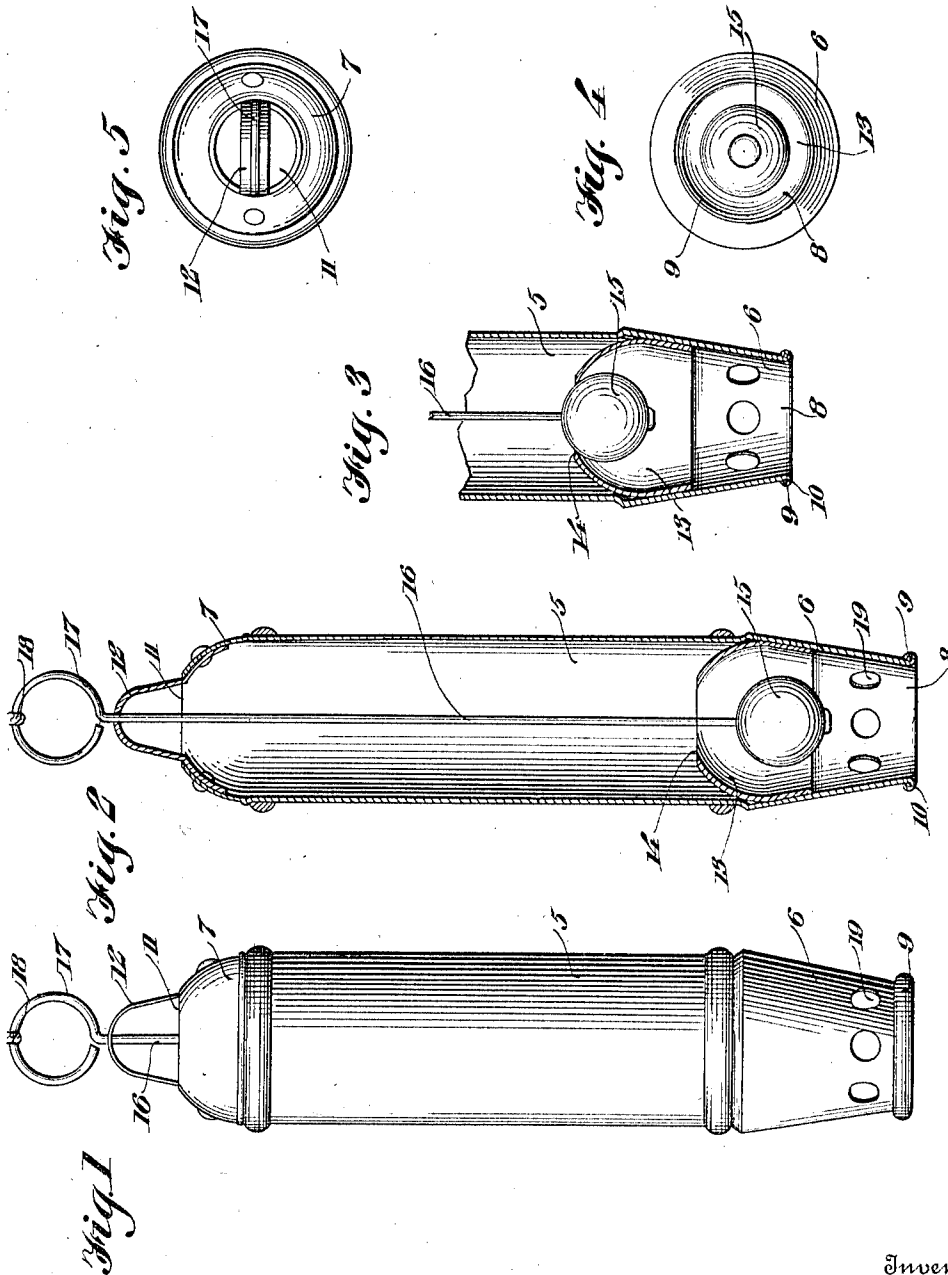


F. A. STEARNS.
WELL BUCKET.

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1,061,136.

Patented May 6, 1913.



Witnesses
W. O. Gardner

W. O. Gardner

Inventor

Frank A. Stearns

By *Victor J. Evans*

Attorney

UNITED STATES PATENT OFFICE.

