

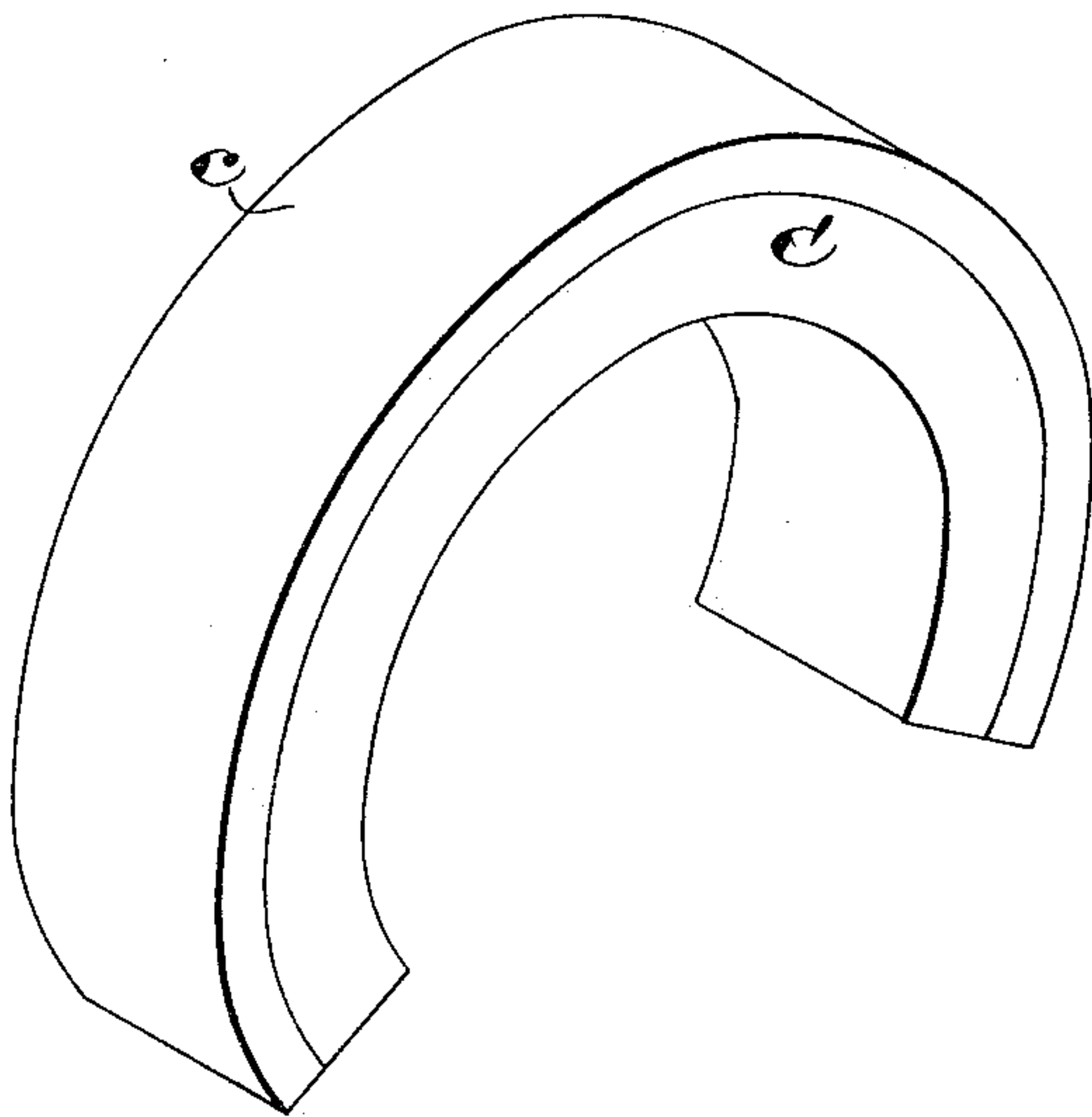
(No Model.)

