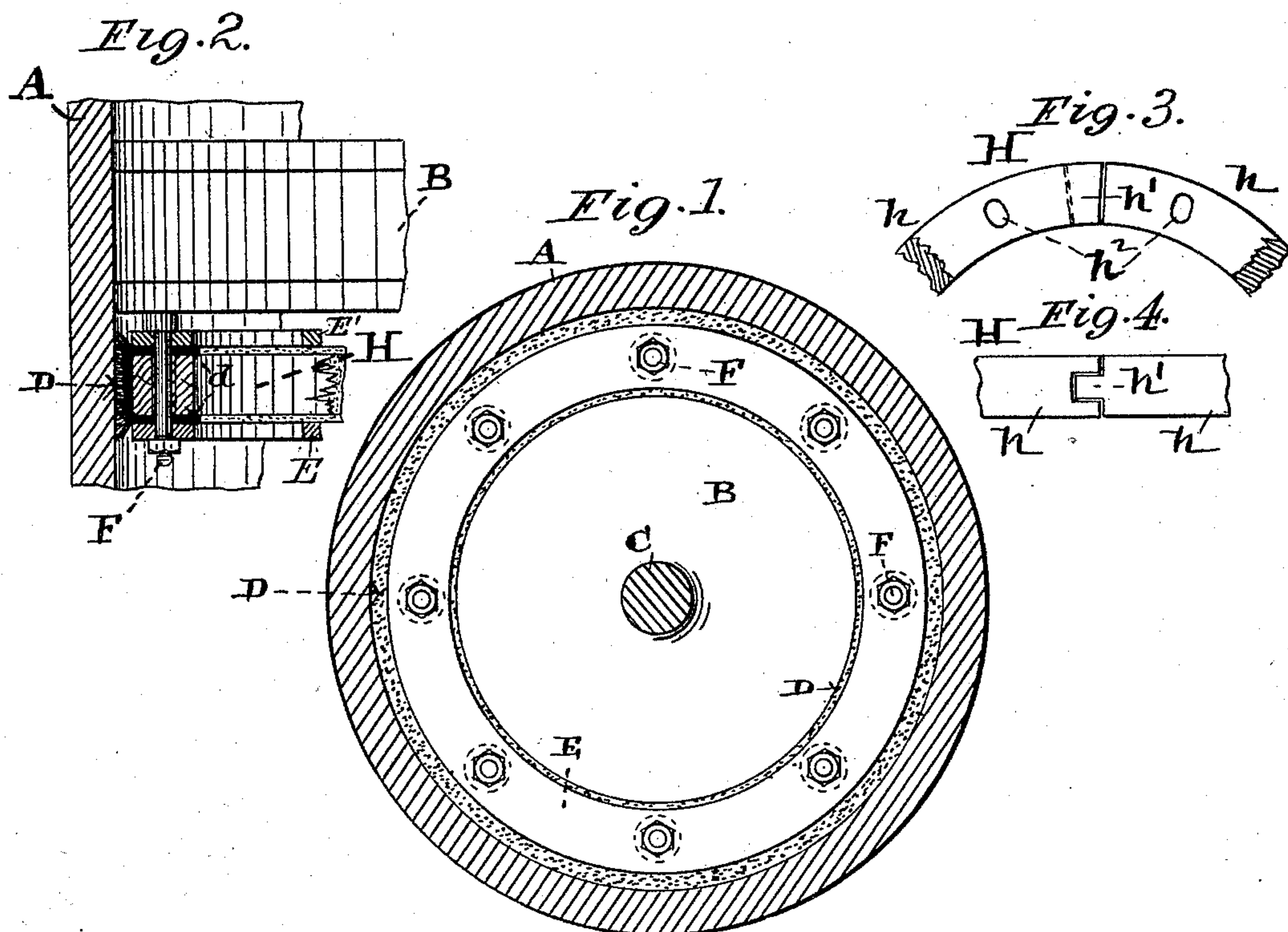


(No Model.)

J. H. BROOKMIRE.  
HYDRAULIC CYLINDER LUBRICATOR.

No. 424,456.

Patented Apr. 1, 1890.



WITNESSES

B. H. Rye  
Witness

INVENTOR

James H. Brookmire  
by C. D. Moody  
att'y

# UNITED STATES PATENT OFFICE.

JAMES H. BROOKMIRE, OF ST. LOUIS, MISSOURI.

## HYDRAULIC-CYLINDER LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 424,456, dated April 1, 1890.

Application filed January 2, 1890. Serial No. 335,577. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. BROOKMIRE, of St. Louis, Missouri, have made a new and useful Improvement in Hydraulic-Cylinder Lubricators, of which the following is a full, clear, and exact description.

The improvement under consideration relates to that class of hydraulic-cylinder lubricators which travel with the piston and piston-rod in the movement thereof to and from the cylinder; and it consists in the special means for supporting the lubricant-holder, substantially as is hereinafter set forth and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is a cross-section of a hydraulic cylinder having the improved lubricator; Fig. 2, a longitudinal fragmentary section; and Figs. 3 and 4, respectively, a side elevation and an edge elevation of the widening-ring.

The same letters of reference denote the same parts.

The cylinder A, piston B, and piston-rod C are of the usual construction, saving as they may be supplemented by the improvement in question.

The lubricant-holder D is any suitable material capable of receiving, carrying, and distributing the lubricant. A piece of tanned sheep-pelt with the wool on I consider as good as any material. It is supported in position by means of a pair of rings E and E', which in turn are attached to the piston B—that is, the holder D is clamped between the rings so as to bring the outer edge of the holder against the inner surface of the cylinder A—and the rings and interposed holder are secured to the outer end b of the piston, and preferably by means of the bolts F, which pass through the rings and are tapped into the piston, substantially as shown. The inner ring E' is preferably, and by means of suitable washers G, spaced a short distance apart from the piston end b. The same bolt F, as shown, may serve to both clamp the holder between the rings and to attach the rings to the piston; but, if desired, a separate set of

bolts or other fastenings may be employed to unite the rings. The holder may be adjusted from time to time, so as to be set closer to the shell of the cylinder, by loosening the fastenings which unite the rings, setting the holder radially outward, and then uniting the rings again to clamp and support the holder in position to apply the lubricant to the cylinder.

I desire not to be restricted in applying this improved lubricator. It can be attached to either end of the piston, so long as it is toward the end of the cylinder. If it is desired to widen the lubricant-holder, so that it shall come in contact with a larger portion of the cylinder-surface, a device such as shown in Figs. 3, 4, 5 can be employed.

H represents a ring, say, of wood, over which the holder D is turned to bring its edges *d d* into the position shown substantially in Fig. 3. This ring, with the holder thus applied to it, is placed between the rings E E' and the bolts F are passed through all three rings E E' H and into the piston, as shown. The rings E E' are suitably perforated to admit the bolts F, and the ring H is also perforated at *h*<sup>2</sup> to admit the bolts F.

As the holder D and ring H may have to be set out nearer to the cylinder-surface, the perforations *h*<sup>2</sup> are elongated, as shown, and to enable the ring H to be expanded, as well as for other reasons, it is made in sections *h h*, jointed together as at *h'*. The rings E E' may also be made in sections, and when thus made the joints in the rings E E', respectively, are arranged to be out of line with each other, so that the bolts F can hold the sections of the two rings E E' properly together.

I claim—

The combination of the cylinder, piston, lubricant-holder, the three rings, and the bolts, substantially as described.

Witness my hand this 24th day of December, 1889.

JAMES H. BROOKMIRE.

Witnesses:

C. D. MOODY,  
D. W. C. SANFORD.