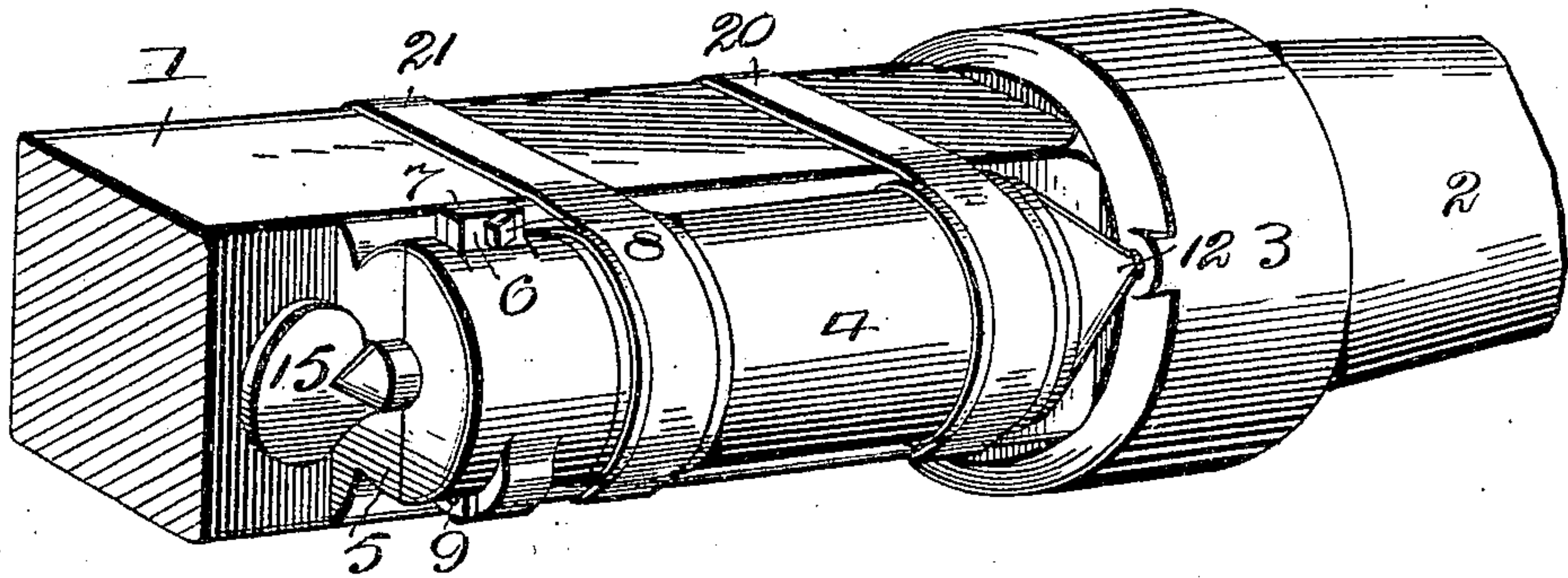


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