

No. 763,371.

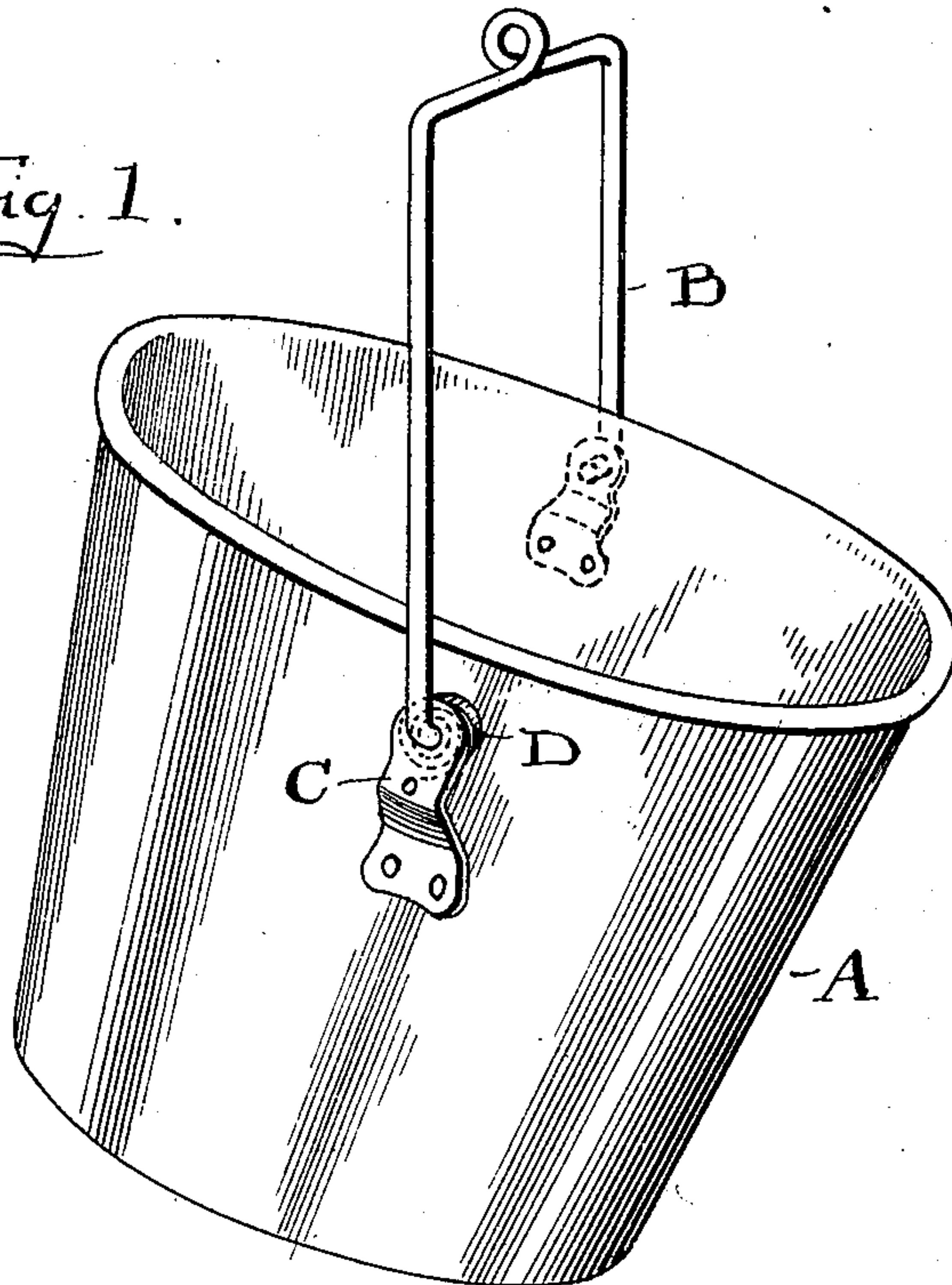
PATENTED JUNE 28, 1904.

