

(No Model.)

A. G. BURROWS.
VEHICLE HUB.

No. 480,690.

Patented Aug. 9, 1892.

Fig. 1.

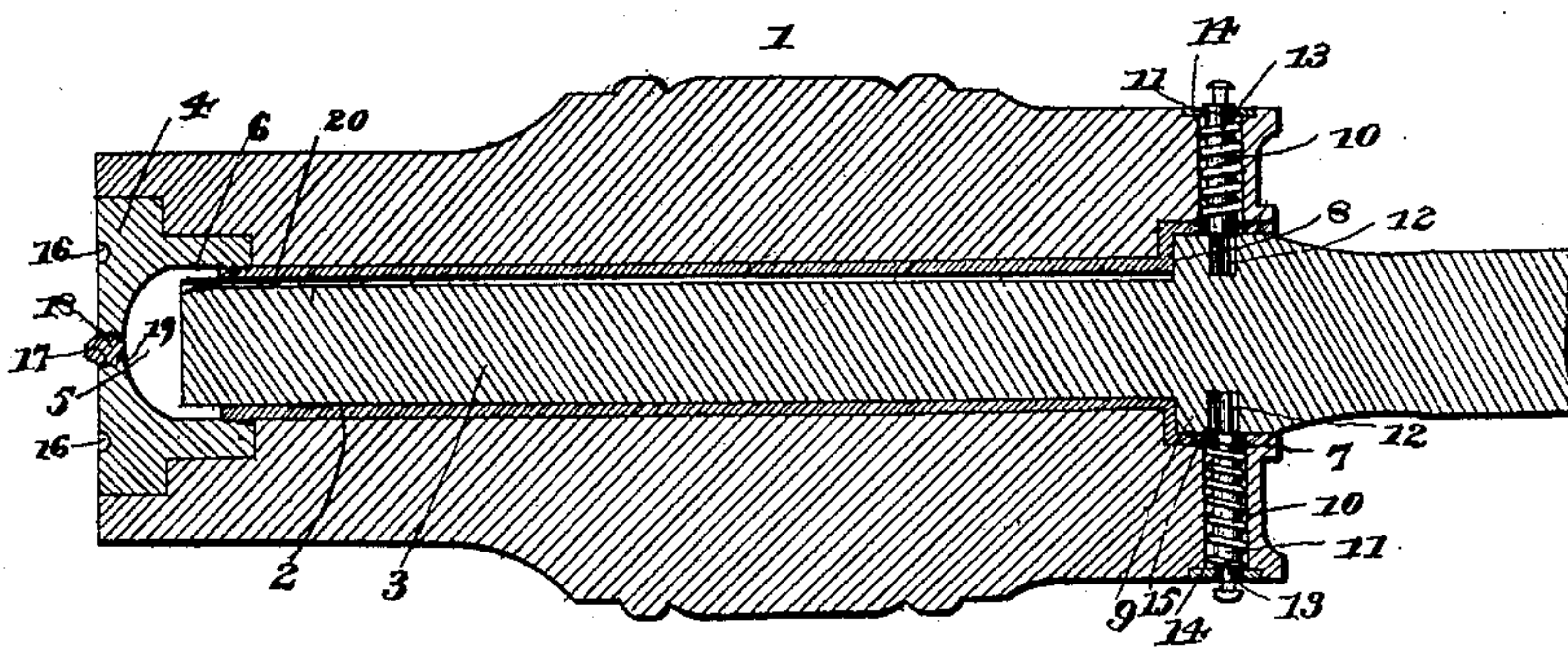
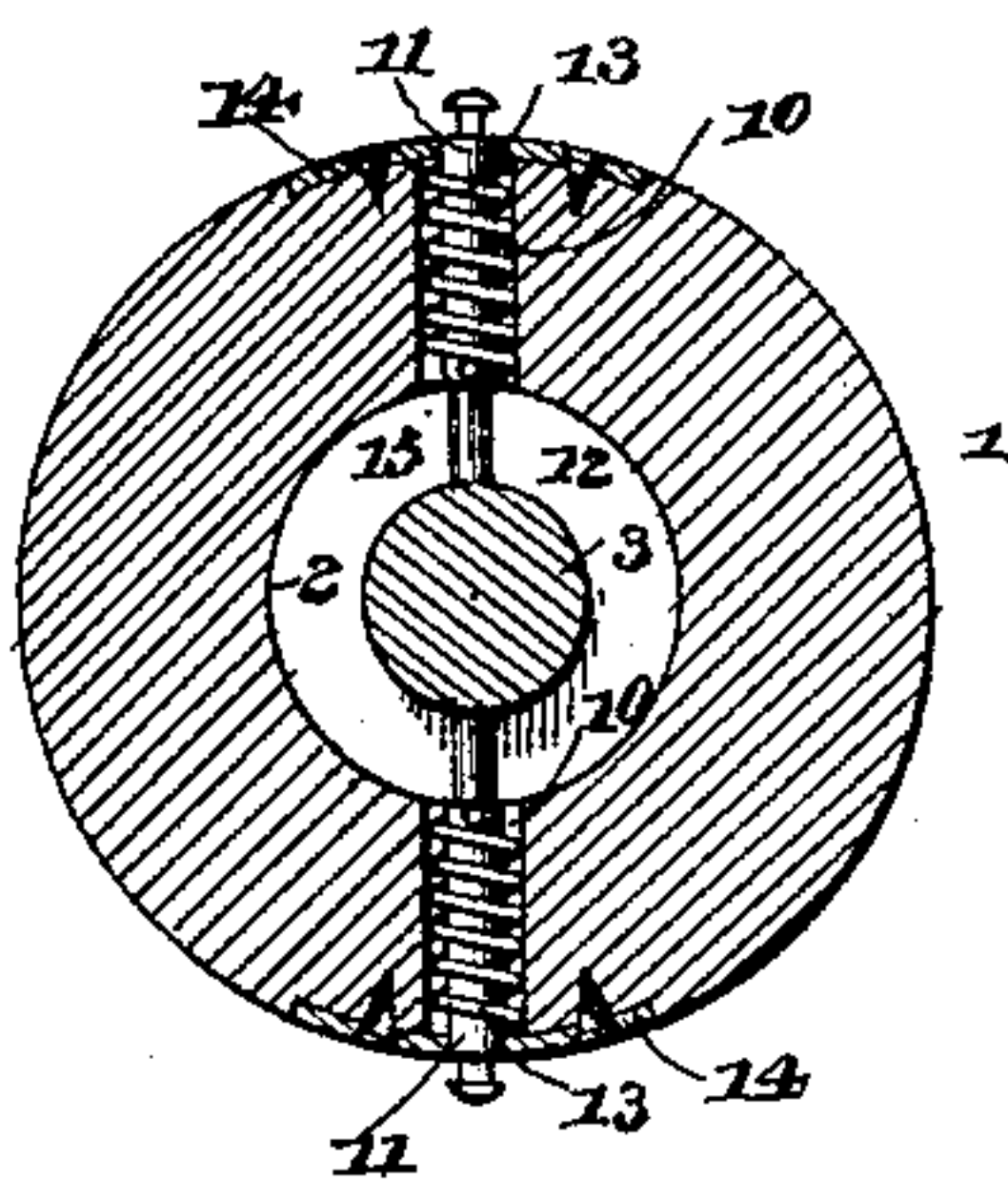


