

(No Model.)

C. J. FELLRATH.

WELL BUCKET.

No. 348,118.

Patented Aug. 24, 1886.

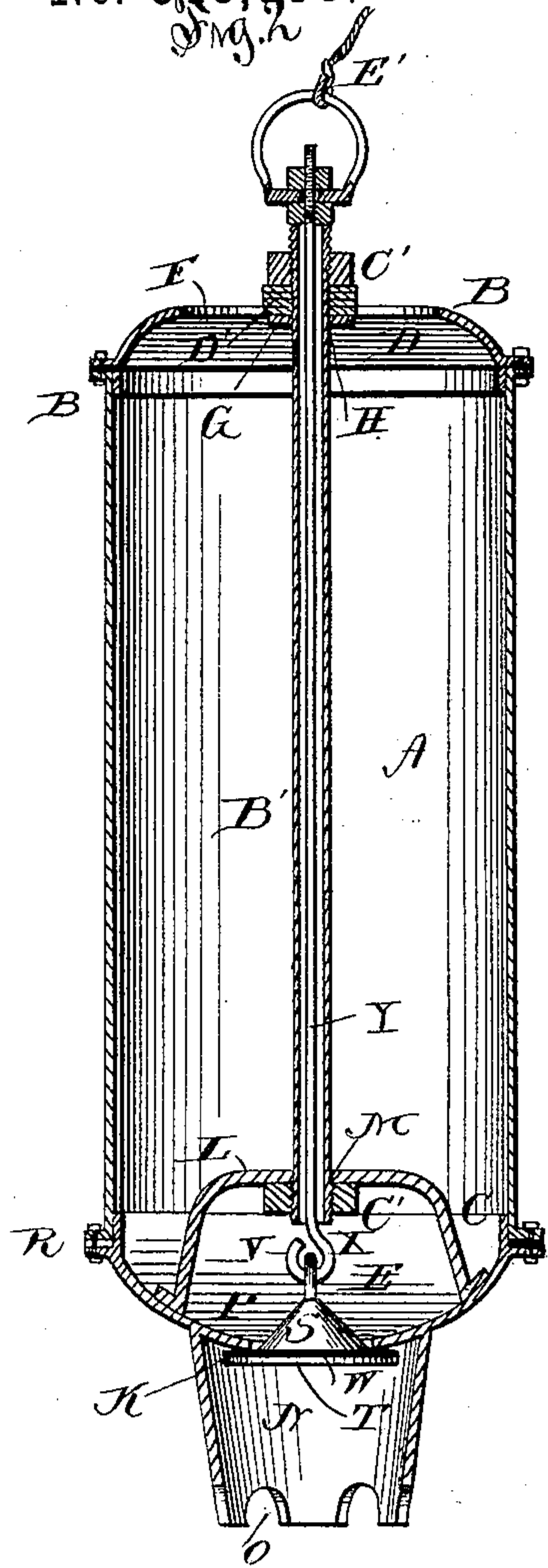


Fig. 2.

