

No. 764,786.

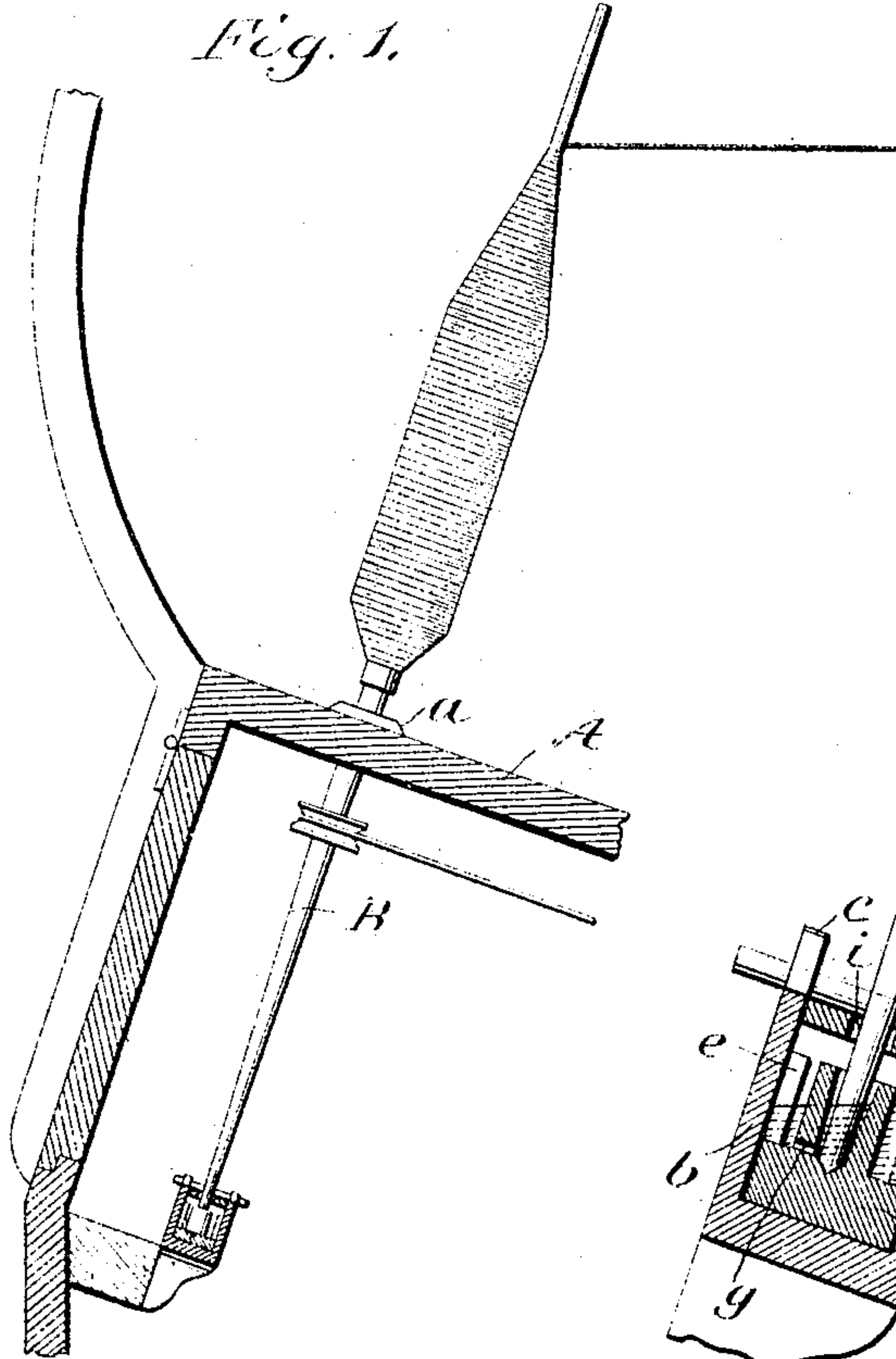
PATENTED JULY 12, 1904.

