(No Model.)

F. P. CROCKETT.

AUTOMATIC OILER.

No. 311,109. Patented Jan. 20, 1885.

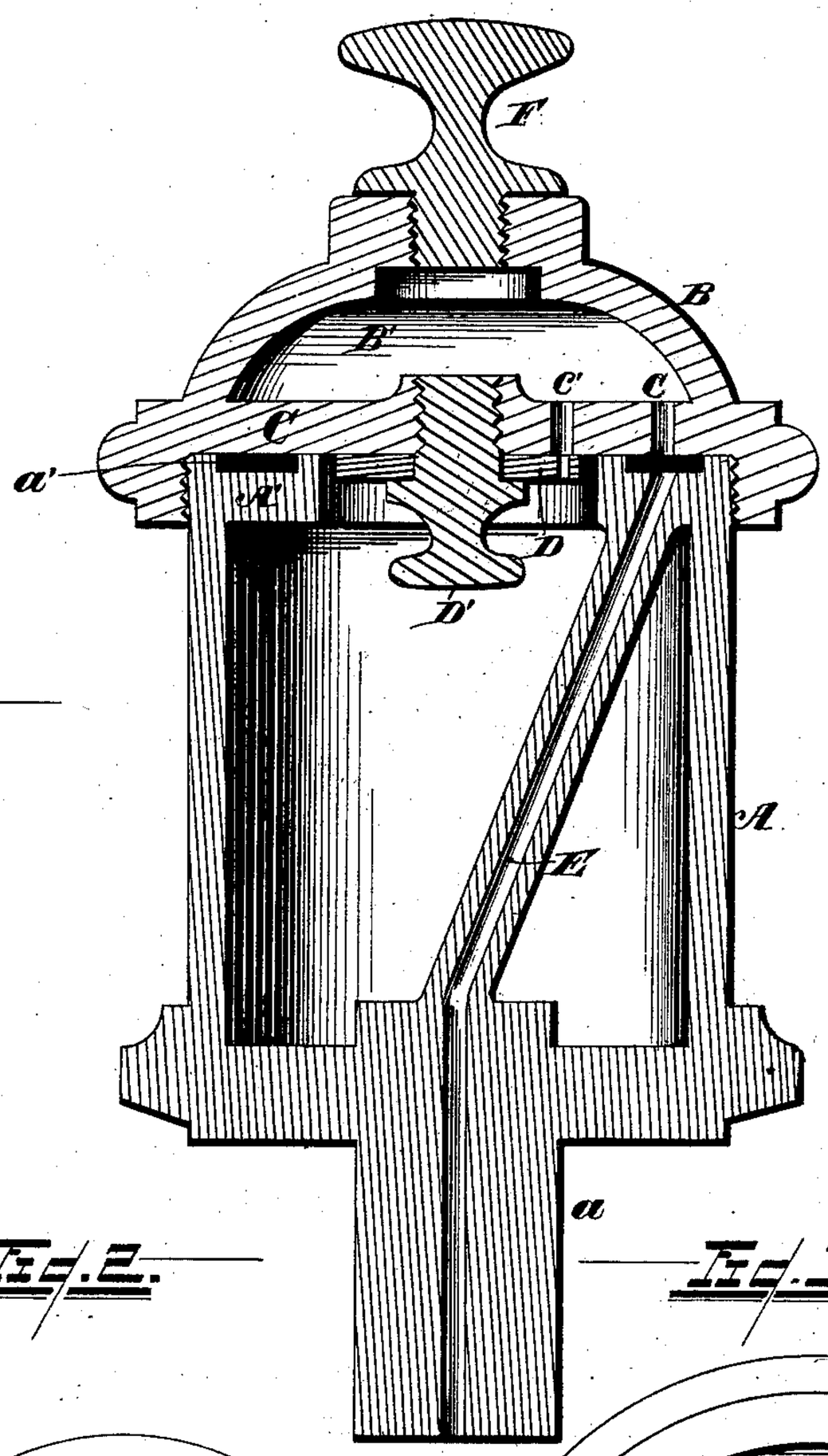
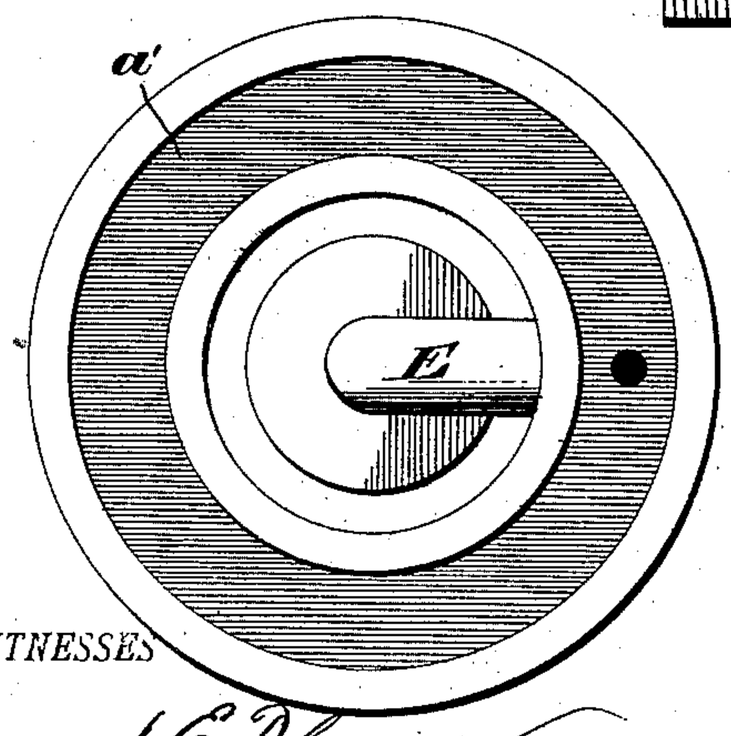
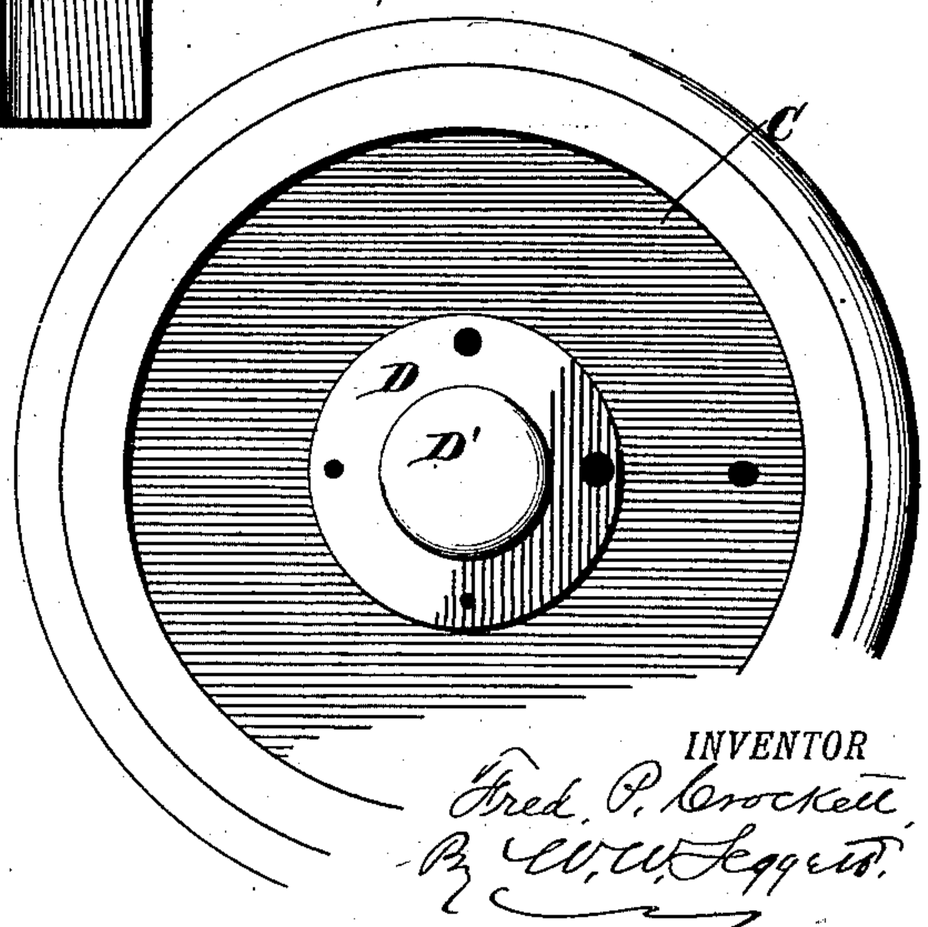


