door, by means of which access may be had to the interior when required.

The letter R indicates two lugs on the upper part of the axle-box, between which the supporting-beam of the car rests. The said lugs are of sufficient width to leave room to apply a suitable tool to insert or remove the chambers. The pressure, it will be perceived, comes directly upon the top of the axle-box at the center, and in order to sustain this the perforated partitions P are provided.

It will be perceived that as constructed the lubricant-receptacle forms part of the box, and that by properly adjusting the screw-plugs provision may be made for automatically supplying the lubricant to the journal in any desired quantity, and that all waste will be collected in the lower compartment, from which it may be removed and saved. It will be further perceived that the box as well as the oil-receptacle is thoroughly closed against the entrance of foreign substances, thus providing for the perfect lubrication of the journal.

It is evident from the foregoing description and the accompanying drawing that my invention may be applied to other journals than those of car-axles without departing from its spirit. In such instances a slight modification or change in the form of the box may be necessary; but the essential features can be employed without changing their construction or relative arrangement.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, in a car-axle box constructed in two compartments, one serving as an oil-receptacle and the other as a chamber for the journal-bearing, of the oil-regulating screw-plugs, pointed at their lower ends and setting in conical apertures through the dividing-par-



tion and the axle-bearing, whereby the oil may be delivered to the axle in regulated quantities, substantially as specified.

5 2. In combination with the supply-reservoir and the screw-plugs adapted to regulate the supply of lubricant to the journal, the hollow removable chambers, and the screw-caps, whereby the screws may be adjusted, substantially as specified.

10 3. The combination, with the axle-bearing and the partition dividing the box into upper

and lower compartments, of the vertical perforated partition, substantially as and for the purposes set forth.

In testimony whereof I affix my signature, in 15 presence of two witnesses, this 10th day of November, 1882.

W. F. GRASSLER.

Witnesses:

W. D. ALEXANDER,  
J. J. MCCARTHY.