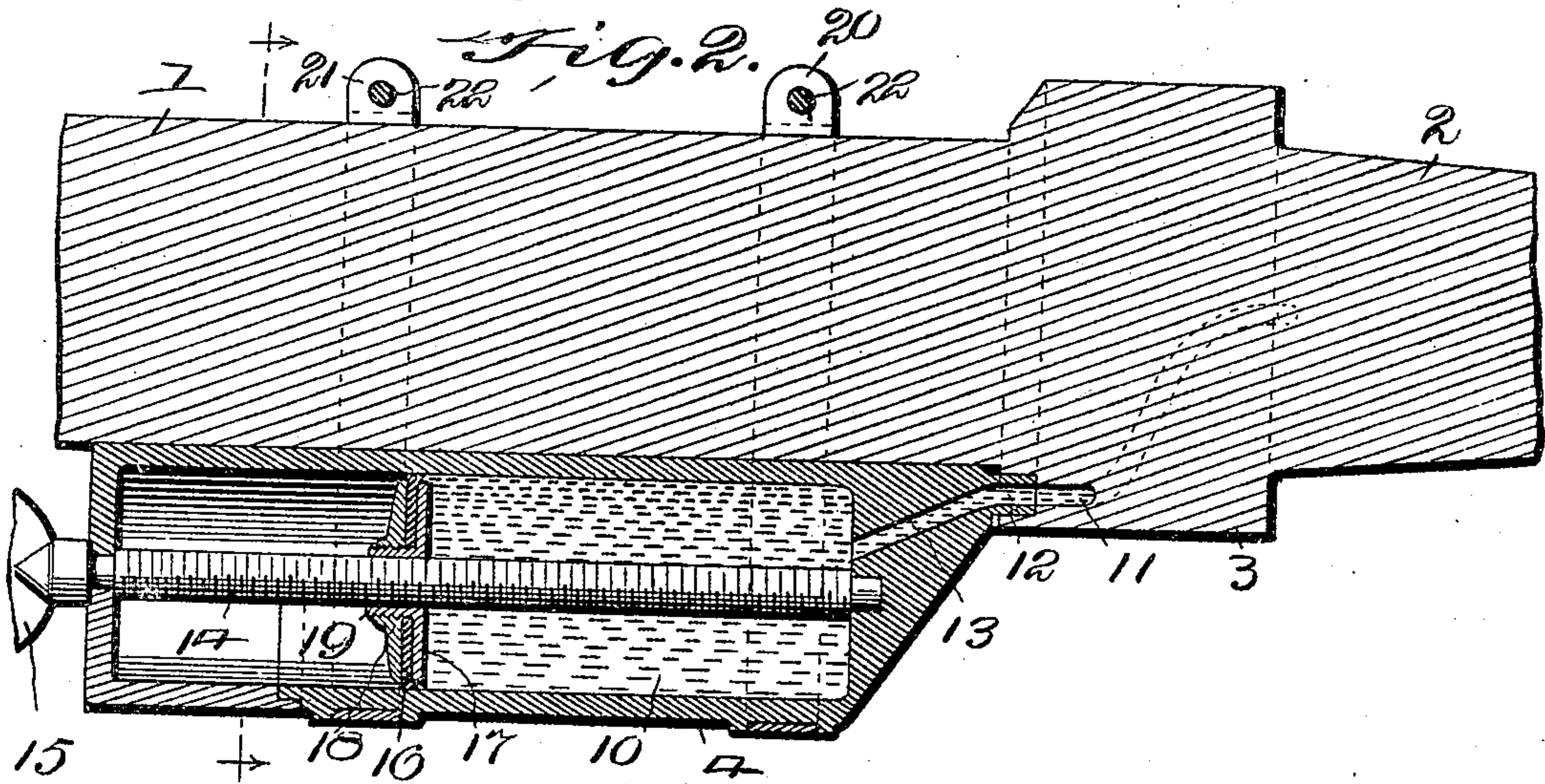
PATENTED DEC. 5, 1905.