FRANK A. STEARNS, OF HOT SPRINGS, ARKANSAS.

WELL-BUCKET.

1,061,136.

Specification of Letters Patent.

Patented May 6, 1913.

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To all whom it may concern:

Be it known that I, FRANK A. STEARNS, a citizen of the United States, residing at Hot Springs, in the county of Garland and State of Arkansas, have invented new and useful Improvements in Well-Buckets, of which the following is a specification.

The invention relates to well buckets, and has for its primary object to provide a bucket of this character in which water will be let into a bucket on the lowering of the same into a well, the latter being preferably of the bored type, and upon the lifting of the bucket, the same will be closed at its bottom, whereby the water contained in the bucket may be raised to the top of the well and thence discharged for drinking or other uses.

Another object of the invention is the provision of a well bucket wherein the valve in the bottom thereof will be perfectly seated, so as to prevent any possibility of the leakage of the water, on the lifting of the bucket from the bore of the well.

A further object of the invention is the provision of a well bucket which is simple in construction, thoroughly reliable and efficient in operation, and inexpensive in manufacture.

With these and other objects in view, the invention consists in the construction, combination and arrangement of parts, as will be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claim hereunto appended.

In the drawings: Figure 1 is a side elevation of a well bucket constructed in accordance with the invention. Fig. 2 is a vertical longitudinal sectional view thereof, showing the valve in open position when the said bucket is being lowered into the bore of the well. Fig. 3 is a similar view, showing the valve in closed position. Fig. 4 is a bottom plan view of the bucket. Fig. 5 is a top plan view thereof.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

Referring to the drawings by numerals, the bucket comprises a cylindrical or tubular body 5 formed with an inverted frusto-conical bottom 6, and a spherical zone top 7, the bottom 6 being provided with a central opening 8, the edge of which is reinforced by means of a curled rim 9, in which is ar-

ranged an annular reinforcing wire 10, and the top 7 is formed with a central opening 11, the same being spanned by an upwardly bowed cross bridge piece 12, serving as a guide for a valve rod or stem, presently described.

Formed in the contracted bottom 6, spaced from the opening 8 therein, is a convex auxiliary bottom 13 provided with a central valve seat 14, in which is normally seated a resilient spherical shaped valve 15, the same being fixed upon the lower end of a valve rod or stem 16, passed upwardly centrally through the body 5, and also through a suitable central opening formed in the bridge piece 12, the upper end of the stem or rod 16 being provided with an eye 17, with which is engaged the hoisting rod or other connection 18 of well operating mechanism (not shown), whereby the said bucket may be lowered into and raised from the bore in the well for the lifting of water therefrom for its discharge into a trough for drinking or other uses.

In the operation of the bucket, the body 5 is lowered into the well on the slackening of the hoisting cable 18, and when the said body 5 contacts with the water contained in the well, the valve 15 will open, thereby permitting the inflow of water into the body 5, and on pulling upon the hoisting cable 18, the valve will be brought to its seat 14, thereby closing the bottom of the bucket, thus retaining the contents of the body 5 for the raising of the same to the top of the well, whence the said body may be positioned upon a trough, and in so doing the valve will open for the discharge of the water from the body. However, if it is not desired to discharge the water into a trough, a person may force the stem 16 inwardly, thereby unseating the valve 15, thus permitting the water to be discharged from the body through its open bottom into a suitable receptacle. The contracted bottom 6 of the body 5 is formed at intervals with suitable air openings 19, which allow the escape of air from the body when the open bottom contacts with the water in the well, and also these openings will permit the inflow of water into the body on the lowering of the bucket into the well.

What is claimed is:

A well bucket, comprising a tubular body having contracted opposite ends, a convex dome-like supplemental bottom mounted se-

curely within the said tube spaced from the
contracted lower end thereof and having a
central opening, a bridge piece fixed to the
opposite contracted end of the tube, a valve
5 rod slidable through the bridge piece and
extending centrally through a greater por-
tion of the length of the tube, and a spherical
shaped resilient valve fixed to the inner end
of the rod and adapted to become seated in

the opening in the supplemental bottom on 10
pulling upon said valve rod.

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

FRANK A. STEARNS.

Witnesses:

ROBT. MOFFAT,
B. K. GOLD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."