J. VOYER.  
SPINDLE LUBRICATOR.

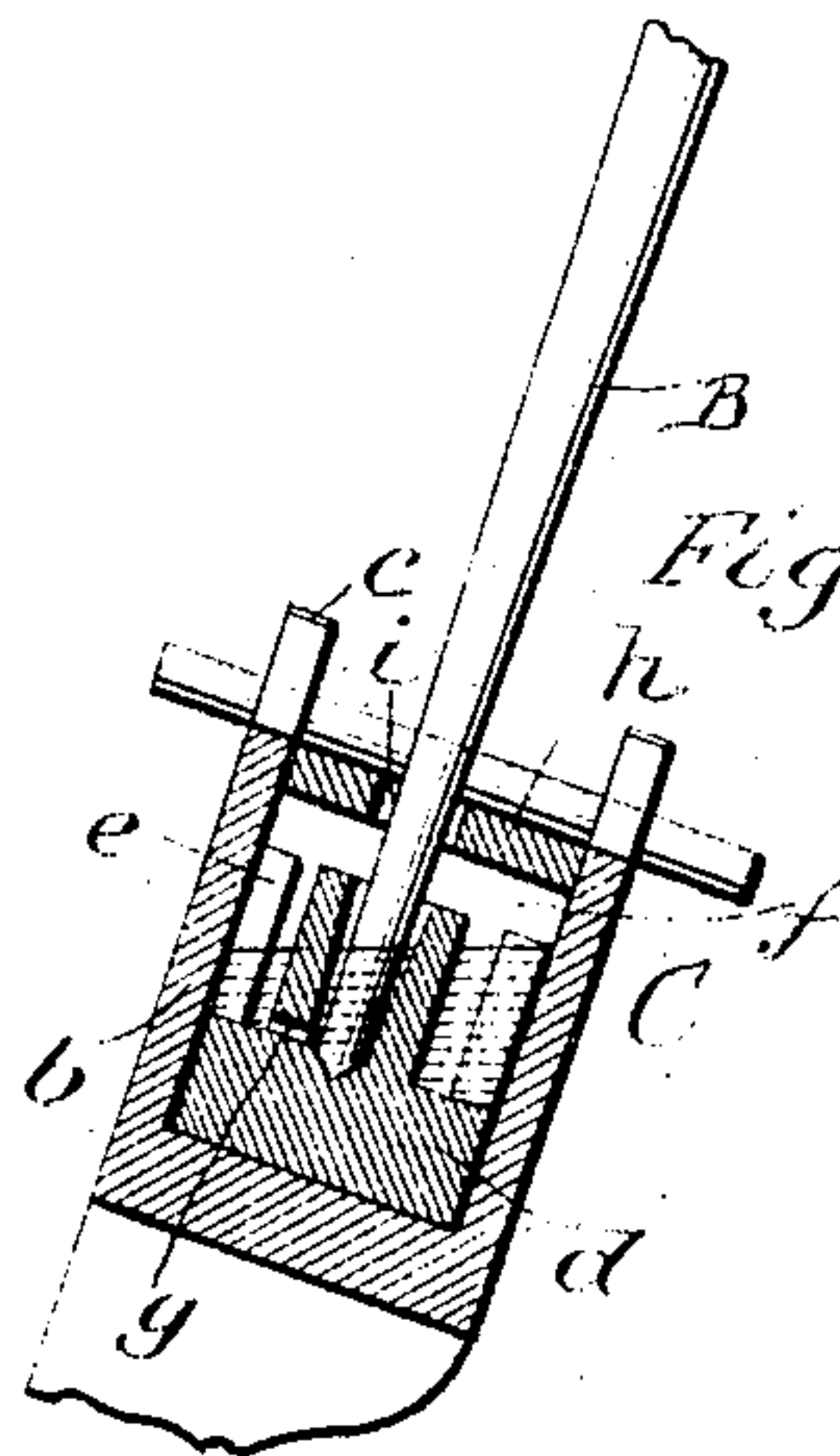
APPLICATION FILED JAN. 25, 1904.

NO MODEL.

