(No Model.)

A. C. WEAVER.

MACHINE FOR CLEANING BOTTLES.

No. 286,880. Patented Oct. 16, 1883.

Fig. 1.

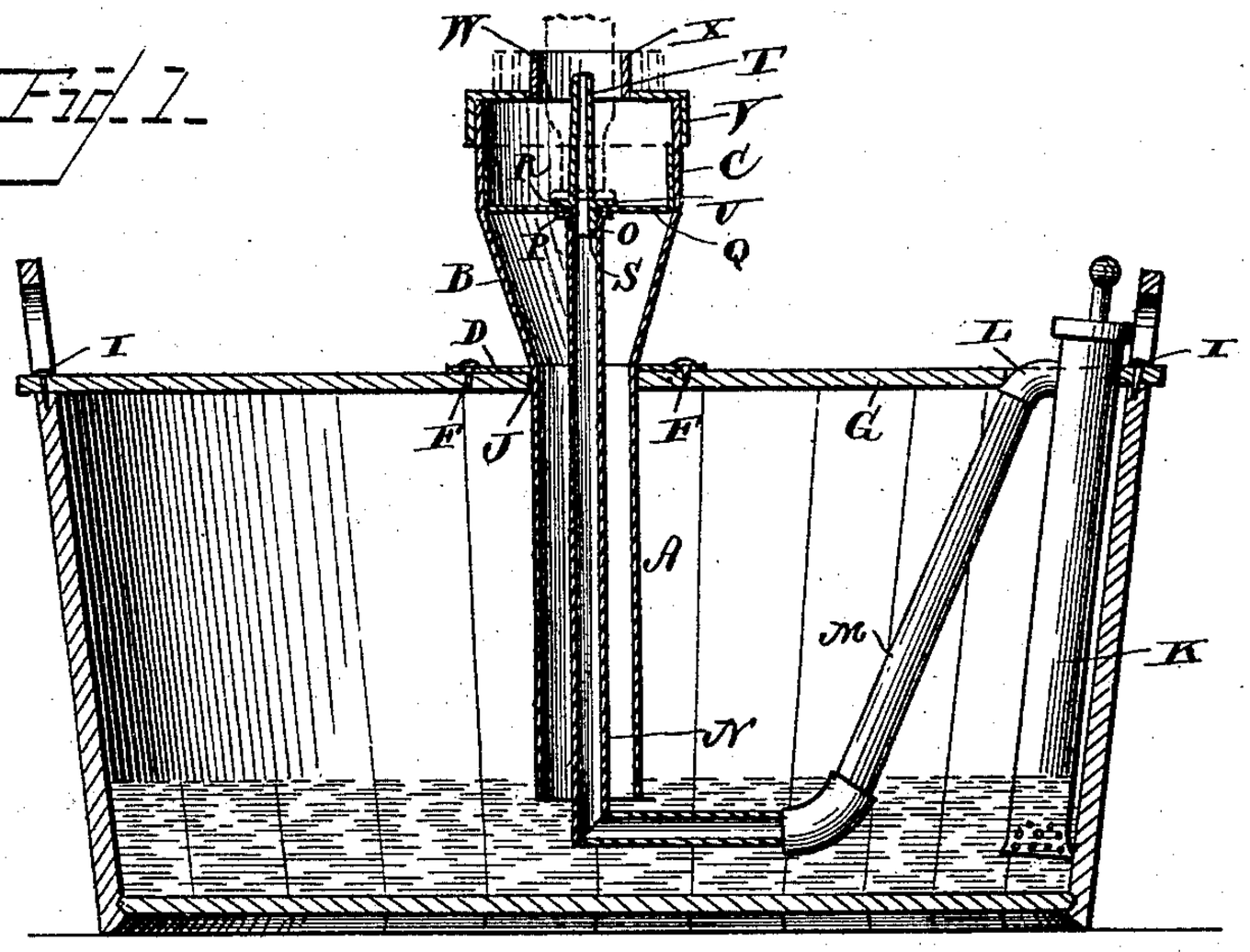


Fig. 3.

