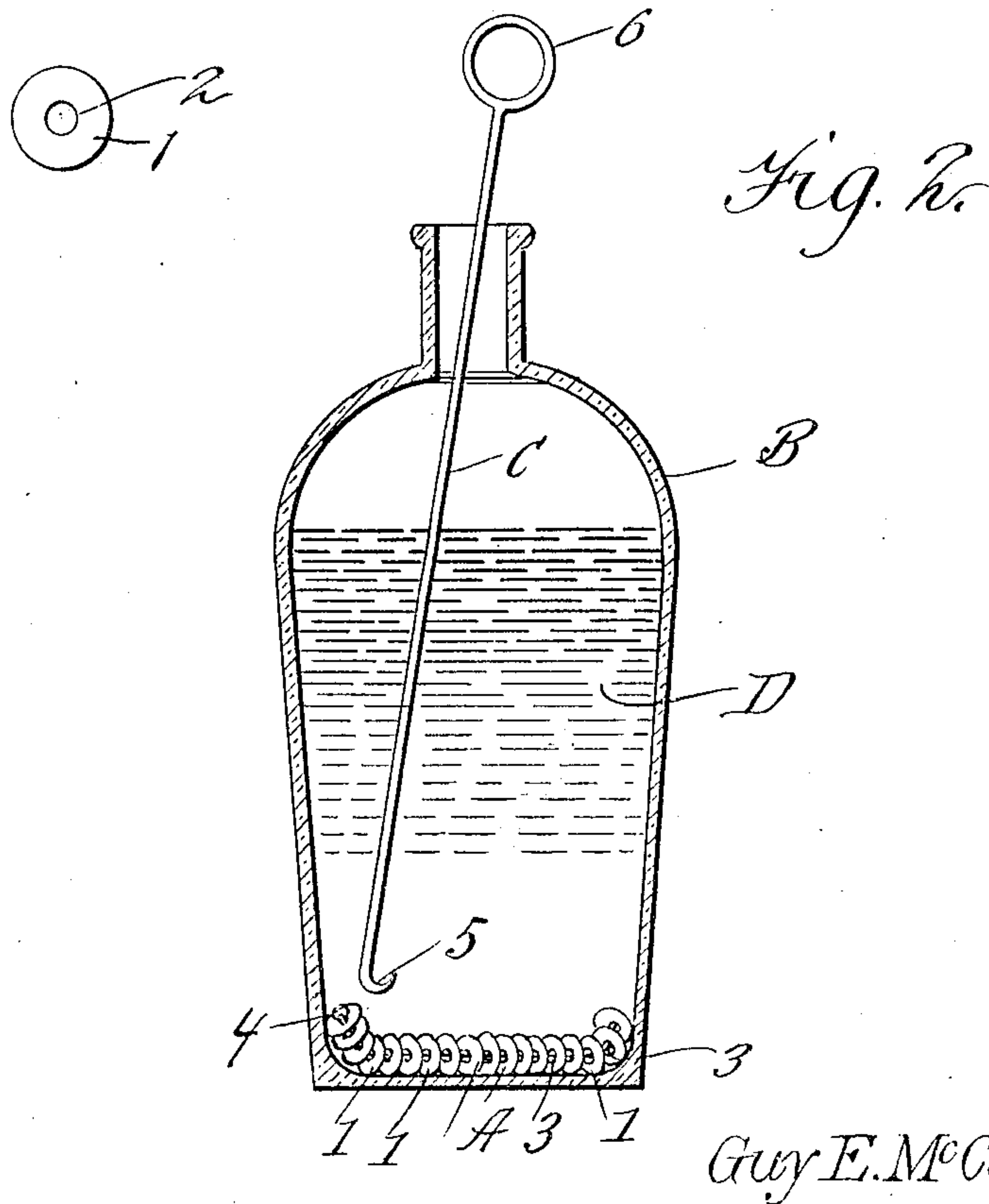
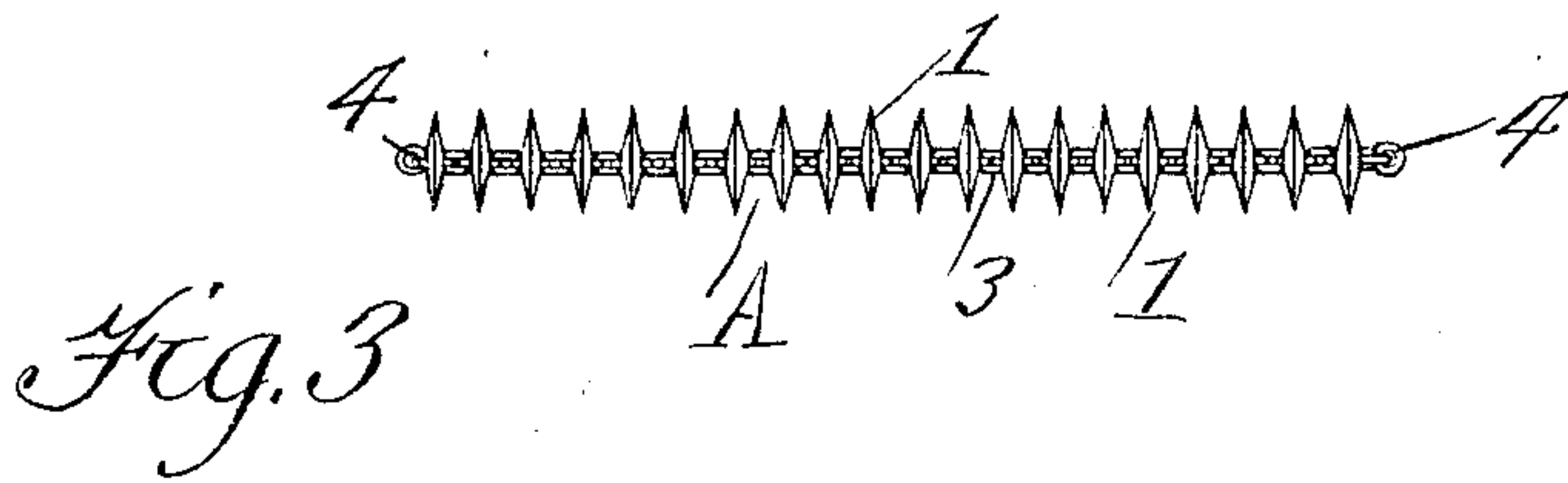


