

[54] **CLEANING AND REMOVAL DEVICE**

[76] Inventor: **Frank Schuster**, 16315 Gabarda Rd.
Rancho Bernardo, San Diego, Calif.

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3,448,929	6/1969	Strahman	239/288.5
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3,672,380	6/1972	Schuster	134/183

Primary Examiner—Richard A. Schacher
Attorney—Herbert C. Schulze

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134/183

[51] Int. Cl. **B05b 1/28**

[58] Field of Search 239/288, 288.5;
134/167 R, 172, 183; 4/256

[56] **References Cited**

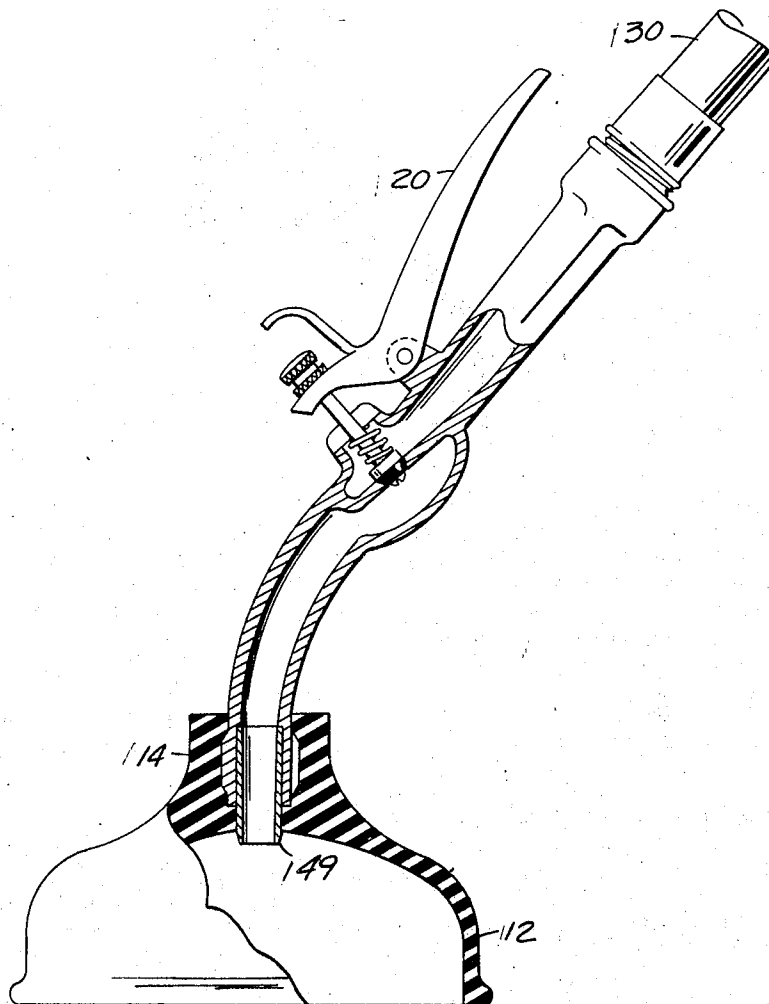
UNITED STATES PATENTS

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[57] **ABSTRACT**

This is a device for cleaning and removal of contaminants from various areas in which cleaning is accomplished by a jet of liquid properly contained to avoid splashing and to concentrate the cleaning effect and removal effect, in which a rubber cup is used to contain and assist in cleaning and removal without contamination of adjoining areas.

3 Claims, 3 Drawing Figures



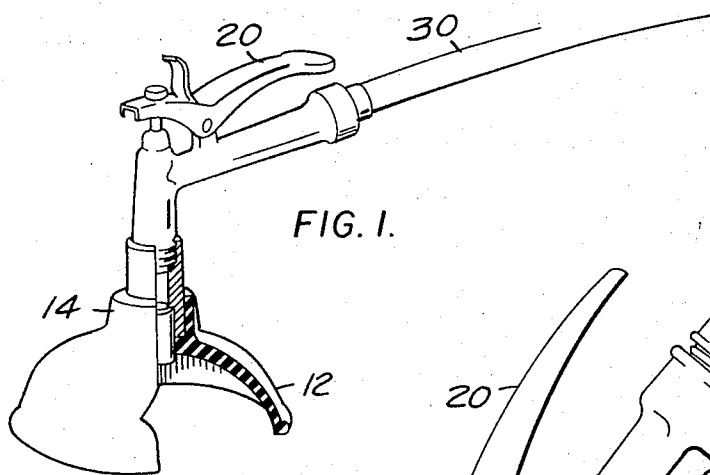


FIG. 1.