J. G. GRACEY.  
LUBRICATOR FOR CYLINDERS.

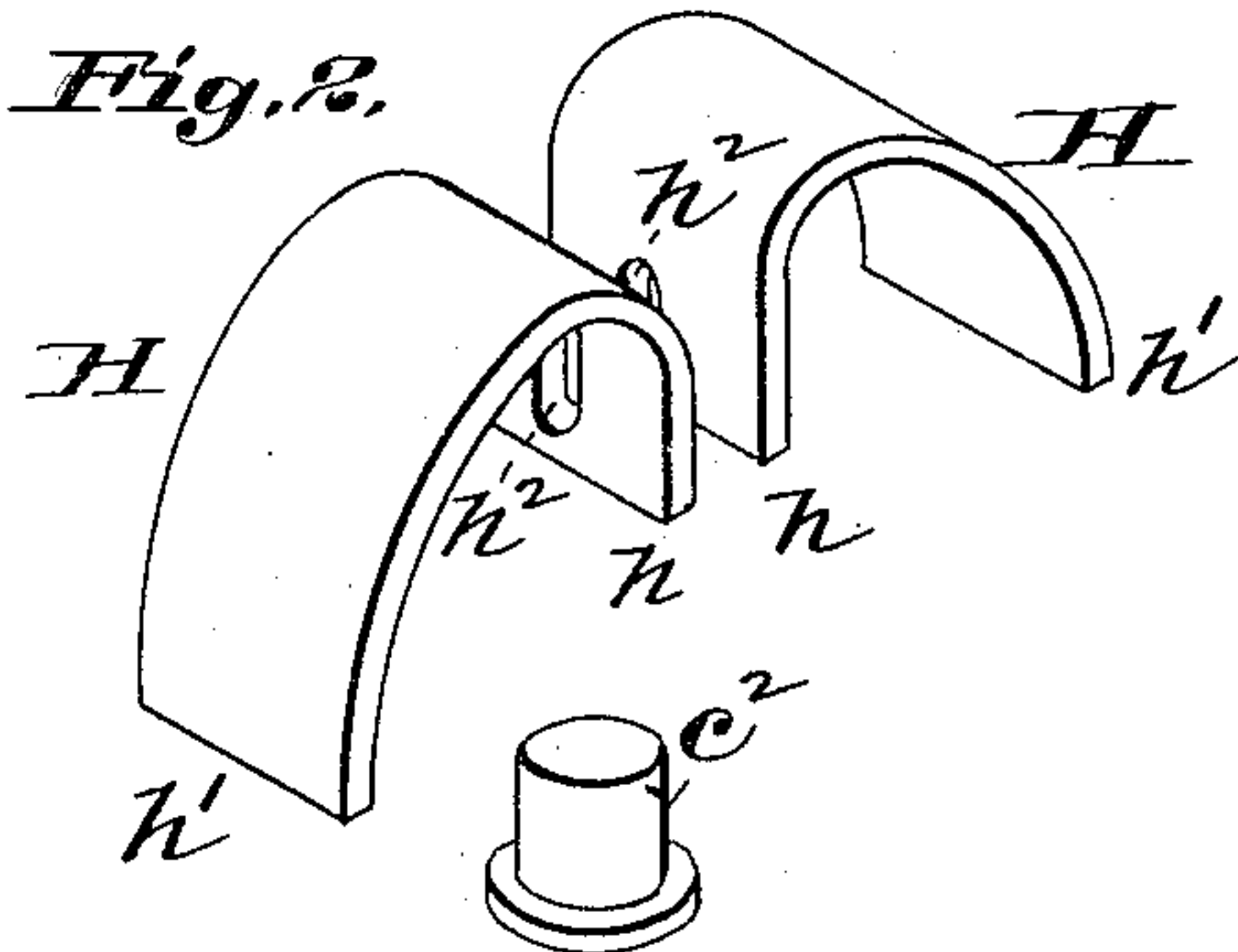
No. 405,835.

