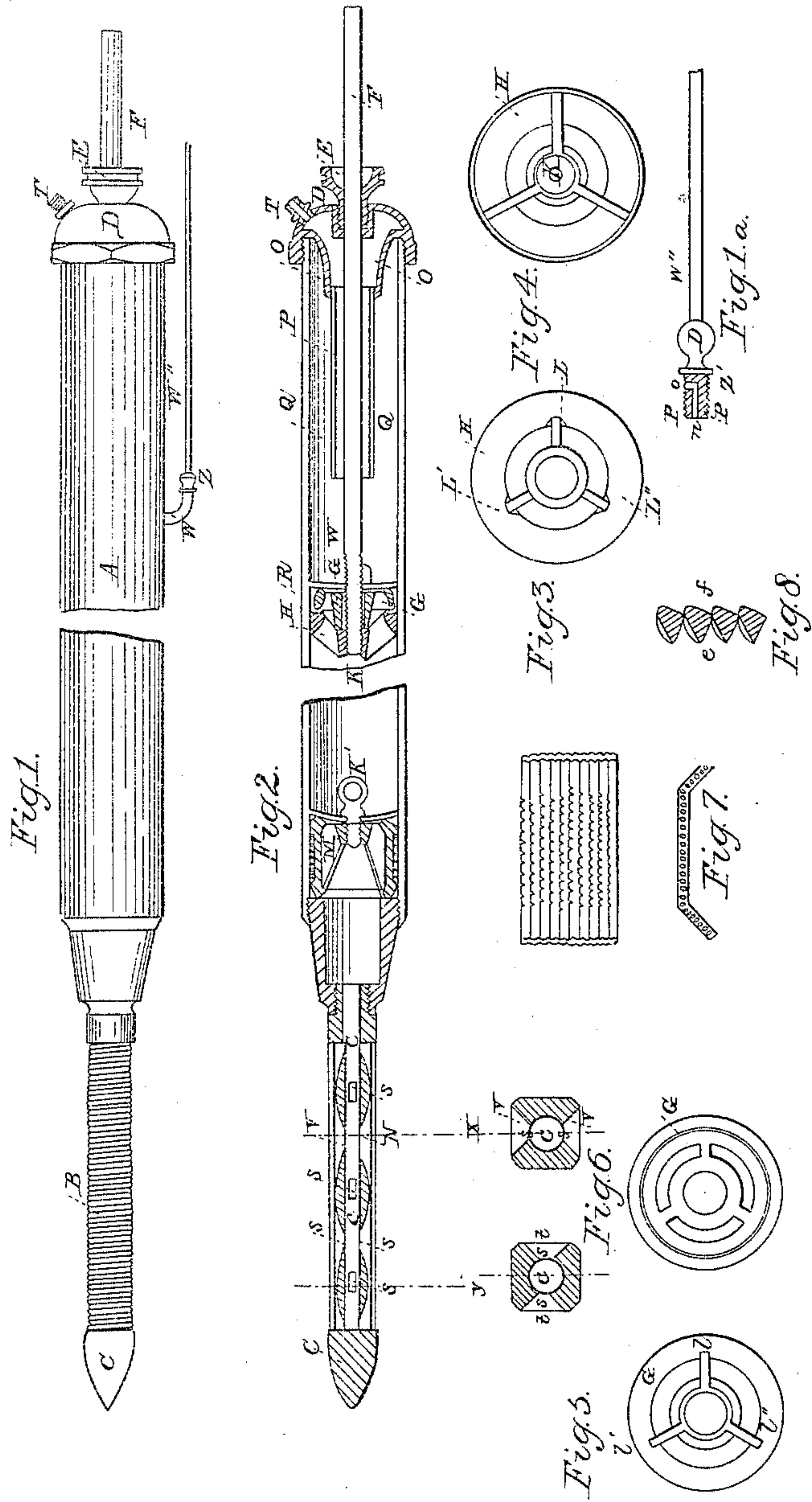


J. Edison

Tube Well

N^o 94,727.

Patented Sept. 14, 1869.



Witnesses.
A. H. Berry
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Inventor.
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United States Patent Office.

