

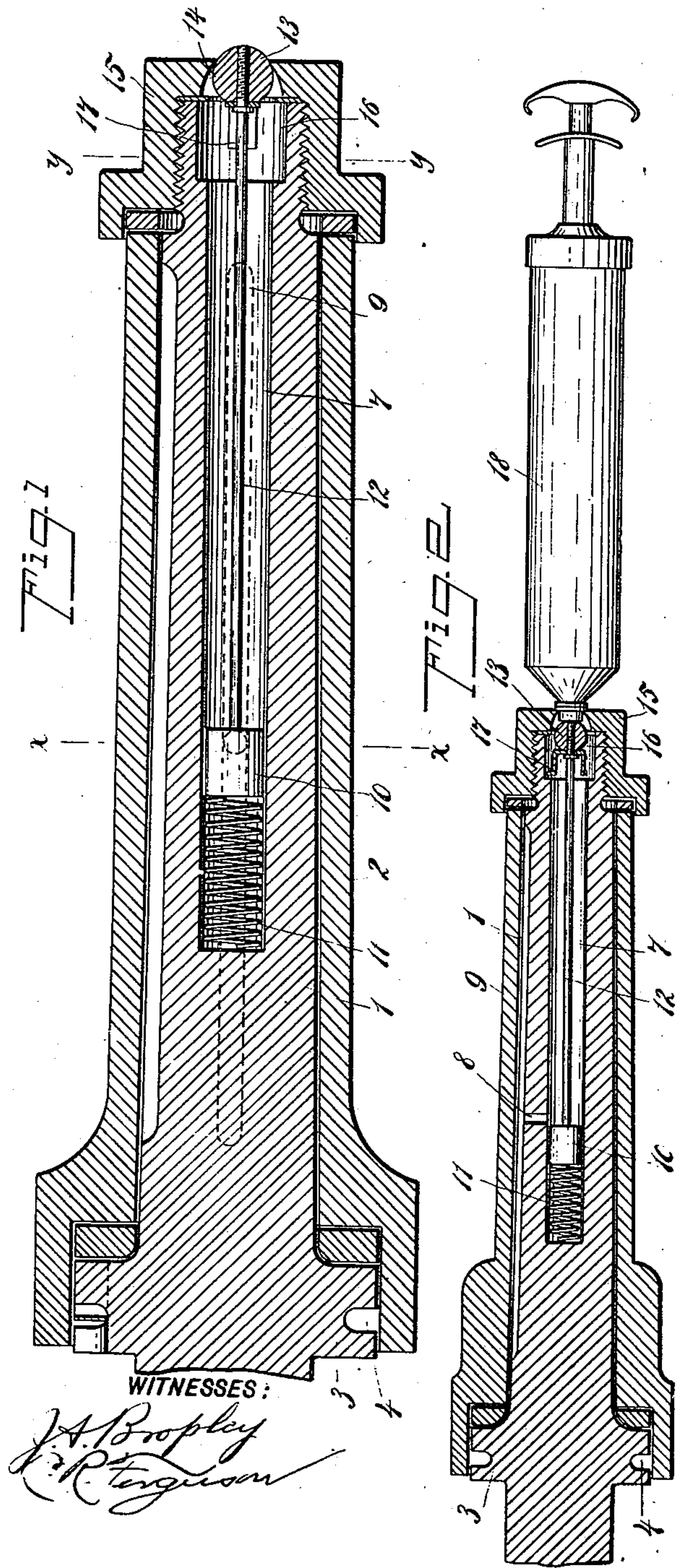
No. 671,014.

J. P. COUNCIL, JR.  
VEHICLE AXLE.

Patented Apr. 2, 1901.

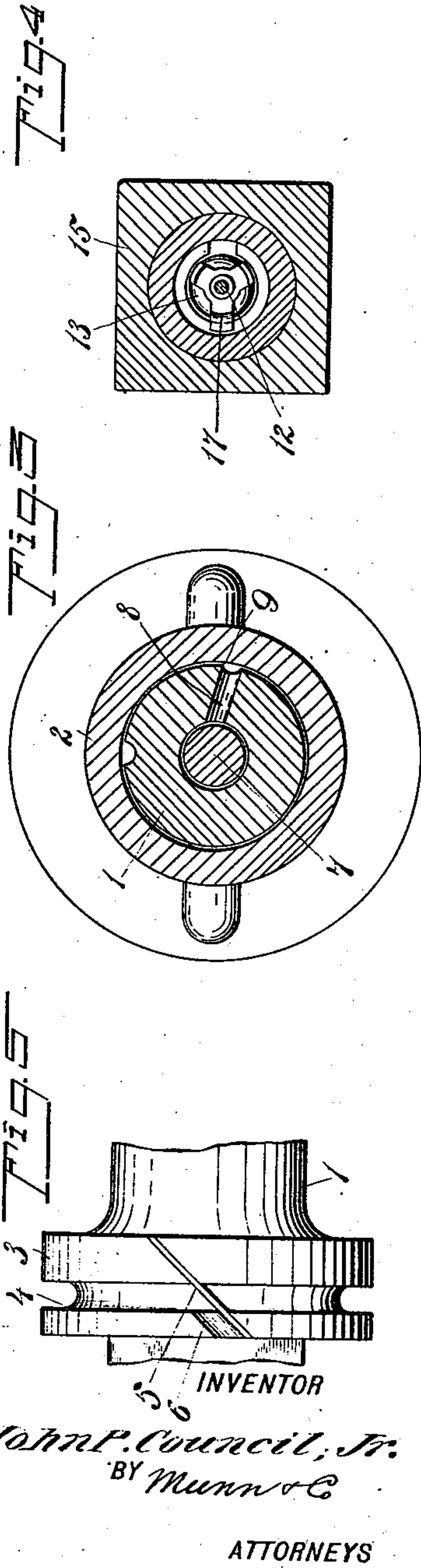
(No Model.)

