

No. 613,833.

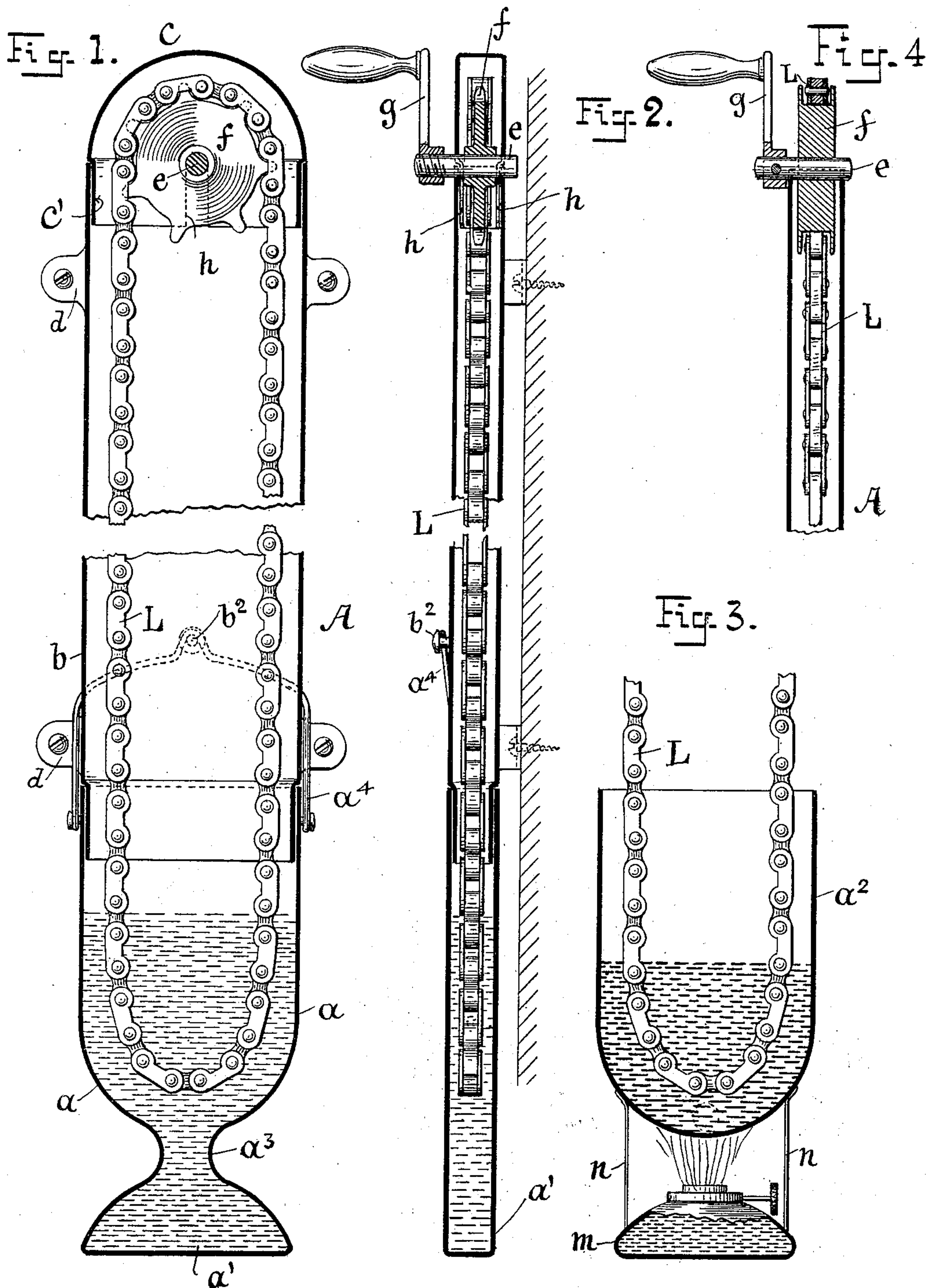
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W. J. BALDWIN.

APPARATUS FOR CLEANING, &c., BICYCLE CHAINS.

(Application filed July 9, 1897.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## APPARATUS FOR CLEANING, &c., BICYCLE-CHAINS.

SPECIFICATION forming part of Letters Patent No. 613,833, dated November 8, 1898.

Application filed July 9, 1897. Serial No. 643,980. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM J. BALDWIN, a citizen of the United States, and a resident of the city of New York, (Brooklyn,) county of Kings, and State of New York, have invented certain new and useful Improvements in Apparatus for Cleaning Bicycle-Chains, of which the following is a specification.

This invention relates to improvements in devices for cleaning or lubricating bicycle-chains and like articles.

