(No Model.)

F. L. HOWELL.

WELL BUCKET FIXTURE.

No. 300,977. Patented June 24, 1884.

Fig. 1.

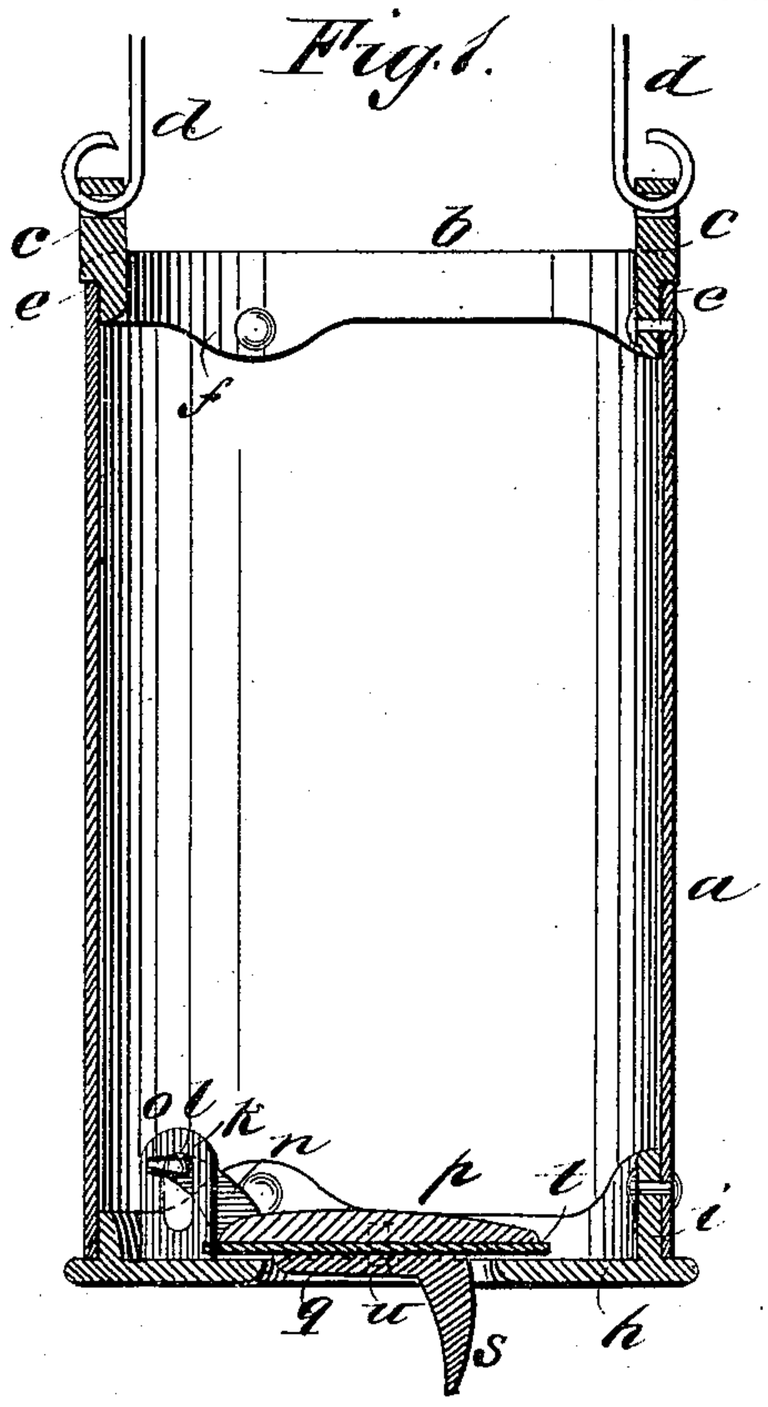


Fig. 2.

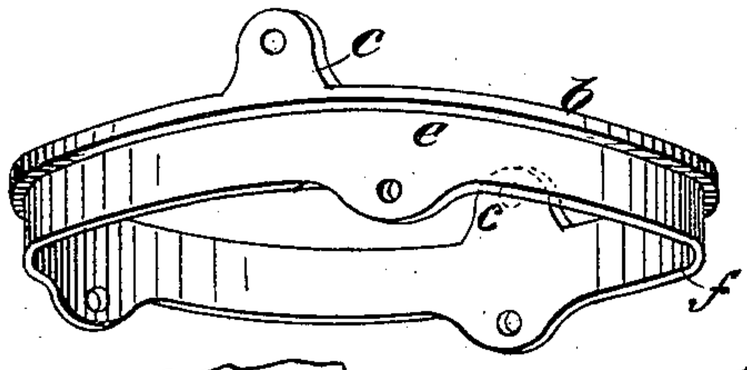


Fig. 3.