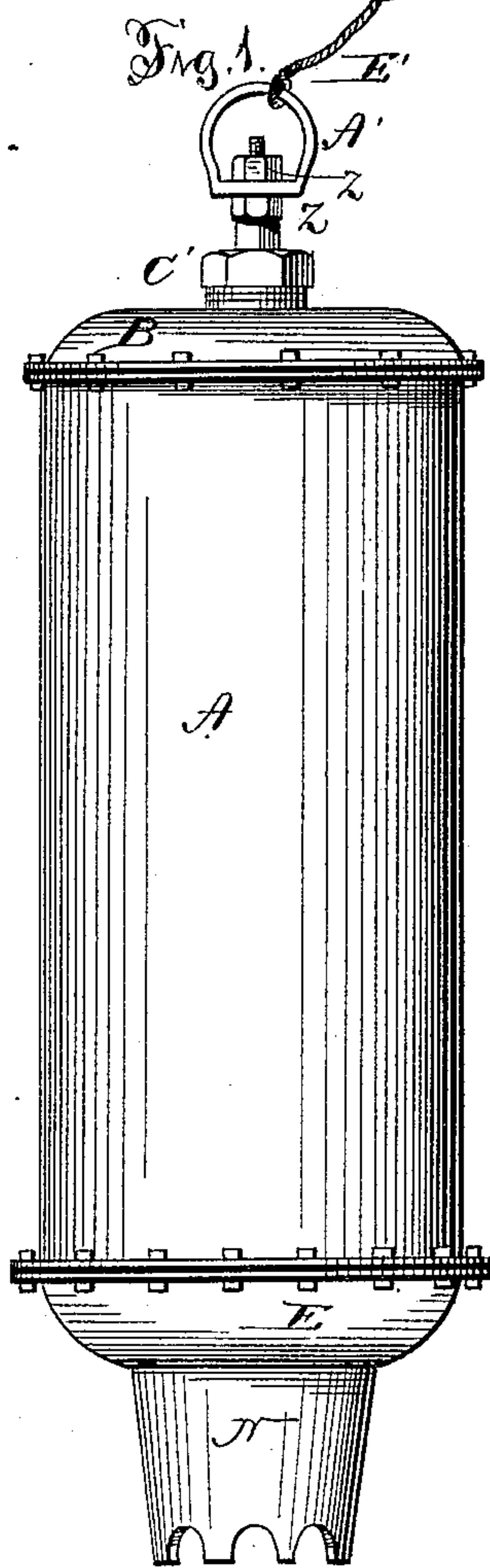


Fig. 1.

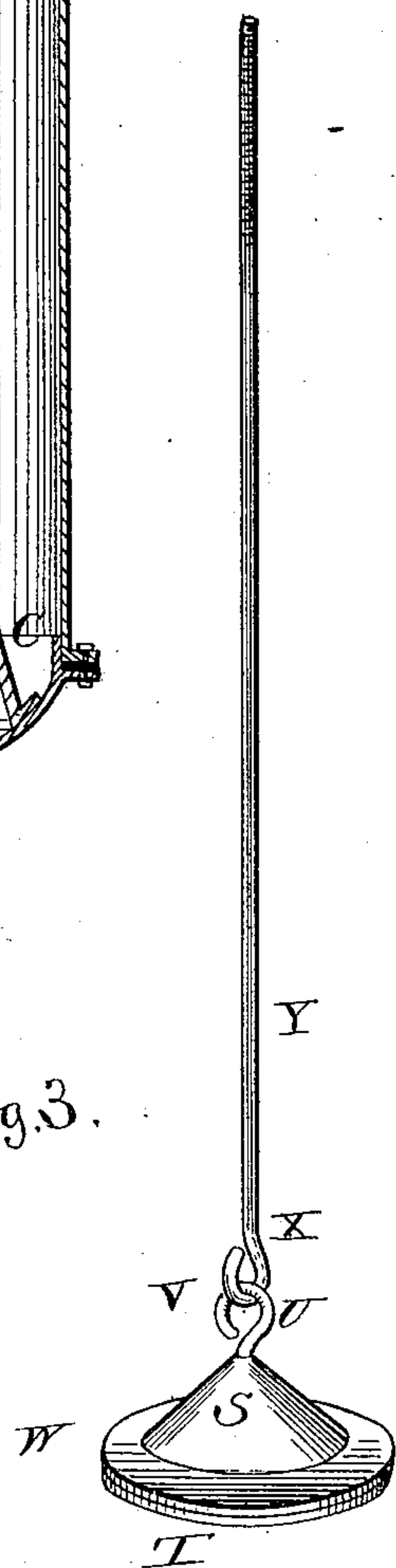


Fig. 3.

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# UNITED STATES PATENT OFFICE.

CHARLES JOHN FELLRATH, OF GATESVILLE, TEXAS.

## WELL-BUCKET.

SPECIFICATION forming part of Letters Patent No. 348,118, dated August 24, 1886.

Application filed April 26, 1886. Serial No. 200,182. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES JOHN FELLRATH, a citizen of the United States, residing at Gatesville, in the county of Coryell 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 side view of my improved well-bucket. Fig. 2 is a vertical sectional view of the same, and Fig. 3 is a perspective detail view of the valve and valve-rod.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of well-buckets especially adapted to be used in deep bored or drilled wells, which are formed with rounded upper and lower ends, and provided with an upwardly-opening valve in the bottom; and it consists in the improved construction and combination of parts of such a bucket, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the cylindrical body of the bucket, into the open ends of which body the flanges B and C of the top D and bottom E are fitted, the said top and bottom being rounded and saucer-shaped. The top has a central aperture, F, provided with a transverse bar, G, having a central perforation, H, and the edges of the top project beyond the downwardly-projecting flange which fits into the end of the body, forming an outwardly projecting flange, I, which bears against the end of the body, and may have a packing-ring, J, of rubber or similar yielding material interposed between it and the end of the body, or the joint may be tightened by solder, if so desired. The bottom is formed with a central aperture, K, having a cross-bar, L, formed with a perforation, M, and the aperture in the bottom is provided with a downwardly projecting tube, N, the lower end of which is cut out to form a series of notches, O, which will admit of the tube standing upon the bottom of the well or

upon the bottom of a bucket or trough and allowing water to either flow in or out of the bucket. The aperture in the bottom is formed with a downwardly-facing annular valve-seat, P, and the flanges C and Q of the bottom bear against the end of the body in the same manner as the flanges at the top, and may have a yielding washer, R, interposed, or may be soldered similarly to the top.