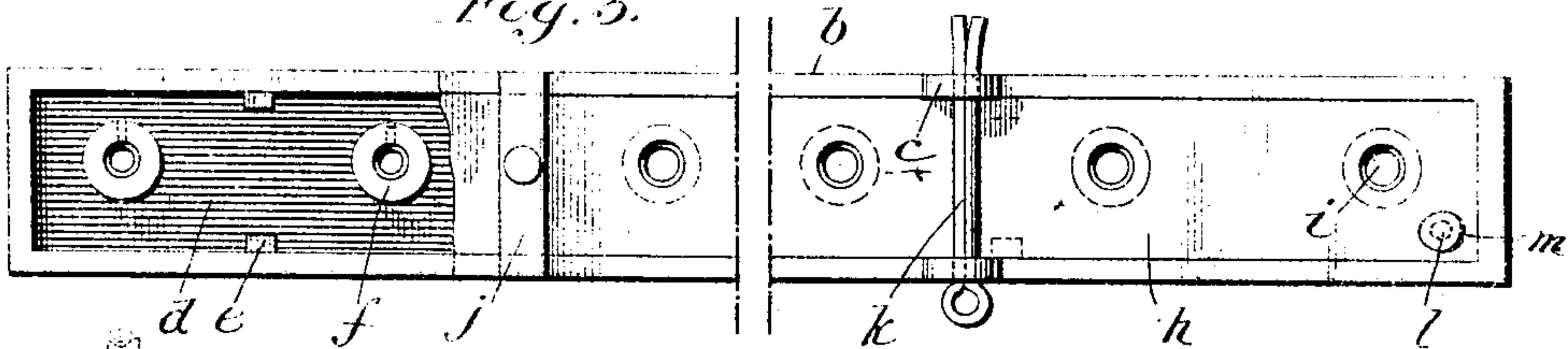
*Fig. 1.*



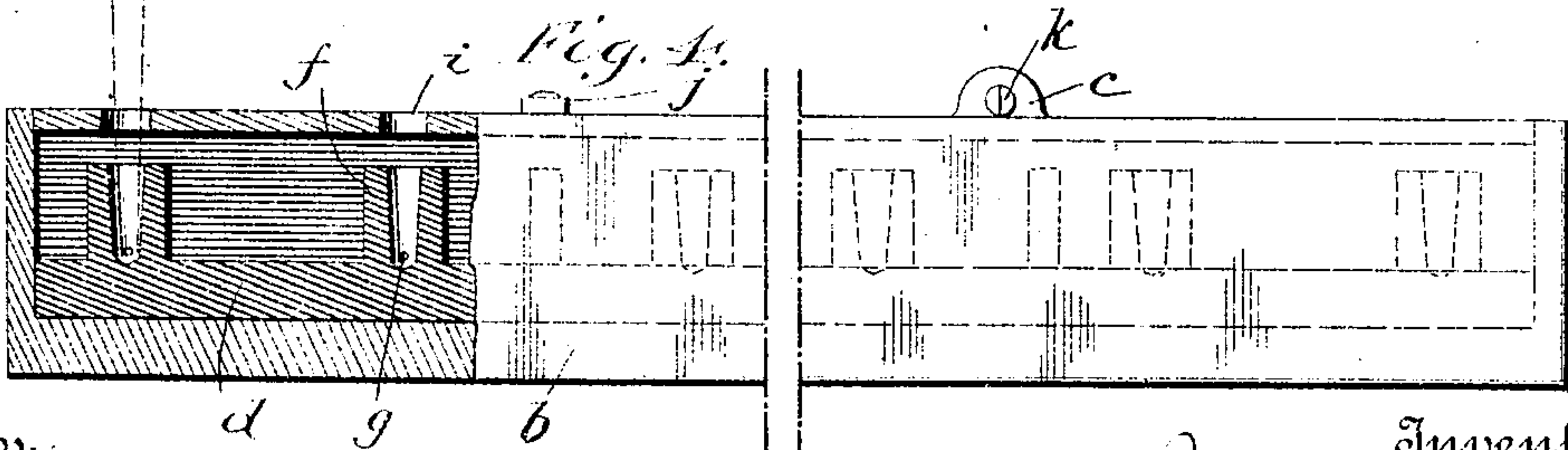
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses

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# UNITED STATES PATENT OFFICE.

JOSEPH VOYER, OF WOONSOCKET, RHODE ISLAND.

## SPINDLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 764,786, dated July 12, 1904.

Application filed January 25, 1904. Serial No. 190,539. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH VOYER, a citizen of the United States, residing at Woonsocket, in the county of Providence and State of Rhode Island, have invented new and useful Improvements in Spindle-Lubricators, of which the following is a specification.

My invention pertains to means for lubricating spindles, more particularly the spindles of spinning-mules; and it consists in the peculiar and advantageous lubricator hereinafter described, and pointed out in detail in the claims appended.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical section illustrating a portion of a mule-carriage equipped with my improved spindle-lubricator and also illustrating the arrangement of the lubricator relative to the spindles of the carriage. Fig. 2 is an enlarged detail vertical section illustrating a spindle journaled in one of the bearings of the lubricator. Fig. 3 is a broken plan view of the lubricator removed from the carriage and with a portion of the closure-plate of the lubricator broken away; and Fig. 4 is a broken view of the lubricator, partly in side elevation and partly in longitudinal vertical section.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which—

A is a portion of a mule-carriage which may be and preferably is of the ordinary construction.

