

(No Model.)

C. E. MURRAY.
SPINDLE FOR VEHICLES.

No. 294,258.

Patented Feb. 26, 1884.

Fig. 1.

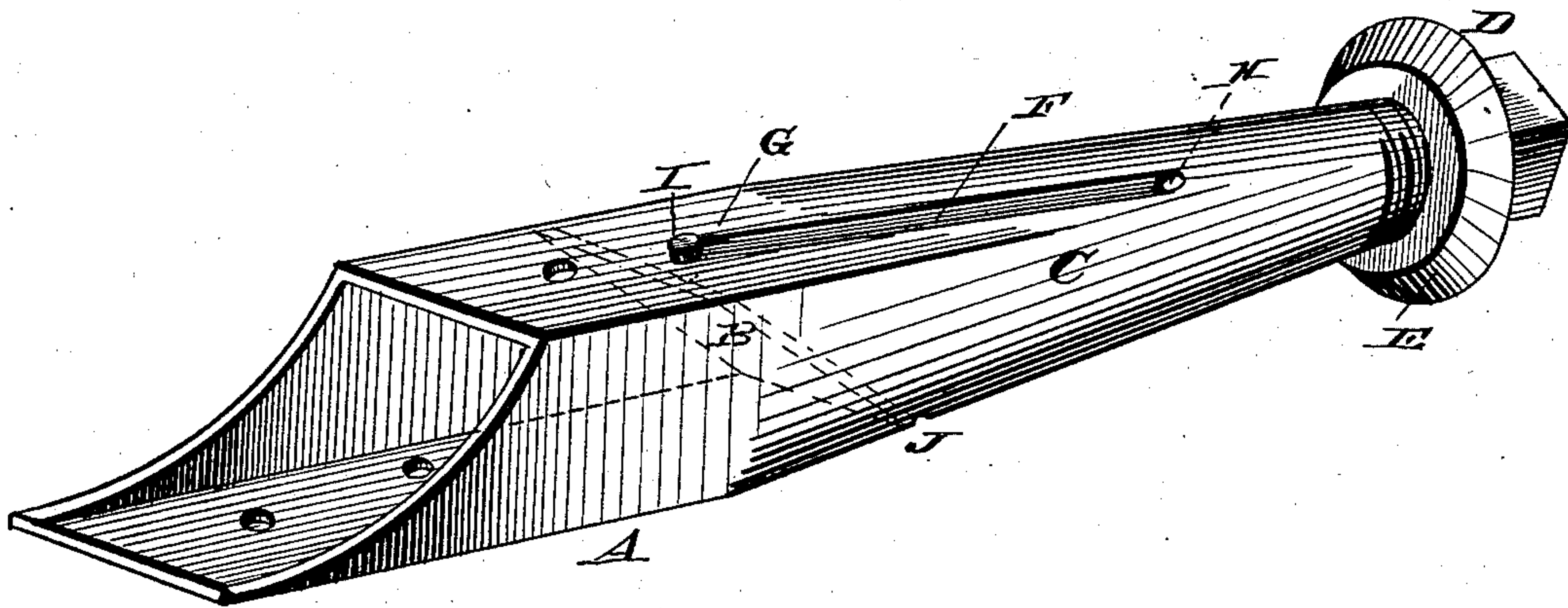
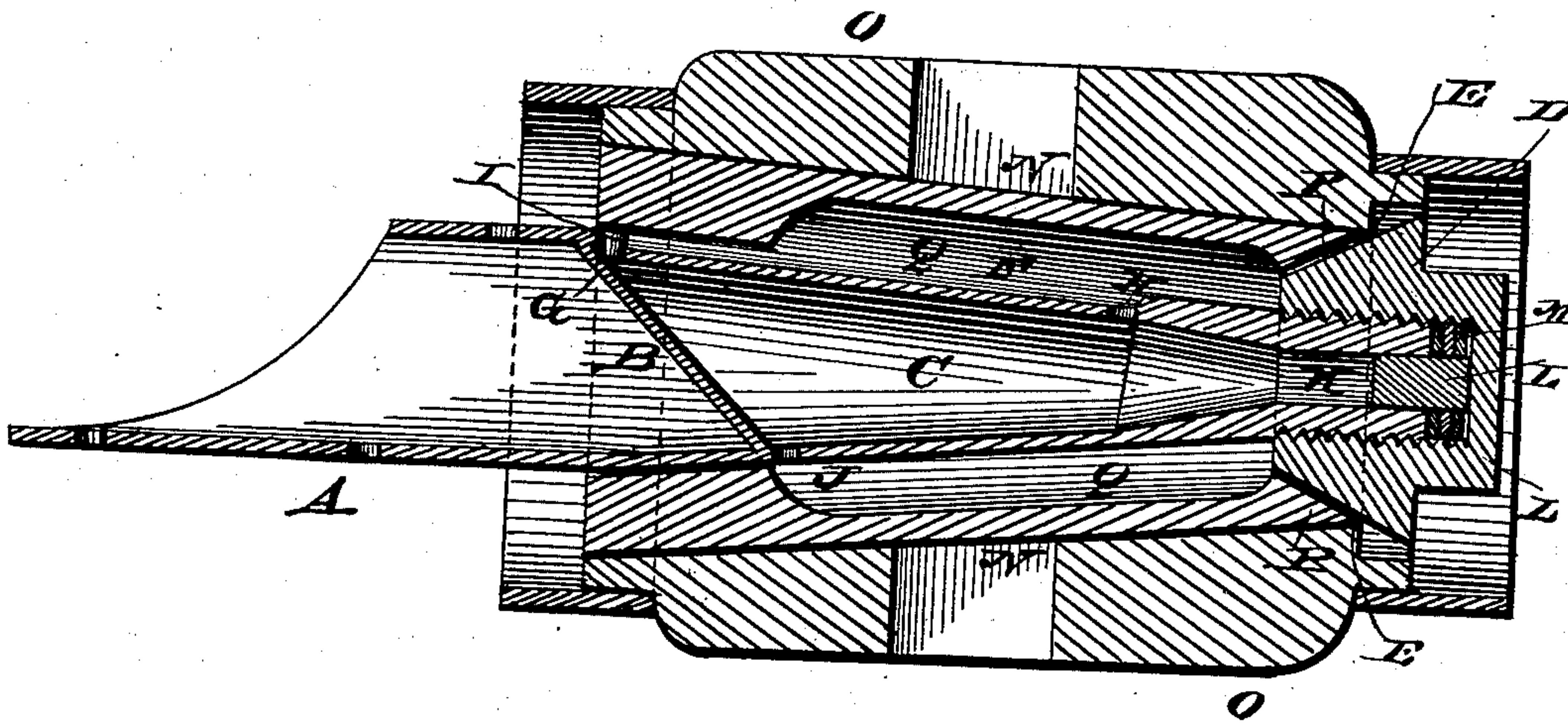


