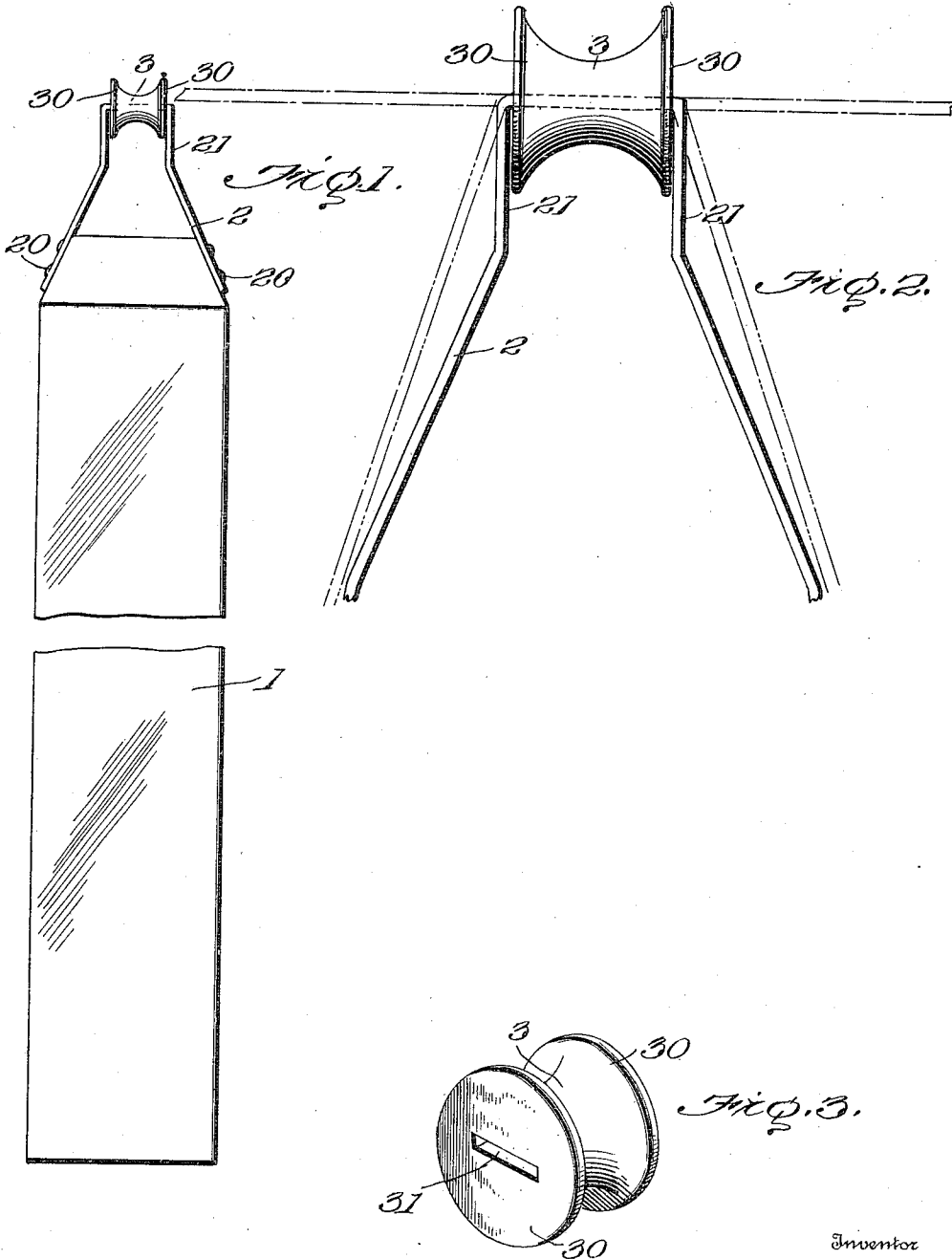


F. D. WALPOLE.
WELL BUCKET BAIL.
APPLICATION FILED SEPT. 7, 1909.

972,663.

Patented Oct. 11, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANKLIN D. WALPOLE, OF McKENZIE, TENNESSEE.

WELL-BUCKET BAIL.

