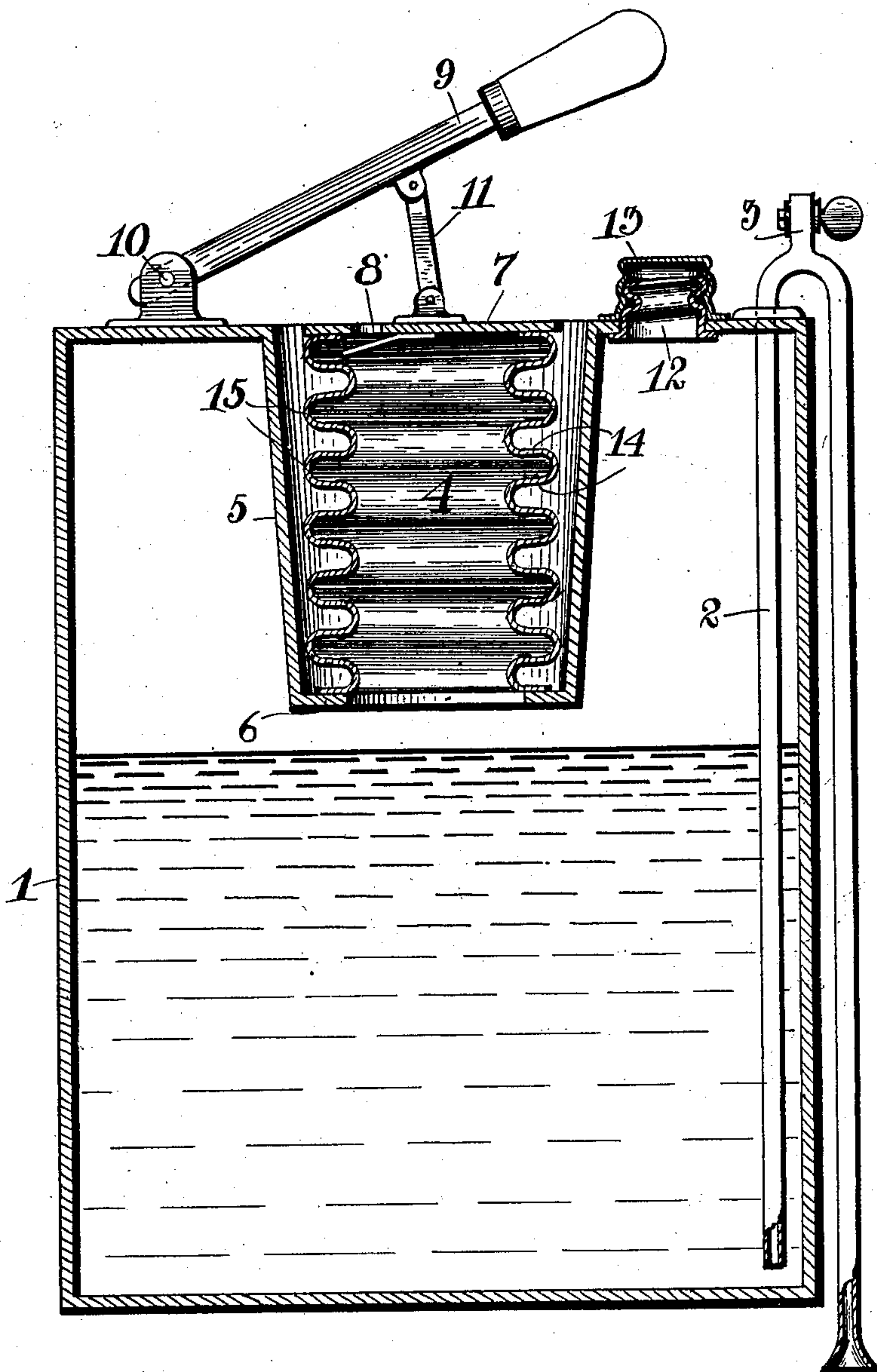


No. 754,132.

PATENTED MAR. 8, 1904.

W. M. FULTON.
STORAGE TANK OR RECEPTACLE.
APPLICATION FILED MAR. 4, 1903.

NO MODEL.



Witnesses

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WESTON M. FULTON, OF KNOXVILLE, TENNESSEE.

STORAGE TANK OR RECEPTACLE.

SPECIFICATION forming part of Letters Patent No. 754,132, dated March 8, 1904.

Application filed March 4, 1903. Serial No. 146,171. (No model.)

To all whom it may concern:

Be it known that I, WESTON M. FULTON, a resident of Knoxville, Tennessee, have invented new and useful Improvements in Storage Tanks or Receptacles, which invention is fully set forth in the following specification.

This invention relates to storage tanks or vessels, and more particularly to such tanks or vessels provided with means for readily drawing off the liquid contents thereof.