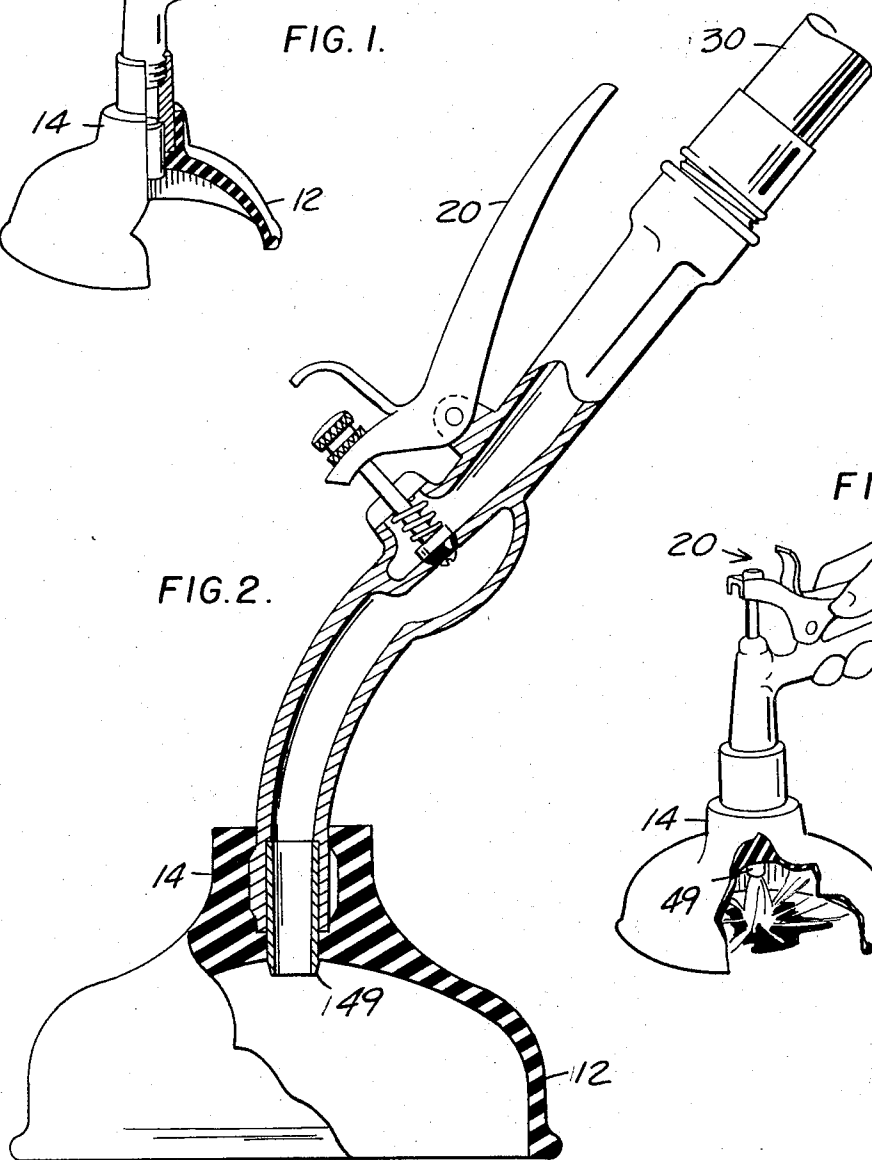


FIG. 2.

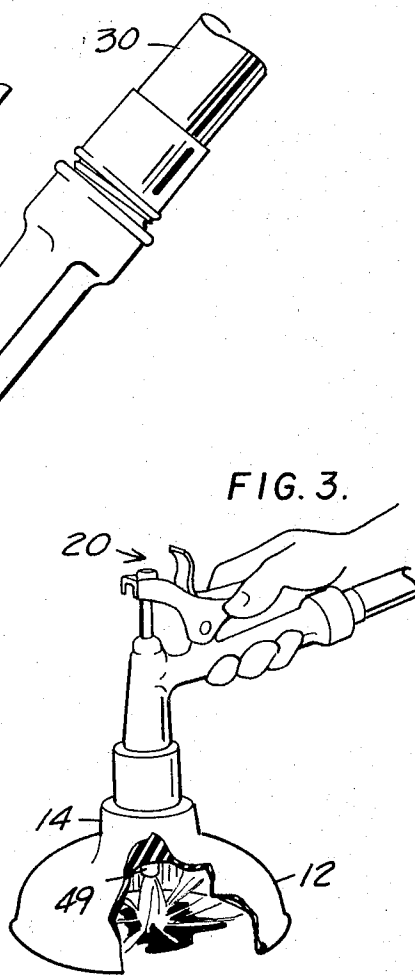


FIG. 3.

INVENTOR
FRANK SCHUSTER

CLEANING AND REMOVAL DEVICE

CROSS-REFERENCE TO RELATED APPLICATIONS

This Application is related to my co-pending Application, Ser. No. 851,698 filed Aug. 20, 1969, and now U.S. Pat. No. 3,672,380.

BACKGROUND OF THE INVENTION

1. Field Of The Invention

This invention is in the general field of cleaning devices and particularly pertains to a device adaptable to clean limited areas by jet action and so arranged that overspray and the like are contained within a very limited, confined area.

