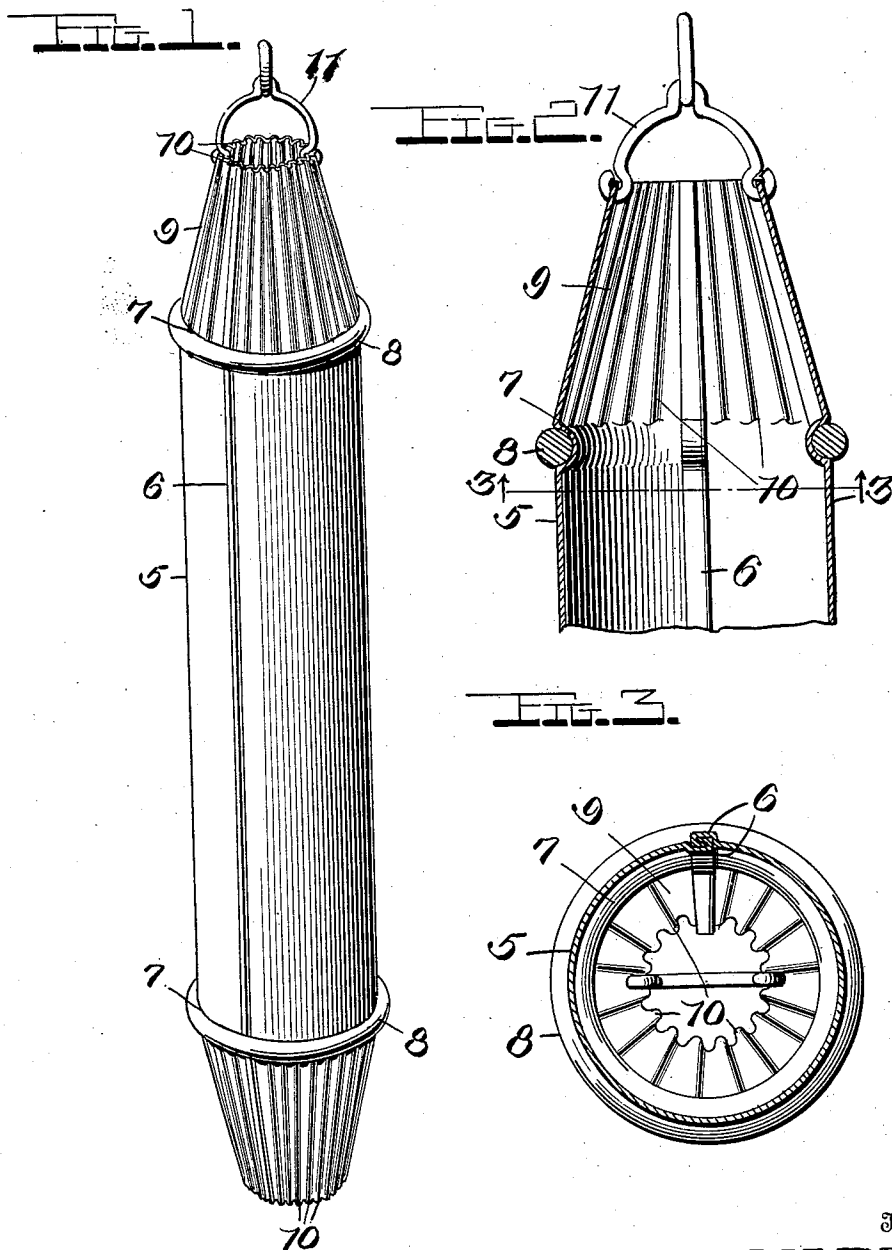


W. H. BLACK.
WELL BUCKET.
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1,015,935.

Patented Jan. 30, 1912.



Witnesses

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WELL-BUCKET.

1,015,935.

Specification of Letters Patent.

Patented Jan. 30, 1912.

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To all whom it may concern:

Be it known that I, WILLIAM H. BLACK, a citizen of the United States, residing at Broken Arrow, in the county of Tulsa and State of Oklahoma, have invented certain new and useful Improvements in Well-Buckets, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to well buckets and more particularly to buckets of that character commonly used in connection with driven or pipe wells.

