J. O. BEWAN.

AUTOMATIC WATER BUCKET.

APPLICATION FILED DEC. 19, 1918. RENEWED MAR. 31, 1920.

1,358,357.

Patented Nov. 9, 1920.

2 SHEETS—SHEET 1.

Fig. 1.

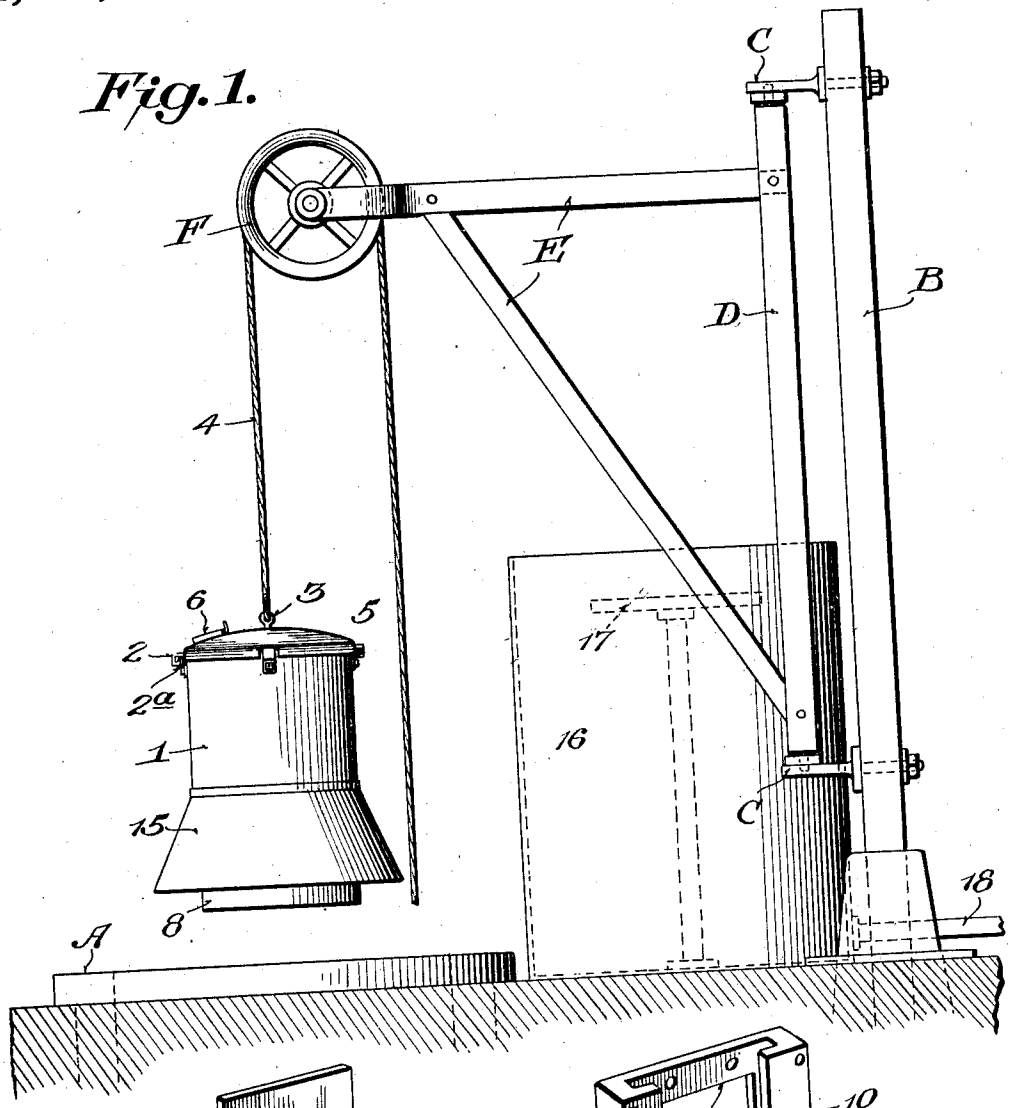


Fig. 4.

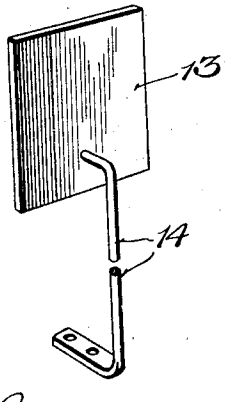
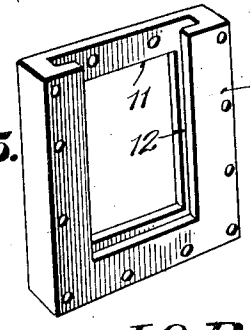


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 3.