C. A. CRANE.  
WELL BUCKET.

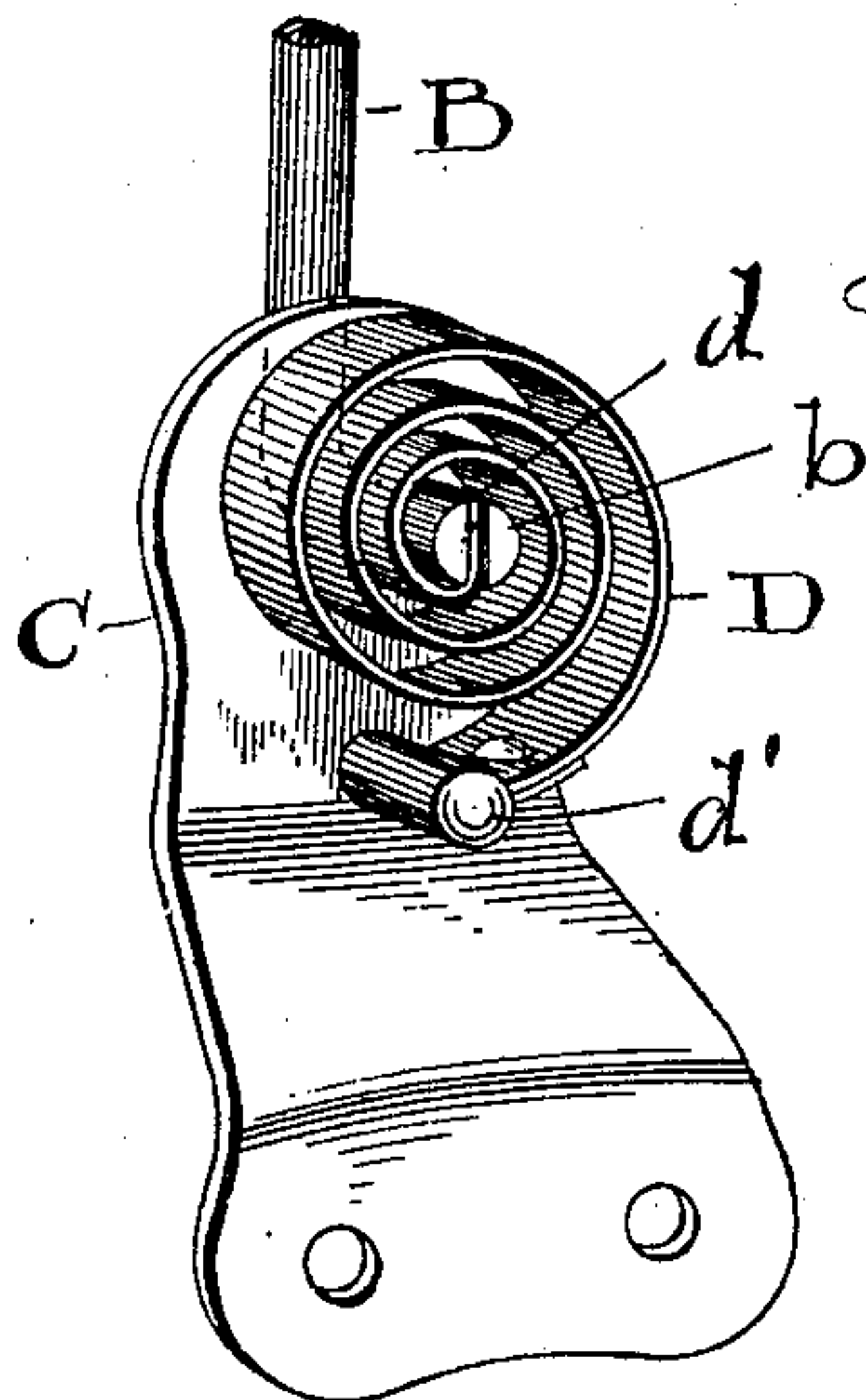
APPLICATION FILED FEB. 15, 1904.

NO MODEL.

*Fig. 1.*



*Fig. 2.*



WITNESSES:

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INVENTOR.

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# UNITED STATES PATENT OFFICE.

CLARENCE A. CRANE, OF WARREN, OHIO.

## WELL-BUCKET.

SPECIFICATION forming part of Letters Patent No. 763,371, dated June 28, 1904.

Application filed February 15, 1904. Serial No. 193,523. (No model.)

*To all whom it may concern:*

Be it known that I, CLARENCE A. CRANE, a citizen of the United States, residing at Warren, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Well-Buckets; and I do 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.

