J. M. HOLLIDAY.

WELL BUCKET.

APPLICATION FILED SEPT. 10, 1921.

1,423,424. Patented July 18, 1922.

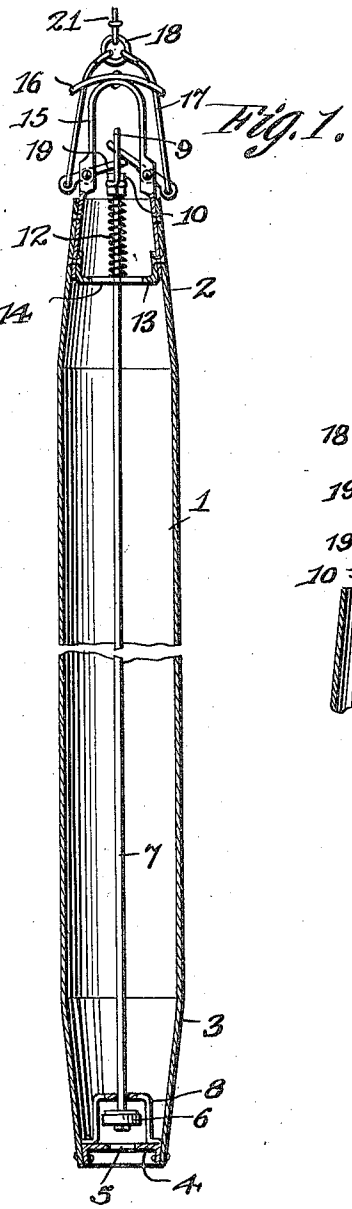

Fig. 1.

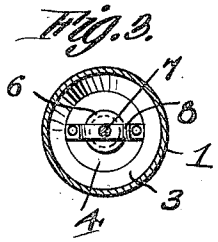

Fig. 3.

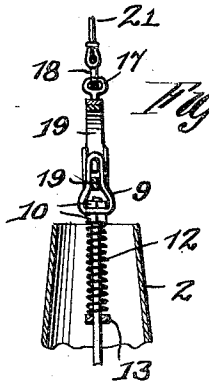

Fig. 2.

WITNESSES
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WELL BUCKET.

1,423,424. Specification of Letters Patent. Patented July 18, 1922.

Application filed September 10, 1921. Serial No. 499,604.

To all whom it may concern:

Be it known that I, JAMES M. HOLLIDAY, a citizen of the United States, residing at Hollister, in the county of Taney and State of Missouri, have invented certain new and useful Improvements in a Well Bucket, of which the following is a specification.

This invention relates to a well bucket for the purpose of lifting water from a well and has for its principal object to provide a bucket of this nature having a valve mechanism which is normally open but which will be closed while the bucket is actually lifting water.

Another object of the invention is to generally improve upon well buckets of this nature by providing a device which will be extremely simple and efficient in construction and well adapted for the purpose designed.

With the above and numerous other objects in view, the invention consists of certain novel features of construction and the arrangement and combination of parts as will be hereinafter fully described and claimed.

In the drawing:—

Figure 1 is a longitudinal vertical section taken through the bucket.

Figure 2 is a vertical section taken through the upper portion of the bucket at right angles to Figure 1, and

Figure 3 is a transverse section looking downwardly taken through the bucket.

Referring to the drawing in detail it will be seen that 1 designates the bucket which is of a hollow cylindrical shape throughout the major portion of its length and is provided with the tapering top and bottom portions 2 and 3 respectively. A valve mechanism is situated in the bottom portion 3 and consists of a closure 4 having a centrally located aperture 5 therein which is adapted to be closed by the valve 6 mounted on the valve stem 7 which projects through the guide brace 8 which is substantially of an inverted U-shape and has its ends fixed in any suitable manner to the closure 4.

The valve stem 7 extends longitudinally through the bucket 1 and terminates a short distance thereabove being provided at its upper end with a bale 9 which is held in place by the nuts 10 which are in threaded engagement with the upper end of the stem 7. A coil spring 12 is disposed about the upper end of the stem 1 so as to be situated between the bottom nut 10 and the guide piece 13 which extends transversely of the bucket and has its ends fixed thereto and is also provided with the slot 14 through which the stem 7 extends. It will be seen that this spring 12 tends to hold the valve 6 in an open position. A bracket 15 of substantially inverted U-shape is mounted on the upper end of the bucket and has a guide bar 16 fixed thereto at its upper end which is provided with an aperture in each end so as to slidably receive the links 17 which are connected at their upper ends by a ring 18 and at their lower ends to the levers 19 which are pivoted adjacent the lower ends of the bracket 15 and have their inner terminals extending through the bale 9. The ring 18 is attached to any suitable lifting element such as a chain 21 and it will therefore be noted that as the bucket is lifted by the chain 21 it will pull upwardly upon the link 17 thus fulcruming the levers 19 so as to push downwardly upon the valve stem 7 so as to close the valve 6 and prevent the water in the bucket from escaping.

In the above description I have disclosed the preferred embodiment of my invention but it will be readily understood that numerous changes may be made therein without departing from the spirit of the invention as claimed hereinafter.

Having thus described my invention what I claim as new is:—

1. In combination, a bucket, a valve mechanism in the bottom end thereof, a valve stem controlling the valve mechanism and extending through the bucket so as to terminate adjacent the upper end thereof, means for normally holding the valve stem so as to hold the valve mechanism in an open position, a bracket mounted on the upper end of the bucket, a guide rod fixed to the upper end of the bracket with an aperture in each end, links slidably mounted in the apertures, a ring connecting the upper end of the links, and levers pivotally mounted to the lower end of the bracket so as to be controlled by the links and so as to operate the valve stem upon the lifting of the bucket so as to close the valve mechanism.

2. In combination, a bucket, a valve mechanism in the bottom end thereof, a valve stem controlling the valve mechanism and extending through the bucket so as to terminate adjacent its upper end, means for normally holding the valve stem so as to hold the valve mechanism in an open position, an

inverted U-shaped bracket situated on the upper end of the bucket, a guide rod fixed to the upper end of the bracket, and provided with an aperture in each end, a pair of links disposed slidably in the apertures in the guide rod, a ring for connecting the upper end of the links, a pair of levers fulcrumed on the lower ends of the bracket and having their outer ends connected to the links, and a bale fixed to the upper end of the valve stem through which the upper ends of the levers project in the manner and for the purpose set forth.

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

JAMES M. HOLLIDAY.

Witnesses:
EDD DUGGER,
ALBERT RANDOLPH.