W. C. SCHULZ,  
LUBRICATOR ATTACHMENT.  
APPLICATION FILED FEB. 3, 1905.

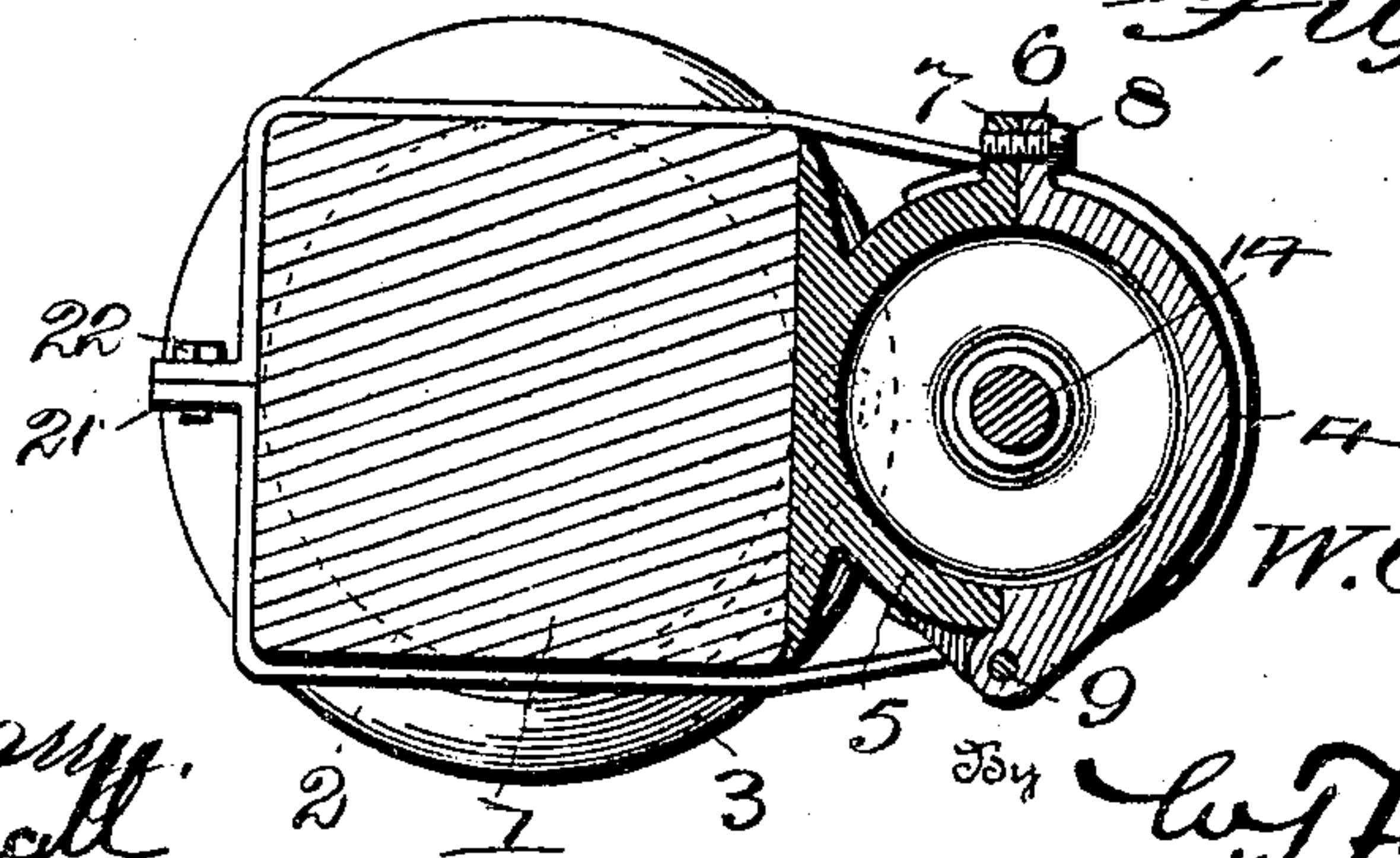
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses

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# UNITED STATES PATENT OFFICE.

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## LUBRICATOR ATTACHMENT.

No. 806,198.

Specification of Letters Patent.

Patented Dec. 5, 1905.

Application filed February 3, 1905. Serial No. 244,021.

*To all whom it may concern:*

Be it known that I, WILHELM C. SCHULZ, a citizen of the United States, residing at Lidgerwood, in the county of Richland and State of North Dakota, have invented certain new and useful Improvements in Lubricator Attachments; 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 lubricating appliances; and it consists of certain novel features of construction and combination of parts, the preferred form whereof will be hereinafter clearly set forth, and pointed out out in the claim.

The main object of my invention, among others, is to provide a lubricating attachment which, while especially designed for use in connection with wheels of vehicles, will also be found desirable and useful for a great variety of purposes, as the lubrication of parts of machinery, &c.

A further object of my invention is to provide means for directing the lubricant to the main friction-point between the lower side of the axle and the bore of the wheel receiving said axle.

Another object is to so construct the various parts of my invention that the same may be readily assembled each in its respective place and applied to use upon an axle of the usual or any preferred construction, whereby the wheel will be thoroughly lubricated and kept in an excellent running order until the lubricant contained in the receptacle is entirely exhausted.

Other objects and advantages will be made clearly apparent from the following specification, considered in connection with the accompanying drawings, which are considered a part of this application, and in which—

Figure 1 shows a perspective view of my invention applied to use. Fig. 2 shows a horizontal section of Fig. 1, taken on a median line of the axle and also the median line of my lubricating attachment. Fig. 3 is a transverse section of the axle and my lubricator attachment.

