J. A. ANDERSON.

BOTTLE WASHING MACHINE.

APPLICATION FILED OCT. 19, 1912.

1,119,335. Patented Dec. 1, 1914.

Fig. 1.

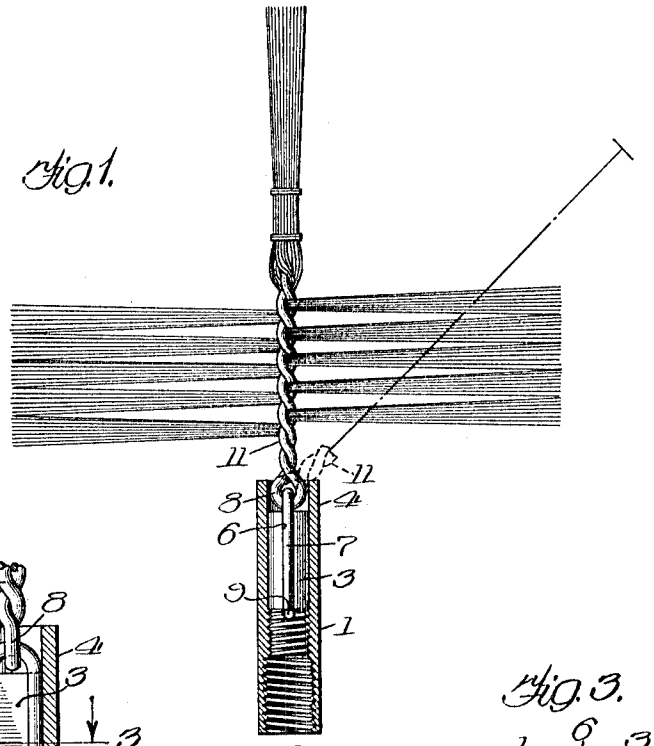


Fig. 2.

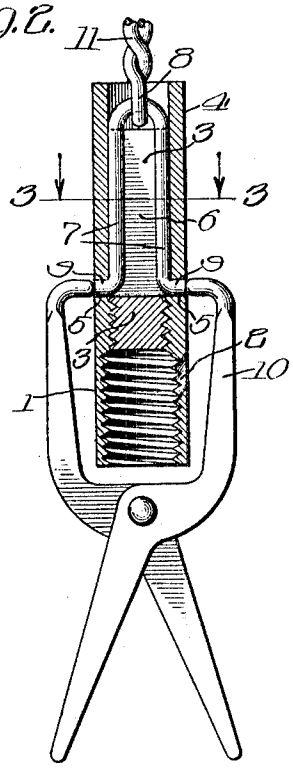
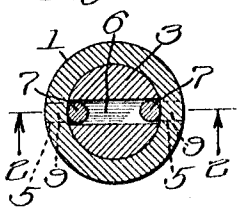


Fig. 3.



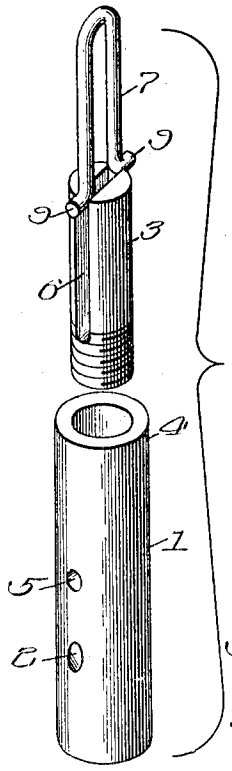


Fig. 4.

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UNITED STATES PATENT OFFICE.

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BOTTLE-WASHING MACHINE.

1,119,335. Specification of Letters Patent. Patented Dec. 1, 1914.

Application filed October 19, 1912. Serial No. 726,649.

To all whom it may concern:

Be it known that I, JOHN A. ANDERSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Bottle-Washing Machines, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to that class of bottle washing machines employing bottle washing brushes and stocks for supporting the brushes which are provided with facility for leading water to the brushes.

In practising my invention I employ a loop having disconnected ends between which an eye provided at the base of the brush stem may be passed, this eye being sufficiently closed so that when my improved anchoring device is in position the anchoring device and the eye upon the stem will not become separated. The anchoring device is preferably secured in position by means of a sleeve or tubular extension of the stock, this extension preventing separation of the anchoring device and brush stem.

