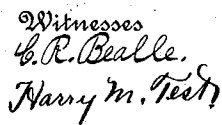


WELL BUCKET.

1,062,196.

Patented May 20, 1913.



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WELL-BUCKET.

1,062,196.

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To all whom it may concern:

Be it known that we, LUTHER B. STANTON and EARL G. DOWDA, citizens of the United States, residing at Columbia, in the county of Richland, State of South Carolina, have invented certain new and useful Improvements in Well-Buckets; and we 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 well buckets, and has for its object to provide an improved form of bucket adapted to be manufactured from sheet material, and which will be liable in a minimum degree to breakage at the point where the bail is fastened.

In well buckets, as heretofore constructed, the bail has been hooked in an ear riveted to the side of the bucket, adjacent the upper edge, and in order to make the devices as light as possible it has usually been customary to form the bail of wire of more or less resiliency, although the bucket itself is resilient, at the upper edge thereof. When the bucket is filled with water, and supported by the bail, the force exerted upon the ears in which the bail is engaged tends to compress the sides of the bucket, and even when the upper edge of the bucket is reinforced, the lower wall portion thereof will yield slightly to this compression. Thus, each time the bucket is filled and lifted by means of the bail, the sides will be pressed inwardly, and when the bucket is emptied the sides will again spring out, the point of greatest flexure occurring at the base of the ears. In a short while this action results in the cracking of the material of the bucket wall, which is the greatest cause of deterioration in buckets of this kind. It is possible to prevent such flexure of the bucket by making the material heavy, or providing reinforcing ribs or corrugations around the bucket, but these do not completely obviate this evil, and it is therefore the object of the present invention to provide a means for positively holding the sides of a bucket wall against flexure at the point where the bail ears are connected.

A further object is to provide a novel

means for securing such a bracing member in the bucket, to cooperate with an ear member adapted to receive bail hooks in the customary manner.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings: Figure 1 is a side view of the device, Fig. 2 is a plan view of the bucket, Fig. 3 is a vertical transverse section through the bucket, the bar 18 and the holding means for the bar. Fig. 4 is a horizontal section on the line 4-4 of Fig. 3.

Referring to the drawings, there is shown a bucket comprising a circular wall portion 10 and bottom 11, having a suitably reinforced upper edge portion 12. Secured upon the inner surface of the wall at diametrically opposite points are the brace blocks 13, which comprise castings having an outer surface somewhat curved to conform to the curve of the bucket, and rest snugly thereagainst.

Each of the blocks is somewhat thickened at its upper portion, and provided with a beveled face 14 extending upwardly therefrom, and a transverse brace receiving socket 15 being formed centrally of the thickened portion. The lower portion of the block is slightly attenuated and provided with rivet receiving perforations 16, as shown. Secured to the outer side of the bucket, there are the usual bail ears 17 each of which has perforations registering with those in the brace block, and secured to the side of the bucket by means of rivets which pass therethrough and through the bucket wall and blocks 13.

Sprung into the sockets 14 of the blocks 13, is the brace bar 18, which may be formed either of metal or wood or other suitable material, its opposite ends being disposed in the notches or recesses 15. The ends of the bar 18 are bifurcated as at 18', to prevent lateral movement of the bar after being secured in position. Engaged through the eyes of the bail ears 17, there is a bail 19

of the usual construction having a central eye for the reception of a hook or rope for hoisting of the bucket.

It should be noted that the brace blocks are disposed some distance below the upper edge of the bucket whereby its tilting will be facilitated when it is lowered upon the surface of water and its filling therewith greatly facilitated. The length of the brace rod 18 should be slightly greater than the distance between the inner portions of the recesses 15, when the bucket is in normal empty condition. By this means the rods are held firmly engaged in the blocks 13, against casual disengagement.

In assembling the device, the base blocks and bail ears are first secured in position, after which one end of the bar 18 is presented in the recess of one block and the opposite end of the bar forced downwardly upon the beveled surface 14, until it snaps into the adjacent recess 15. It will thus be seen that when the bucket is filled, no matter how great the weight of the material therein, or the resilient and yielding quality of the bail, the sides cannot be forced inwardly, and there will be no fixing action thereof tending to crack the metal.

The rod and blocks are made separately to facilitate the engagement of the device in a bucket, and also to facilitate and cheapen the manufacture thereof. Thus in securing the device in a bucket, the rod 18 is not interposed in such a position as to interfere with the driving and securing of the rivets and in the manufacture of the device it is not necessary to cast a large variety of shapes and sizes of the device, as one form of blocks and ears will do for many different sized buckets, and it is simply necessary to cut the rod 18 from suitable bar metal, in the length necessary. Also, in making the rod detachable, if it is not desired to use

the bucket for containing liquid or fluid, this rod may be removed and large objects introduced into the bucket without difficulty.

What is claimed is:

1. The combination with a receptacle, of recessed members carried upon the inner sides thereof, and a brace member having its opposite ends engaged in the recesses to brace the sides of the receptacle apart.

2. A brace device for buckets comprising socketed blocks secured upon the inner sides of the bucket, and a removable rod engaged in the blocks under resilient strain against the sides of the bucket.

3. A well bucket comprising a cylindrical receptacle, socketed blocks secured upon the inner surface thereof at diametrically opposite points, bail ears disposed upon the outer surface of the bucket in line with the blocks, fastening members through the blocks the ears, and the intermediate portions of the bucket, and a brace rod engaged in the sockets of the blocks under outward pressure against the walls of the bucket and a bail member engaged with said ears.

4. In a device of the class described, the combination with a receptacle, of recessed block members secured upon the opposite inner sides thereof, said blocks beveled faces above the recesses and a brace rod adapted to be forced downwardly against the beveled portions of the blocks to snap into the recesses thereof.

In testimony whereof, we affix our signatures, in presence of two witnesses.

LUTHER B. STANTON.
EARL G. DOWDA.

Witnesses:

WM. P. LALLY,
JESSE H. HARDIN,
JNO. J. BROWN,
JAS. C. HEWETT.