

No. 849,240.

PATENTED APR. 2, 1907.

J. F. HOLMAN.
WELL BUCKET.

APPLICATION FILED JUNE 23, 1905.

Fig. 1

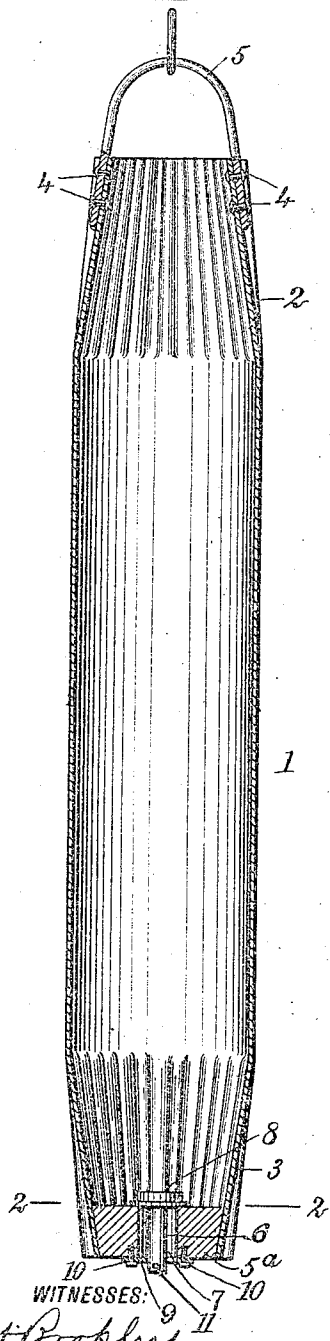
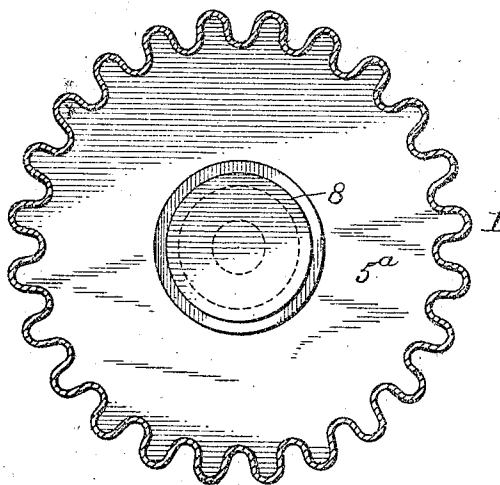


Fig. 2



WITNESSES:

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J FRANK HOLMAN, OF NEOSHO, MISSOURI, ASSIGNOR OF ONE-HALF TO
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WELL-BUCKET.

No. 849,240.

Specification of Letters Patent.

Patented April 2, 1907.

Application filed June 23, 1905. Serial No. 266,571.

To all whom it may concern:

Be it known that I, J FRANK HOLMAN, a citizen of the United States, and a resident of Neosho, in the county of Newton and State of Missouri, have invented a new and Improved Well-Bucket, of which the following is a full, clear, and exact description.

This invention relates to buckets for wells; and it consists substantially in the improvements hereinafter more particularly described, and pointed out in the claim.

In the construction or formation of ordinary drilled wells it is usual in many instances to provide the well with a casing or lining generally constructed of superposed sections which are successively driven into the well after the latter has been drilled. To draw or lift water from a drilled well thus lined within it has been common to employ suitable buckets which are lowered within the casing or lining in a manner well understood. A difficulty encountered in lowering the buckets within the well has been the tendency of the former to catch or strike upon the joints of the sections of the casing or lining thereof and which (owing to the unevenness of the joints of the sections of the casing or lining) frequently renders it very laborious to either properly lower a bucket within the well or raise the same therefrom with its contents.

One of the principal objects of the present invention is to overcome the above-mentioned disadvantage, as well as others frequently met with in the use of many drilled-well buckets hitherto devised, and also to provide a bucket of this character which is simple in construction and comparatively inexpensive to manufacture, besides being thoroughly effective and reliable for its purposes and possessing the capacity for long and repeated service.