No. 876,220.

PATENTED JAN. 7, 1908.

G. E. McCALMONT.  
BOTTLE CLEANER.  
APPLICATION FILED MAR. 2, 1907.

*Fig. 1.*



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Witnesses

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# UNITED STATES PATENT OFFICE.

GUY E. McCALMONT, OF PRESIDENT, PENNSYLVANIA.

## BOTTLE-CLEANER.

No. 876,220.

Specification of Letters Patent.

Patented Jan. 7, 1908.

Application filed March 2, 1907. Serial No. 360,249.

*To all whom it may concern:*

Be it known that I, GUY E. McCALMONT, a citizen of the United States, residing at President, in the county of Venango and State of Pennsylvania, have invented new and useful Improvements in Bottle-Cleaners, of which the following is a specification.

This invention relates to a cleaning device for bottles and other receptacles of that type comprising a plurality of cleaning members arranged on a flexible element, such as a chain, whereby the cleaning device can conform itself to the contour of the bottle or receptacle being cleaned.

The invention has for one of its objects to provide a cleaning device of this character which is of simple and inexpensive construction and thoroughly effective in use.

A further object of the invention is the provision of a cleaning device comprising a flexible element on which are arranged a plurality of cleaning disks or washers so shaped as to effectively remove any substance lodged on the surface of the article to be cleaned.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one of the embodiments of the invention, Figure 1 is a plan view of the cleaner. Fig. 2 is a vertical section of a bottle showing therein the cleaner and the instrument for fishing out the latter. Fig. 3 is an enlarged side elevation of one of the cleaning disks or washers.

Similar reference characters are employed to designate similar parts throughout the several figures of the drawings.

Referring to the drawings, and more particularly to Fig. 2, A designates generally a cleaner; B, a bottle or receptacle; C, the fishing instrument; and D, the washing fluid

in the bottle. The cleaning device A comprises a plurality of disks or washers 1 that are preferably made of tempered or case-hardened steel or other suitable metal which taper outwardly from both sides to form a sharp knife edge at its periphery. The disks or washers 1 are each provided with a central opening 2, whereby they are threaded on a suitable flexible element such as a chain 3. The ends of the chain are provided with stops in the nature of rings 4 for holding the disks or washers on the chain. These disks are free to turn on the chain and the cleaning device as a whole is free to assume any shape to conform to the surface being cleaned. The fishing device C is a rod of suitable length having a hook 5 formed at one end for engaging one of the rings 4 to pull out the cleaner. The hook, however, can be engaged around the body of the cleaner at any place and drawn out of the receptacle. The end of the instrument C opposite from the hook is provided with a ring or suitably shaped hand hold 6.

In operation, the receptacle to be cleaned is supplied with a suitable quantity of cleaning liquid and the device A is dropped into the same. A stopper is then placed in the neck or opening of the receptacle so that the latter can be violently agitated to cause the sharp edges of the disks or washers 1 to remove any matter that is lodged on the internal surface of the receptacle. Since the peripheral edges of the disks 1 are sharp, they operate effectively to loosen any deposit on the receptacle. After the bottle is cleaned, the instrument C is used to fish out the cleaner A without the necessity of pouring out or wasting the cleaning fluid D. The bottle can be then again agitated so as to further cleanse the same by the fluid. Therefore the fluid can be supplied to another bottle for the purpose of cleaning it in the manner described.

Having thus described the invention, what I claim is:—

1. In a cleaning device, the combination of a metal chain, a plurality of cleaning mem-

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bers spaced apart and movable on the chain and each comprising a metal body having a central opening and a sharp peripheral edge, and rings on the ends of the chain to permanently hold the members in place.

2. In a device of the class described, the combination of a chain, a plurality of disks threaded thereon, stops at the ends of the element for holding the disks in place, said

disks being tapered outwardly from the center to form a sharp peripheral edge. 10

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

GUY E. McCALMONT.

Witnesses:

RHODA E. MORRIS,  
GRACE A. MORRIS.