

Nov. 24, 1953

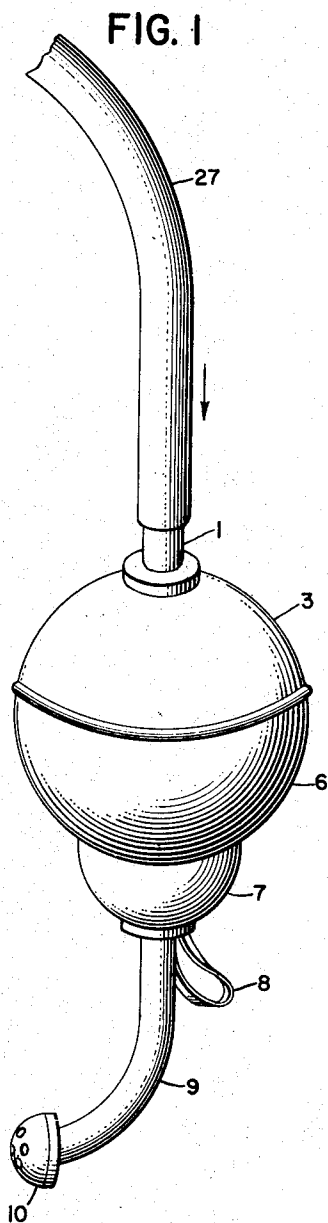
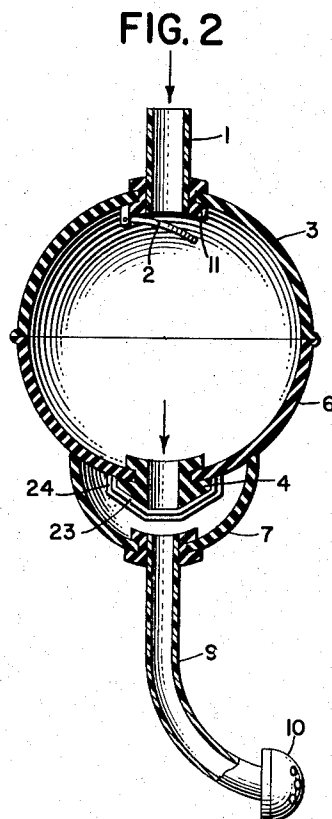
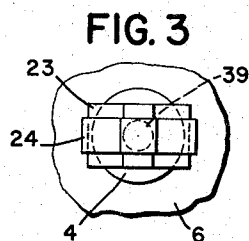
C. H. W. KAHL

2,660,170

RECTAL SPRAY DEPURATOR BULB WITH SIPHON

Filed June 27, 1952

2 Sheets-Sheet 1



INVENTOR;

Carl H. William Kahl

Nov. 24, 1953

C. H. W. KAHL

2,660,170

RECTAL SPRAY DEPURATOR BULB WITH SIPHON

Filed June 27, 1952

2 Sheets-Sheet 2

FIG. 4

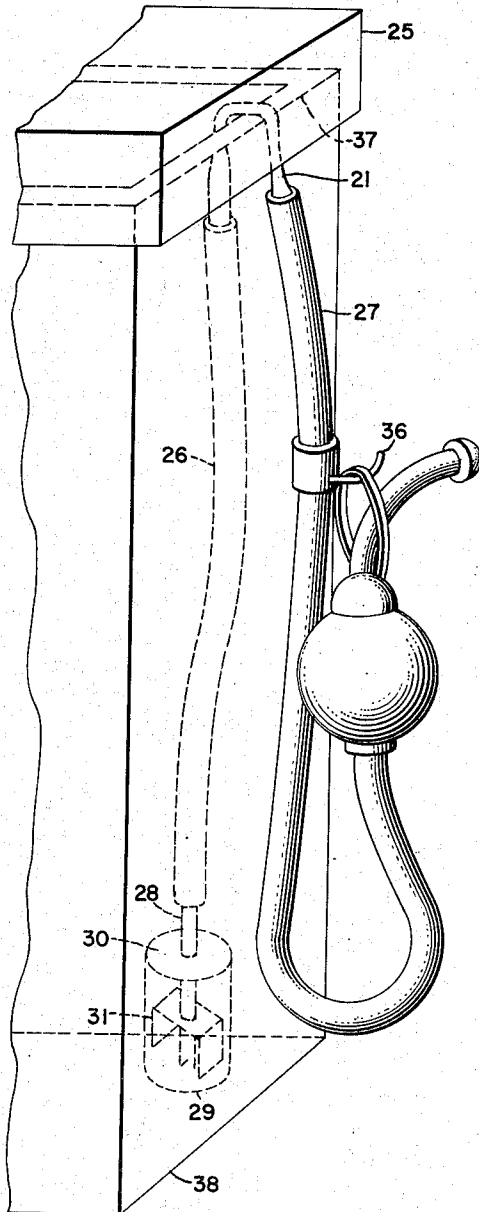


FIG. 6

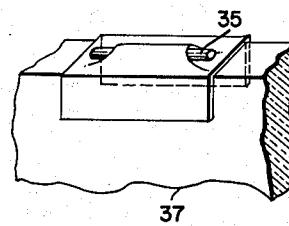
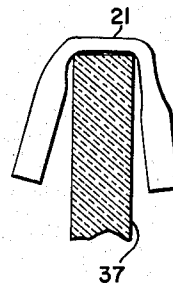


FIG. 5



INVENTOR:

Carl H. William Kahl

UNITED STATES PATENT OFFICE

2,660,170

RECTAL SPRAY DEPURATOR BULB WITH SIPHON

Carl H. William Kahl, Phoenix, Ariz.