Fig. 1.

Fig. 2.

Fig. 3.





WITNESSES

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FRED P. CROCKETT, OF DETROIT, MICHIGAN.

AUTOMATIC OILER.

SPECIFICATION forming part of Letters Patent No. 311,109, dated January 20, 1885.

Application filed November 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRED P. CROCKETT, of Detroit, county of Wayne, State of Michigan, have invented a new and useful Improvement in Automatic Oilers; and I do 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 pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification.

My invention consists of the combinations of devices and appliances hereinafter specified, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a sectional view illustrating my invention. Fig. 2 is a view looking down upon the reservoir with the cap removed. Fig. 3 is a view looking up against the under side of the cover.

This device is intended as an improvement upon an automatic oil-cup patented to Turner and Chamberlin, No. 290,499, of December 18, 1883. In the said patent the inner cover, C, rests upon the top of the reservoir A, and when the cup is in use the two are firmly bound together in contact by screwing down the cap B. This construction, however, requires a very nice degree of mechanical skill in its construction, for it becomes necessary to make a ground surface at the top of the reservoir and on the under side of the inner cover, C, in order that they may be fitted accurately together; otherwise oil will flow freely through the space between the cover and reservoir, and so the regulation of the oil-cup by the disk D would be rendered impracticable. It also becomes essential that the upper surface of the inside cover, C, should be in like manner ground to a surface exactly parallel with that on the inside of the cover, because otherwise the cap B, when screwed down to its place, will bear upon one point only of the inside cover, and will cause it to tilt upward upon the opposite side, and so open the joint somewhat between the inside cover and the top of the reservoir. For the same reason it becomes essential that the cap should be very accurately made, so as to come to a perfect bearing all around the top of the inside cover.

In the practical construction and operation of the foregoing cup I have found the objections above enumerated to be very serious, and to cause great annoyance and uncertainty as to the operation of the cup. This invention is designed to overcome these difficulties. I accomplish the same as follows:

A represents the reservoir; *a*, its supporting-stem, through which the oil is discharged.

B is the cover or cap provided with a chamber, B′, formed therein, and which I call a "chambered cap," in contradistinction to such a cap as is shown in the said patented device above referred to, in which a chamber is not formed in the cap, but is made by the employment below the cap of a removable inside cover.

C is a diaphragm forming a part of the cover.

A′ is an inwardly-turned flange at the top of the reservoir A. It has an annular channel, *a*′, from which leads the oil-conduit E. The diaphragm C is provided with one or more orifices, *c*, communicating with the said annular channel.

c′ is another orifice, which communicates through an adjustable disk, D, with the interior of the oil-reservoir. This disk D is provided with one opening or a series of different-sized openings, as shown in Fig. 3, and is held in place by a screw, D′. The disk may therefore be adjusted so that any one of its orifices may register with the orifice *c*′, and so regulate the quantity of oil that is permitted to pass through the said orifice.

F is a plug in the top of the cap for gaining access to the interior. It may or may not be employed, because access for the purpose of cleaning may be had by removing the screw D′ from the diaphragm C. I would also have it understood that the perforated disk D may or may not be employed. It is manifestly necessary only when it is desired to adjust the rate of feed. I prefer, however, to employ it in order to economize at all times in the amount of oil used. This oil-cup, it will be understood, is designed for use upon crank-pins, eccentrics, and other similar moving parts where the oil will be dashed at intervals to the top of the cup.

Its operation is as follows: Suppose the device to be used as a crank-pin oiler. On the descent of the crank the oil rushes to the top

of the reservoir. A portion escapes through the orifice in the disk D and the corresponding orifice, *c'*, in diaphragm C into the chamber above. It passes then through orifice *c*, and thence into the channel *a'*, and on the upward motion of the crank it descends through the oil-conduit E to the crank-pin. It is apparent that this construction requires only that the top of the reservoir and the under side of the diaphragm C shall be so dressed as to come exactly together as the cap is screwed down onto the reservoir. It also simplifies the same, which is a matter of great importance in the hands of an ordinary user. It is apparent, also, that the mechanism for regulating the quantity of oil passed into the chamber from the reservoir need not necessarily be the perforated disk that is here shown, for the same might be accomplished by the employment of any form of adjustable valve or other mechanism for regulating or changing at will the size of the opening which leads from the reservoir into the chamber above, and in specifying the perforated disk in the claims I would have it understood that my invention contemplates any mechanism as above explained as mechanical equivalents of the said perforated disk.

What I claim is—

1. An automatic oiler for crank-pins, &c., consisting of a reservoir, a cap having a chamber therein, with the base and top thereof formed integral with each other, the said base being formed with an orifice leading into said chamber and another orifice leading therefrom, and an oil-conduit, E, communicating with the latter, substantially as described.

2. An oiler for crank-pins, &c., consisting of an oil-reservoir, an annular channel at its top, with an oil-conduit, E, leading therefrom, a screw-cap provided with a chamber, an orifice leading from the reservoir into said chamber, and another orifice leading from the chamber into the annular conduit, substantially as described.

3. The combination, with an oiler for crank-pins, &c., of a chambered cap, the base-diaphragm thereof forming a part of it, and having an orifice leading from the oil-reservoir into said chamber and another orifice leading from the chamber, an adjustable disk for regulating the quantity of oil introduced through the said conduit, and an oil-exit passage from the said chamber to the parts to be lubricated, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

FRED P. CROCKETT.

Witnesses:

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M. B. O'DOGHERTY.