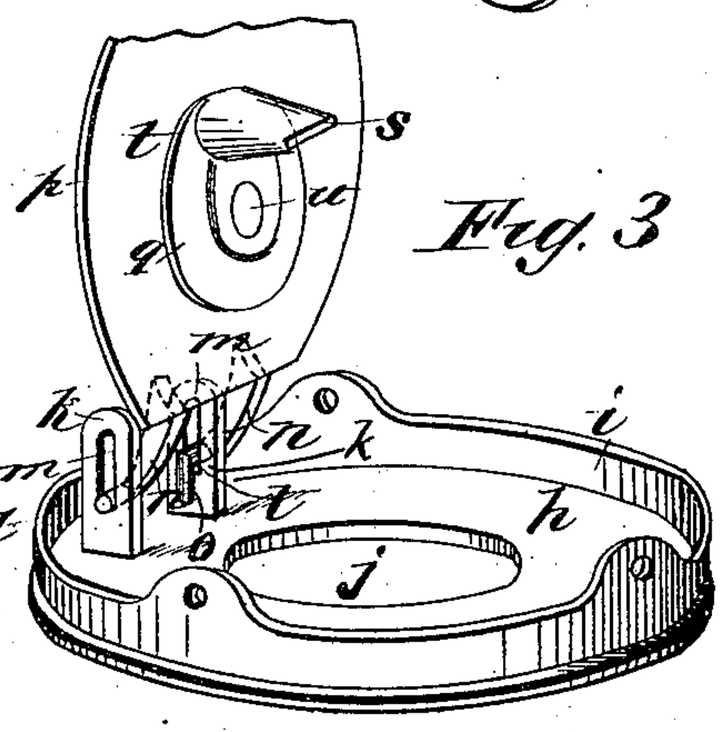
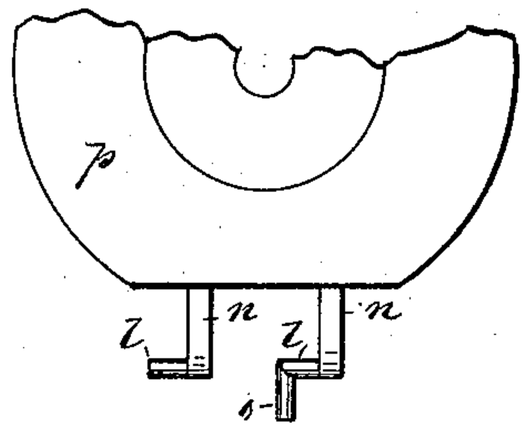


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANK LINCOLN HOWELL, OF NELIGH, NEBRASKA.

WELL-BUCKET FIXTURE.

SPECIFICATION forming part of Letters Patent No. 300,977, dated June 24, 1884.

Application filed September 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANK LINCOLN HOWELL, of Neligh, in the county of Antelope and State of Nebraska, have invented certain new and useful Improvements in Well-Bucket Fixtures, of which the following is a full, clear, and exact description.

My invention relates to that class of well-buckets in which a sheet-metal body is provided at its top and bottom with a cast-metal ring, the bottom ring supporting the valve, and the valve being provided with a stem on its lower side for raising the valve; and the invention consists in certain improvements in the construction and arrangement of the lower ring and valve, as will hereinafter be fully described, and specifically set forth in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of a well-bucket with my improved fixtures applied to it, and Fig. 2 is a perspective view of the top, bottom, and valve comprising the improved fixtures of my contrivance. Fig. 3 is a perspective view of the bottom and valve in detail. Fig. 4 is a detail view showing the valve and its pivots.

For the top of the body *a* of the bucket I provide a malleable-iron ring, *b*, of about double the thickness of the body, or more, for a substantial top finish to the body, said ring having ears *c* for the bail *d*, and being rabbeted in the exterior surface at *e* to form a flange, *f*, for projecting into the body, and to receive the body flush with the exterior surface of the ring, making a good symmetrical finish, and a substantial re-enforcement of the top of the body for strength, the said ring and body being riveted together. For the bottom I make a malleable-iron disk, *h*, larger than the body, and having a flange, *i*, extending up into the body to be riveted thereto, also having the central opening, *j*, for the inlet and discharge of the water, and also having the bearing-studs *k* for the support of the pivots *l* of the valve *p*, the studs *k* being either cast together with the bottom, or they may be screwed in or fastened by any other approved means. These studs have slots *m* for the pivots of the valve, and said pivots are formed on arms *n*, projecting from the back of the valve, the said arms being the same distance apart that the studs *k* are, and both the pivots being turned in the same direction from the arms, so that the arms both apply to the same sides of the studs—that is to say, one arm, *n*, goes between the studs and the other goes outside—and one of the pivots *l* has an elbow, *o*, that hooks down the side of the studs *k*, so as to lock the valve *p* and retain it in position when applied to the studs. It will be seen that by this improved contrivance for the valve the latter can be readily disconnected at any time by reaching through the hole *j* in the bottom and lifting the valve up into a vertical position, and running it high enough to pass the elbow *o* through the slot. It will also be seen that by the arrangement of the elbow *o* so that the valve must be raised to the vertical position before the elbow can be passed through the slot, the valve will not become detached in use, because it never rises quite to that height.

The valve *p* has a metal washer, *q*, attached to the center of the bottom, for clamping the leather packing *t* by a screw, *u*, and holding it smooth and flat, so that the packing cannot roll or double up, and thus partly uncover the hole and fail to pack. The valve is also provided with a metallic stud, *s*, attached to washer *q*, to project down through the hole to touch on the bottom of the pan, trough, or other object in which the bucket is to discharge, to open the valve for the discharge of its contents whenever the bucket is set down in the place where it is to discharge. The edge of the bottom *h*, projecting beyond the body *a*, protects the body from wear in the well and prevents the galvanized coating from wearing off.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The improved bottom for a well-bucket,

consisting of the disk *h*, of larger diameter than the body, and having flange *i* and valve pivot-studs *k*, and being constructed with a central opening, *j*, and riveted in the body of the bucket, substantially as described.

2. The valve having pivots *l* formed on and at a right angle to the arms *n*, and one of said pivots having an elbow, *o*, in combination with the slotted stud-posts *k*, substantially as described.

FRANK LINCOLN HOWELL.

Witnesses:
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EDWIN CARKHUFF.