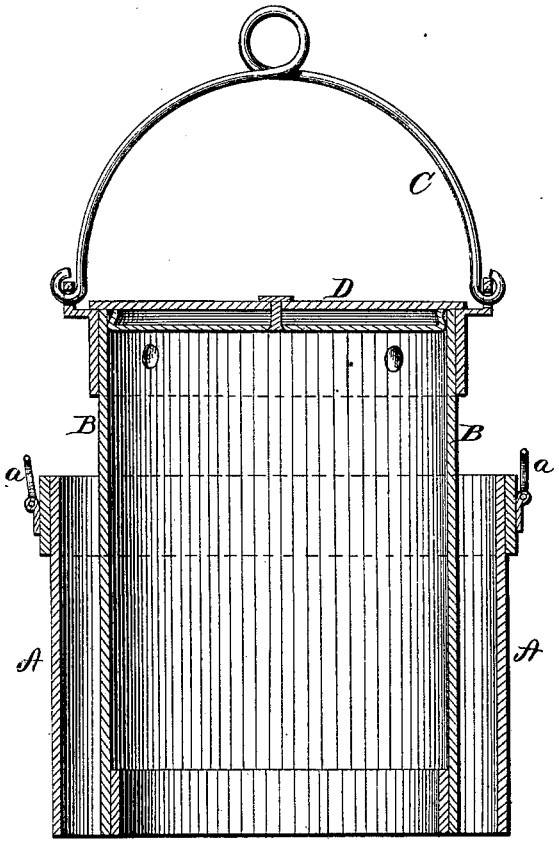
W. DUNTON & J. L. SIMKINS.

Device for Lining Wells.

No. 198,583. **Patented Dec. 25, 1877.**



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UNITED STATES PATENT OFFICE.

WILLIAM DUNTON AND JOHN L. SIMKINS, OF HOPKINS, MICHIGAN.

IMPROVEMENT IN DEVICES FOR LINING WELLS.

Specification forming part of Letters Patent No. **198,583**, dated December 25, 1877; application filed August 30, 1877.

To all whom it may concern:

Be it known that we, WILLIAM DUNTON and JOHN L. SIMKINS, of Hopkins, in the county of Allegan and in the State of Michigan, have invented certain new and useful Improvements in Cement Wells; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the mode of constructing cement wells, as will be hereinafter more particularly described.

To enable those skilled in the art to make and use our invention, we will now proceed to describe its construction and operation.

In the accompanying drawing, which makes a part of this specification, and which is a vertical section, A and B represent two metallic cylinders, the inner cylinder B being about twenty-eight (28) inches in diameter and thirty (30) inches high, while the outer one, A, is thirty-four (34) inches in diameter, and twenty (20) inches high. Of course these sizes may vary in proportion to the work to be performed. These cylinders are provided with hooks or bails or loops at their upper rims, by means of which they can be adjusted to their positions in the well at pleasure.

We will now proceed to describe the mode of using these cylinders in the construction of a well.

The well is first dug, and provided with the usual wooden curbing, to prevent it from caving in. When sufficiently deep, a wooden rim wheel is placed upon the bottom of the well, said rim being wide enough to equal the space between the two cylinders. A layer or two of bricks are laid upon this rim, and then the two cylinders are adjusted in place over the bricks. After this has been done, we take a cement mortar, composed of about three parts of sand and gravel to one of water-lime or any other suitable cement which will harden like stone. This cement is placed between the cylinders and upon the brick until about the height of the outer cylinder. After this has been done we take a piece of large hose, and through it we carry earth from the top of the well down behind the outer cylinder, and between it and the curbing. This earth is filled and rammed in evenly and compactly behind the cylinder. The two cylinders A and B are then drawn up nearly to the top of the cement which has been filled in, and more cement is inserted, and so the cylinders are raised and cement filled in until the entire well is lined.

A cover, D, is used upon the inner cylinder, upon which the operator stands, and upon which the cement is placed for use. This cover can readily be removed, if it is desired to draw water from the well while the wall is in process of construction.

Under-drains may be made by this means, only the cylinders are placed horizontally, and are much smaller.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination of the outer cylinder A, having handles *a a*, and the inner cylinder B, provided with the bail C and cover D, for making lining for wells, substantially in the manner herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 14th day of August, 1877.

WILLIAM DUNTON.
JOHN L. SIMKINS.

Witnesses:
JOHN M. HEATH,
ALLEN MOSHER.