

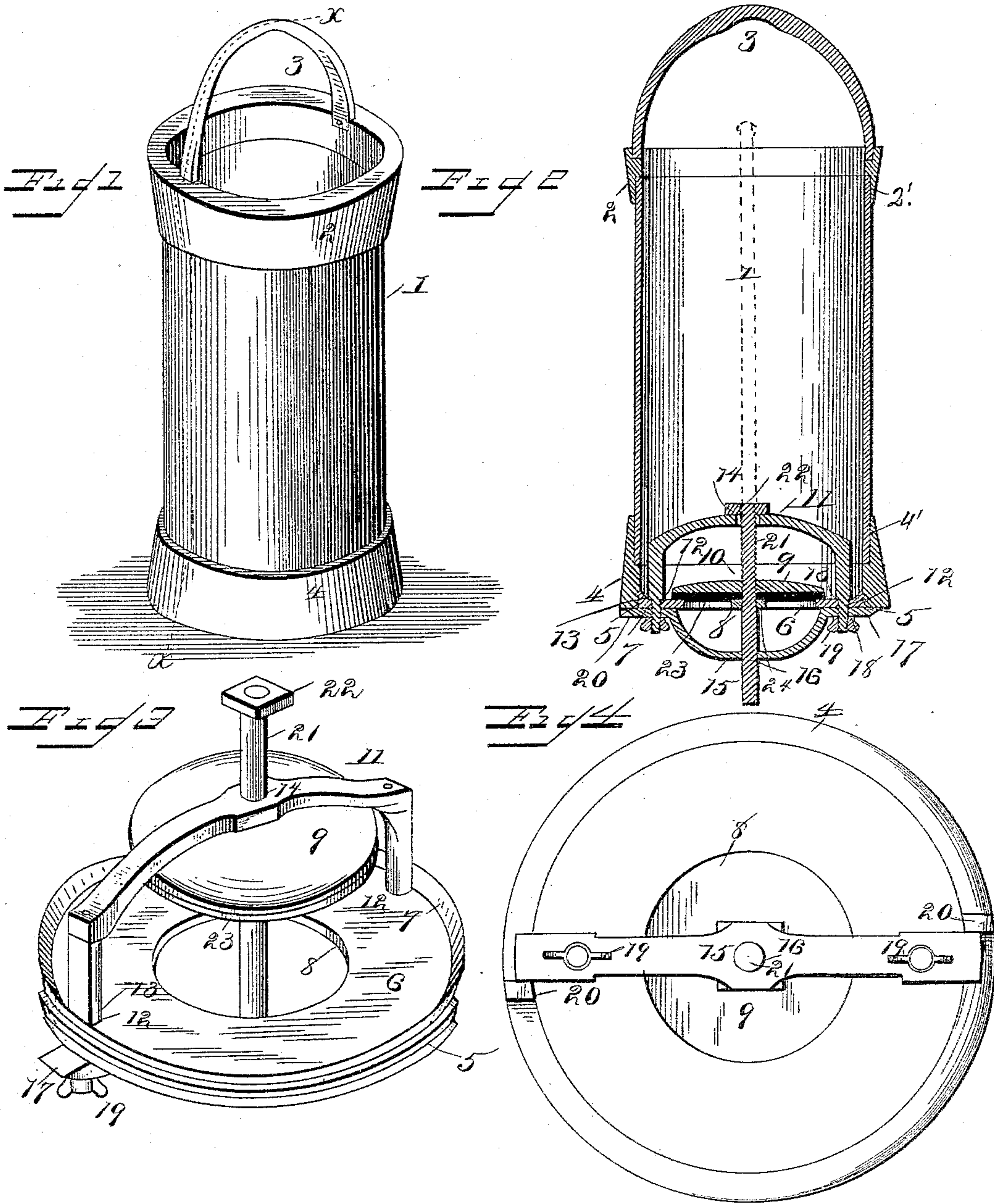
(No Model.)

J. L. VAN HOOK.

WELL BUCKET.

No. 388,747.

Patented Aug. 28, 1888.



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# UNITED STATES PATENT OFFICE.

JOHN LLOYD VAN HOOK, OF ROUND ROCK, TEXAS.

## WELL-BUCKET.

SPECIFICATION forming part of Letters Patent No. 388,747, dated August 28, 1888.

Application filed October 11, 1887. Serial No. 252,035. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN LLOYD VAN HOOK, of Round Rock, in the county of Williamson and State of Texas, have invented certain new and useful Improvements in Well-Buckets; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved well-bucket. Fig. 2 is a longitudinal vertical section taken through the line *x x*, Fig. 1. Fig. 3 is a detail view in perspective of the removable bottom and attachments, and Fig. 4 is a bottom view.

Similar numerals of reference indicate corresponding parts throughout the several views.

My invention has relation to well-buckets; and it consists in the peculiar construction and arrangement of parts of the same, as hereinafter more fully described and set forth.