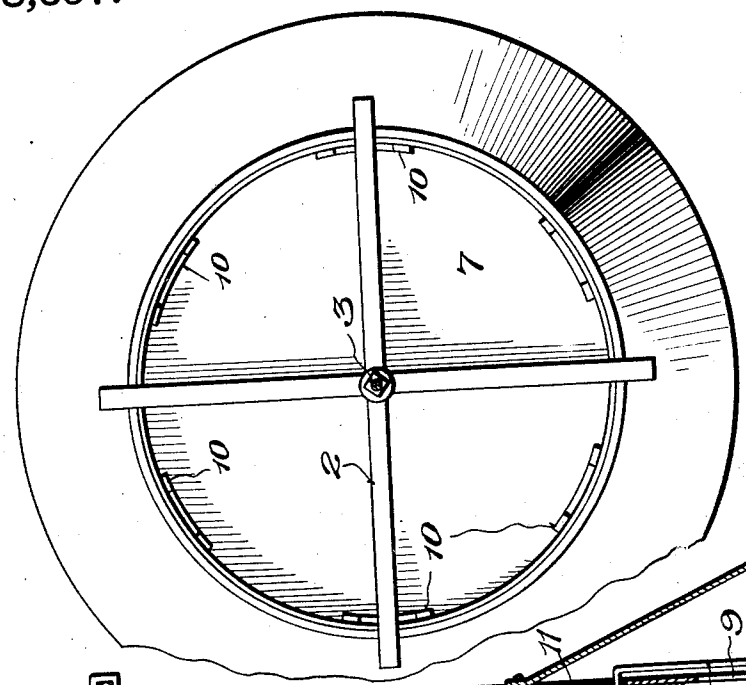
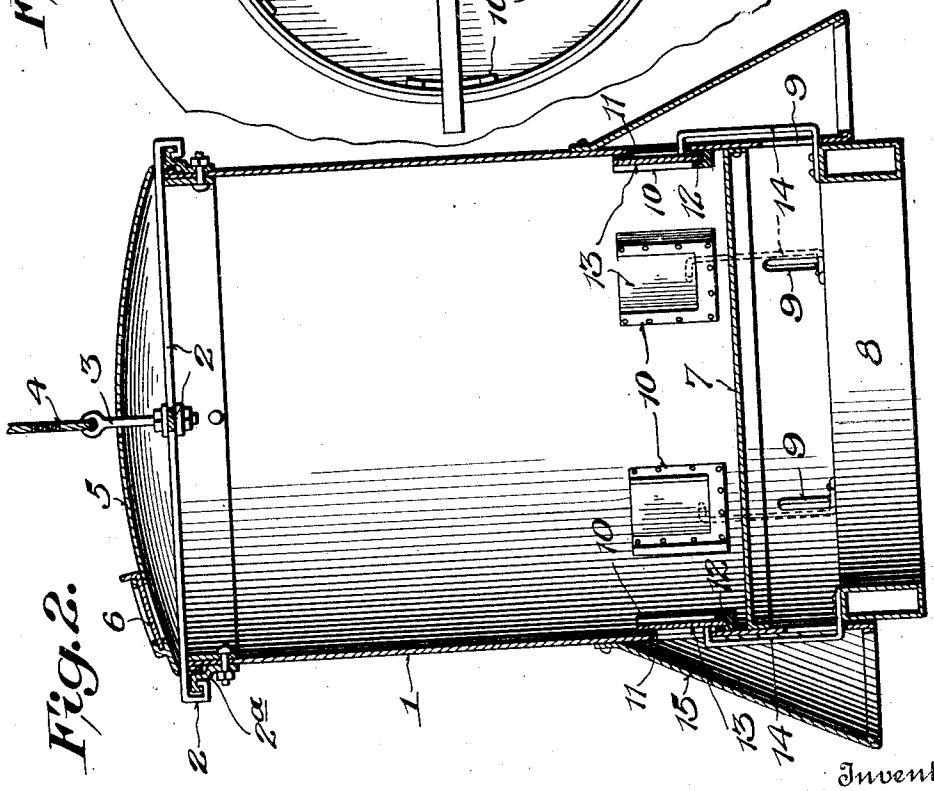


Fig. 2.



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UNITED STATES PATENT OFFICE.

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AUTOMATIC WATER-BUCKET.

1,358,357. Specification of Letters Patent. Patented Nov. 9, 1920.

Application filed December 19, 1918, Serial No. 267,533. Renewed March 31, 1920. Serial No. 370,272.

To all whom it may concern:

Be it known that I, JAMES O. BEWAN, a citizen of the United States, residing at Miami, in the county of Dade and State of Florida, and whose post-office address is Lineville, Alabama, have invented certain new and useful Improvements in Automatic Water-Buckets, of which the following is a specification.

This invention is especially designed for rural communities, and especially adapted for use in southern sections, having hot summers and mild winters. In the greater portion of this section wells are of considerable depth averaging from fifty to ninety feet. Water from these wells is drawn from them by buckets, usually with a drum and cable. The water thus drawn is poured into a bucket and then carried to the house. If discharged into an exterior tank or trough it soon becomes too warm during the greater portion of the day for use.

The bucket hereinafter described and forming the subject matter of this specification is designed as a part of a water house supply system to use in these localities, the object being to render the getting of the water easier, to draw more of it at one time, to avoid carrying it to the house by the bucketful, and to keep it cool and suitable for use after it is conveyed to a tank located within the house.

