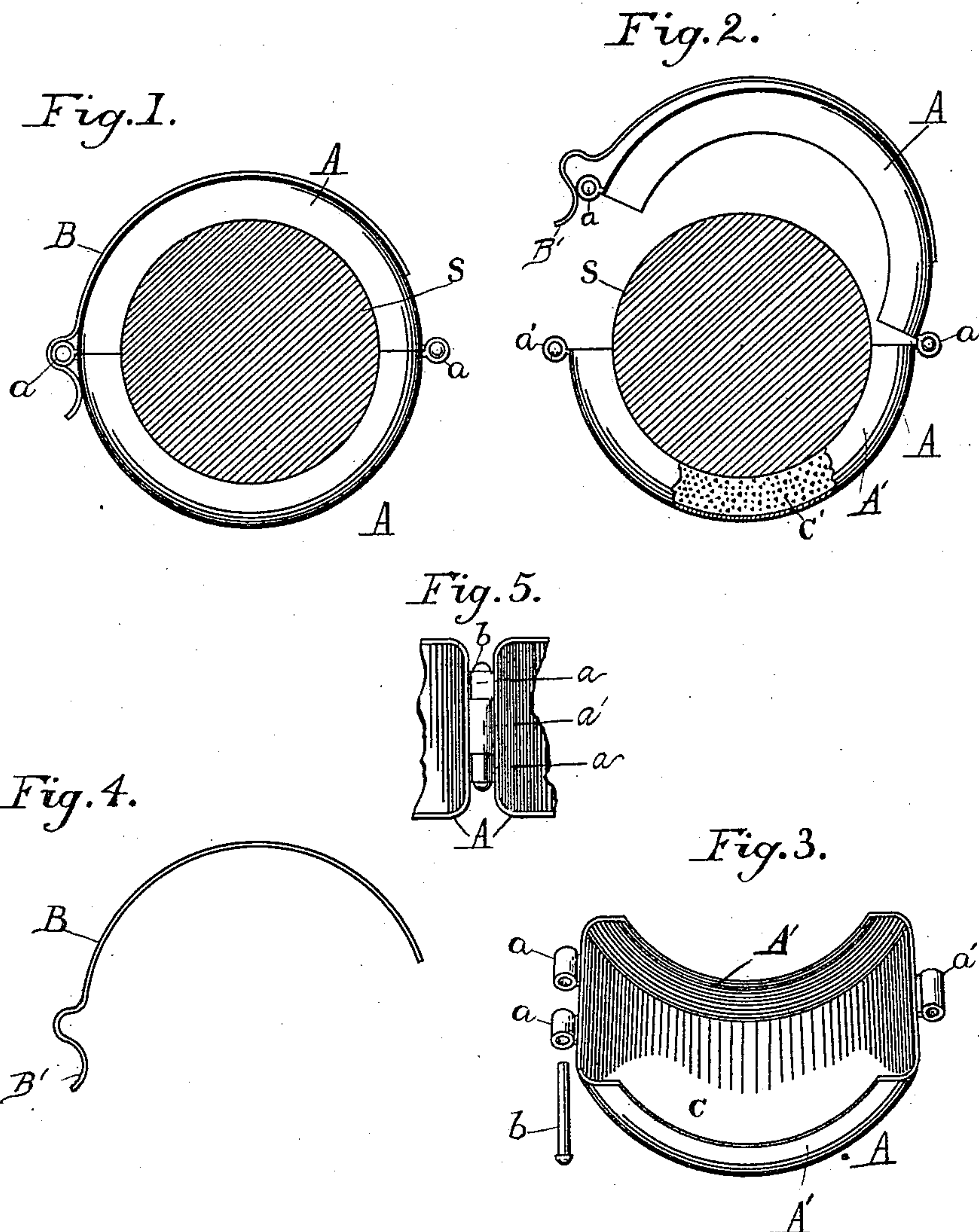


(No Model.)

J. N. ELLIOTT.
LUBRICATING GLAND.

No. 471,269.

Patented Mar. 22, 1892.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES N. ELLIOTT, OF BATTLE CREEK, MICHIGAN.

LUBRICATING-GLAND.

SPECIFICATION forming part of Letters Patent No. 471,269, dated March 22, 1892.

Application filed June 20, 1891. Serial No. 396,982. (No model.)

To all whom it may concern:

Be it known that I, JAMES N. ELLIOTT, a citizen of Great Britain, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented and produced a new and original Improvement in Lubricating Clasps or Rings; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part thereof.

This invention relates to that class of lubricators consisting, broadly, of a ring made in sections hinged together and formed with chambers designed to contain an oil-retaining fiber or sponge which will encircle the shaft and keep the same constantly lubricated.