Referring to the several parts by their designating-numerals, the numeral 1 represents the cylindrical casing or body of my improved bucket.

2 represents the upper flaring hoop or rim of the same, with the usual handle or bail, 3, and 4 represents the lower flaring rim or hoop, having screw-threaded inner surface 5. The upper edge of the upper hoop and the lower edge of the lower hoop are each thicker than the opposite edge, and the thinner edges of the hoops are each provided upon its inner surface with a recess, the one upon the upper hoop being shown at 2' and that upon the lower hoop at 4'. The top and bottom of the cylindrical body of the bucket are secured in these recesses, respectively, so that the inner surfaces of the hoops and of the bucket will be flush or even.

6 is the removable bottom, having its edge or periphery screw-threaded and provided on its upper surface with an annular flange, 7, and also provided with a central aperture, 8. Bearing against the upper side of the removable bottom is a valve, 9, having a central perforation or hole, 10. An arched or curved guide-arm, 11, spans the central aperture, 8, and

the ends thereof pass through perforations 12 12 in the removable bottom to the under side thereof. These ends are provided with shoulders 13 13, bearing against the bottom to prevent said ends from passing through the perforations too great a distance. This curved or arched guide-arm is further provided at its highest point or crown with a perforation, 14. A second curved or arched arm, 15, is secured to the under side of the removable bottom, and is also provided with a central perforation, 16. The laterally-extending ends 17 17 of this arm are beveled, said beveled ends being provided with perforations 18 18, which fit over the screw-threaded ends of the upper arched guide-arm, thumb-screws 19 19 engaging said screw-threaded ends. These beveled ends 17 17 of the lower guide-arm protrude out a greater distance than the periphery of the removable bottom, and, when the removable screw-threaded bottom is driven home, are adapted to bear against lugs or projections 20 20 upon the peripheral portion of said bottom. These lugs or projections are preferably of the shape shown in Fig. 4 of the drawings. It will be seen that the removable bottom 6 is first screwed into the flaring bottom rim until flush with the edge thereof, after which the lower guide-arm is adjusted upon the ends of the lower extended ends of the upper guide-arm, the ends of said lower guide-arm bearing, respectively, against the vertical or perpendicular portion of the diametrically-opposite lugs, thereby effecting a secure lock for the removable bottom and obviating all danger of its becoming unscrewed.

Rigidly secured within the central perforation of the valve 9 is a valve-rod, 21, said rod being screw-threaded at a point immediately above the central perforation of the upper guide-arm, a nut, 22, thereon serving to retain the rod in its proper position above said perforation. Upon the under side of the valve 9 is arranged a suitable packing, 23, being held in place by a nut, 24, turning upon the screw-threaded lower portion of the valve-rod.

If desired, the valve-rod 21 may be extended upward a suitable distance, as shown in dotted lines in Fig. 2, or a supplementary or connecting rod attached thereto, whereby the valve may be regulated from the top of the



bucket and the contents thereof emptied into a vessel desired to be filled by simply raising the rod, with its attached valve, and permitting the water to pass through the central aperture  
5 of the removable bottom. When the bucket is lowered into a well, the moment the same comes into contact with the water contained therein the pressure on the bottom of the valve will raise the same, and in this manner the  
10 bucket may be readily and conveniently filled, and on raising the same the weight of the water contained therein will of course again close the valve.

From the foregoing description, taken in  
15 connection with the accompanying drawings, the operation, construction, and advantages of my improved well-bucket will be readily understood.

It will be seen that it is simple in construction and exceedingly durable, the cylindrical casing or body thereof being protected by the  
20 outer top and bottom rims or hoops, thus preventing wear and damage to said cylindrical casing by contact with the walls of the well.

By employing a removable bottom, as described, I can readily replace the same when  
25 worn or otherwise injured with but a minimum of expense, being able to substitute a new bottom with much less difficulty than is  
30 the case with buckets having rigidly-secured bottoms.

It is obvious that my improved bucket may be applied to any purpose to which it may be  
35 found useful, and I do not, therefore, confine myself to its employment as a well-bucket.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination of the cylinder or body, the flaring bottom rim or hoop provided on its inner surface with suitable screw-threads, and  
40 also having on its lower peripheral portion diametrically-opposite lugs or projections, the perforated bottom piece provided with suitable threads upon its peripheral portion, the  
45 upper curved or arched guide-arm having a central perforation and provided with screw-threaded ends having shoulders bearing against the upper side of the bottom of the bucket, said ends also passing through perforations in  
50 the rim of the bottom, the lower curved or arched guide-arm having central perforation and provided with laterally-extending perforated ends extending outwardly a greater distance than the periphery of the bottom of the  
55 bucket and adapted to bear against the lugs upon said bottom, nuts adapted to engage the screw-threaded ends of said upper guide-arm, the valve or disk having a central perforation or hole, and the valve-rod passing through  
60 said central perforation and rigidly secured thereto.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN LLOYD VAN HOOK.

Witnesses:

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C. C. BRADFORD.