In my invention I employ a portable receptacle separate from the vehicle and of proper shape to contain the chain during the operation of cleaning it. In the upper part of this receptacle is a suitable device for moving the chain, such as a drum or sprocket fixed on a shaft, which can be readily turned by the operator. In the lower part of said receptacle is a vessel for a lubricating fluid, so placed that the chain dips a little way into the fluid. Thus as the sprocket or drum is revolved all parts of the chain are drawn through the fluid.

As the receptacle which contains the chain is closed while the cleansing or lubricating is going on, all splashing of the fluids is prevented, and the chain is cleansed and lubricated with much greater facility than is possible by present methods and with much less soiling of person and clothing.

Referring to the drawings which accompany the specification to aid the description, Figure 1 is a broken vertical section of the device with the chain in place and on a plane parallel to the broad side of the receptacle. Fig. 2 is a broken vertical section of the same on a plane perpendicular to that of Fig. 1. Fig. 3 is a vertical section of the lower part of a receptacle provided with a lamp for heating a lubricating or cleaning compound. Fig. 4 is a sectional detail of the preferred drum for moving the chain.

The receptacle or chain-container A, which is of suitable dimensions to permit of freely suspending a chain on the driving-drum, as shown in Fig. 4, or sprocket, as shown in Fig. 1, is preferably made of sheet metal and in three parts—namely, a bottom *a*, case or body *b*, and cover *c*—said parts fitting together with telescope-joints, as shown. The bottom part will be shaped in any suitable man-

ner to form a receptacle for the cleansing or lubricating fluid—as, for example, in the hour-glass shape shown in Fig. 1 or any other shape which is contracted above the bottom, so that the communication of the part *a'* with the main body of cleansing fluid will be by a contracted neck. When thus shaped, the part *a'* forms a receptacle or settling-chamber for the grit, and the contracted neck *a<sup>3</sup>* prevents the motion of the chain from again raising the sediment into the cleansing fluid. The bottom of the settling-chamber *a'* may be flat, as shown, so that it will stand on the floor when part *a* is detached. Ears *d d* for screws may be provided on the body part *b* to facilitate fastening the same to a wall. The cover *c* will preferably be rounded, as shown. Of course the bottom part may be made so as to permit the insertion and removal of a vessel containing the fluids, if this were preferred, and a bail *a<sup>4</sup>*, catching on a lug *b<sup>2</sup>*, or equivalent means may be provided to attach part *a* to the case *b*.

Journaled in the upper part of the body, so as to be readily removed, is the axle *e*, on which is fixed the drum *f*, *g* being a crank for turning the axle and drum. Slots *h h* are provided in the sleeve *c'* of the cover *c* to pass freely over the axle *e* when the cover is put on. A chain-wheel or other suitable device may of course be substituted for the drum.

To use the device for cleansing the chain, the cover *c* is taken off, the drum *f* lifted out, the chain placed about the drum, and the drum returned to its bearings, permitting the chain to hang down in the center of the case *b*. The bottom *a*, containing the cleansing fluid, is then attached to the case *b* and held in position by suitable means, as the said bail *a<sup>4</sup>*, engaging on the lug *a<sup>2</sup>*. The drum *f* is now rotated, drawing the chain through the cleansing fluid until the chain is sufficiently cleaned.

To lubricate the chain, the bottom part *a* is taken off and the receptacle *a<sup>2</sup>*, containing the lubricating compound, is put on the case *b* and secured in any suitable manner. A lamp *m* may be attached to the receptacle *a<sup>2</sup>* to melt the compound if the same is originally in solid form. Then the drum *f* is revolved, drawing the chain through the lubricating compound until well lubricated.



Now, having described my improvements, I claim as my invention—

1. A device for cleaning or lubricating vehicle-chains, consisting of a receptacle for the chain and fluids separate from the vehicle and means for moving the chain through the fluids, substantially as described.

2. A device for cleaning or lubricating vehicle-chains, consisting of a receptacle for the chain separate from the vehicle, a container for a suitable fluid at the bottom of the receptacle, and a settling-chamber connecting therewith by a contracted orifice a cover for the receptacle, and a drum in the upper part of the receptacle for moving the chain through the fluid substantially as described.

3. The combination in a chain cleaning or lubricating device of a receptacle consisting of a bottom part *a*, a body part *b*, and cover

*c*, all said parts being separable, and a drum *f* for moving the chain, substantially as described.

4. In a device for cleaning vehicle-chains, the combination of receptacle for the chain separate from the vehicle, means for moving the chain, and a receptacle for cleansing fluid provided with a settling-chamber which is connected with said receptacle by a contracted orifice, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 8th day of July, 1897.

WILLIAM J. BALDWIN.

Witnesses:

HENRY N. BROWN,  
DAVID W. BROWN.