Application June 27, 1952, Serial No. 295,887

3 Claims. (Cl. 128—231)

1

2

This invention relates to a toilet accessory, a spray depurator bulb with syphon assembly, for washing the anal ora.

Much irritation and bleeding has been caused by the imprudent use of dry toilet paper. My device provides a small bath to precede the use of toilet paper. Chafing of tender membranes can be avoided; hemorrhoids may be warded off.

With paper alone, hygienic cleansing is almost impossible. For that reason, the small bath made available by this device will be a boon not only to sufferers from piles and rectal irritations but also to men and women still in good health, and particularly to children.

In view of the foregoing, one of the objects of my invention is to provide a handy device for rectal cleansing, composed of an elastic squirt bulb with a curved outlet and an applicator that will eject a spray of water controlled by hand pressure.

Another object is to have this device ever ready, without priming, without filling and re-filling, at arm's length, and from an unceasing source of water.

Still another object is to create a simple device, which is inconspicuous, and which includes just a tube and ball in a remote corner of the bath room and the water closet tank; no attachments or hangings on the bath room wall are needed; and there is nothing to install. Above all, it must be constructed so that the bulb will not leak when loose, released, or depending, nor cause back suction through the applicator.

Other objects will appear hereinafter. I attain the foregoing objectives by means of the devices and constructions illustrated in the accompanying drawings, in which—

Figure 1 presents a perspective view of the squirt bulb assembled, with loop for hanging it up when not in use.

Figure 2 is a sectional view of the squirt bulb with its several parts, including an inlet opening and an outlet opening, an inlet check valve and an outlet check valve; and topped off by a hemispherical cupola, the latter being the outlet chamber of the applicator.

Figure 3 is a plan view of the outlet valve.

Figure 4 is a perspective view of one corner section of a water closet tank, showing a flattened tube inserted under its lid to form the U-bend for the syphon; a hose connection from a syphon to a squirt bulb, and a hose connection from said syphon to the bottom of said water closet tank, as well as an auxiliary tank with screened dome.

Figure 5 affords a plan view of flattened U-shaped tube of the syphon, hooked upon water closet tank wall.

Figure 6 gives a perspective view of a metal clip with a spacer fastened thereto.

Similar numerals refer to similar parts in the several views.

Referring to the drawings, Figure 1 shows the squirt bulb assembled from three parts, 3, 6, and 7, and vulcanized one upon the other.

Loop 8 is added for hanging the bulb.

It is to be understood that the rubber bulb is elastic and self-expanding.

Inlet valve 2 is a simple check valve with a flat valve seat 11, situate inside bulb 3. Tube 1 is for hose connection 27.

Outlet valve 23—24 is a check valve positioned on the outside of bulb 6. It is arranged to have resilient resistance to opening, and for that reason will not leak when the bulb is depending. This close-fitting back-pressure valve also prevents suction back through the applicator tube.

Its valve seat 4 consists of a squat, truncated rubber cone, which has a centrally positioned outlet opening. Over this cone is stretched a strip of thin rubber 23, which is fastened to the bulb at each end. Strip 23 overlaps the outlet opening 39 of the valve seat on both sides. A second strip of thin rubber 24, is stretched lengthways over strip 23. Strip 24 is narrower than strip 23; it is hardly more than the width of outlet opening 39. See Figure 3.

The rubber over valve seat 4 should not be drawn too tightly lest hand pressure against this elastic valve becomes too tiresome.

Bulb 7 forms the cupola on the squirt bulb. It bears outlet tube 9, and curved anal applicator 10, which is perforated at its tip.

To complete the assembly of the squirt bulb and syphon, lid 25 of the water closet tank 38 is raised, and a flattened tube 21, having a U-shape, is hooked over edge 37 of the water closet tank. From one end of tube 21 a hose 27 depends together with squirt bulb; the other end of tube 21 is attached to hose 26, which leads into the tank water.

The filling of the squirt bulb is automatic. This is due to the resistance of outlet valve 23—24. Because this valve has considerable opening resistance to flow and thereby prevents back suction when hand pressure is released, therefore the pull of the vacuum that is created inside of bulb 3—6, exerts itself in full strength through inlet valve 2 and upon the syphon assembly 27, 21, and 26. The pull is so strong

that it brings water over the top of the syphon without priming.

Tank lid 25, now resting on flattened tube 21, is slightly off level. Therefore three clips 35, in thickness equal to flattened tube 21, are clamped upon tank edge 37 in three places, one opposite the syphon, one at front of tank, and one right alongside of syphon tube 21. This tube, already flattened, is thus protected from the weight of the heavy tank lid. See Figure 5 and Figure 6.