The above and additional objects are attained by means substantially such as are illustrated in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a vertical sectional view of a drilled-well bucket embodying my improvements; and Fig. 2 is an enlarged horizontal sectional view thereof, taken on the line 2-2.

Before proceeding with a more detailed

description it may be stated that in the form of my improvements herein shown I employ a drilled-well bucket of special construction at each of its ends, by which the same is prevented from encountering any part or parts of the joints between the superposed sections of the lining of a well, either in lowering the bucket within or elevating the same from the well; and while I have herein shown my improvements in a certain preferred embodiment it will be understood, of course, that I am not limited thereto in precise detail, since immaterial changes may be resorted to coming within the scope of my invention. It may be here mentioned that in the use of many former drilled-well buckets it has been common in some instances to apply to the lower end thereof a separate cone-shaped device, by which to prevent the bucket from encountering portions of the joints of the lining of the well; but this has proven an expensive expedient, since the said separate cone-shaped device frequently becomes lost within the well on the lowering of the bucket, so that the use of the same has really proven more of a disadvantage than otherwise.

My improved drilled-well bucket is constructed entirely of a single piece of metal or other suitable material and is of such form at each of its ends as to enable the same to be lowered and raised within the well without any hindrance or obstruction thereto.

Reference being had to the drawings by the designating characters thereon, 1 represents my improved drilled-well bucket, which is preferably constructed of galvanized material, but which, of course, may be constructed of any suitable sheet metal for the purpose, the bucket being of proper dimensions both as to length and diameter thereof. I form the same upon a suitable mandrel, and after the longitudinal edges have been properly brought together I reduce each end portion thereof to substantially the form of a frustum of a cone (indicated at 2 and 3) the base of which lies or is located at a suitable distance from the adjacent open end of the bucket. To impart this form to each end portion of the bucket, it is essential that the material thereof be corrugated or fluted circumferentially, as will be apparent, and this I accomplish by the use of suitable cooperat-

ing corrugating or fluting dies (not shown) having the desired tapered or conical configuration.

Secured to the corrugated end portion 2 at the upper end of the bucket at 4 are the ends of a bail 5, to which attachment is made of the lower end of the cable or rope employed for lowering and raising the bucket within the well, and fitting in the end of the lower corrugated end portion 3 of the bucket in a thoroughly water-tight manner is a plug or block 5^a of wood or any other suitable material provided with a central opening 6, through which works the stem 7 of a liftable valve 8, said stem being guided in its movements by a spider 9, secured at 10 to the lower face of the said block 5^a, a suitable stop 11 being applied at the lower end of the stem to limit the upward movement of the latter and the said valve 8, with which it is connected. The particular form of this valve is not essential to my improvements; but it will be understood that, as shown, whenever the bucket is lowered within the well for the purpose of raising water therefrom said valve 8 will be lifted by contact of the lower end of the stem 7 with the surface of the water within the well, thereby permitting the interior of the bucket to become filled, whereupon the bucket may be raised or elevated in the ordinary way.

It will be seen that, due to the conical formation of the sides of the end portions of the bucket, the edges at each end of the bucket

are not liable to encounter or be caught upon any part of the joints between the sections of lining of the well, so that the operation of raising and lowering the bucket within the well is rendered much less laborious, and time-saving.

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

A bucket for drilled wells, consisting of a cylindrical hollow body having corrugated conical ends, a bail secured to the upper conical end of the body, a conical and flangeless wooden plug secured water-tight in the lower conical end of the body with its lower face flush with the said end, said plug having a single opening centrally located, a spider removably secured to the lower face of the plug over the opening thereof, and a valve adapted to seat on the inner face of the plug over the opening thereof and having a stem of less diameter than the opening of the plug and extending through the said opening and the spider and provided at its lower end with a stop, substantially as herein shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

J FRANK HOLMAN.

Witnesses:

R. M. SHEPPARD,
BARTON J. MORROW, Jr.