Fig. 2.



WITNESSES:

Wm. S. Dieterich
Wm. S. Dieterich

Charles E. Murray
INVENTOR.

By *Louis Ragger & Co*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES E. MURRAY, OF BRANDT, OHIO.

SPINDLE FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 294,258, dated February 26, 1884.

Application filed September 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. MURRAY, a citizen of the United States, and a resident of Brandt, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Spindles for Vehicles; 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 appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved self-oiling spindle for vehicles, and Fig. 2 is a vertical section through the spindle and hub.

Similar letters of reference indicate corresponding parts in both the figures.

My invention has relation to self-oiling spindles or thimble-skeins for vehicle-axes; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the hollow spindle or thimble-skein, which forms an oil-receptacle, being closed toward its inner end by a wall or partition, B, which separates it from a socket, C, formed by its inner end, into which the end of the axle-tree fits. The spindle tapers toward its outer end, where it is screw-threaded, and provided with a nut, D, which is formed in the shape of a cap, and the inner end of which is tapering inward, as shown at E. The upper side of the spindle has a longitudinal groove, F, extending from a perforation, G, near the point to which the inner end of the wheel-hub extends, down to a perforation, H, a short distance from the screw-threaded end. The upper perforation, G, is closed by a removable plug, I, and the spindle has a perforation, J, upon its lower side, and a perforation, K, at its outer end, closed by a plug, L. The space between the end of the spindle and the inside of the cap is filled by a number of removable washers, M, and the lining N of the perforation in the hub O of the wheel is shaped with an inwardly-inclined outer end, P, which bears against the conical inner end of the nut, and the said lining is provided with an annular recess, Q, near its outer end.

It will now be seen that when the receptacle in the spindle is filled with oil through

the upper perforation, which thereupon is closed, the oil will pass out through the perforation in the under side, fill the annular recess in the hub, and when it has filled the said recess the surplus oil will be gathered by the groove in the upper side of the spindle, and flow down through the same into the perforation at the lower end of the groove, through which it passes into the receptacle. If it is desired to clean the oil-receptacle or remove the oil for any other purpose, the plug at the outer end of the spindle may be removed and the oil drawn off.

It will also be seen that the wear in the spindle and hub may be taken up, the conical surfaces always wearing to a seat, by removing one or more of the washers inside the cap, when the cap may be screwed farther in, holding the wheel firmly in place.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of a tapering vehicle spindle or axle having a screw-threaded end, a wheel-hub having an inverted conical outer end in its perforation, a screw-cap fitting upon the end of the spindle and having an inner conical end, and a number of washers bearing against the end of the spindle and the inside of the screw-cap, as and for the purpose shown and set forth.

2. The combination of a hollow spindle forming an oil-receptacle, and adapted to be attached to the end of an axle-tree having a longitudinal groove upon its upper side opening into the interior of the spindle through two perforations, one at each end of the groove, having a perforation at its lower side opening into the interior, and provided with a screw-threaded open neck at its outer end closed by a removable plug, a vehicle-hub having the outer end of its bore beveled inwardly, and forming an annular recess near the said end, a screw-cap having a conical inner end, and a number of washers fitting inside said cap, as and for the purpose shown and set forth.

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

CHARLES E. MURRAY.

Witnesses:

HIRAM BROWN,
HARVEY BROWN.