To all whom it may concern:

Be it known that I, Cyrus W. Mackin, a citizen of the United States, residing at Waverly, in the county of Morgan and State of Indiana, have invented certain new and useful Improvements in Buckets for Filling Automobile Radiators, of which the following is a specification, reference being had to the accompanying drawings.

The present invention relates broadly to new and useful improvements in buckets and has especial reference to the provision of a novel form of water bucket adapted for use in filling automobile radiators.

The primary object of the invention is to construct a bucket of the character in which the bottom is provided with a normally closed valve, a funnel which may be inserted in the radiator cap, and a controlling arm which is adapted to engage with the radiator cap and to open the valve to permit the flow of water from the bucket into the radiator when the funnel is inserted therein. Another object is to provide a bucket of this character which is relatively simple in construction and may, therefore, be cheaply manufactured.

The above and other incidental objects of a similar nature, which will hereinafter, more specifically be accomplished, by such means as are illustrated in the accompanying drawings, described in the following specification, and then more particularly pointed out in the claim which is appended hereto and forms part of this specification.

With reference to the drawings, wherein there has been illustrated the preferred embodiment of the invention, so as to be understood by those skilled in the art, Fig. 1 is a side elevation of the bucket, showing the same applied to a filling cup of an automobile radiator and illustrating the manner in which the valve controlling rod operates to open the valve; Fig. 2 is a section on the line 2-2 of Fig. 1; Fig. 3 is a section on the line 3-3 of Fig. 1; Fig. 4 is a section on the line 4-4 of Fig. 1; Fig. 5 is a side elevation of the valve and seating frame thereof; and Fig. 6 is a detail view of the valve controlling rod.

As best disclosed as an entirety in Fig. 1 of the accompanying drawings, the invention consists broadly in a bottom 10, a flexible side wall 11, a funnel tube 13, a valve 16 and a valve controlling rod or arm 14. The bottom 10 is preferably formed from a circular sheet of metal, although wood or any similar equivalent material may be employed, if desired. The side wall 11 is preferably formed of water proof canvas or some equivalent fabric. Any water-proof material of a flexible nature, other than canvas, may be employed, without departing in any way from the spirit of the invention.

The lower edge of the side wall is secured by a binding hoop or ring 15, the internal ring 16 of which seats in a radial groove 17 formed in the flange 18 of the bottom wall and serves to tightly clamp the fabric therein. If the bottom wall is formed of wood, the side wall may be secured by nails or equivalent elements.

The upper end of the side wall is preferably provided with a stiffening ring 19, to which a handle 20 may be attached, if desired. In the approximate center of the bottom wall is formed an opening or part 25 through which the water is adapted to be passed into the funnel 12. The funnel preferably consists of a tube, the upper end of which is provided with an annular flange 26, through which screws 27 pass. Means of convenient stopping devices may be provided in engaging the funnel to the bottom wall. The valve 16 preferably consists of a small flange of leather or equivalent material which is secured to one terminal, as by a screw or stud 23, at the inner face of the bottom wall, or that may be suitably positioned and the opening 15 and is provided for its upper face with a wear plate 24.

The free end of a bent spring 25 bears upon this wear plate and normally holds the valve in closed position.

The valve controlling rod herebefore designated by the numeral 14 is preferably formed from a single length of wire which is bent in such a manner as to provide an integral link at the outer terminal so as to form a convenient handle 15. The arm 14 is secured near the bottom wall to the lower face thereof and is bent downwardly at its junction with the body portion 20 of the controlling rod, so inclined at 27 so that the member 14 is normally held in inverted position in the bottom wall. The bell of the grommet 21 or such length that it passes entirely through the funnel and is maintained in contact with or engage-
ment with the lower face of the valve by the inherent resiliency of the arm or rod 24. It is also to be noted that the tension of the spring 23 is greater than the tension of the arm 24 so that the valve 13 is normally maintained in closed adjustment.

Upon reference now to Fig. 1 it will be readily discerned that when the bucket is filled with water and the funnel is inserted in a radiator cap, the weight of the bucket will be sufficient to move the bottom wall thereof downwardly against the tension of the valve spring, so that the bill of the goose neck hook will force the valve into open position against the tension of the valve spring. In this connection it is to be noted that the body portion 26 of the controlling rod rests upon the edge of the radiator cap and that the hook member is inserted therein with the funnel. It will also be observed that the valve spring is not of sufficient strength to support the weight of the bucket and, as a result, this member rests upon the body portion 26 of the controlling rod, thereby maintaining the valve in open position and allowing the water to flow from the bucket into the funnel and into the radiator.

In reduction to practice, it has been found that the form of this invention illustrated in the drawings and referred to in the above description as the preferred embodiment is the most efficient and practical; yet realizing that the conditions concurrent with the adoption of this device will necessarily vary, it is desirable to emphasize the fact that various minor changes in the details of construction, proportion and arrangement of parts may be resorted to, when required, without sacrificing any of the advantages of this invention, as defined by the appended claim.

What is claimed is:

A container including a body having an opening in its bottom wall, said opening being defined by a depending tube, a flap valve secured within the body and to the bottom wall thereof at one side of the opening, said valve overlying the opening in the bottom wall, a spring positioned within the body secured to the bottom wall thereof at one side of the opening and at a point substantially diametric to the point of connection between the valve and bottom wall, said spring overlying the valve for normally maintaining the same in a closed position, and a resilient rod having one extremity secured to the outer face of the bottom wall of the body and terminating in a goose-neck extension bridging the wall of the depending tube, the free extremity of said extension passing inwardly of the tube and in constant contact with the flap valve whereby inward movement of the rod relative to the body forces said flap valve into open position, the tension of the rod being less than the tension of the spring, whereby the valve is maintained normally closed.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

CYRUS W. MACKENZIE.

Witnesses:
WALTER HACKER,
MILFORD G. SURFACE.