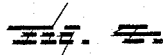
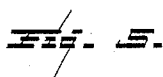
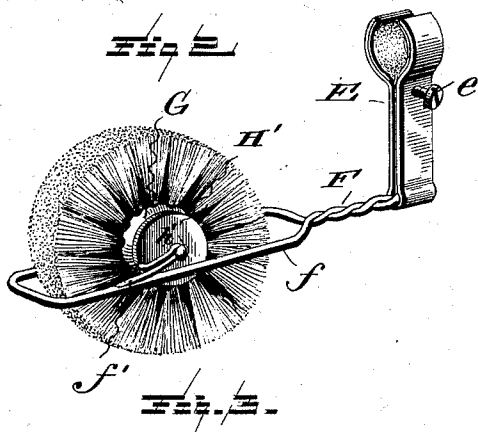
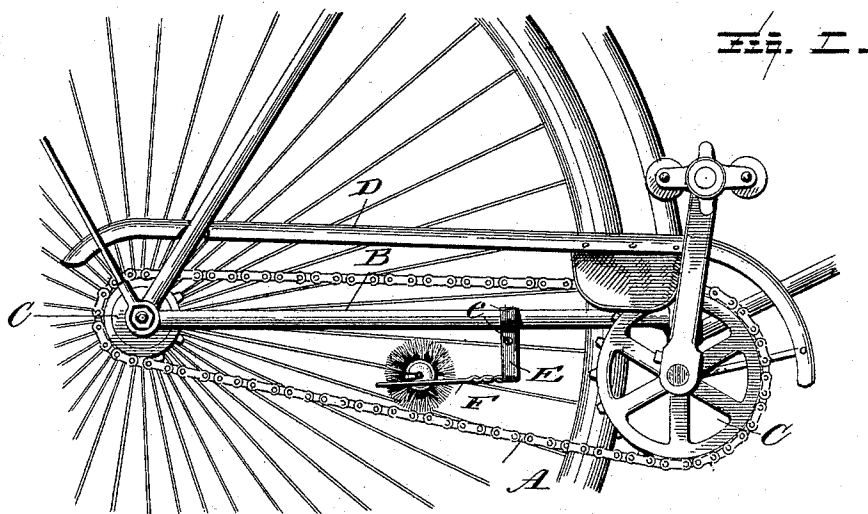


(No Model.)

W. B. CURTIS & E. LONG.
LUBRICATOR.

No. 476,253.

Patented June 7, 1892.



Witnesses

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UNITED STATES PATENT OFFICE.

WALLACE B. CURTIS AND EUGENE LONG, OF POMEROY, OHIO.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 476,253, dated June 7, 1892.

Application filed September 21, 1891. Serial No. 406,329. (No model.)

To all whom it may concern:

Be it known that we, WALLACE B. CURTIS and EUGENE LONG, citizens of the United States, residing at Pomeroy, in the county of Meigs and State of Ohio, have invented certain new and useful Improvements in Means for Cleaning and Lubricating Sprocket-Chains; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification; and to the letters of reference marked thereon.

This invention has for its object to provide a simple and cheap yet durable and efficient means for cleaning and lubricating the sprocket-chain on any and all chain machinery, and while it is designed, primarily, for use upon bicycles and is so shown it is not intended to restrict the invention to such use. We provide a carrier in which a brush is rotatably held, the brush having a chambered hub in which is designed to be held the lubricant and through perforations in which it gradually shifts upon the chain. An agitator is usually provided within the chambered hub to prevent clogging of the perforations. Suitable means are provided for regulating the discharge of the lubricant.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of a portion of a bicycle, showing our attachment applied thereto. Fig. 2 is a perspective view of the attachment removed. Fig. 3 is a central vertical section through the brush. Fig. 4 is a perspective view of the damper removed. Fig. 5 is a like view of the knocker or agitator removed.

Like letters of reference indicate like parts throughout the several views in which they occur.

Referring now to the details of the drawings by letter, A designates the sprocket-chain to be lubricated, which in this instance is shown as that of a bicycle of known construction, B

being the horizontal portion of the frame, C the sprocket-wheels, and D the mud-guard.

Our device is intended to be so arranged that it will deposit the lubricant upon the chain. It may be located at any desired place. It may deposit the lubricant upon the chain either upon the upper or lower portion thereof.

When designed for bicycles, it has been our practice to support the device in the manner shown in the accompanying drawings; but it is evident that the manner of supporting the device will depend upon the nature of the machine upon which or in connection with which it is to be employed. So far as the successful operation of the device is concerned, it is necessary only that the brush be so supported as to readily revolve in suitable bearings.

In the construction shown, E is a clamp, with spring-arms, which are curved at their free ends to embrace the horizontal portion of the frame, the inner faces of the said curved ends being provided with a lining of felt or analogous material when desired to prevent marring of the frame. The clamp is provided with a set-screw *e* for tightening the same upon the frame. Supported by the said clamp and extending substantially horizontally is the support F, which in this instance is formed of wire, with a loop *f*, carrying the spring-arms *f'*, which form bearings for the pintles of the brush, the brush being arranged within the said loop, as is shown in Fig. 2.

The prime novelty resides in the brush and its component parts. This brush consists of a cylinder G, which is provided with a plurality of perforations *g*, which may be of any desired size, shape, and number, and secured in this cylinder are the bristles or fibers of the brush. The cylinder and brush may be of any suitable material and of a size commensurate with the work required of it. If desired, the cylinder may have a metallic lining H, which should also be provided with perforations *h*, corresponding to those of the cylinder. One end is provided with a head G', provided centrally upon its outer face with a headed pin *g'*, which serves as the pintle on which it revolves, and at the other end is provided a removable head H', carrying a similar pin *h'*, serving as the other pintle, the

said head being removably held in position in any suitable manner—as, for instance, by being screw-threaded, as shown in Fig. 3.

5 I is a knocker or agitator, which may be of any suitable shape, preferably that shown in Fig. 5, and this knocker is designed to be placed within the cylinder to agitate the lubricant and prevent clogging of the perforations.

10 J is a cylinder provided with a plurality of longitudinal slots *j* and a thumb-piece *j'*, as seen in Fig. 4. This cylinder is designed to be placed within the cylinder and serves as a damper for regulating the discharge of the lubricant.

15 In practice the brush is suitably supported so that its periphery will revolve in close proximity to or in contact with the chain to be lubricated, as seen in Fig. 1, it first having been filled with graphite or other preferred lubricant, and as the brush revolves by reason of its contact with the moving chain the lubricant is sifted down through the perforations and through the bristles on the chain, 25 the sifting being regulated by the damper,

which is rotatably adjusted by removing the removable head and manipulating the damper by its thumb-piece.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages. 30

What is claimed as new is—

1. A rotatable lubricator for chains, consisting of a perforated cylinder having a removable head, a revoluble slotted damper, 35 and a knocker, as set forth.

2. A rotatable lubricator consisting of a perforated cylinder having heads, one of which is removable and both carrying pintles, and a split revoluble spring-damper provided with 40 a thumb-piece, as set forth.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

WALLACE B. CURTIS.
EUGENE LONG.

Witnesses:

L. SHIFLET,
C. E. PEOPLES.