Nov. 10, 1953 C. W. TORBERT 2,658,219

FINGER CONTROLLED SPONGE COVERED SPRAY HEAD

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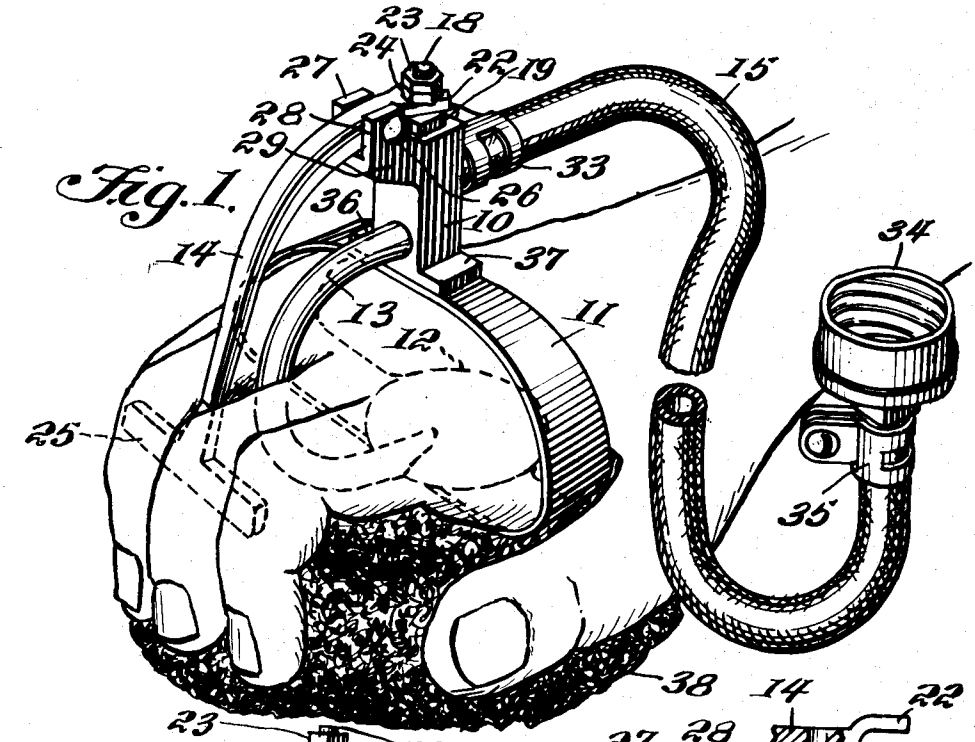


Fig. 1.

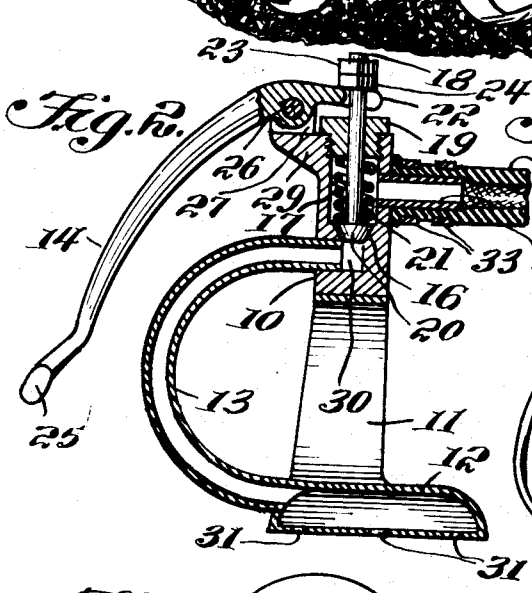


Fig. 2.

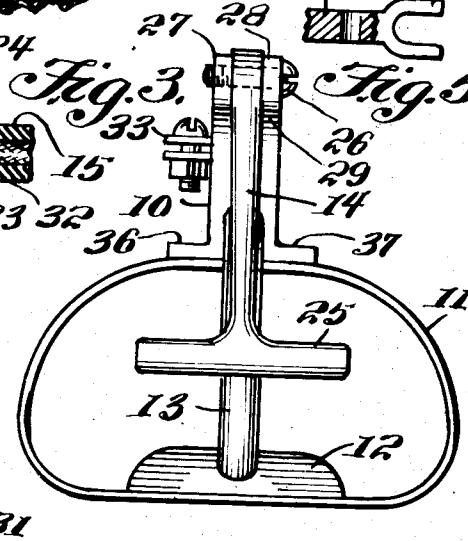


Fig. 3.