With these objects in view the invention consists in the novel features of construction hereinafter described, pointed out in the claims, and shown in the accompanying drawings, in which:—

Figure 1 is a side elevation, partly in section, my bucket and the manner of mounting it being shown, together with a water receiving tank.

Fig. 2 is a vertical section through the bucket.

Fig. 3 is a plan view of the bucket, the cover being removed.

Fig. 4 is a perspective detail view of a slide valve.

Fig. 5 is a perspective view of a gasket.

In these drawings A designates the well curb, B a standard arranged adjacent thereto, C lateral projections from said standard, D an upright rotatably mounted in ball bearings between said projections, and E a bracket carried by the upright and having a pulley F at its free end. These parts are shown and described to make clear the manner of mounting and using the bucket to be now described in detail.

A cylindrical bucket 1, preferably of metal, is designed to hold from five to fifteen gallons of water.

At the top of the bucket are two cross bars 2, said bars being secured in place by means of brackets 2^a bolted to the sides of the bucket as shown. At their point of intersection the bars carry an eye-bolt 3, to which is attached a cable 4, running over the pulley F.

A cover 5 is fitted over the bucket to keep dirt and trash from entering it. The eye-bolt passes loosely through the cover, permitting air to enter or escape, thus allowing for ready filling of the bucket.

In order that fresh water may be drawn from the bucket at the well by means of a cup or dipper an opening is formed in the cover and this is normally closed by a slide 6. The bottom 7 of the bucket is solid and is arranged some little distance above the lower edge of the side walls of the bucket. This, as shown in Fig. 2, forms a downwardly open compartment in the lower portion of the bucket. Working vertically in this compartment is an annular float 8. The side walls of this compartment are provided with vertical slots 9.

The sides of the bucket, above and adjacent the bottom 7 are provided with openings in which are fitted rubber gaskets 10. As shown in Fig. 5 each gasket is centrally cut out as at 11, and has vertical guideways 12. These guideways also extend across the bottom of the gaskets but not across the top.

Valve slides 13 work in these guideways and normally close the openings 11. These slides are connected to the float 8 by rods 14, said rods passing through and working in the slots 9.

To protect the rods and slides from dirt that might be scraped from the sides of the well an apron 15 is fitted around the lower portion of the bucket.

Arranged adjacent the well is a tank 16, adapted to hold from five to twenty gallons of water, though it might be of any size, and in the tank is an elevated platform, 17, shown in dotted lines. A service pipe 18 leads from the tank to the house where it is connected to the interior storage tank, not

shown. If the well curb is not above the level of the house tank, the tank 16 would be elevated, and the standard B may be of any desired convenient height to allow for elevation of the tank 16.

These tanks do not form part of this invention but are referred to in order to make clear the manner of using the bucket.

When the bucket is lowered it is closed, top, bottom and sides, the weight of the float closing the slide valves. As it strikes the water the weight of the bucket will cause it to still descend while the float will rise, riding up into the compartment under the bucket bottom, thereby lifting the valves and permitting water to flow into the bucket. It is not necessary that the bucket be lowered to the well bottom to actuate these valves. This is objectionable as the lowering of a bucket so that it scrapes the bottom in drawing water stirs up dirt and sediment. It is not necessary that the bucket dip more than a few inches in the water.

The bucket when submerged and filled, is then lifted and as it lifts the valves again close by the dropping of the float as the bucket clears the water. Some water will escape during the lifting operation, that is from the time the side openings emerge from the water until the float is clear, but this will be a small amount compared to the total capacity of the bucket, and hardly more than would splash out when drawn in the common manner, in an open bucket.

When the bucket is lifted to clear the top of tank 16 it is swung over said tank and lowered to the platform 17. As the float strikes the platform it will rise, and again open the valves and the water will automatically discharge into the tank 16 and be at once conveyed by gravity through the pipe 18 to the house system.

The advantages of this construction will be clear to those who have had experience with the manner of drawing water now in common use in many rural sections of the country.

What I claim is:—

1. A device of the kind described comprising a bucket normally closed at top and bottom, and having a downwardly open compartment beneath the bottom, and side openings above the bottom, a float working in said compartment, means for closing the side openings of the bucket, and means connecting the float and the closure means.

2. A bucket of the kind described comprising a body having a solid bottom, a cover, and a downwardly open compartment below the bottom, the body having side openings, vertically movable slides adapted to close said openings, a float working in the downwardly open compartment, means connecting the float and the slides, and an apron carried by the body and protecting said openings.

3. A device of the kind described comprising a bucket having a solid bottom, lateral openings above said bottom, gaskets fitting said openings, slides working in said gaskets, a downwardly open compartment below said bottom, a float working in the compartment, means connecting the float and the slides, cross bars carried by the top of the bucket, means connected at the juncture of said bars for lifting and lowering the bucket, a cover on the bucket, and a slide in said cover, as and for the purpose set forth.

In testimony whereof I affix my signature.

JAMES O. BEWAN.