The invention has for its object the provision of a well bucket constructed from a single sheet of metal, and means for retaining the edges of the metal sheet in locking engagement, said retaining means also providing reinforcements for the bucket to space the body thereof from the well pipe.

A further object of the invention resides in the provision of a well bucket formed from a single sheet of metal provided upon its longitudinal edges with interlocking tongues, the ends of the bucket being conically formed and corrugated, the body of said bucket having annular grooves formed therein, and retaining rings seated in said grooves to hold the edges of the metal sheet in interlocking engagement with said rings and projecting beyond the periphery of the bucket body to prevent wear thereon.

With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a well bucket constructed in accordance with the present invention; Fig. 2 is a detail longitudinal section of one end of the bucket; and Fig. 3 is a section taken on the line 3—3 of Fig. 1.

Referring in detail to the drawing 5 designates a sheet metal plate of suitable length and width from which my improved bucket is formed. This sheet metal plate on each of its longitudinal edges is provided with the reversely disposed tongues 6 which are adapted for interlocking engagement. The sheet metal plate is further provided adjacent to each of its ends with a substantially semicircular groove 7 which, when the edges of the sheet are connected provides annular

grooves in which are seated the reinforcing rings 8. The interlocked longitudinal edges of the body plate are then hammered to closely unite the same and prevent their separation. The rings 8 are of sufficient diameter to completely fill the annular groove 7 and project beyond the periphery of the body of the bucket as shown in Fig. 1. The ends of the bucket beyond the reinforcing rings 8 are contracted or of cone-shaped form as indicated at 9. These conical ends of the bucket are crimped or corrugated as at 10 whereby the ends of the bucket are materially strengthened. To one of the conical ends 9 of the bucket, a suitable bail 11 is rigidly secured, and to this bail the means are connected whereby the bucket is raised and lowered in the well. In the other conical end of the bucket, a bucket valve of any approved construction is arranged.

From the above it will be seen that my improved bucket may be inexpensively constructed from a single sheet of metal and by providing the rings 8 at opposite ends of the bucket body, a very rigid and durable construction is obtained. These rings which project beyond the periphery of the body engage the walls of the well pipe and space the body of the bucket therefrom so that wear thereon is entirely eliminated. When the rings 8 are worn down to the periphery of the bucket, they may be readily removed and replaced by others, thus indefinitely prolonging the period of usefulness of the bucket. The seam 6 of the bucket is of course, first opened sufficiently so that the rings may be forced over the ends of the bucket and into the grooves 7. It will be obvious, that as the rings may be obtained in large quantities at an insignificant cost, the expense incident to the repair of the bucket is negligible. These rings further serve to overcome all liability of disengagement of the connected edges of the sheet metal plate from which the bucket is formed, and relieve the interlocking longitudinal tongues 6 of undue strain which might cause the same to bend and separate. In the usual construction of well buckets, the conical ends 9 are separately formed and riveted or otherwise secured to the ends of the bucket body. It frequently happens, that after an extended period of use, the rivets are unable to withstand the strains placed thereon and break, whereupon the

bucket falls to the bottom of the well from which position considerable difficulty is experienced in removing the same.

From the foregoing it is thought that the construction and manner of assembling my improved bucket will be readily understood.

The device is extremely simple, highly efficient in use and provides a very light, strong and durable bucket construction, wherein the many deficiencies existing in devices of this class as heretofore constructed are entirely obviated.

While I have shown and described the preferred construction and arrangement of the various parts, it will be understood that the device is susceptible of considerable modification without departing from the essential feature or sacrificing any of the advantages thereof.

Having thus described the invention what is claimed is:—

1. A well bucket consisting of a cylindrical body having conical corrugated end portions, said body having an annular groove

at the inner end of each of the conical portions thereof, and metal reinforcing rings seated in said grooves and projecting beyond the periphery of the bucket.

2. A well bucket consisting of a single sheet of metal having interlocking means formed upon its longitudinal edges, the ends of said bucket being conically formed and provided with annular grooves at the juncture of said conical end portions with the body of the bucket, and reinforcing rings of circular form in cross section seated in said grooves, said grooves being of a depth sufficient to receive substantially one-half of the rings, said rings projecting beyond the periphery of the body of the bucket, substantially as and for the purpose specified.

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

WILLIAM H. BLACK.

Witnesses:

DANIEL E. ABBOTT,

G. H. HOFSCHULTE.