Patented June 25, 1889.

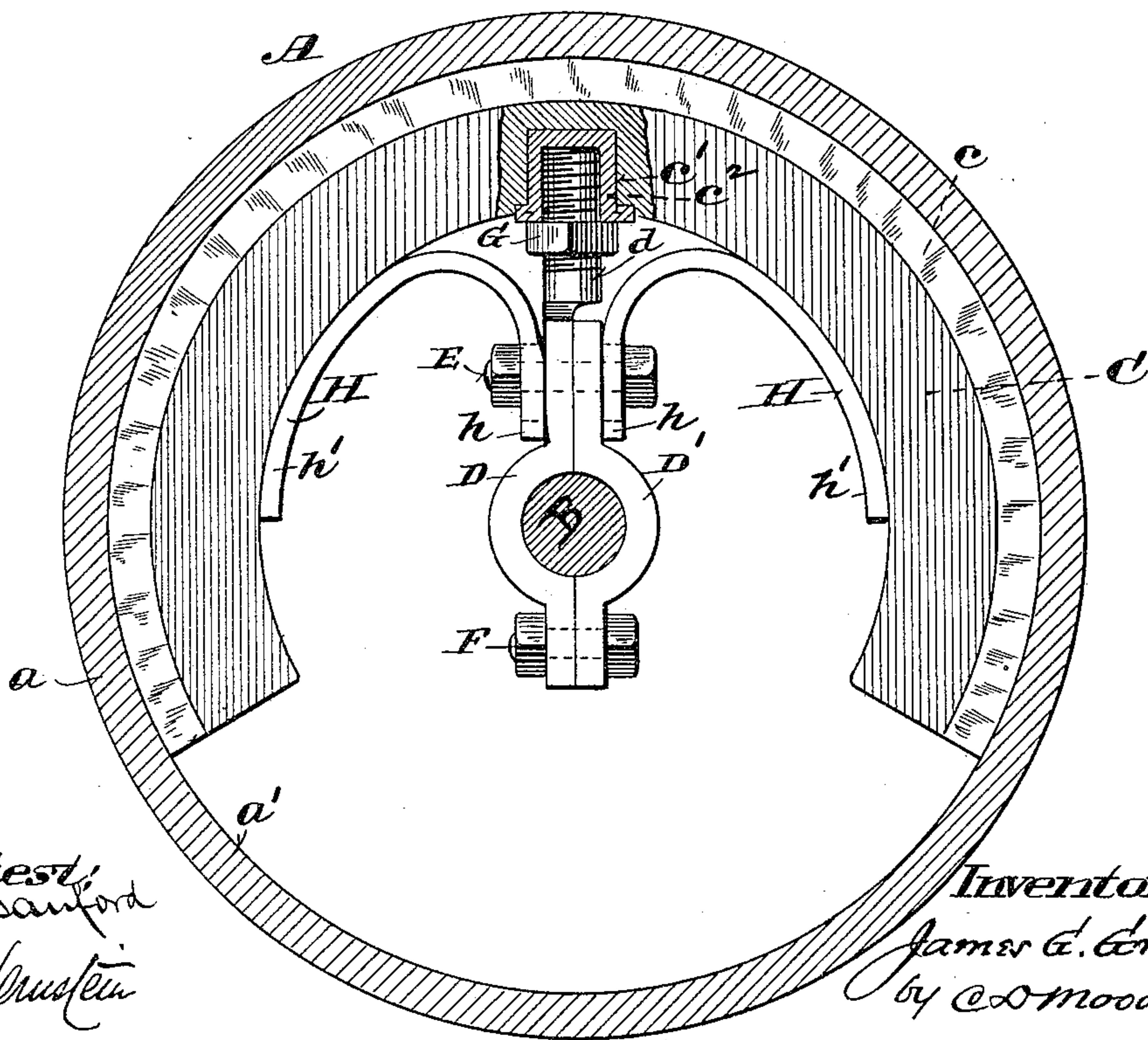
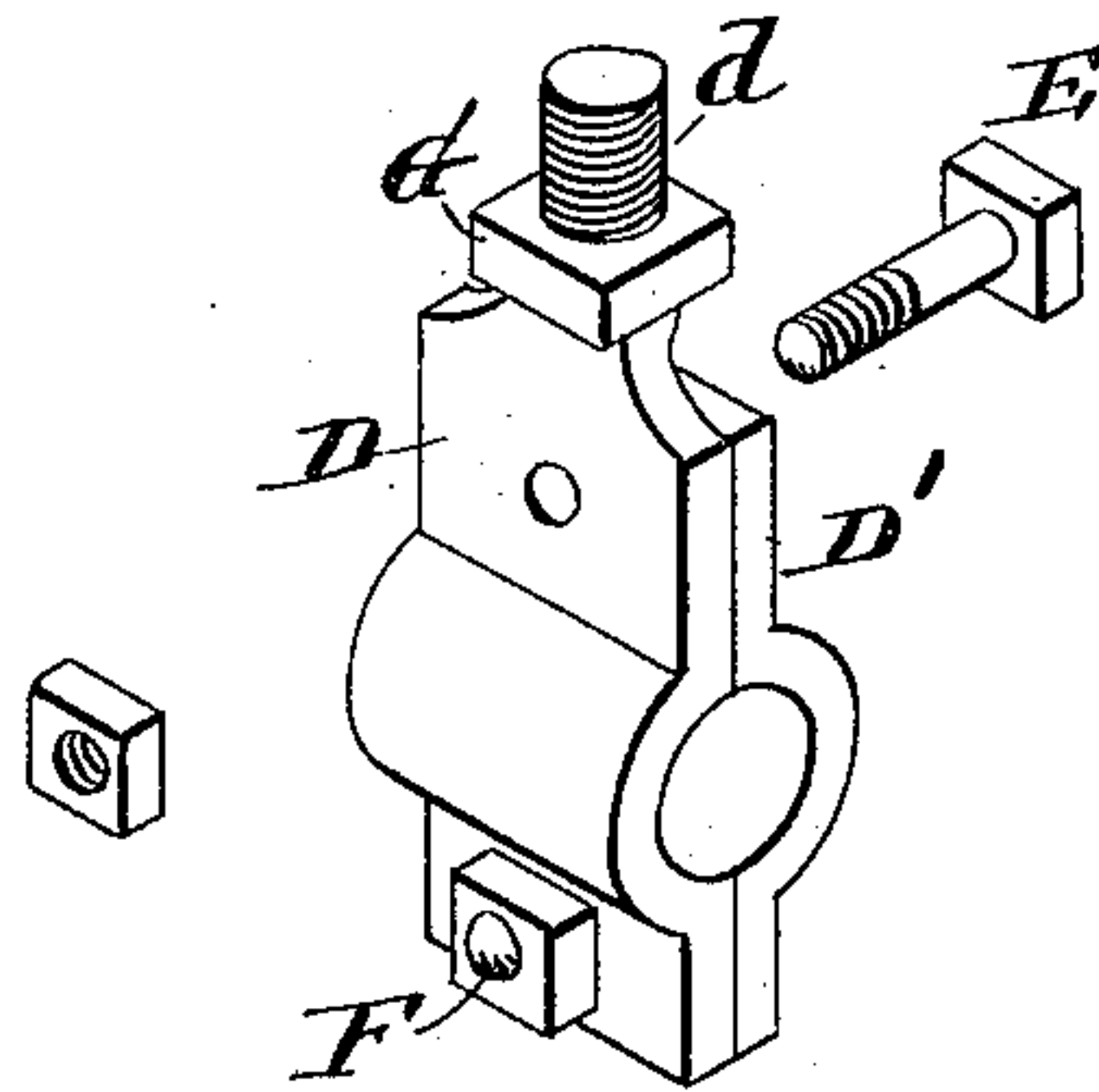
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Attest:*  
*W. H. Henshaw*

*Inventor:*  
*James G. Gracey*  
*by C. O. Moody atty*



# UNITED STATES PATENT OFFICE.

JAMES G. GRACEY, OF ST. LOUIS, MISSOURI.