B is one of a plurality of spindles journaled in suitable bearings *a* in the mule-carriage, and C is my novel lubricator, which extends crosswise of the carriage and is positioned thereon so as to receive the lower ends of the spindles. The said lubricator may extend entirely across the carriage or may be made in sections of a length to receive, say, sixteen or twenty spindles, as preferred. In the present and preferred embodiment of my invention it comprises a trough-like reservoir *b*, having lugs *c* on its side walls at intervals of its length, a plate *d* removably arranged in the reservoir and having upwardly-extending portions or lugs *e*, whereby it is prevented from tipping, and also having socket-bearings *f* and passages *g* in the lower por-

tions of the same, a closure-plate *h* resting between and flush with the upper edges of the side and end walls of the reservoir and having apertures *i*, registered with the socket-bearings *f*, and also having lugs *j*, which bear on the side walls of the reservoir and support it in the same, and a cotter-pin *k*, arranged in the lugs *c* of the reservoir and resting above the closure-plate, so as to retain the latter in position. The reservoir of the lubricator may be filled with lubricant precedent to placing the plate *h* in position; but I prefer to effect the filling of the reservoir through a filling-aperture *l* in the plate *h*, which aperture is normally closed by a removable plug *m*.

In the practical use of my novel lubricator the spindles B extend through the apertures *i* in the plate *h* and are stepped in the socket-bearings *f* in the manner best shown in Fig. 2. With this understanding it will be appreciated that when the reservoir *b* is supplied with lubricant to about the height shown in Fig. 2 the lower ends of the spindles will be thoroughly lubricated, and friction incident to rapid rotation of the spindles will be reduced to a minimum. This is due in large measure to the taper form of the socket-bearings and the passages *g* in the lower portions of said socket-bearings, which permit the lubricant to freely enter and seek its level in the socket-bearings. It will also be appreciated that such oil as works its way up the spindles incident to rapid rotation thereof will be prevented by the closure-plate *h* from flying off and injuring the stock, while the lubricant which works up the insides of the socket-bearings will find its way back into the reservoir. Inasmuch as the closure-plate *h* prevents the escape of lubricant from the reservoir it not only prevents injury to the stock, but at the same time saves lubricant, and thereby obviates the necessity of replenishing the reservoir at frequent intervals.

In virtue of the closure-plate *h* and the interior plate *d* being removable from the reservoir, as described, it will be noted that the lubricator may be cleaned with facility when necessary.

Notwithstanding the advantages of my novel lubricator, as pointed out in the foregoing, the same is very simple and inexpensive and



by reason of its sturdy construction is calculated to last quite as long as the other parts of the mule.

In addition to preventing the escape of lubricant from the reservoir *b* the closure-plate *h* effectually prevents dirt, lint, and the like from entering the reservoir and deteriorating the lubricant.

As compared with the spindle-lubricators extant my novel lubricator is materially advantageous, since it is necessary to supply the former with lubricant every day, while one filling of the reservoir of the latter will last several weeks.

I have entered into a detailed description of the lubricator constituting the present and preferred embodiment of my invention in order to impart a definite understanding of the same. I desire it understood, however, that such changes or modifications may be made in practice as fairly fall within the scope of my invention as claimed.

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

1. The combination with a spindle; of a lubricator comprising a reservoir, a plate removably arranged in the reservoir and having one or more upwardly-extending portions disposed against a wall or walls of the reservoir, whereby the plate is held against tipping, and also having a socket-bearing positioned to receive the lower end of the spindle, and means for closing the reservoir, provided with an aperture for the passage of the spindle.

2. The combination with a spindle; of a lubricator comprising a reservoir, a plate removably arranged in the reservoir and having one or more upwardly-extending portions disposed against a wall or walls of the reservoir, whereby the plate is held against tipping, and also having a socket-bearing positioned to receive the lower end of the spindle, and a passage connecting the lower portion of said bearing and the reservoir, and a closure-plate removably secured on the reservoir and having an aperture for the passage of the spindle.

3. The combination of a mule-carriage, a plurality of spindles arranged in a series extending crosswise of the carriage, and a lubricator common to the several spindles; the said lubricator comprising a reservoir fixed on and extending crosswise of the carriage, a plate removably arranged in the reservoir on the bottom thereof, and having socket-bearings at intervals in its length receiving the lower ends of the spindles, and also having passages *g* in the lower portions of said socket-bearings, and a removable closure-plate secured on the reservoir and having apertures at intervals in its length registered with the socket-bearings and receiving the spindles.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH VOYER.

Witnesses:

EDGAR L. SPAULDING,  
GEO. W. SPAULDING.