

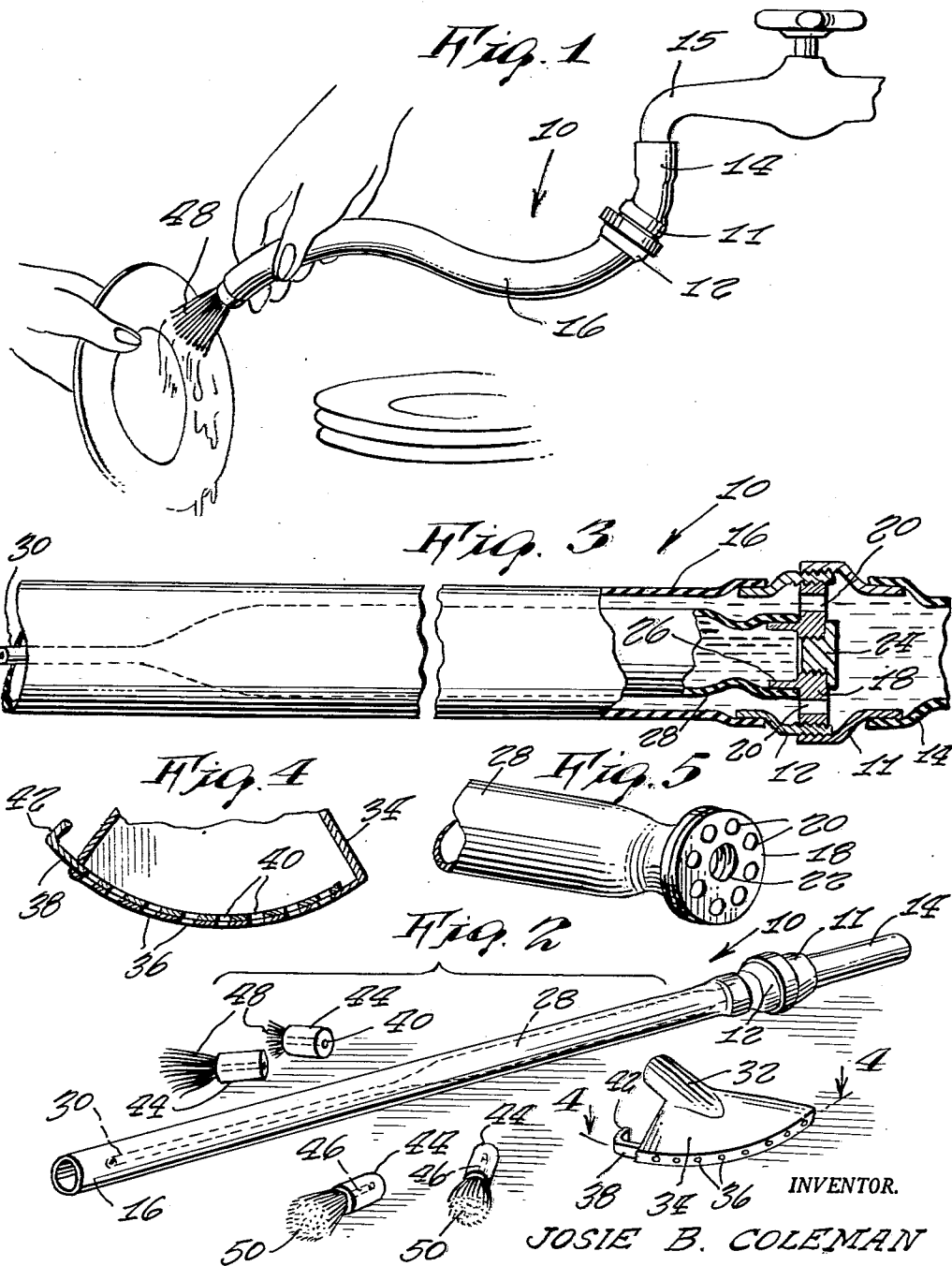
May 5, 1964

J. B. COLEMAN

3,131,868

FLEXIBLE NOZZLE ATTACHMENT

Filed April 24, 1963



1

3,131,868

FLEXIBLE NOZZLE ATTACHMENT

Josie B. Coleman, 420 Faulk St., Dallas 3, Tex.

Substitution for abandoned application Ser. No. 52,617, Aug. 29, 1960. This application Apr. 24, 1963, Ser. No. 264,740

3 Claims. (Cl. 239—277)

This invention relates to cleaning devices, and more particularly to a combination cleaning attachment for use in kitchen sinks.

It is an object of the present invention to provide a cleaning tool assembly which can be readily installed on all types of sink faucets for performing various cleaning tasks in a simple and convenient manner.

Another object of the present invention is to provide a cleaning tool having a set of various adapters and attachments which can be selectively used for performing various cleaning tasks around the home.