Fig. 5.

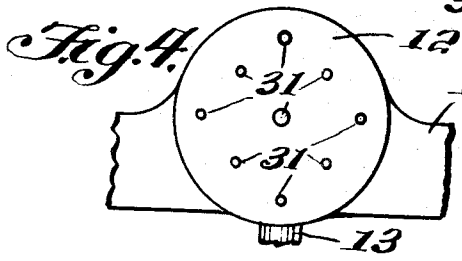


Fig. 4.

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FINGER CONTROLLED SPONGE COVERED SPRAY HEAD

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2 Claims. (Cl. 15—130)

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This invention relates to spray heads of the type held in the palm of a hand and through which water is supplied to a sponge, cleaning pad, or the like, particularly adapted for washing motor vehicles, windows, and the like, and in particular this invention includes a spray head carried by a strap positioned to extend around a hand whereby the head, which may be covered with a sponge, is positioned in the palm of the hand and with the parts held in this manner the supply of water to the spray head is controlled with a lever having a cross bar on the end and extended between the fingers of the hand on which the spray head is mounted.

The purpose of this invention is to improve the construction of spray heads of this type whereby a valve for controlling the flow of water to the spray head is actuated by the fingers of a hand instead of by the thumb or by the other hand of the operator.

This invention is an improvement over the spray devices of my prior Patents Numbers 1,538,961 and 2,209,861 in that the control lever, particularly of the latter patent is removed from the side of the spray head and extended from the front whereby it is positioned between the fingers so that the thumb may be used for gripping the sponge or the like.

Spray devices of this type are not used universally because it is inconvenient to operate the valve and it is necessary, for efficient cleaning, to operate the valve continuously as the spray head is used, because a surface must first be rubbed, with comparatively little water, and then flushed to wash away the film of dirt or the like. With this thought in mind the improvement of this invention contemplates positioning a control lever of the valve of a spray head adapted to be used in the palm of a hand whereby a T-shaped lever extended from a valve on the spray head extends between the fingers so that it is only necessary to draw the fingers inwardly in the position of gripping the sponge on the spray head, to actuate the valve.

The object of this invention is, therefore, to provide means for arranging a valve on a spray head adapted to be held in the palm of a hand whereby the valve is actuated by the fingers of the hand in which the spray head is held.

Another object of the invention is to provide an improved arrangement for operating valves of spray heads of the type used in the palm of a hand whereby the valve may be actuated continuously as the spray head is used.

A further object of the invention is to provide

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an improved method of operating a valve of a spray head of the type used in the palm of a hand whereby the spray head and valve operating means are of comparatively simple and economical construction.

With these and other objects and advantages in view the invention embodies a valve body having a valve with a stem extended from the upper end in which the valve body is mounted on a band adapted to extend around a hand and having a sponge covered spray head carried thereby and also in which the stem of the valve is actuated by a lever pivotally mounted on the valve body and extended whereby a bar on the lower end thereof is positioned below the fingers of the hand.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings wherein:

Figure 1 is a perspective view showing the improved spray head and sponge mounted upon a hand and with the control lever of the valve extended between the fingers of the hand.

Figure 2 is a longitudinal section through the spray head with part of the finger actuating lever shown in elevation.

Figure 3 is a front elevational view showing the spray head.

Figure 4 is a detail looking toward the lower end of the spray head with parts omitted and with the ends of the band in which the spray head is carried broken away.

Figure 5 is a detail showing a plan view of the valve stem operating fork on the end of the control lever.

Referring now to the drawings wherein like reference characters denote corresponding parts the improved spray head of this invention includes a valve body 10, a band 11 on which the valve body is mounted, a spray head 12 carried by the band, a connection 13 extended from the valve body to the spray head, a lever 14 extended forwardly from the valve body and a hose connection 15.

The valve body, which in the design shown is rectangular shaped in cross section, may be of any suitable shape or design and, as shown in Figure 2, a valve seat 16 is positioned at the lower end of a core or chamber 17 with a valve stem 18 slidably mounted in a bushing 19 threaded in the end of the core. A valve 20 positioned on the lower end of the stem 18 is resiliently held against the seat 16 by a spring 21 and a fork 22 extended from the end of the lever 15 and positioned below nuts 23 and 24 threaded on the end

of the valve stem, draws the valve stem and valve upwardly away from the seat 16 as a bar 25 on the extended end of the lever 14 is drawn inwardly by the fingers of a hand, with the bar in the position shown in Figure 1.