For convenience of reference to the various details and cooperating accessories of my invention numerals will be employed, the same numeral applying to a similar part throughout the several views.

Referring to the numerals on the drawings,

1 indicates the supporting-axle of the vehicle, made in the usual or any preferred way, while 2 designates the spindle attached to the axle or forming an integral part thereof, as is common, a swell or enlarged member 3 being provided intermediate the inner end of the spindle and the outer end of the axle.

My lubricator attachment consists of a reservoir 4, which is provided at one end with a door or closure 5, said closure being secured to the reservoir by suitable ears 6 and 7, carried, respectively, by said parts, a locking-bolt 8 being employed to hold said ears together. Upon the side of the members 4 and 5 opposite the ears 8 I locate the hinge 9, thereby enabling the closure to be readily opened for the reception of the lubricating material, which is preferably in semi-liquid form.

In Fig. 2 I have designated the lubricating material by the numeral 10, and in order that the said material may be fed to the under side of the spindle 2 I provide the conveying-duct 11, as clearly shown by full and dotted lines in Fig. 2, and communicating with the receiving end of the duct is the tapered nozzle 12, as clearly illustrated in Figs. 1 and 2, the nozzle 12 also being provided with a duct or bore 13, leading to the interior of the reservoir. In order that the oil or lubricant may be forced from the reservoir through the ducts 11 and 13, I provide the feeding-screw 14, having a suitable thumb-piece or controller 15 upon its outer end, while located in the reservoir is a diaphragm 16 of flexible material, as rubber or the like, the said diaphragm being reinforced upon either side by the members 17 and 18, carried by the shaft or screw 14. It will be observed that the disk or member 17 is provided with a flange 19 of proper size to fit around the threaded shaft 14, said flange being internally and externally threaded, as clearly shown. The external threads upon the flange 19 are for the reception of the disk member 18, and it is therefore obvious that the flexible member or disk 16 will thus be locked reliably in place, while at the same time a rotation of the shaft 14 will cause the entire diaphragm to move inward or outward, as preferred.

When the diaphragm is forced inward by a proper rotation of the threaded shaft 14, it follows that the lubricant is forced through the ducts 11 and 13 and caused to discharge under a more or less pressure at the lubricating-point on the lower side of the spindle 2,



thereby delivering the lubricant at the point where it will be most efficient.

My lubricating device may be reliably secured in position upon the axle at a suitable point, preferably on the side thereof, by means of the clamping members 20 and 21, the ends of said clamping members being locked in union with each other by a suitable bolt or set-screw 22, as clearly shown in Figs. 2 and 3.

By reference to Fig. 3 the position of the duct 11 will be more clearly brought out, inasmuch as it is directed downward through the collar or cylindrical section 3 to the lower side of the spindle 2, where the lubricant will engage the bore of the wheel and the latter will distribute the lubricant throughout the entire surface of the spindle incident to the rotation of the wheel.

It will thus be seen that I have provided a reliably-efficient means for lubricating the spindles of vehicles of any kind and that the lubrication thereof will be thorough and complete for an indefinite time, inasmuch as the reservoir 4 may be made of proper size to carry a lasting quantity of lubricating material. The lubricating material being a liquid or semiliquid in form is readily forced through the feeding-ducts to the point de-

sired by a simple rotation of the threaded shaft 14 through the mediation of the thumb-piece 15, thus insuring that any desired quantity of the lubricating compound will be delivered.

Believing that the construction and manner of using my improved lubricating attachment have thus been made clearly apparent, further description is deemed unnecessary.

What I claim as new, and desire to secure by Letters Patent, is—

A lubricating attachment for vehicle-axles consisting of a reservoir, one end of which is provided with a nozzle adapted to open into a duct within an axle, a closure hinged to one end of the reservoir and constituting a portion of one side thereof, means for locking the closure in closed position, clamping devices extending around the reservoir for securing it to an axle, and means for forcing lubricating material out of the reservoir and through the nozzle thereof.

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

WILHELM C. SCHULZ.

Witnesses:

J. H. MOVIOUS,

AUGUST WEGENER.