R. MIKKELSON.
Method of Tubing Wells.

No. 213,520. Patented Mar. 25, 1879.

Fig. 1.

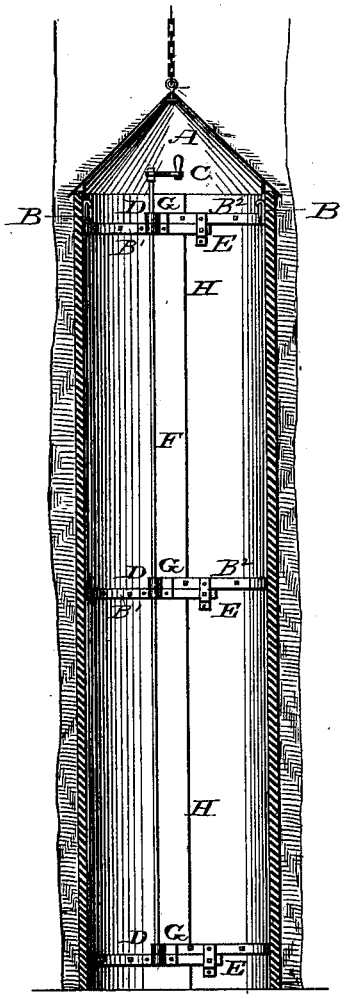


Fig. 3.

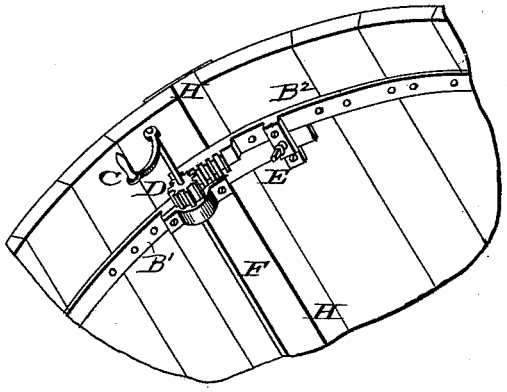
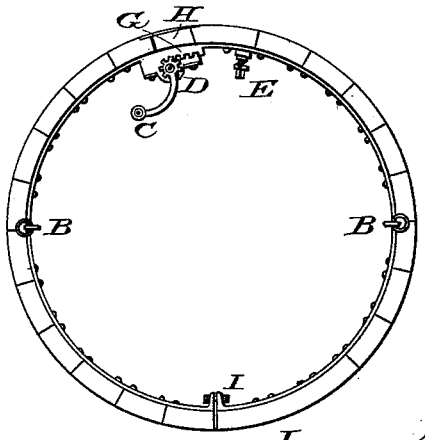


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

RASMUS MIKKELSON, OF LODI, WISCONSIN.

IMPROVEMENT IN THE METHODS OF TUBING WELLS.

Specification forming part of Letters Patent No. **213,520**, dated March 25, 1879; application filed November 4, 1878.

To all whom it may concern:

Be it known that I, RASMUS MIKKELSON, of the town of Lodi, in the county of Columbia and State of Wisconsin, have invented a new and useful Device for and Method of Tubing Wells, of which the following is a specification:

The object of my invention is to make a solid wall of plaster or cement from the top to the bottom of the well, which I accomplish by means of the following device.

In the accompanying drawings, Figure 1 is an adjustable cylinder, capable of being expanded or contracted by means of the device hereinafter described. Fig. 2 is a cross-section. Fig. 3 is an enlarged section of the upper portion of Fig. 1.

This cylinder may be made of planks, firmly fastened to heavy iron bands B^1 B^2 by means of bolts or rivets. These bands are placed on the inside of the cylinder, so as to leave the outside of the cylinder smooth. These bands are nearly semicircles, one end of each bolted to the other at I, and the opposite end of one half passing through a cap on the opposite end of the other, so as to form an adjustable hoop, which may be fastened and held in place by means of the set-screw E. Two or more of these bands are required to each cylinder, depending upon the length thereof.

Near one end of each band B^1 is firmly fastened the shaft F, provided with cog-wheels D D, and on the ends of the other semicircular bands B^2 are the cogs G G, so that by turning the crank C the cylinder can readily be made larger or smaller, as required, and held in place by the set-screw E.

On one edge of one half of the cylinder is a broad band of iron, H H, so constructed that when the cylinder is at its smallest size the band overlaps a part of the opposite half of the cylinder, and when expanded covers the space that would otherwise be left open.

Firmly fitting on the top of the cylinder is the cone-shaped cap A, and for the purpose of removing the cylinder from the well are the two stout rings B B.

My method of using this invention is as follows: Dig the well six or eight inches larger than you design to have it when completed. Then place in the well the cylinder. Place over the cylinder the cover A. Then throw onto the cone-shaped cover the cement or plaster, so that it will run down outside the cylinder. Then remove the cover and place another cylinder on the top of this, and proceed as before until you reach the top of the well. Let the cylinders remain till the cement or plaster hardens sufficiently to stand, when they may be contracted and removed.

What I claim, and desire to secure by Letters Patent, is—

1. The semicircular sections B B, provided with bands B^1 B^2, the former of which forms the bearings for a rod or shaft, F, and the latter of which is provided with cogs G, in combination with the shaft F, its crank C, and gears D, and with the locking device E, substantially as described.

2. The combination, with the hinged semicircular sections B B and mechanism for opening and closing the same, of the broad plate H, for preserving an unbroken cylinder during all adjustments of the semicircular sections, substantially as described.

3. The combination of the conical distributing and protecting cover A with the expansible and contractible cylinder, substantially as described.

RASMUS MIKKELSON.

Witnesses:
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