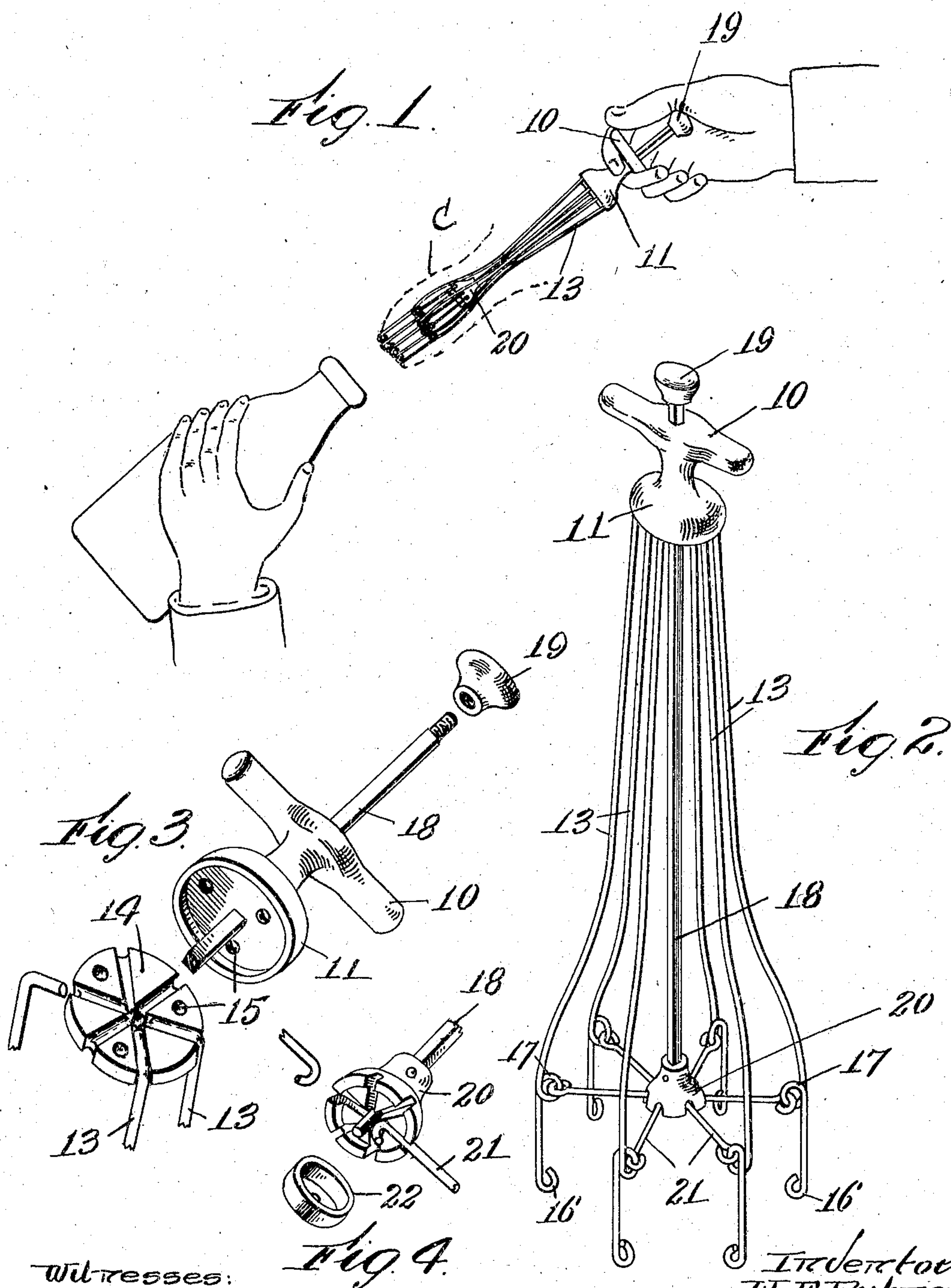


No. 791,497.

PATENTED JUNE 6, 1905.

W. E. PUTNAM.
BOTTLE CLEANER.
APPLICATION FILED OCT. 27, 1904.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIS E. PUTNAM, OF WORCESTER, MASSACHUSETTS.

BOTTLE-CLEANER.

SPECIFICATION forming part of Letters Patent No. 791,497, dated June 6, 1905.

Application filed October 27, 1904. Serial No. 230,173.