## LUBRICATOR FOR CYLINDERS.

SPECIFICATION forming part of Letters Patent No. 405,835, dated June 25, 1889.

Application filed February 20, 1889. Serial No. 300,557. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES G. GRACEY, of St. Louis, Missouri, have made a new and useful Improvement in Lubricators for Hydraulic  
5 and other Cylinders, of which the following is a full, clear, and exact description.

The improvement relates to that class of lubricators which are attached to the piston-rod; and it consists in the special construction whereby that part of the lubricator which  
10 comes in contact with the surface to be lubricated can, from time to time as it wears away, be readily adjusted so as to be kept in contact with such surface, substantially as is herein-  
15 after described and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is a view in perspective of that part of the device which is in contact with the  
20 surface to be lubricated, and which may be termed the "lubricator;" Fig. 2, a view in perspective showing detached from each other the parts which unitedly support the lubricator from the piston-rod, and Fig. 3 a  
25 cross-section of a cylinder having the improved lubricator.

The same letters of reference applied to the drawings denote like parts.

A represents the cylinder, and B its piston-rod. Only that portion thereof is shown which  
30 is essential to an understanding of the improvement.

C represents a part having a shape substantially conforming to that of the cylinder-shell  
35 *a*, and provided with a facing *c*, of a material adapted for receiving and holding a lubricant such as used in cylinders and applying it to the cylinder-surface *a'*. The part C in practice is preferably of oak, and the facing  
40 *c* is preferably of dressed sheep-pelt. The improvement, however, relates, as stated, more especially to the particular means for adjusting the parts C *c*.

D D' represent a clamp adapted at the  
45 lower end thereof to be secured to the piston-rod, so as to travel therewith. To this end the bolts E F are employed, as shown. One of its parts—say the part D—is extended at *d* to enter a perforation *c'* in the part C. The  
50 perforation preferably has a bushing *c*<sup>2</sup> to re-

ceive the wear of the part D. The extension *d* is threaded, and G represents a nut applied thereto and adapted to be screwed upward and downward thereupon. When it is screwed  
55 upward, it encounters the part C and causes it to be moved toward the cylinder-surface *a'*.

H H represent arms, at one end *h* thereof attached to the clamps D D', and at the other end *h'* to the part C. The arms at *h*<sup>2</sup>, where  
60 they are attached to the clamp, are slotted, as shown in Fig. 2, so that the arms can be adjusted vertically upon the clamp. The same bolt E which confines the parts of the clamp above the piston-rod can be used to attach  
65 the arms H H to the clamp.

As the lubricator needs adjustment, the bolt E is loosened and the nut G turned up on the extension *d*. This causes the parts C *c*  
70 H H to be moved toward the upper portion of the cylinder-surface *a'*, and when sufficiently near thereto the bolt E is tightened and the lubricator is ready again for use. It is possible to adjust the parts C *c* toward and  
75 from the cylinder-shell by means of the clamp, the bolts, and the arms H H only; but it is better to employ the entire combination, including the extension *d* and G, as shown and described.

In an upright cylinder, or even in a horizontal cylinder, it may be desirable to extend  
80 the lubricator C *c* all around the cylinder, in which case the lubricator is made in sections—say two sections—and the part D may be extended similarly upon opposite sides, and the other parts duplicated, to similarly operate  
85 and support both sections of the lubricator.

I claim—

In combination with the cylinder and piston-rod, the herein-described lubricating device, consisting of the lubricator, the clamp,  
90 and the arms, said clamp having a threaded extension and nut, said arms being slotted, and said lubricator having a perforation to receive said extension, as set forth.

Witness my hand this 16th day of February, 1889.

JAMES G. GRACEY.

Witnesses:

C. D. MOODY,

D. W. C. SANFORD.