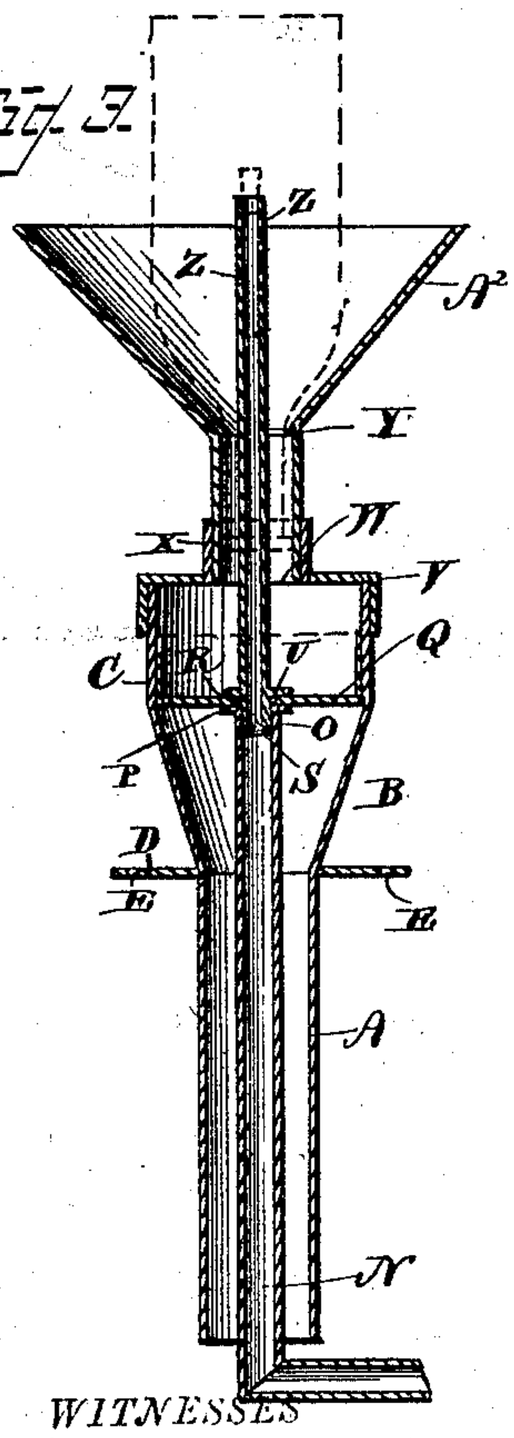