The object of my invention is to provide a device of the character set forth which will fulfill all the requirements of such devices as regards the constant and effectual lubrication of pistons, shafts, and the like, and exclude dust, grit, and the atmosphere, and at the same time be of such construction as to obviate the necessity of attaching it to and supporting it from a gland, and also of employing an oil-cup for keeping the fiber constantly filled with oil, whereby the device may be extremely simple and compact in its construction and economical in the cost of its manufacture.

To these ends the invention consists in certain novel features in the construction of the device, substantially as hereinafter described, and particularly set forth in the subjoined claim.

In the accompanying drawings, illustrating the invention, Figure 1 is an end view of my improved lubricator attached to a piston, the latter being shown in section. Fig. 2 is a similar view with the sections of the ring disengaged from each other at one end and the ring partly open and also showing a part of one of said sections broken away to exhibit the oil-retaining fiber contained therein. Figs. 3, 4, and 5 are details showing parts of my device detached.

A A are the two twin parts of the shell ring, which I prefer to make semicircular or cylinder-shaped, exactly alike, formed with side walls A', thereby providing an annular chamber C, adapted to encircle the piston s, which chamber is designed to contain the oil-

retaining fiber or sponge C', which is tightly compressed and held around and in contact with said piston by said ring.

As an oil-cup or other device for constantly feeding a lubricant to the fiber is not used or necessary with my invention, the shell is obviously imperforate, and the compressing of the oil-retaining fiber is important, as a compressed fiber obviously holds more oil and acts more constantly as a lubricant than a fiber which is not compressed and but loosely fills the chamber.

Each part of the shell ring has at one end two thimbles *a* and at its opposite end a single thimble *a'*, which latter is located in line with the space separating the thimbles at its opposite end and is of the same length as said space. When the parts A A are together and the shell ring locked, each thimble *a'* will be located between the pair of thimbles *a* of the opposite part, and they are held together by the pins *b*, passing through them, and by the spring-latch B. One of the pins *b* serves as a pivot to the permanent hinge, and the other is used as a removable bolt on the latch side, assisting the spring-latch in securely holding the parts together around the piston against any possible accidental detachment. The spring-latch B is semicircular in form, and one of its ends is rigidly secured to one of the parts A of the shell ring, and the other of its ends is bent into suitable form for engagement with the thimbles *a a'*, situated opposite the permanent hinged side of the ring, and also to form the handle portion B'.

From the above it will be readily seen that I have provided an entirely practical means for lubricating engine-pistons, revoluble and reciprocating shafting and the like, which will not require connection with an oil-cup for constantly feeding a lubricant to the fiber and also does not require any connection with the gland or a piston-head, but will sustain itself around the piston or other movable part of machinery to be lubricated under every circumstance and contingency. The fiber or sponge being compressed holds a considerable quantity of oil, and being entirely inclosed on three sides by the shell ring and on the fourth side by the piston or other part being lubricated and thereby protected, undue evaporation of the oil is prevented and the

necessity for frequent renewal obviated. The construction of the retaining means is such as to prevent any air or dust reaching the interior of the shell ring through the joints when the parts A A are locked together.

In order to unlock the parts A A to permit the shell ring to be opened and removed from the part being lubricated for the purpose of renewal of the fiber or sponge, it is only necessary to remove the pin *b* at the latch end of the ring and raise the bent end of said latch upward a slight distance. It will thus be seen that such removal can be accomplished quickly and without any trouble, and the locking of the parts is more expeditiously accomplished, as it is only necessary after the ring has been placed in proper position around the piston or other device to press the two parts A A together at the open end, when the spring B will automatically latch them, and the pin *b* being then properly inserted said parts will be held positively against inopportune opening or springing apart. For most uses the locking-pin *b* may be dispensed with, but for others (such as a railway-engine on the road) its use is absolutely essential.

Practical experience has demonstrated that my lubricating clasp or ring can be instantaneously detached, reinforced, and reattached, and that to do this does not necessitate stoppage of the engine and does not in any way interfere with the moving machinery, so that the necessity for occasionally removing it for the purpose of substituting a new oil-saturated

fiber or sponge will not prove a material objection, and the great saving in expense of manufacture and its simplicity of construction over those requiring and employing, in addition to the fiber and a sectional clasp, an oil-cup and a means for securing it to the gland or cylinder-head, coupled with its practicability, makes it very advantageous over said comparatively expensive and complicated devices.

Having now described my invention, what I claim is—

The herein-described lubricating clasp or ring, comprising the two sections A A, hinged together at one end and formed with thimbles *a a'* at their opposite ends, each of said sections also having inwardly-extending side walls A', forming chambers designed to receive an oil-retaining fiber or sponge, a pin *b*, removably inserted through said thimbles, and a spring-latch rigidly secured at one end to one of said parts A, embracing the same and having its free end bent to engage said thimbles and also formed to provide a handle portion B', by which it may be readily detached from said thimbles by moving its bent end outward away from the same.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES N. ELLIOTT.

Witnesses:

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