A. MOORE.

APPARATUS FOR WALLING WELLS.

No. 186,943. Patented Feb. 6, 1877.

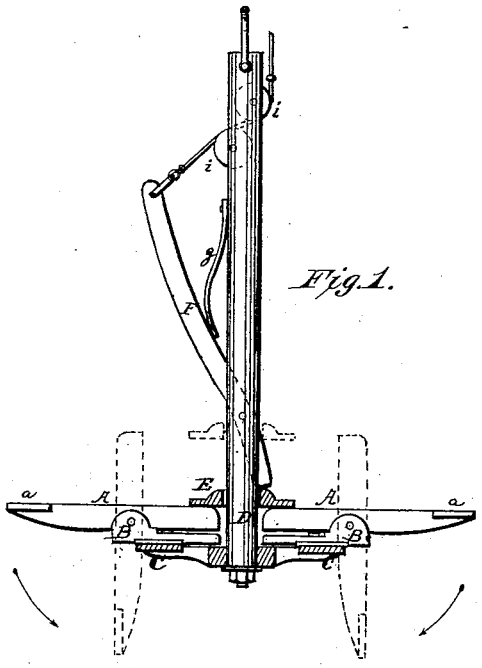


Fig. 1.

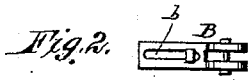
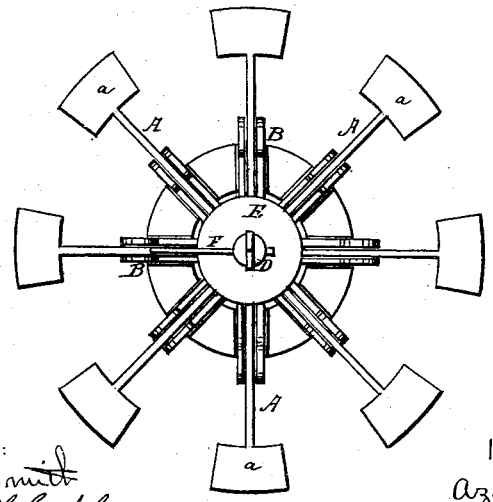


Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

AZARIAH MOORE, OF SHELLSBURG, IOWA.

IMPROVEMENT IN APPARATUS FOR WALLING WELLS.

Specification forming part of Letters Patent No. **186,943**, dated February 6, 1877; application filed November 12, 1875.

To all whom it may concern:

Be it known that I, AZARIAH MOORE, of Shellsburg, in the county of Benton and State of Iowa, have invented certain Improvements in Well-Wallers, of which the following is a specification:

This invention relates to an apparatus to be used in walling wells and other similar excavations, and has for its object to afford a means whereby a section of the wall may be built above ground, or above the water, and then lowered to its place and deposited.

In the accompanying drawing, which forms a part of this specification, Figure 1 is a vertical sectional view of said apparatus. Fig. 2 is a plan view of one of the adjustable bearings of the radius arms. Fig. 3 is a plan view of the apparatus.

Like letters of reference indicate like parts in the several figures.

In the said drawing, A A, &c., represent a series of radius arms, having each at its outer end a platform, *a*. Upon these platforms, (or upon a superstructure placed upon these platforms in case the bricks are not long enough,) the bricks or tiles, or other walling, is built above ground and lowered into the well. The radius arms are supported in pivoted bearings B, which rest upon the annular plate C, supported in turn from the central upright column D. The bearings B, one of which is shown detached at Fig. 2, are slotted in the direction of their length with a slot, *b*, and bolted through the slot to the annular plate C, whereby an adjustment of the radius arms to and from the center, to suit different diameters of well-bores, is afforded.

To hold the inner ends of the radius arms from tilting up, a collar, E, is slipped loosely down over the central column D, and held in place by the trigger-lever F, pivoted in the column, and operated by means of a cord passing between the small pulleys *i i* up to the top of the well. When the wall has been lowered to place the pulling this cord will withdraw the lever, and permit the collar to slide up the column as the radius arms tilt up in the withdrawal of the apparatus from the well after the wall has been deposited.

A shield may be employed in conjunction with this apparatus, if desired, to set out against the inner surface of the wall, and rest upon the radius arms, but such is not necessary.

The spring *g* serves to hold the trigger-lever in place securely against accidental withdrawal.

By the employment of this apparatus the wall may be laid in a well very rapidly, and without the necessity of a man being in the well; hence, it may be used to wall wells of small bore, in which a man could not descend.

When a section of wall has been lowered to place in the well, the cord is pulled, releasing the trigger-lever, and allowing the collar to slide up as the arms are withdrawn from beneath the wall.

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

1. The well-waller, consisting of a series of radius arms, upon the outer ends of which the wall may be supported, said arms being pivoted to a center column, and provided with a releasable detent contrivance, capable of being operated from the top of the well, to allow of the tilting of the arms when the implement is withdrawn from the well, substantially as specified.

2. The combination, with the pivoted radious arms A, of the column D, ring or collar E, and lever F, substantially as specified.

3. The combination of the radius arms A, the adjustable bearings B, and collar E, provided with a detent contrivance, substantially as specified, whereby the apparatus may be adjusted to different diameters.

4. In a device for walling wells from the surface, a series of radial arms, formed to support the wall while being lowered, and to be released and withdrawn from beneath the same when the wall is in place, substantially as specified.

AZARIAH MOORE.

Witnesses:

U. C. BLAKE,

MASON P. MILLS.