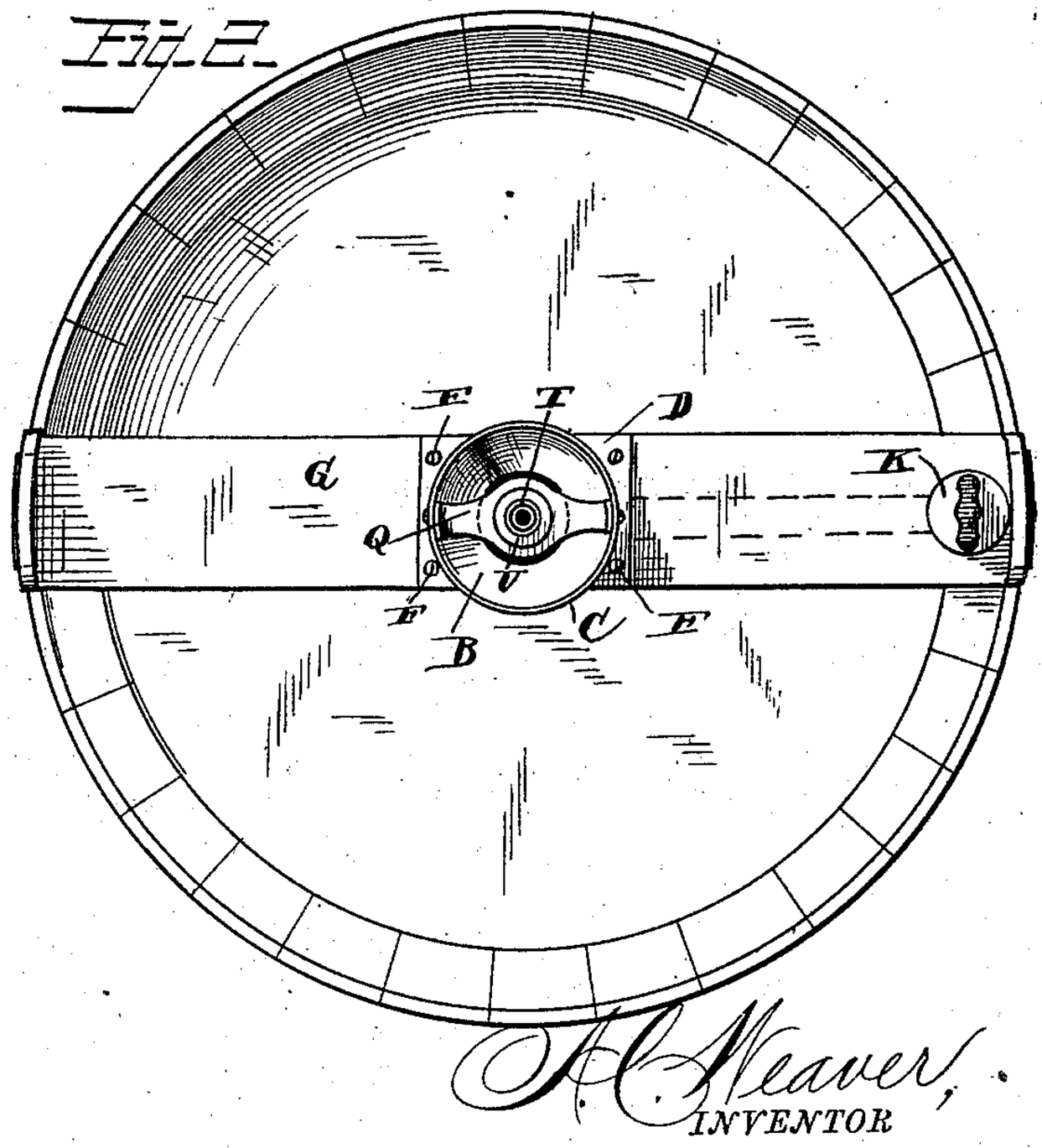


