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C. D. HELM.

LUBRICATOR FOR ECCENTRICS.

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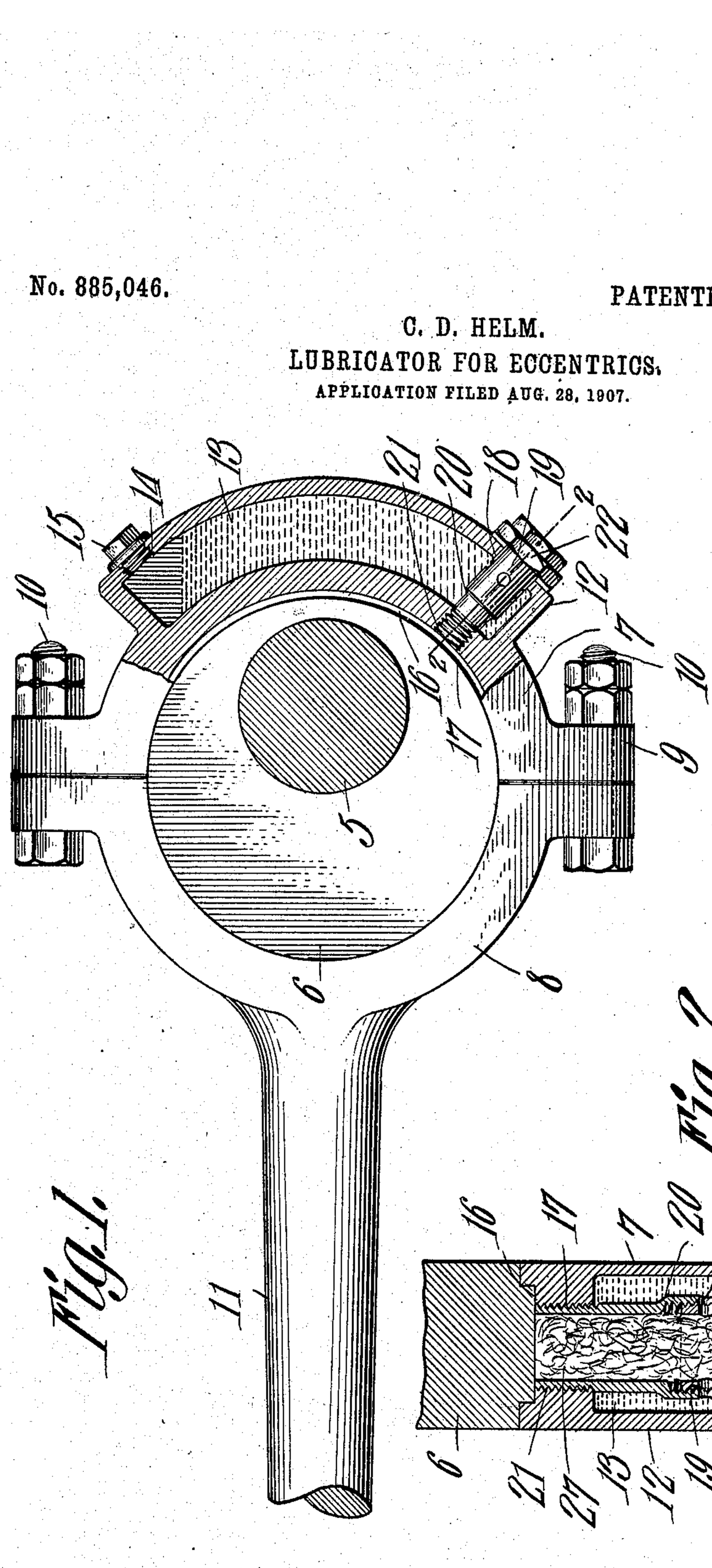

Fig. 1.

Fig. 2.

Witnesses

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LUBRICATOR FOR ECCENTRICS.

No. 885,046. Specification of Letters Patent. Patented April 21, 1908.

Application filed August 28, 1907. Serial No. 390,538.

To all whom it may concern:

Be it known that I, CLYVE DOLPHIN HELM, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented a new and useful Lubricator for Eccentrics, of which the following is a specification.

This invention relates to eccentrics and more particularly to means for applying a lubricant to the eccentric and its associated parts.

The object of the invention is to provide an eccentric including a sectional strap one section of which is formed with an interior chamber or reservoir adapted to contain a quantity of oil or other lubricant which is distributed over the surface of the eccentric when the latter is rotated thereby to prevent undue friction between the parts.

A further object is to provide means for supplying oil to the lubricating chamber or reservoir and means for regulating the discharge of lubricant from said chamber.

A still further object of the invention is to generally improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a side elevation of an eccentric provided with a lubricating device constructed in accordance with my invention. Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved lubricating device may be applied to the eccentrics of gas-engines, steam engines or other machinery and by way of illustration is shown in connection with an eccentric of the ordinary construction in which 5 designates the operating shaft and 6 the eccentric plate or disk.

Surrounding the disk or eccentric 6 is a strap preferably formed in two sections 7 and 8, each provided with laterally extending lugs 9 having perforations formed therein for the reception of bolts or similar fastening devices 10 whereby the sections of the strap may be clamped in position on the disk 6.

One of the sections 8 is secured to or formed integral with the eccentric rod 11 while the opposite section is provided with a lateral enlargement 12 having an interior chamber or reservoir 13 formed therein and adapted to contain a quantity of oil or other lubricant, as shown.