Fig. 2.



Witnesses

B. S. Ober
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Inventor

Arba G. Burrows,

By his Attorneys,

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UNITED STATES PATENT OFFICE.

ARBA G. BURROWS, OF DUNMORE, WEST VIRGINIA, ASSIGNOR OF ONE-HALF TO LEVI GAY, OF SAME PLACE.

VEHICLE-HUB.

SPECIFICATION forming part of Letters Patent No. 480,690, dated August 9, 1892.

Application filed November 5, 1891. Serial No. 410,996. (No model.)

To all whom it may concern:

Be it known that I, ARBA G. BURROWS, a citizen of the United States, residing at Dunmore, in the county of Pocahontas and State of West Virginia, have invented a new and useful Hub, of which the following is a specification.

The invention relates to improvements in hubs.

10 The object of the present invention is to simplify and improve the construction of hubs, to exclude dust and dirt from the axle-box, and to enable the spindle to be readily oiled without removing the wheel.

15 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

20 In the drawings, Figure 1 is a longitudinal sectional view of a hub embodying the invention. Fig. 2 is a transverse sectional view.

Like numerals of reference indicate like parts in all the figures of the drawings.

25 1 designates a vehicle-hub having secured within it an axle-box 2, adapted for the reception of the spindle 3 and extending to within a short distance of the outer end of the hub, which outer end forms a recess adapted 30 for the reception of a cap 4, provided with an oil-chamber 5. The opening of the hub conforms to the configuration of the axle-box 2, and the latter has its outer end projecting into the recess 6 of the hub, exteriorly threaded and engaged by the cap 4, which is interiorly threaded, and the inner end of the axle-box is provided with an annular enlargement 7, forming a shoulder 8 and adapted to receive a flange or cylindrical enlargement 9, 35 formed integral with the axle and arranged at the inner end of the spindle and adapted to fit against the shoulder 8 to close the inner end of the axle-box to exclude dust and dirt therefrom.

45 The inner end of the hub is provided with sockets 10, arranged diametrically opposite each other and adapted for the reception of spring-actuated pins 11, which have their in-

ner ends projecting through perforations of the axle-box and engaging an annular groove 50 12 of the cylindrical enlargement or flange 9. The outer ends of the pins are provided with knobs, which enable the pins to be readily withdrawn from engagement with the annular groove. The pins are held in engage- 55 ment with the groove by spiral springs 13, which are coiled around the pins and have their inner ends secured to the same and their outer ends engaging plates 14, secured to the outer face of the hub. The inward movement 60 of the pin is limited by annular shoulders 15, which engage the axle-box and are formed by reducing the inner ends of the pin. By this construction the hub is securely retained on the spindle, is permitted to revolve freely 65 without friction, and may be readily removed when desired.

The cap 4, which closes the outer end of the axle-box, is provided with oppositely-disposed recesses 16, adapted for the reception of a tool 70 for screwing the cap on the box and for removing the same therefrom, and the said cap has a central opening 17, which is threaded and through which oil is supplied to the chamber 5. The opening 17 is closed by a 75 plug 18, which is exteriorly threaded and has its inner end engaging a seat 19, whereby an oil-tight joint is produced. The spindle 3 is provided with a longitudinal oil-groove 20, which spreads the oil and lubricates the en- 80 tire surface of the axle-box.

It will readily be seen that the hub and spindle are simple and inexpensive in construction, that both ends of the axle-box are closed to prevent the entrance of dust and 85 dirt, and that the hub is securely held or retained on the spindle, but may be quickly removed therefrom when desired.

What I claim is—

The combination, with a hub provided at 90 its outer end with a recess and having at its inner end oppositely-disposed sockets, an axle-box arranged within the hub and having its outer end threaded and provided at its inner end with an annular enlargement 7, form- 95 ing a shoulder 8, and spring-actuated pins ar-

ranged within the sockets, of a spindle adapted to fit into the axle-box and provided with a cylindrical enlargement or flange closing the inner end of the axle-box and having an
5 annular groove arranged to be engaged by said pins, and a cap closing the outer end of the axle-box, substantially as described.

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

ARBA G. BURROWS.

Witnesses:

FRANCIS M. DILLEY,
J. M. BARNETT.