Tank lid 25 is slightly raised by the insertion of syphon tube 21 and the metal clips, but not enough to leave it insecure; the lid cannot slide off because it is equipped with sturdy flanges underneath, and they retain ample margin for safety.

Fastened to hose 27, is hook 36, upon which to hang the squirt bulb.

At bottom of water closet tank 38 is a small, weighty auxiliary tank 29, with tube 28 for connection with syphon hose 26, and domed over by screen 38. A simple bracket 34, holds this tube in place. The little tank serves to screen out scum and scale and, by its weight, keep hose 26 from flapping about. It also serves to tide over the water supply in case tank 38 should happen to be drained at the moment of syphoning.

Operation of this device is very simple. All that is required is to lift one end of water closet tank lid 25 and lower auxiliary tank 29, at the end of hose 26, into one side of the water closet tank. That leaves flattened tube 21 hooked over edge 37 of water closet tank, and hose 27 with squirt bulb depending.

The syphon assembly is self-priming; the squirt bulb is pressed by hand, and the valves react instantly. Upon pressure, intake valve 2 closes; air is pushed out through outlet valve 23—24. When hand pressure is released, the bulb draws back to shape and creates suction. Intake valve 2 opens, and the suction starts the flow of the syphon, filling the bulb with water. Upon a second squeeze, water spurts from the outlet tube.

It is essential that inlet hose 27 be of rather heavy material; for if hose 27 should throw a kink, the flow of the syphon would be obstructed.

After use, the ball is hung on hook 36, in easy reach. It is ready, ever after, with the first squeeze, for that small bath, and without any preparations.

In view of the foregoing, I wish to be limited only by the following claims.

I claim:

1. A rectal spray depurator consisting of an elastic rubber bulb, a flap intake valve closing on an inlet opening in its upper portion, and a resilient, flow-resistant outlet valve in its lower portion, consisting of a truncated conical seat having a centrally positioned outlet hole opening from said bulb, a resilient rubber strip stretched over said seat and attached at each end to said bulb, forming a valve; a rubber cupola having a centrally disposed outlet hole, enclosing said outlet valve and having its edges attached to said bulb; an outlet tube having a curve at its outer end, forming an anal applicator inserted in the outlet hole of said cupola; and an inlet tube attached to said inlet opening of said bulb, adapted for insertion into a water closet tank.

2. A rectal spray depurator consisting of an

elastic rubber bulb, a flap intake valve closing on an inlet opening in its upper portion, and a resilient, flow-resistant outlet valve in its lower portion, consisting of a truncated conical seat having a centrally positioned outlet hole opening from said bulb, a resilient rubber strip stretched over said seat and attached at each end to said bulb, forming a valve; a rubber cupola having a centrally disposed outlet hole, enclosing said outlet valve and having its edges attached to said bulb; an outlet tube having a curve at its outer end forming an anal applicator inserted in the outlet hole of said cupola; an inlet tube attached to said inlet opening of said bulb; an inverted U-shaped hollow portion of rigid material, adapted to fit over the edge of a water closet tank, connected to said inlet tube at one end, and a hose connected at its opposite end, adapted to extend to the bottom of said tank.

3. In a rectal spray depurator assembly, the combination of an elastic self-expanding rubber bulb, with a water closet tank having a lid; said rubber bulb being attached to an intake rubber tube leading into and being connected to a short U-shaped flattened metal tube hooked over the edge of the said water closet tank, beneath the lid of the said water closet tank; the said U-shaped tube, forming a part of the intake tube, being adapted to bear the weight of the said lid; a rubber tube connected to the intake end of the said U-shaped metal tube; said rubber tube being lowered into the said water closet tank for drawing water from the said tank; an intake check valve within the said rubber bulb; a cupola vulcanized upon said rubber bulb; an outlet hole opening in said rubber bulb leading into the said cupola, a back pressure valve enclosed within the said opening, having its edges attached to said bulb; an outlet hole opening in the dome of the said cupola; a metal outlet tube fitted into the said opening; said outlet tube being curved near its outlet end and perforated to serve as an applicator; hand pressure upon the said self-expanding rubber bulb, providing a self-priming syphon assembly, drawing water from the said water closet tank, through the said intake tube, through the said rubber bulb and through the said cupola, ejecting the water through the said perforated applicator; said back pressure valve within the said cupola preventing said bulb from leaking through the said applicator; said back pressure valve also preventing back suction through the said applicator; metal clips with spacer rods clamped upon the edge of the said water closet tank, to elevate and to level the lid of the said water closet tank; and an auxiliary weighty small tank with a screened dome, connected to the bottom of the said intake tube, within the water closet tank.

CARL H. WILLIAM KAHL.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
152,885	Walsh	July 7, 1874
1,352,306	Mott	Sept. 7, 1920

FOREIGN PATENTS

Number	Country	Date
104,126	Great Britain	Feb. 22, 1917