The outer curved wall of the enlargement 12 is provided with an opening 14 through which oil or other lubricant is introduced into the reservoir 13, the walls of said opening being threaded for engagement with the correspondingly threaded walls of a cap or plug 15 which latter serves to normally close the reservoir and thus prevent the escape of lubricant.

The inner faces of the sections 7 and 8 are formed with a circumferential groove 16 adapted to receive the peripheral edge of the disk 6 and formed in the wall of the groove 16 and communicating with the reservoir 13 is a threaded opening 17, there being a similar opening 18 formed in the outer curved wall of the enlargement 12 and disposed in alinement with the opening 17 for the reception of a feed tube 19.

The lower end of the feed tube 19 is reduced at 20 and provided with terminal threads 21 for engagement with the threads of the opening 17 when the tube is placed in position on the strap section 7. The exterior walls of the tube 19 at the upper end thereof are perfectly smooth and unobstructed for engagement with the correspondingly smooth interior walls of the opening 18, there being a rectangular head 22 formed on the upper end of the tube so that the latter may be conveniently grasped with a wrench or other suitable tool when positioning the tube within the oil receiving reservoir. The interior walls of the tube at the upper end thereof are threaded at 23 for engagement with the correspondingly threaded exterior walls of a cap or feeding device 24, the latter being provided with a plurality of feed apertures 25 adapted to register with corresponding feed apertures 26 formed in the tube 19 thereby to permit the oil or other lubricant in the reservoir to flow through the tube and lubricate the eccentric and its associated parts.

Arranged within the tube 19 and cap 24 is a quantity of felt, cotton, vegetable fiber or other absorbent material 27 which becomes saturated with oil from the reservoir 13 and which serves to uniformly distribute the

same over the peripheral edge of the eccentric as the latter is rotated. It will thus be seen that by rotating the cap 24 with a wrench or other suitable tool the width of the openings 26 may be varied at will thereby to regulate the quantity of oil supplied through the tube to the eccentric.

A washer or gasket 28 is preferably interposed between the head 22 and the adjacent curved face of the enlargement 12 in order to assist in preventing leakage.

The device is comparatively simple in construction and thoroughly efficient in operation and may be manufactured and placed on the market at a comparatively small cost.

Having thus described the invention what is claimed is:

1. The combination with an eccentric, of a strap surrounding the eccentric and provided with a reservoir adapted to contain a lubricant, an open ended feed tube extending transversely through the reservoir, and having its inner end arranged to discharge the lubricant on the eccentric and means operating within the feed tube and coacting with the latter for regulating the discharge of lubricant from said reservoir said regulating means forming a closure for the outer end of the feed tube.

2. The combination with an eccentric, of a strap surrounding the eccentric and provided with a lateral enlargement having a reservoir formed therein and adapted to contain a lubricant, an open ended feed tube extending transversely through the reservoir and having its inner end disposed at the periphery of the eccentric, said feed tube being provided with a plurality of apertures communicating with the interior of the reservoir, and a cap operating within the feed tube and provided with corresponding apertures adapted to register with the apertures in the tube for regulating the discharge of lubricant from the reservoir said cap forming a closure for the open end of the feed tube.

3. The combination with an eccentric, of a strap surrounding the eccentric and provided with a lateral enlargement having a reservoir formed therein and adapted to receive a lubricant, one wall of said enlargement being provided with a threaded opening, an open ended feed tube extending transversely through the reservoir and having its inner end disposed at the periphery of the eccentric and its exterior walls threaded for engagement with the walls of the opening, there being feed apertures formed in the tube and communicating with the interior of the reservoir, and a cap working within the tube and provided with corresponding apertures adapted to register with the apertures in the tube for regulating the flow of lubricant from the reservoir, said cap forming a closure for the outer end of the feed tube.

4. The combination with an eccentric, of a strap surrounding the eccentric and provided with a lateral enlargement having a reservoir formed therein and adapted to contain a lubricant, an open ended feed tube extending transversely through the reservoir and having its inner end disposed at said eccentric and its interior walls threaded and provided with a plurality of feed apertures, absorbent material disposed within the tube, and a cap forming a closure for the outer end of the tube and having its exterior walls threaded for engagement with the interior threaded walls of the tube, said cap being provided with apertures adapted to register with the apertures in the tube for regulating the discharge of lubricant from the reservoir.

5. The combination with an eccentric, of a strap surrounding the eccentric and provided with a circumferential groove, said strap being formed in sections one of which is provided with a lateral enlargement having a reservoir formed therein and adapted to contain a lubricant, the walls of said reservoir being provided with alined openings one of which is threaded and the other provided with a smooth bore, a feed tube having one end thereof reduced and threaded for engagement with the threaded walls of an adjacent opening and its opposite end extending through the other opening and provided with an angular head, the interior walls of said tube being threaded and having feed apertures formed therein and communicating with the reservoir, a cap having an angular head and provided with exterior threads adapted to engage the interior threads of the feed tube, said cap being formed with apertures adapted to register with the apertures in the tube for regulating the discharge of fluid from the reservoir, and absorbent material arranged within the tube and cap respectively, and bearing against the eccentric at the circumferential groove.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CLYVE DOLPHIN HELM.

Witnesses:
F. A. BLAIN,
S. L. COCHRAN.