Fig. 2.



WITNESSES
F. L. Ourand.
J. R. Littell

A. C. Weaver,
INVENTOR
By C. A. Snow & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

ALFRED C. WEAVER, OF LAKE CITY, MINNESOTA.

MACHINE FOR CLEANING BOTTLES.

SPECIFICATION forming part of Letters Patent No. 286,880, dated October 16, 1883.

Application filed March 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, ALFRED C. WEAVER, a citizen of the United States, residing at Lake City, in the county of Wabasha and State of Minnesota, have invented a new and useful Machine for Cleaning Bottles, &c., of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to machines for washing bottles, jugs, lamp-chimneys, and similar articles; and it has for its object to provide a simple, inexpensive, and durable device, possessing superior advantages in point of convenient operation, the prevention of splashing of the water used in washing, and general efficiency.

In the drawings, Figure 1 is a vertical sectional view of the device arranged in position for use in connection with a tub. Fig. 2 is a top view of the same with the top cap of the washing-machine removed. Fig. 3 is a vertical detail sectional view of the device arranged to wash large bottles.

Referring to the drawings, A designates a tube, that is preferably cylindrical in form, and comprises the main portion or body of my improved bottle-washing device. A flaring portion or compartment, B, is arranged at the top of the tubular portion A, and the top edges of this flaring compartment are provided with circumferential vertical sides C, as shown. At the point of juncture of the tube A and the compartment B the device is provided with a lateral horizontal plate or flange, D, having peforations E, through which screws F or other securing devices are passed to retain the device in vertical position by means of a cross-piece, G, arranged horizontally and secured to the sides of the tub H by screws I I, or in any other suitable manner.

To place the device in position, the tubular portion A is passed through a perforation or opening, J, in the transverse piece G as far as the plate D, and the screws F are then screwed into the said transverse piece to retain the device firmly in position.

My improved bottle-washer is arranged in connection with a tub for containing the water when it is desired to transport it from place to place; but for stationary use any desired number of the washing devices can be inserted through a bench having a bottom trough to receive the waste water. A force-pump, K, can be secured in position on the tub, and have its mouth or nozzle L connected by a suitable pipe or hose, M, with the bottom end of a feed-pipe, N, extending up through the tubular portion A.

If desired, the end of the feed-pipe N can be connected with any steam or water pressure apparatus. The top end of the pipe N or coupling is interiorly screw-threaded, as shown at O, and is provided with a lateral flange, P, which abuts against the under face of a bridge, Q, that extends transversely in the chamber B at the point of juncture of the latter and the vertical sides C, and is provided with a perforation, R. The exteriorly-screw-threaded end S of a tip or nipple, T, is arranged to pass through this perforation R, and to enter the end of the pipe or coupling N, to connect the nipple with the latter, and a lateral flange, U, is provided on the tip T, which abuts against the top face of the bridge-piece when the feed-pipe and nipple are connected together. In practice the water passes up through the feed-pipe and out at the point and sides of the nipple, which is inserted in the bottle with the latter in inverted position, and the waste water has a free passage back at each side of the bridge-piece into the flaring chamber, from whence it passes down through the tubular portion around the feed-pipe and at the bottom of the washing device.

V is a cap-piece that is arranged on the vertical sides C, and is provided with a central opening, W, around which is raised a vertical collar or flange, X, as shown. This cap-piece is readily removable from the sides C, and it is desirable to have a number of these cap-pieces for each device, having varying sizes of flanged central openings, W, to receive the necks of different-sized bottles.

When it is desired to wash small bottles, the nipple T is secured to the feed-pipe, and the bottle can be inverted and be placed with its neck inclosing the nipple; but when it is desired to wash larger-sized bottles, jugs, lamp-chimneys, &c., the smaller nipple, T, is removed, and a larger and longer one, Y, of corresponding construction, except that it has perforations Z in its sides, is to be substituted. A funnel-piece,

A^2, is also to be placed in the perforation W, to catch all the spray resulting from the washing of the bottle, which is placed in the same position in this instance as before. The perforations in the sides of this larger nipple throw a stream against the sides of the bottle to thoroughly cleanse the same, and at the same time a stream from the tip of the nipple acts against the bottom of the bottle. In washing lamp-chimneys and similar articles the tip-opening is to be stopped by a plug or stopper, so that only the side streams will operate.

I claim as my invention—

1. The combination of the body portion A C, the transverse bridge-piece arranged at part C, and the feed-pipe extending up through the tubular body and braced by the bridge-piece, as set forth.

2. The combination of the tubular body portion, the flaring chamber arranged at the top thereof and provided with vertical circumferential sides, the bridge-piece provided with the perforation and arranged at the flaring chamber, the cap-piece adjustable on the vertical sides and provided with a central opening around which is arranged the vertical collar or flange, the feed-pipe extending up through the tubular body of the device, and the tip or nipple arranged to be attached to the feed-pipe at the transverse bridge, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ALFRED COTTON WEAVER.

Witnesses:

WALTER LILLEY,

W. R. MURRAY.