To all whom it may concern:

Be it known that I, WILLIS E. PUTNAM, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Bottle-Cleaner, of which the following is a specification.

This invention relates to a domestic utensil for cleaning by hand the insides of milk-bottles, fruit-jars, or similar vessels.

The especial object of this invention is to provide a simple, efficient, and practical utensil which can be held in one hand and inserted into a bottle or jar and then expanded to engage and clean out the inside of the bottle. A cloth is usually put over the device before it is inserted into the bottle, so that the cloth is used to clean the interior of the bottle.

To this end this invention consists of the bottle-cleaner as an article of manufacture and of the combinations of parts therein, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a perspective view illustrating the use of a bottle-cleaner constructed according to this invention. Fig. 2 is a perspective view showing the bottle-cleaner in its expanded condition. Fig. 3 is a fragmentary perspective view showing the connection of the frame-wires with the end piece, and Fig. 4 is a detail perspective view of the connection of the spreader-wires with the center rod.

My construction is adapted for cleaning out milk-bottles or similar comparatively open-mouthed vessels.

Referring to the accompanying drawings and in detail, a bottle-cleaner constructed according to this invention as herein illustrated comprises the end piece having a handle or transverse bar 10 and a socket-section 11. Extending down from the socket-section 11 is an expansible wire frame. This frame is composed of wires 13, each of said wires 13 being provided at its lower end with a loop 16 and being provided at an intermediate point with a loop 17 for connection with the spreader-wires, as hereinafter explained.

The joint between the end pieces and the

frame-wires is most clearly illustrated in Fig.

3. As shown in this figure, the base-section 11 is chambered out, so as to receive the bent-over ends of the frame-wires 13, and the frame-wires are fastened in place by a locking-disk 14, which may be fastened to the end piece by screws or rivets inserted through the holes 15. In practice the ends of the frame-wires fit somewhat loosely, so that the frame-wires may be opened up without springing or straining the construction.

Extending down through the end piece is a rod 18, which is preferably square in cross-section. At its upper end the rod 18 is provided with a ball or knob 19. At its lower end the rod 18 is provided with a socket-piece 20, which is grooved to receive the hooked ends of the spreader-wires 21, the hooked ends of the spreader-wires being retained in place by a sheet-metal cap 22, which may be fastened to the central rod 18 by being riveted onto the end of said rod. Each of the spreader-wires 21 is provided at its outer end with an eye interlocking with an eye in one of the frame-wires 13.

By means of this construction it will be seen that I have provided a cleaning utensil which can be covered with a cloth C, if desired, and grasped and operated by one hand, as shown in Fig. 1, so that the other hand of the user will be left free to hold the bottle, and by means of this construction I have been able to supply a domestic utensil which may be used to advantage for the cleaning of milk-bottles or similar vessels.

I am aware that changes may be made in my bottle-cleaner by those who are skilled in the art without departing from the scope of my invention as expressed in the claims. I do not wish, therefore, to be limited to the construction I have herein shown and described; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. As an article of manufacture, a bottle-cleaner consisting of a central operating-rod having a knob or handle at one end, spreader-wires pivotally connected to the other end of the rod, a frame center piece mounted on the rod near its handle or knob, and frame-wires,

each of which is pivoted at one end to the frame-piece, and is pivotally connected at its other end to one of the spreader-wires, said parts coöperating to form a cleaner which
5 spreads to its widest extent at its extreme end.

2. As an article of manufacture, a bottle-cleaner comprising an end piece adapted to be held between the fingers of the user, frame-wires extending down from the end piece,
10 each of said frame-wires having a loop intermediate of its ends, a rod which can be forced in from the upper end by the same hand of the user which grasps the end piece, and spreader-wires pivoted to the end of the rod
15 and having eyes interlocking with the eyes of the frame-wires.

3. As an article of manufacture, a bottle-cleaner comprising an end piece, frame-wires, a fastening plate or disk securing the bent-

over ends of the frame-wires in a recess or
20 chamber of the end piece, each of said frame-wires being provided with an intermediate loop or eye, a square rod extending through the end piece, spreader-wires, a bottom piece
25 at the end of the rod for receiving the hooked ends of the spreader-wires, and a fastening-cap for holding the hooked ends of the spreader-wires in place, the outer ends of said spreader-wires being provided with eyes interlocking
30 with the eyes of the frame-wires.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILLIS E. PUTNAM.

Witnesses:

LOUIS W. SOUTHGATE,
MARY E. REGAN.