A valve, S, having a conical guide upon its upper surface, and an annular flange, T, is secured to the lower end of a short rod or link, U, having an eye, V, at its upper end, and may bear with its flange against the under side of the annular valve-seat, having preferably a washer, W, interposed, and the eye of the link bearing the valve is secured to the eye X at the lower end of a valve-rod, Y, the upper screw-threaded end of which is provided with two nuts, Z Z, and a swivel-ring, A', between the nuts.

A tubular rod, B', has its screw-threaded ends passing through the central apertures of the cross bars in the top and bottom, and the said ends are provided with nuts C' C' and washers D', bearing against the outer sides of the cross-bars, and drawing the top and bottom together against the ends of the body of the bucket. The tubular rod and its nuts will thus serve to hold the parts of the bucket together, and will keep the joints at the top and bottom water-tight, and it will be seen that when the bucket is lowered into the well and reaches bottom, the weight of the valve and its rod, as well as the weight of the rope E', which is secured to the swivel-ring at the top of the valve-rod, will cause the valve to drop, allowing the water to enter the bucket through the aperture in the bottom and through the serrated or notched tube at the bottom.

When, now, the bucket is drawn up by the rope, the valve-rod will be drawn up, forcing the valve against its seat, and the weight of the water in the bucket being supported by the valve and rod against the seat will close the valve tightly, preventing any water from passing out.

The valve will be properly seated by reason of the conical guide upon its upper surface, and being pivoted with its link to the lower end of the valve rod, it will fit perfectly



against the seat, being at liberty to adapt itself to any inequalities in the valve-seat, so that it will always have a perfect seat.

When the bucket is drawn up and out of the well, it may be placed upon the bottom of a bucket or trough, and the water bearing against the valve, as well as the weight of the valve and the rope, will force the valve down, allowing the water to flow out through the serrated or notched tube.

The bucket may be made at a very small cost, as the top and bottom are cast each in one piece, and these parts may easily be united to the cylindrical body by means of the tubular rod and its nuts, which will unite the parts, and by tightening the nuts upon the tubular rod the joints at the top and bottom may be tightened, so as to render the bucket perfectly water-tight.

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

1. In a well-bucket, the combination of a tubular or cylindrical body, a top and bottom having apertures, and provided each with a transverse bar across the aperture, formed with a central perforation, and a tube passing through the perforations of the cross-bars, and having nuts upon its ends for drawing the top and bottom together, as and for the purpose shown and set forth.

2. In a well-bucket, the combination of a body having a valve-seat in its bottom, and having an aperture in its top, a valve bearing against the under side of the valve-seat, and a rod for the attachment of the hoisting-rope, said valve being pivotally secured to the lower end of said rod, as and for the purpose shown and set forth.

3. In a well-bucket, the combination of a body having a valve-seat facing downward in its bottom, a valve having a conical guide upon its upper surface, a flange at its lower end bearing against the seat with a washer and formed with an upwardly-projecting eye or link at its top, and a rod for the attachment of the hoisting-rope passing out at the top of the bucket and having an eye at its lower end connected to the eye of the link, as and for the purpose shown and set forth.

4. In a well-bucket, the combination of a cylindrical body open at both ends, a top hav-

ing an aperture and formed with a cross-bar across the aperture having an aperture in the center, and said cross-bar being formed with a downwardly-projecting flange fitting into the end of the cylindrical body, and with a flange having a washer and bearing against the end of the body, a bottom having a flange fitting in the body and a flange bearing with a washer against the end of the body, and formed with a central aperture having a cross-bar provided with a central perforation, and with a downwardly-projecting tube having a notched or serrated lower end, and a tubular rod having nuts at both ends and passing through the perforations of the cross-bars with the nuts bearing against the outer sides of the same, as and for the purpose shown and set forth.

5. In a well-bucket, the combination of a cylindrical body open at both ends, a top having an aperture provided with a cross-bar having a central perforation and formed with a downwardly-projecting flange fitting in the end of the cylindrical body and with a flange bearing with an interposed washer against the end of the body, a bottom having a central aperture forming a valve-seat, and a cross-bar with a central perforation across the aperture and having a downwardly-projecting tube formed with serrated or notched lower end, and with an upwardly-projecting flange fitting in the end of the body, and an outwardly-projecting flange bearing with a washer against the end of the body, a tubular rod passing through the perforations of the cross-bars and having nuts bearing against the cross-bars drawing the top and bottom to the ends of the body, a conical valve having an upwardly-projecting eye at its top and bearing with an annular flange against the valve-seat, and a rod having its lower eyed end secured to the eye of the valve and having a swivel-ring for the attachment of the hoisting-rope at the upper end confined by nuts, as and for the purpose shown and set forth.

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

CHARLES JOHN FELLRATH.

Witnesses:

J. A. HOPE,

J. G. BISHOP.