972,663.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANKLIN D. WALPOLE, a citizen of the United States, residing at McKenzie, county of Carroll, Tennessee, have invented certain new and useful Improvements in Well-Bucket Bails; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in well buckets; and the objects and nature of the invention will be readily understood by those skilled in the art in the light of the following explanation of the accompanying drawings showing what I now consider my preferred embodiment from among other formations within the spirit of my invention.

The invention consists in certain novel features in construction and in combinations and arrangements as more fully and particularly set forth and pointed out hereinafter.

Referring to the accompanying drawings:—Figure 1, is a side elevation of a deep well bucket embodying my invention. Fig. 2, is a detail elevation of the spool and bail, dotted lines showing the bail in its original straight form for insertion through the spool, and showing a different form that can be assumed by the bail when bent down. Fig. 3, is a detail perspective view of the spool.

My invention is peculiarly applicable to buckets employed in comparatively deep bored wells of small diameter. These buckets are sometimes about four or five inches in diameter and about three feet long, more or less, with a bottom valved inlet opening and a bail extending upwardly from the open upper end of the bucket to receive the bucket sustaining and manipulating rope.

The bails of the buckets now in use rapidly cut and wear out the bucket sustaining ropes, and it is one object of my invention to provide certain improvements in bails for such buckets with the end in view of reducing the wear on the bucket sustaining ropes to the minimum.

In the drawings, I show a deep well bucket 1, such as hereinbefore described with a valved bottom inlet and an open top. This bucket is provided with a bail formed by a malleable (or other suitable metal)

strap or flat strip or bar 2, extending upwardly above the upper end of the bucket and so bent at its central portions as to form two diverging downwardly extending legs secured at their lower ends, at 20, to diametrically opposite portions of the upper end of the bucket. The upper end of this bail is formed with a vertical offset 21, midway the length of the strap forming the bail to receive a metal, preferably cast iron, spool 3, which is usually deeply grooved circumferentially to receive the bucket sustaining rope and to form comparatively large exterior end flanges 30. The spool is formed of one piece of metal with flat outer end faces and with a central longitudinal hole 31, for the passage of the bail forming strap. This hole or passage 31 is preferably rectangular or flat in cross section or of other shape, to conform to the cross sectional formation of the bail forming strap.

A straight section of the strap of the necessary length to form the bail, is first passed through the bore 31, of the spool until the spool is located at the center of the strap. The opposite end portions of the strap are then bent downwardly to form the offset, the opposite legs of which are usually parallel and rest against the end faces of the spool. The end portions of the strap are then bent to the desired form to constitute the bail and their extremities are usually perforated to permit riveting to the upper end of the bucket.

I find that material advantages are attained by the employment of this bail of my invention and that also the bucket manipulating rope is protected thereby against undue wear.

What I claim is:—

1. A circumferentially grooved spool formed in one piece and having a longitudinal bore flattened in cross section, in combination, with a bail consisting of a strap passed through said bore and having its ends bent downwardly at the ends of the spool.

2. A bucket bail consisting of a flattened metal strap and a metal spool arranged on the intermediate portion of the bail with the ends of the bail bent downwardly from the ends of the spool, the spool being formed with a longitudinal bore in cross section conforming to the flattened formation of the bail.

3. A bucket bail irregular in cross sec-

tion and having a rope-receiving stationary metal spool fixed thereon, said spool formed in one piece with a longitudinal bail receiving bore, said bore conforming to the cross sectional formation of the bail.

4. A well bucket provided with a bail at its lower ends fixed to the upper end of the bucket, and a deeply and exteriorly grooved bucket-sustaining-rope receiving metal spool, on the upper central portion of said bail, said spool formed in one piece with a longitudinal-bail receiving bore conforming to the cross sectional formation of the bail, said bail consisting of a metal strap, having an intermediate straight flattened portion extending through said bore and the opposite end portions extending down at the ends of said spool.

5. A bucket bail having a spool-receiving-portion irregular in cross section, in combi-

nation with a circumferentially grooved bucket-sustaining-rope receiving stationary spool having a longitudinal bail-receiving bore conforming to the cross sectional shape of said portion of the bail, said bail passed through said bore and bent down at the ends thereof forming stops preventing longitudinal movement of the spool on the bail.

6. A bucket bail irregular in cross section and having a circumferentially grooved spool fixed thereon, said spool cast in one piece and having a longitudinal bail receiving bore irregular in cross section.

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

FRANKLIN D. WALPOLE

Witnesses:

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R. V. MITCHELL.