The objects of the invention are to provide a vessel of this character from which the liquid may be withdrawn with a minimum effort upon the part of the user and which shall at the same time avoid the leakage incident to the use of faucets or cocks, which are liable to get out of order. It has heretofore been proposed to provide such vessels with a pipe leading from the inside of the vessel near its bottom and through its top and discharging through a suitable spout, a bellows being employed to compress air upon the liquid contents, and thereby cause the same to be discharged through the pipe and spout. — Such a construction is shown in United States Patent No. 469,112. The present invention is an improvement on this construction; and it consists in a tank, can, or other suitable receptacle for liquids, such as kerosene-oil, provided with a collapsible structure designed to perform the functions of the bellows, but possessing certain superior features, hereinafter referred to, combined with a siphon, with its short leg within and its long leg without the vessel. A stroke or two on the collapsible vessel is sufficient to start the siphon, after which the liquid continues to be discharged from the siphon until a valve in the crown thereof is opened, when the flow of liquid ceases. The collapsible vessel used to start the siphonic action is preferably made of elastic sheet metal—such as tin, sheet-iron, sheet-steel, or brass—and has its flexible wall made up of parallel portions substantially normal to the axial or compression line of the vessel, which parallel portions are connected by curved portions, thereby avoiding the angles which would cause the vessel to crack after a slight use and become inoperative for the designed purpose. The inventive idea involved may receive various mechanical

expressions, one of which is illustrated in the accompanying drawing, which is a central vertical section through a liquid-receptacle with the invention applied thereto.

In said drawing, 1 is a liquid-receptacle of any suitable or desired construction, and 2 is a siphon with the mouth of its short leg within and near the bottom of the vessel and the mouth of its long leg on the outside of the receptacle 1, the crown of the siphon being near the top of the receptacle and provided with a normally closed valve 3. A collapsible vessel 4 is attached to the top of the receptacle 1 and preferably in a depression 5, formed therein. The collapsible vessel 4 at its bottom is in open communication with the interior of the receptacle 1 and rests in the instance shown on an annular inwardly-projecting lip or ledge 6, while its upper end is closed by a rigid wall 7, provided with an inwardly-opening valve 8. As before mentioned, the flexible wall of this collapsible vessel is constructed, preferably, of sheet metal and with particular reference to the avoidance of sharp angles, which would cause the metal to break along the angular line after a short use. This is accomplished by forming the flexible wall with substantially parallel portions 14, whose planes are practically normal to the axial line of the collapsible vessel and connecting said parallel portions 14 by curve portions 15, which are here shown as struck on simple curves, but which obviously might be formed on compound curves, if desired, the main object being to avoid the presence of angles in the flexible sheet-metal walls.

It will be apparent that since the function of the valve 8 is to admit air to the space in the receptacle above the fluid on the upstroke of the lever 9 its location in the rigid end wall 7 is not essential, as it might be located elsewhere on the top of the receptacle 1 and still perform its proper function. Its location as shown, however, is the one preferred. A lever 9 is fulcrumed to the top of the receptacle 1 at 10, and a rod 11 is pivotally connected to said lever and the rigid end wall 7. Any suitable opening 12, closed by a screw-cap 13, is provided for the admission of the liquid into the receptacle 1.

The operation is as follows: The receptacle 1 being filled or partially filled with liquid and it being desired to withdraw a portion therefrom, the valve 3 is closed and the operator gives a stroke or two with the lever 9, thereby compressing air in the receptacle above its contained liquid, and this acts to raise the liquid in the short leg of the siphon until it flows over the crown and starts the siphonic action, which continues until the desired amount is withdrawn, when the valve 3 is opened, and the siphon being thus broken the flow ceases. It will be seen that with this construction the effort of the operator is only required to start the operation, after which the liquid flows automatically. Moreover, leakages such as occurs through a defective faucet is entirely avoided. By placing the collapsible vessel in a depression in the top of the receptacle 1 its liability to injury during shipment or otherwise is greatly reduced, and by the peculiar construction of the flexible walls of the collapsible vessel the durability of the same is greatly increased.

Having thus described the invention, what is claimed is—

1. A receptacle for liquids having a depression in its top, a vessel having flexible non-angular corrugated walls located within said depression and communicating with the interior of the receptacle, an inwardly-opening valve for admitting air to the interior of said receptacle, means for collapsing said vessel, a siphon with its short leg within and its long leg without the receptacle and a valve on the siphon's crown.

2. A receptacle for liquids, a siphon with

its short leg within and its long leg without said receptacle, a valve in the crown of said siphon, and a collapsible vessel mounted on the top of the receptacle and operating to compress air therein, said collapsible vessel having a rigid end wall and a corrugated flexible side wall composed of substantially parallel horizontal portions united by curved non-angular portions.

3. The combination of a receptacle for liquids having a depression formed therein, a corrugated collapsible vessel of resilient material located in said depression, a lever fulcrumed on the receptacle and operatively connected with said vessel for collapsing the same, and a discharge-outlet from said receptacle.

4. The combination of a receptacle for liquids, a collapsible vessel connected to said receptacle, a lever fulcrumed to said receptacle and operatively connected to said vessel for collapsing the same, and a discharge-outlet from said receptacle.

5. The combination of a receptacle for liquids having a depression formed therein, a collapsible vessel located within said depression, a lever fulcrumed on the receptacle and operatively connected with said vessel for collapsing the same, and a discharge-outlet from said receptacle.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WESTON M. FULTON.

Witnesses:

J. T. GRITMAN,
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