

Fig. 1.

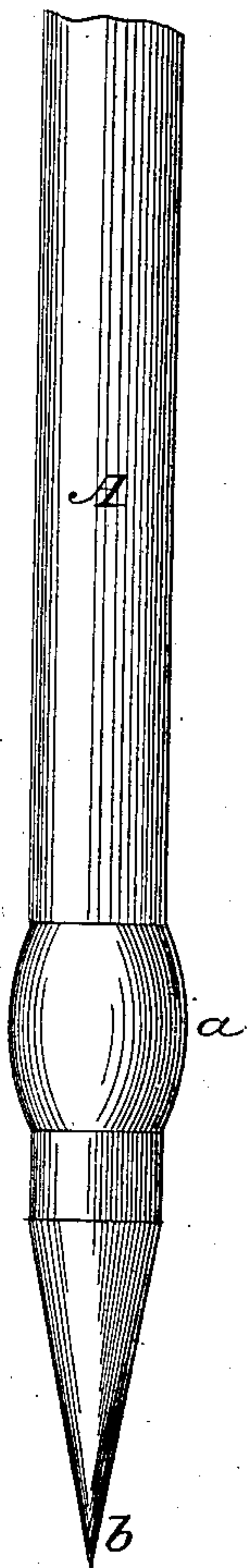
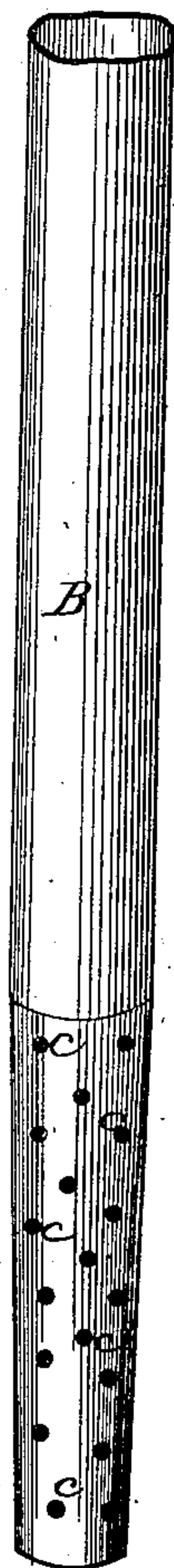


Fig. 2.



Witnesses:

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Inventor.

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UNITED STATES PATENT OFFICE.

NELSON W. GREEN, OF CORTLAND, NEW YORK.

IMPROVED METHOD OF CONSTRUCTING ARTESIAN WELLS.

Specification forming part of Letters Patent No. 73,425, dated January 14, 1868.

To all whom it may concern:

Be it known that I, NELSON W. GREEN, of Cortland, in the county of Cortland and State of New York, have invented a new and useful improvement in the manner of sinking and constructing artesian or driven wells where no rock is to be penetrated, and of raising water therefrom; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a portion of the rod which is driven or forced into the ground to form the opening or hole for the insertion of the tube that forms the casing or lining of the well and the avenue through which the water is raised to or above the surface of the ground, and Fig. 2 represents a portion of the tube.

My invention consists in driving or forcing an iron or a wooden rod with a steel or iron point into the earth until it is projected to or into the water, and then withdrawing the said rod and inserting in its place a tube of metal or wood to the same depth, through which and from which the water may be drawn by any of the usual well-known forms of pumps.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

The driving-rod A, I construct of wood or iron or other metal, or of parts of each, with a sharp point, *b*, of steel, or otherwise, to penetrate the earth, and a slight swell, *a*, a short distance above the point, to make the hole slightly larger than the general diameter of the rod. This rod I drive by a falling weight or other power into the earth until its point passes sufficiently far into the water to procure the desired supply. I then withdraw the rod and insert in its place the iron or wooden tube B, which may be slightly contracted at its lower end to insure its easy passage to its place. In general, this tube B, I make of iron, and of a thickness that will

bear a force applied at its upper extremity sufficient to drive or force it to its place; and where a large or continuous flow of water is desired I perforate this lower end of the tube to admit the water more freely to the inside.

The perforations *c* may be about one-half of an inch in diameter, (less or more,) and from one to one and a half inch apart; and the perforations may extend from the bottom of the tube upward from one to two feet. The diameter of the tube should be somewhat smaller than the diameter of the swell *a* on the drill end of the driving-rod A.

In localities where the water is near the surface of the ground, and the well is for a temporary use only, as in the case of a moving army, or for temporary camps, lighter and thinner material than iron may be used for making the tubes—as, for instance, zinc, tin, copper, or sheet metal of other kind, or even wood may be used. The rod may be of any suitable and practical size that can be readily driven or forced into the ground, and may be from one to three inches in diameter.

Any suitable well-known pump may be applied to raise the water up through the tube to the surface or above it.

I am aware of James Suggett's patent of March 29, 1864, and I disclaim all secured to him therein.

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

The herein-described process of sinking wells where no rock is to be penetrated—viz., by driving or forcing down a rod to and into the water underground, and withdrawing it and inserting a tube in its place to draw the water through, substantially as herein described.

N. W. GREEN.

Witnesses:

A. B. STOUGHTON,
JOS. PECK.