2. Description Of The Prior Art

I am acquainted with a great deal of art in this field. The field of cleaning, and particularly cleaning by means of a jet stream, is an extremely crowded field.

The great requirements for appropriate cleaning within limited and concentrated areas, and particularly where liquid pressures and/or corrosive materials may be employed, has led to many developments designed to eliminate the many problems inherent.

Some of the U.S. Pats., for example, which might be deemed to be in the general field are as follows: No. 1,804,874; No. 2,736,906; No. 2,086,149; and No. 937,458.

I have examined the foregoing Patents and other devices related to this field of endeavor and have come to the conclusion that there was still the need of a greatly improved device which could be made quite economically, controlled easily, and used widely. Such a device is the result of my investigation, development and inventive work, and is represented by this Patent Application.

SUMMARY OF THE INVENTION

This invention employs any type of liquid being delivered by appropriate pressure means. In its most common application, the device might use ordinary water pressure. In more sophisticated applications, the same device is suitable for the use of caustic or acid materials, material containing abrasives or detergents, steam jets, and the like.

I have now devised a new and unique arrangement by which some certain known devices have been changed, altered, and reconfigured so as to provide a simple, easy to use, and inexpensive device for providing an economical, simple and safe jet stream cleaner.

I have accomplished this highly desirable effect, but heretofore unrecognizable and uneconomical effect, by combining a shielding device, with a built in nozzle adapter, which is easily connected to a common garden hose.

It is an object of this invention to provide a new and unique jet cleaning device utilizing a flexible and suctionlike shielding device for concentrating the action of a jet stream together with a means for economically providing such jet stream.

It is a further object of this invention to provide a device as heretofore mentioned, in which by a unique combination, an ordinary household garden hose may be used for providing a concentrated jet cleaning device.

It is a further object of this invention to provide a device as described above suitable to carry additional fluids other than household water fluids.

The foregoing and other objects and advantages of this device will be clear to those skilled in the art, upon reading the following detailed description in conjunction with the attached drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a partially broken away perspective of a preferred embodiment of a device utilizing the principles of this invention;

FIG. 2 is an enlarged partial cross section of an alternative device to that shown in FIG. 1; and

FIG. 3 is a partially broken away perspective of the device of FIG. 1 in use.

DESCRIPTION OF A PREFERRED EMBODIMENT

This device as disclosed in FIG. 1 is seen to consist of a shielding device 12, which is essentially the same as a rubber suction cup, having a neck 14, into which is inserted by a threaded connection, a nozzle having a handle 20, and which, through principles well-known in the art, controls the flow of the liquid into such suction cup from garden hose or the like 30, which is threadedly connected to the nozzle arrangement.

In FIG. 3 is illustrated the identical item of FIG. 1, in which the nozzle arrangement has been depressed at 20 to allow the introduction of liquid under high pressure through the intercommunicating liquid passage 49, to work upon and ultimately obliterate stains or the like which may be upon a floor or other area.

In the alternative arrangement shown in FIG. 2, there is shown the garden hose 130, the handle 120, the shielding arrangement 114, the shield arrangement 112 and the ultimate fluid-dispensive tip 149.

In my previously described Patent Application, I had contemplated the use of a connector to connect items already on the market. In the present device, I have shown two alternatives, the alternative shown in FIG. 1 and FIG. 3, utilizing a standard nozzle, but also utilizing a premolded shielding device having a female thread arrangement so adapted as to receive the nozzle device. In FIG. 2, there is illustrated a shielding arrangement in which the nozzle itself is molded with the shielding arrangement, by techniques well-known in the art, so as to provide single connection to a garden hose 130.

In use, the pressure of a fluid or the like is exerted through the nozzle against any stain or the like existing upon a surface or in an intercommunicating aperture of the surface.

By pressing, properly, against the surface to be cleaned, and by alternately using the nozzle arrangement as desired, pressure suction or the like may be formed on the area being cleaned or such additional cleaning action as may automatically occur.

The embodiment of this invention shown and described is fully capable of achieving the objects, advantages and operating effectiveness of the invention. However, modifications may occur to those skilled in the art without departing from the inventive concepts disclosed, and the exact embodiment shown is for illustrative purposes and not for the purpose of limiting the effect of this invention.

I claim:

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1. A jet cleaning device comprising a housing having first and second fluid containment and passage chambers therein, the first of said chambers being provided adjacent one end with means to connect to a fluid source, and means at its other end adjustably to pass fluid into the second fluid containing and passage chamber, said second fluid passage chamber being provided at its end opposite the adjustable fluid passing means with an enlarged shielding means surrounding a

discharge opening within said shielding means, and in which said shielding means is non-detachably affixed to said fluid passage body.

2. The device of claim 1 in which a fluid dispensing tip projects within said shielding means.

3. The device of claim 2 in which said shielding means comprises a suction cup means.

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