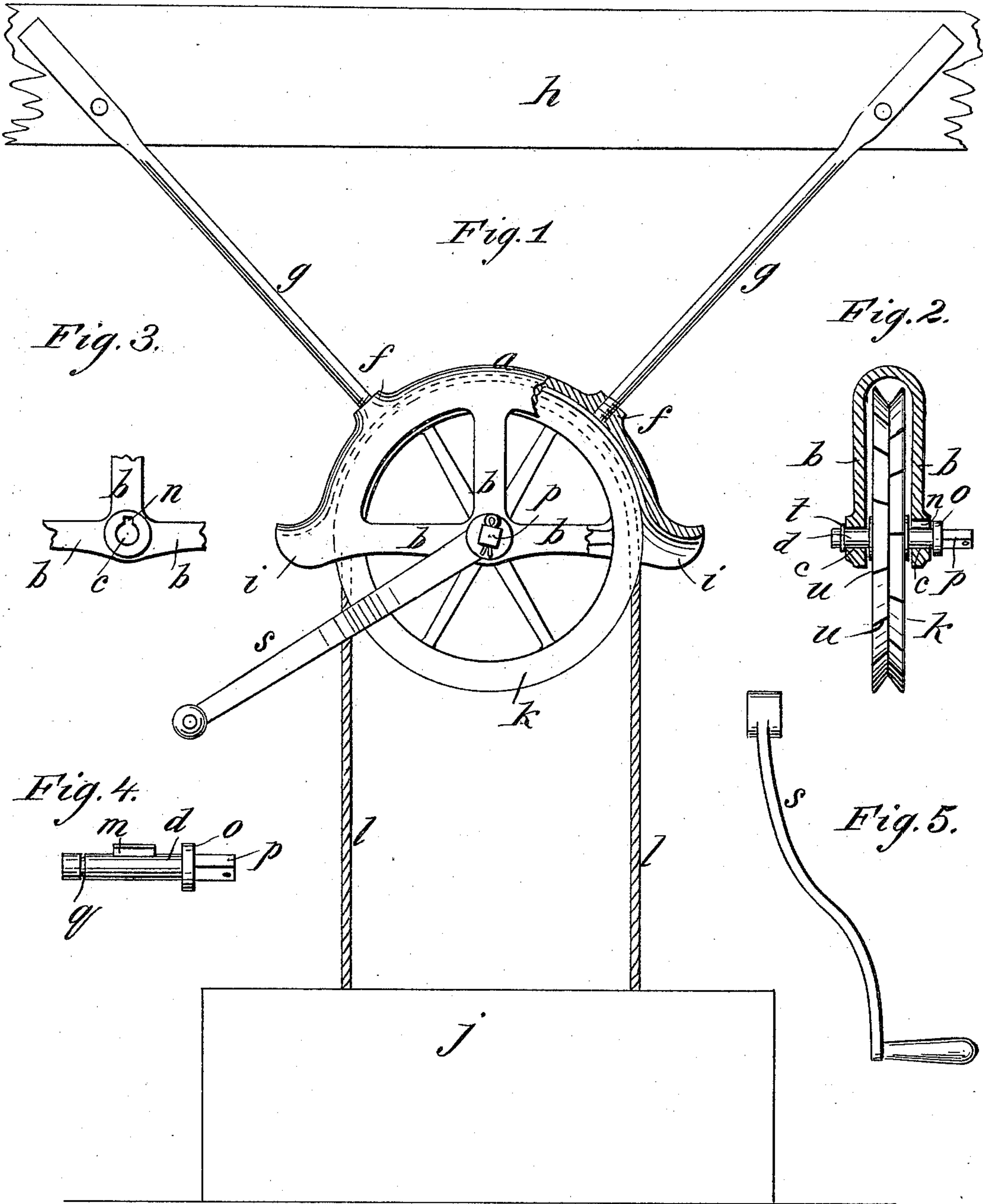


(No Model.)

W. W. PALMER.
WELL BUCKET WINDLASS.

No. 298,883.

Patented May 20, 1884.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

WILLIAM WASHINGTON PALMER, OF MONTAGUE, TEXAS.

WELL-BUCKET WINDLASS.

SPECIFICATION forming part of Letters Patent No. 298,883, dated May 20, 1884.

Application filed December 18, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. PALMER, of Montague, in the county of Montague and State of Texas, have invented a new and Improved Well-Bucket Windlass, of which the following is a full, clear, and exact description.

My invention consists of an improved construction of and contrivance for mounting the windlass for a well-bucket; also, an improved contrivance for mounting the pulley of the windlass, whereby it is designed to provide simpler, cheaper, and easier working well-bucket windlasses than as heretofore constructed, all as hereinafter fully described and claimed.

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 side elevation of my improved well-bucket windlass with a part of the windlass-frame in section. Fig. 2 is a transverse section of the windlass-frame and a front elevation of the pulley. Fig. 3 is a detail of the windlass-frame. Fig. 4 is a side view of the pulley-shaft, and Fig. 5 is a side view of the crank.

I make the pulley-supporting frame to consist of the pulley-cap *a* and spider-frames *b*, which are cast together in one device, with holes *c* in the hubs of the spider for the journal-bearings of the pulley-shaft *d*, said cap being formed with bosses *f* on the upper quarters, in which holes are tapped for connecting the suspension-rods *g* by screwing them in. Said rods are to be hooked or otherwise attached to a board, *h*, set up edgewise over the well; and attached to supporting-posts suitably placed on opposite sides of the well. The cap *a* is designed to consist of about a half-circle, and is provided with flaring ends *i*, to allow of swinging the buckets out over the well-curb *j* for emptying them. A grooved pulley, *k*, is mounted in this pulley-frame to carry the bucket-rope *l*, said pulley being cast with a hole for the shaft *d* to be inserted through the holes *c* of the spider-hubs, said hole in the pulley having a notch for the key *m* of the

shaft, and the hole *c* of one of the spiders having a similar notch, *n*, but a little larger, to enable the key *m* of the shaft to be passed through the spider into the pulley, where it serves to cause the pulley to be turned by the shaft. The shaft *d* is formed with the key *m*, collar *o*, square shank *p*, and a groove, *q*, by casting it, or in any other approved way. The square shank *p* is to receive the crank *s* for turning the pulley, the collar is to limit the setting of the shaft in the spiders and pulley, and the groove *q* is for enabling a wire ring, *t*, to be readily fastened on to prevent the shaft from working out.

For using a rope, *l*, to suspend the buckets, the groove of the pulley will preferably be plain; but to enable chains to be used, which are sometimes preferred, the wheel will be cast with ribs *u*, on which the projections of the chain may lodge, so as to be more securely held against slipping. The crank is to be curved, as shown in Fig. 5, to prevent it from striking the buckets when raised up close to the pulley.

The wheel-cap and spiders, shaft, and crank, may all be constructed by casting them, and for the rest only the rods *g* and a board, *h*, set up edgewise on suitable posts, are required for setting up the windlass.

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

1. The well-bucket windlass herein described, consisting of the pulley supporting-frame *a b*, screw-threaded rods *g g*, shaft *d*, a pulley mounted on the shaft within the pulley-frame and held to revolve with the said shaft, and a suitable crank on said shaft, substantially as set forth.

2. The combination of the pulley and its supporting-frame, with the shaft *d*, formed with a key, *m*, groove *q*, collar *o*, and squared portion *p*, the wire ring *t*, and a suitable crank, substantially as set forth.

WILLIAM WASHINGTON PALMER.

Witnesses:

I. C. GLAZE,
J. A. BURNS.