(Application filed Aug. 25, 1900.)



WITNESSES:

J. A. Bropley  
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INVENTOR  
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# UNITED STATES PATENT OFFICE.

JOHN PICKET COUNCIL, JR., OF WANANISH, NORTH CAROLINA, ASSIGNOR  
TO THE WHITE PATENT AXLE & HUB COMPANY, OF WILMINGTON,  
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## VEHICLE-AXLE.

SPECIFICATION forming part of Letters Patent No. 671,014, dated April 2, 1901.

Application filed August 25, 1900. Serial No. 28,000. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN PICKET COUNCIL, Jr., a citizen of the United States, and a resident of Wananish, in the county of Columbus and State of North Carolina, have invented a new and Improved Vehicle-Axle, of which the following is a full, clear, and exact description.

This invention relates to improvements in axles for carriages or other vehicles; and the object is to provide an axle-spindle with a simple means for supplying lubricant thereto and causing it to move by gravity to the outer side of the spindle and distribute itself evenly along the same, and, further, to provide a simple means for removing dirt or grit that may enter around the inner end of the spindle.

I will describe a vehicle-axle embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal section of the axle-spindle embodying my invention. Fig. 2 is a longitudinal section at right angles to Fig. 1 and showing the manner of supplying lubricant thereto. Fig. 3 is a section on the line *xx* of Fig. 1. Fig. 4 is a section on the line *yy* of Fig. 1, and Fig. 5 is a fragmentary view of the inner end of the spindle.

Referring to the drawings, 1 designates a spindle arranged in the ordinary box 2. At its inner end the spindle has an enlarged portion 3, in which is formed an annular channel 4, and extended diagonally across this channel is a scraper 5, designed to force dirt or grit to an outward opening 6 in the enlarged portion. By this construction dirt or grit entering between the enlarged portion 3 of the spindle and the inner end of the box will fall into the channel 4 as it is scraped from the box and the diagonal scraper 5 will move the dirt or grit outward through the opening 6.

The spindle has a longitudinal bore 7, from which a port 8 leads outward and communicates with a channel 9, formed along the outer side of the spindle, at one side and slightly

below the center. By placing the channel 9 slightly below the center and at the side and inclining the port 8 downward the oil or other lubricant will have a tendency to move outward by gravity, and as the port 8 is at about the longitudinal center of the channel the lubricant will be evenly distributed as the box rotates around the spindle. The port 8 is controlled or opened and closed by means of a plunger-valve 10, movable in the bore 7 and normally pressed outward to cover the port by means of a spring 11. A stem 12 extends from the plunger-valve, and on the outer end of this stem is secured a valve 13, here shown in the form of a ball-valve, designed to normally close an outward opening 14 in the cap-nut 15. The outer end of the bore 7 is enlarged, as at 16, and attached to the valve-stem and engaging with the wall of this enlarged portion of the bore are fingers 17, which prevent lateral movement of the stem. By this construction it is designed that a lubricant of any consistency may be employed—such, for instance, as oil, tallow, or even soap. When a fluid lubricant is used, it is to be inserted by means of a force-pump—such, for instance, as indicated at 18 in Fig. 2. In inserting the oil the nozzle of the force-pump is pressed against the valve 13, forcing said valve inward from its seat and also moving the valve 10 from the port 8. Then by operating the piston of the pump the oil will be forced into the bore and outward through the port into the channel 9, from which it will be taken by the rotary box, the discharge of the oil or other lubricant being facilitated, as before described, by the said channel being placed below the center line of the spindle. Of course upon removing the pump the spring 11 will move the valves to their closing position.

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

1. In an axle, a spindle having a longitudinal bore and also having a channel along its outer surface at one side, the said channel being below the axial center of the spindle and also having a port communicating

with the bore of the spindle, a spring-pressed valve in the bore for controlling said port, a cap-nut for the spindle having an opening, a valve for controlling said opening, and a stem  
5 connection between said valve and the first-named valve, substantially as specified.

2. In an axle, a spindle having a longitudinal bore and also having a channel along its outer side communicating with said bore,  
10 a valve for controlling the communication between the channel and bore, a spring for moving said valve outward, a cap-nut for the spindle and having an opening in its end, a valve for said opening, a stem connection be-  
15 tween said valve and the first-named valve, and centering-fingers attached to said stem

and engaging with the wall of the bore, substantially as specified.

3. In an axle, a spindle having an annular channel at its inner end, and a scraper ar- 20 ranged diagonally across said channel and adapted to direct dirt or grit through an outlet-opening formed in the spindle, substantially as specified.

In testimony whereof I have signed my 25 name to this specification in the presence of two subscribing witnesses.

JOHN PICKET COUNCIL, JR.

Witnesses:

JOSEPH B. BRINKLEY,  
JAS. ROBT. COUNCIL.