My invention relates to a well-bucket; and the invention consists in an improvement in the style of well-bucket represented in my Letters Patent issued January 5, 1904, and numbered 748,704, all substantially as herein shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective elevation of a well-bucket embodying my improvement, and Fig. 2 is an enlarged perspective view of one of the projections on the side of the bucket for engaging the bail and the spring and a portion of the bail connected therewith as in the present invention.

In the several views of the invention disclosed in my former application the spring is in each instance a wholly external part connected at one end with a part of the bail above its pivot or engagement upon the bucket and at the other end with the outside of the bucket itself at a convenient point to get the desired spring action.

In the present construction the spring itself is wholly removed from exterior exposure, except as it comes under the cover of the projection or ear of the bucket and the bail, and for a number of reasons this is a much-improved arrangement, as will hereinafter appear.

Referring to the drawings, A represents the bucket or body thereof, and B the bail.

C represents the outside projections of the bucket for supporting the bail and conveniently referred to as the "ears" of the bucket, which are riveted upon the body A at some slight depth beneath the upper edge or rim for the purpose of promoting the tilting of the bucket. These outside projections or ears

are secured to the outside of the bucket and stand outwardly at their upper portions, so as to afford room for the comparatively narrow convolute spring D. I may employ one of these or equivalent form of spring with each end of bail B or with only one end, and in this instance I show a single spring at the near side of the bail, as seen in Fig. 1. The said spring preferably is of brass, flat and convolute, and with a sufficient number of coils to cause it to perform the function for which it is intended—namely, the tilting of the pail or bucket upon its bail while empty and suspended from the usual supporting chain or rope, so as to carry the bucket at such inclination that when it strikes the water it will dip of its own accord and without any extra effort on the part of the person drawing the water to bring about this result. It follows, therefore, that when the bucket is empty and suspended in the well it hangs in a tilted position, but when it is filled the water counterbalances the action of the spring and levels the bucket on its pivots, so that it may be drawn full of water to the landing.

Structurally the bail B has a right-angled inward extension *b* through the ear C of about the depth of the set-off of the ear from the side of the bucket to afford room for spring D, and the said inward projection of the bail has an open slot as deep as the spring is wide, in which the end *d* of the spring is securely fixed. This or any equivalent way of securing the spring to the bail may be adopted. At its opposite end the spring is secured at *d'* to ear of the bucket in this instance; but this is considered the same as attaching it by such a projection as *d'* or in some equivalent way to the body of the bucket directly.

In the foregoing the spring is supposed to have such strength in its three several coils as to tilt the bail substantially and proportionately, as seen in Fig. 1, more or less, and obviously it does not require a very strong spring to effect this result. I show this spring as flat; but a round wire spring or other form of spring might be used. Now an obvious advantage of the present construction is this, that it gives working protection to the spring



and an unobstructed exterior surface for the operation and handling of the bucket. With the spring on the outside, as formerly, there was constant danger that it would be caught on some projection or another and torn off or hung up, and the construction was therefore defective in these particulars; but by having the spring covered behind the ear from below and within the bail from above the spring is safeguarded in all the up-and-down movement of the bucket and can be relied upon to hold its operative relations under any circumstances. Obviously also it is a great improvement in the appearance of the bucket, and therefore of commercial advantage and value.

What I claim is—

1. A well-bucket having a projection on its outside standing apart from the side thereof in its upper portion, a bail engaged in said projection and a spring connected with the bail inside said projection and in fixed relation to the bucket at the other end, substantially as described.

2. A well-bucket having a projection on its outside and a bail extending through said projection from the outside, and a spring to tilt the bucket engaged with said bail and covered

outside by said projection, substantially as described.

3. A well-bucket having a projection on its outside standing apart from the side of the bucket in its upper portion, a bail engaged in said projection from the outside and having one end extending substantially across the space between the same and the side of the bucket, and a spring spirally wound about said end and fixed thereto at one end and in fixed relation with the bucket at the other end, substantially as described.

4. In well-buckets, a bucket and a bail pivotally connected therewith and having a right-angled inner extremity, and a spring having one end connected with said extremity and the other with the bucket, the said bail being outside said spring and serving as a protection therefor in raising and lowering the bucket, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

CLARENCE A. CRANE.

Witnesses:

M. B. LESLIE,  
J. BUCHMETTE.