JACOB EDSON, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 94,727, dated September 14, 1869.

IMPROVEMENT IN TUBULAR WELLS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JACOB EDSON, of Boston, in the county of Suffolk, and State of Massachusetts, have invented certain new and useful Improvements in Tubular Wells; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to "tubular wells;" and

It consists of the parts constructed in the manner hereinafter described and claimed.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and use.

In the drawings—

Figure 1 represents an elevation of my tubular well.

Figure 2 is a longitudinal section of the same.

Figure 3 represents a plan of the part H of the upper box.

Figure 4 is a plan of the under side of the same.

Figures 5 and 6 are plans of the part G of the upper box.

Figure 7 is a plan and section to illustrate the construction of the strainer.

Figure 8 is a cross-section, showing the shape of the wire after it has been nicked.

A is the tube, of indefinite length, made of any suitable material.

B is the strainer, made as follows, N, fig. 2, being a metallic core, the lower end terminating in a point, C, while the upper end is connected by some suitable device to the lower end of the tube:

The core N is perforated longitudinally by the chamber *c c*, fig. 2.

The section of the core is represented by *x* and *y*, fig. 2, it being provided with pyramidal sinkages *v v* *t t*, which terminate in openings *s s*, leading into the longitudinal chamber *c c*.

Around this core a wire, nicked as represented in figs. 7 and 8, is wound, each turn of the wire fitting closely, so that the nicks made in the wire form perforations, through which water may pass.

If considered desirable, the wire may be pressed, in the process of nicking, into the form represented in fig. 8, so that in its downward progress it will have a tendency to throw off the dirt, and thus prevent the small perforations formed by the nicks from being stopped.

By giving the wire the form represented in fig. 8, the perforations are smallest at their outer surface.

M, fig. 2, is the lower box, provided with a suitable valve, and with a point, K', extending upward from it.

The lower end of the upper valve H G is provided with a countersink, K, so that when it is desirable to push the lower box into position, the upper box may

be used for that purpose. The point K', fitting into the countersink K, serves to keep the lower box vertical while being pushed down the pipe.

The packing R, surrounding the part G of the upper valve, is formed, as shown in fig. 2, so that a part of it is seized and held between G and H.

The part H of the upper valve screws upon the piston F, but the part G slips freely over it, and is held by a set-nut, W, fig. 2.

The part H is provided with a number of nicks, L L' L'', fig. 3, into which corresponding ribs, *l l l*, are made on the lower side of G, fig. 5, so that when the parts of the upper valve G and H are put together, one cannot turn without the other.

I form the air-chamber of my pump by forming the cap D substantially as shown in fig. 2, and attaching to the inner portion O O the pipe P, thus leaving the space Q Q, between the pipe P and the outer walls, as an air-chamber.

T, figs. 1 and 2, is the discharge-nozzle.

W Z, fig. 1, is a small cock, leading from the tube A, to allow the water within the tube to run out, and thus avoid the danger of freezing.

The construction of the cock W Z, shown in section at Z', Figure 1^a, is novel. The lower end of Z terminates in a hollow screw, *p p*, which fits into W', this screw *p p* being provided with an orifice, *n o*, so that if it is screwed hard down against the top of W', no water can escape; but if it is partly unscrewed, so that the orifice *o* will be above the top of the pipe W', then the water can pass freely through *n o*.

W'' is a stem, reaching from the cock Z to the surface of the ground, by means of which it may be closed or shut.

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

1. A strainer, when made by winding wire around a channelled or corrugated supporting-core, said wire being nicked, as herein described and shown.

2. The core N of the strainer, when the core has a central chamber, and is provided with alternating pyramidal recesses, communicating with said chamber, in the manner arranged and described.

3. The point K', projecting upward from the lower box, when said point acts, in conjunction with the countersink K, for adjusting and forcing the lower box into place, as herein described and shown.

4. Constructing the upper box of two parts, G and H, when said parts are arranged in the manner herein described, and for the purpose set forth.

JACOB EDSON.

Witnesses:

FRANK G. PARKER,

A. HUN BERRY.