I will explain my invention more fully by reference to the accompanying drawing showing the preferred embodiment thereof and in which—

Figure 1 is an elevation, partially in section, of the improved brush structure as preferably constructed; Fig. 2 is a sectional view on line 2 2; Fig. 3 is a sectional view on line 3 3 of Fig. 2; Fig. 4 is a view showing the stock and brush anchoring device in separated relation and in perspective.

Like parts are indicated by similar characters of reference throughout the different figures.

The structure illustrated includes a stock 1, generally cylindrical in shape and provided with a tubular threaded bore at its lower part that is adapted to receive a threaded water service pipe forming a part of the bottle washing machine, the stock being apertured at 2 to permit of passage of the water through the stock to the brush. It is the practice to place the stocks in upright positions with the threaded bores of the stocks facing downwardly. As my invention is preferably practised the stock includes a diametrically slotted cylindrical extension 3, which, for reasons of manufacture, is threaded at its base to have threaded connection with the balance of the stock. The stock also includes a sleeve or cylindrical extension 4, preferably formed in one piece with the balance of the stock, and which is provided with apertures 5 in register with the lower portion of the slot 6 in the cylindrical extension 3.

The anchoring device is in the form of an inverted U-shaped loop 7 having free ends permitting the passage of an eye 8 therebetween to enable said eye to be received between the sides of the loop. The loop is, in the construction shown, provided with outsetting projections 9 at its lower end, the sides of the loop being received in the recess or slot 6 of the stock section 3, while the outsetting projections 9 are received in the apertures or recesses 5. The U-shaped loop 7 is formed of spring metal, the sides of the loop being closely approached at their bottom ends when the loop is passed downwardly in the slot 6, these ends separating when the outsetting projections 9 are brought into register with the apertures 5, the apertures then receiving said projections to prevent the withdrawal of the loop, while the slot 6 serves to hold the loop in a fixed plane with respect to the stock. When it is desired to dissociate the loop from the stock the projections 9 may be engaged by a spanner tool 10 that may be operated to press the lower ends of the loop together by engaging the tool with the projections 9 and pressing inwardly upon said projections, by which operation said projections are pressed out of engagement with the apertures 5 thus enabling the stem to be withdrawn.

By the construction illustrated, the usual sleeve surrounding a reduced portion of the stock is dispensed with, no screw fastening device being employed.

While I have shown the separable portion 3 for the purpose of providing a slot 6 to hold the stem 7 in a fixed plane with respect to the stock, I do not wish to be limited to the presence of this separable portion.

The loop is of such a length that space intervenes between the same and the upper end of the stock freely to permit the eye of the brush stem to move upon the upper end of the loop.

In making the brush a loop of wire is desirably twisted to form the bristle carrying brush stem 11, the eye 8 being formed in the process of constructing the stem. A side of the loop 7 is passed through the eye 8 and the sides of the loop are inserted in the groove 6 with the outsetting loop projections 9 lying within the lower end of the groove, whereafter the loop is united with the stock in the manner described.

The upper sleeve extension of the stock is of such a length as to limit the extent to which the brush may incline with respect to the stock, it being desirable to have the stem of the brush incline no farther than indicated by the dot and dash line in Fig. 1.

While the sleeve extension of the stock is formed in one piece with the balance of the outer portion of the stock, I do not wish to be limited to the integral formation of these parts of the stock of the same piece of metal since it is obvious that they may be separately formed and thereafter permanently united.

Having thus described my invention, I claim as new and desire to secure by Letters Patent the following:—

A structure for bottle washing machines including a brush provided with a stem that carries an eye; a loop formed of spring metal and having unconnected ends permitting of the insertion of a loop side through said eye, said loop being laterally projected at its open end; and a stock having a sleeve portion in fixed connection therewith and into which the lower end of the loop may be passed by pressing the ends of the loop wire together, the stock having a recess serving to receive the loop projection and prevent the loop from being withdrawn from the stock, the stock also having a longitudinal recess for receiving the loop and holding it in the same plane with the stock.

In witness whereof, I hereunto subscribe my name this seventh day of November A. D., 1911.

JOHN A. ANDERSON.

Witnesses:
E. L. WHITE,
G. L. CRAGG.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."