The lever 14 is pivotally mounted by a pin 26 between ears 27 and 28 on a lug 29 extended from one side of the valve body and with the lever positioned in this manner the outer end extends between the second and third fingers of a hand upon which the spray head is positioned, as shown.

The tube 13 extends from an opening 30 below the valve seat 16 to the spray head 12 and water passing through the valve is sprayed through perforations 31 in the spray head.

The valve body 10 is provided with a nipple 32 over which the end of the supply hose 15 is secured by a clamp 33. The opposite end of the hose may be provided with a socket or coupling 34 whereby the hose is connected to a water faucet and the hose is secured to the coupling by a clamp 35.

The band 11 is secured to the base of the valve body 10, the lower end of which is provided with flanges 36 and 37 and a sponge, as indicated by the numeral 38 is positioned around the spray head 12. The sponge 38 may be secured to the spray head 12.

With the parts formed in this manner the spray head is positioned on a hand, as shown in Figure 1, and with the part 25 positioned against the inner surfaces of the fingers the lever 14 is drawn inwardly with the fork 22 opening the valve, and by this means the position of the valve is continuously controlled so that any quantity of water desired is supplied to the spray head.

It will be understood that modifications may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

1. A device of the character described for use by both right and left handed persons, comprising a band shaped to form a loop and adapted to receive the fingers and body portion of a hand, a vertically disposed valve body mounted on and extended upwardly from the top of said loop, transverse flanges on the bottom of said valve body secured to the upper surface of said loop, said valve body being provided with a vertically disposed chamber, a valve seat positioned at the lower end of said chamber, an arcuate conduit extending from said valve seat and communicating with said chamber, a spray head secured to said band and communicating with said conduit, a sponge arranged contiguous to the lower surface of said head, a valve positioned in the lower end of said chamber and mounted for movement into and out of bridging relation with respect to said valve seat, a vertically shiftable valve stem having its lower end secured to said valve, a bushing threadedly engaging the top of said valve body and provided with a central opening for slidably receiving said stem, a coil spring positioned in said chamber and interposed between said valve and bushing, a lug extending forwardly and upwardly from said valve body, a pair of spaced, parallel, vertically disposed ears extending upwardly from said lug and provided with registering apertures, an actuating lever extending downwardly from said valve body and adapted to extend between the fingers of the user, a pin passing through said registering apertures and pivotally connecting said lever to said ears, the rear end of said lever being bifurcated to provide a fork, said fork receiving said stem therein, securing elements arranged in threaded engagement with the upper end of said stem above said fork, a bar extending transversely with respect to the lower front end of said lever and adapted to be placed beneath the user's fingers, and a nipple extending rearwardly from said valve body and adapted to be connected to a source of supply of water, said lever being arranged in alignment with and above said conduit whereby said lever and conduit both extend through the same space between the fingers.

2. A device of the character described for use by both right and left handed persons, comprising a band shaped to form a loop and adapted to receive the fingers and body portion of a hand, a vertically disposed valve body mounted on and extended upwardly from the top of said loop, transverse flanges on the bottom of said valve body secured to the upper surface of said loop, said valve body being provided with a vertically disposed chamber, a valve seat positioned at the lower end of said chamber, an arcuate conduit extending from said valve seat and communicating with said chamber, a spray head secured to said band and communicating with said conduit, a valve positioned in the lower end of said chamber and mounted for movement into and out of bridging relation with respect to said valve seat, a vertically shiftable valve stem having its lower end secured to said valve, a bushing threadedly engaging the top of said valve body and provided with a central opening for slidably receiving said stem, a coil spring positioned in said chamber and interposed between said valve and bushing, a lug extending forwardly and upwardly from said valve body, a pair of spaced, parallel, vertically disposed ears extending upwardly from said lug and provided with registering apertures and an actuating lever extending downwardly from said valve body and adapted to extend between the fingers of the user, a pin passing through said registering apertures and pivotally connecting said lever to said ears, the rear end of said lever being bifurcated to provide a fork, said fork receiving said stem therein, securing elements arranged in threaded engagement with the upper end of said stem above said fork, a bar extending transversely with respect to the lower front end of said lever and adapted to be placed beneath the user's fingers, and a nipple extending rearwardly from said valve body and adapted to be connected to a source of supply of water, said lever being arranged in alignment with and above said conduit whereby said lever and conduit both extend through the same space between the fingers.

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