Still an additional object of the present invention is to provide a novel duct piece for a kitchen cleaning tool which will provide for the careful control of water flow through the various adapters usable therewith.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in conjunction with the accompanying drawing, wherein:

FIGURE 1 is a perspective view of a cleaning tool made in accordance with the present invention in actual use;

FIGURE 2 is a perspective view of various cleaning attachments and main duct piece forming the main components of the present invention;

FIGURE 3 is an enlarged fragmentary side elevational view, with parts broken away, of a duct piece forming a part of the present invention;

FIGURE 4 is an enlarged fragmentary cross sectional view taken along line 4—4 of FIGURE 2; and

FIGURE 5 is an enlarged fragmentary end perspective view of certain parts of the duct piece shown in FIGURE 3.

Referring now to the drawing, a cleaning tool made in accordance with the present invention is shown to include a main duct piece 10 having a pair of coupling members 11, 12 threadedly connected together at one end. Mounted upon one of the coupling elements 11 is a length 14 of flexible hose for connection to a faucet 15. Connected to the other one of the coupling elements 12 is an extended length of flexible tubing 16. Mounted within the interior of the threadedly connected coupling elements 11, 12, is a flow control plate 18 having a plurality of circumferentially spaced apart ports 20 through which water from the flexible hose 14 is distributed through the interior of the conduit 16. The central portion of the plate 18 has an internally threaded aperture 22 which is selectively closed by a threaded plug 24. When the plug 24 is removed, water will flow from the hose 14 through the opening 22 and into a centrally mounted conduit 28 that is mounted upon an annular flange 26 of the control plate 18, coaxially with the opening 22 and the outer conduit 16.

The free end of the inner conduit 28 is constricted toward a tube-like protuberance 30 that terminates short of the outermost end of the outer conduit 16.

A special purpose cleaning adapter 32 having a fan shaped nozzle 34, includes a plurality of circumferentially spaced apart ports 36 through which water may be dispensed when the apertures 40 of the control plate 38 are moved into alignment therewith by adjustment of the manually controlled handle 42. Thus, with this adapter 32 mounted upon the end of the outer conduit 16, water from both the outer conduit 16 and the interior of the tube 30 will be supplied to the interior of the fan shaped

2

housing and dispensed outwardly through the ports 36 at a rate of speed and in a quantity determined by the position of the adjustment plate 38.

A plurality of plug-like adapters 44 are also provided, each having a longitudinal bore 46, through which water under pressure from the tube 30 is forced outwardly to association with bristles of any desired degree of stiffness. Wire type bristles 48 are preferably used for difficult to clean pots and pans, whereas brush-like bristles 50 may be used for cleaning dishes and only slightly soiled articles. Since the plugs 44 virtually close the outer free end of the outer conduit 16, water flow through the longitudinal bores 46 thereof is supplied primarily from the tube 30 which projects directly into such longitudinal bore 46. It is therefore necessary to remove the closure plug 24 from the control plate 18 when using these brush type adapters.

It will now be recognized that an extremely efficient and effective cleaning device has been provided for performing various types of cleaning tasks around the home, in a simple and convenient manner.

While this invention has been described with particular reference to the construction shown in the drawing, it is to be understood that such is not to be construed as imparting limitations upon the invention, which is best defined by the claims appended hereto.

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

1. A cleaning tool comprising, in combination, a duct piece, flexible coupling means securing one end of said duct piece to a water source, a special purpose cleaning adapter detachably secured upon the opposite end of said duct piece, flow control means carried by said duct piece limiting flow between said source and said adapter, said duct piece comprising an outer conduit and an inner conduit, said flow control means being mounted within said outer conduit, said inner conduit mounted upon a central portion of said flow control means, water being supplied from said water source to the interior of each of said inner and outer conduits, said inner and outer conduits delivering fluid to said special purpose cleaning adapter secured upon the opposite end of said duct piece, said flexible coupling means comprising a short length of flexible hose having one end connected to said outer conduit, and the opposite end of said flexible hose being mounted upon a water faucet.

2. A cleaning tool as set forth in claim 1, wherein said flow control means comprises a plate having a plurality of circumferentially spaced apart apertures mounted within and substantially filling the interior of one end of said outer conduit, and the central portion of said flow control plate having an internally threaded aperture communicating with the interior of said inner conduit, and a removable plug threadedly mounted within said central aperture of said flow control plate controlling flow of water from said flexible coupling through the interior of said inner conduit.

3. A cleaning tool as set forth in claim 2, wherein said special purpose cleaning adapter comprises a substantially fan shaped housing having a sleeve at one end for receiving the outer free end of said outer conduit therewithin, and the opposite end of said fan shaped housing having a plurality of circumferentially spaced apart ports, and a manually adjustable apertured plate slidably carried by said fan shaped housing selectively adjusting the size of the openings through said ports.

References Cited in the file of this patent

UNITED STATES PATENTS

1,353,495	Roberts	Sept. 21, 1920
2,314,071	Bucknell et al.	Mar. 16, 1943
2,575,222	Isenberg	Nov. 13, 1951