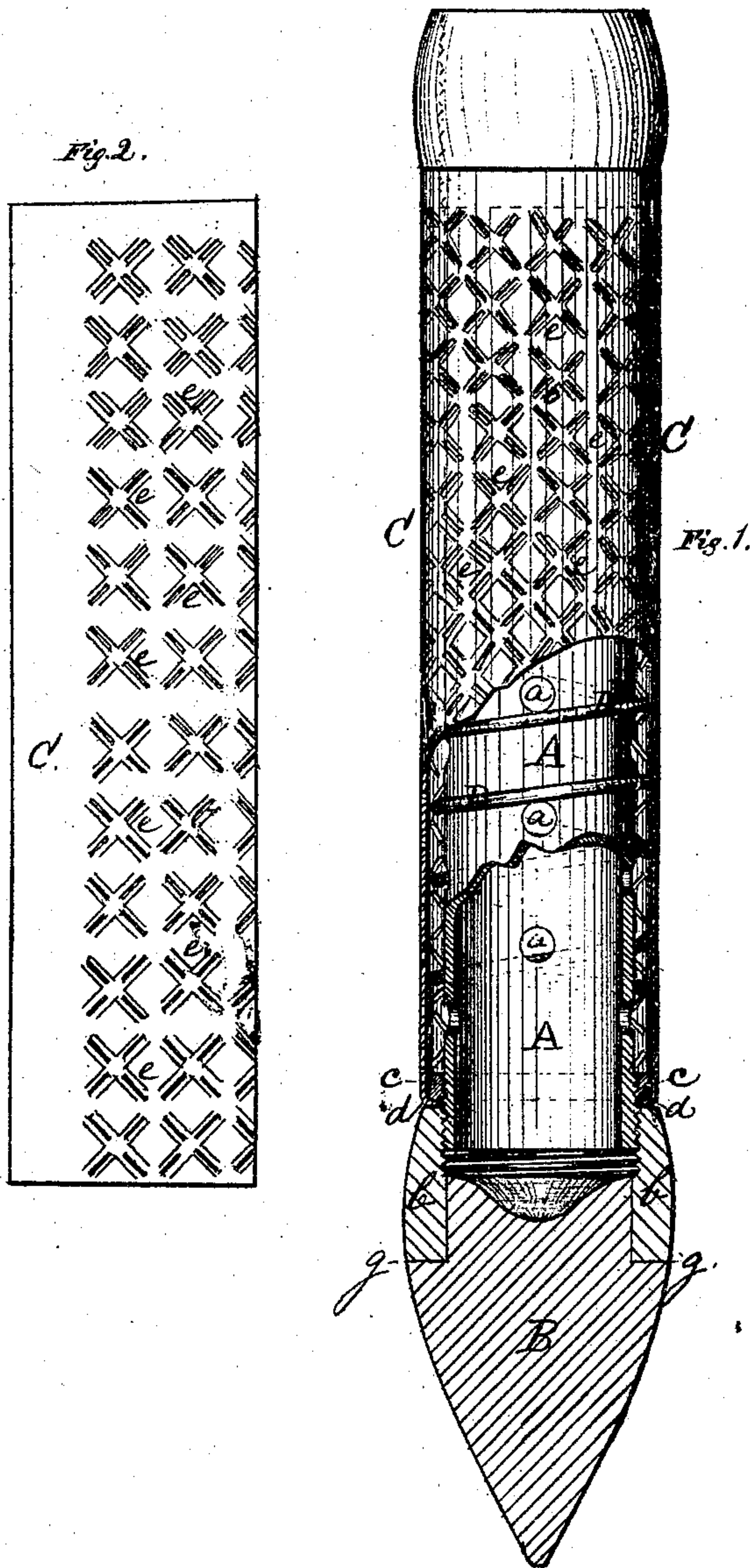


*D. A. Danforth,*

*Well Tubing.*

*No. 99,858.*

*Patented Feb. 15. 1870.*



*Witnesses:*  
*John W. Munn*

*Inventor:*  
*Dallas A. Danforth*  
*Att. G. B. Fowler*



# United States Patent Office.

DELOSS A. DANFORTH, OF ELKHART, INDIANA.

Letters Patent No. 99,858, dated February 15, 1870.

## IMPROVEMENT IN DRIVE WELL-TUBES

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, DELOSS A. DANFORTH, of the city and county of Elkhart, and State of Indiana, have invented a new and useful Improvement in Drive Well-Tubes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a view of drive well-tube, showing a portion of case or screen broken away to give a view of tube, the lower portion of which and point are represented in section.

Figure 2 is a view of a sheet of brass, or other metal, out of which screen is made, and showing a part of apertures of same made finer than others, the object of which will be hereinafter explained.

My invention is intended as an improvement on that patented by me February 9, 1869. In that the case or screen enclosing tube is constructed with punctures alternately from the outside and inside of the case, so as to form alternate edges and depressions on the outside and inside of the same.

My present invention consists in taking a sheet of brass or other metal, out of which case or screen is made, and so punching apertures through it as to depress the edges thereof, so that by placing the said sheet of brass between pressure-rollers, the edges of the apertures may be so pressed in as to reduce the apertures to any degree of fineness required, which is very necessary, as many soils are finer than others, hence the screen can in this manner be made to suit different kinds of soil; also, in fastening the case or screen to prevent it from sliding upon the tube, by turning in the bottom edge of the screen, and constructing or casting the point with a shoulder, and shrinking a jam-nut on over it, provided with female screw-threads, and constructing the lower end of tube with male screw-threads, having a shoulder above, so that by screwing the point thereon the turned-in edges of the screen will be firmly pressed and held against the shoulder of the tube.

I construct and operate my invention as follows:

A is the tube, provided, as ordinarily, with perforations *a*, for the admission of the water, and having screw-threads at the lower end to receive the jam-nut *b* of the point B, which screws thereon; and also a collar or ring, *c*, cast therewith at the terminus of the screw-threads above, or otherwise secured thereto, so as to form a shoulder for the jam-nut to hold the turned-in edges *d* of the case or screen against the shoulder, thus preventing it from sliding up.

C is the case or screen, provided with apertures *e*, as seen in the drawings.

A sheet of brass or other metal, being selected and cut to the proper size to form the case or screen, is laid down on a lead or other suitable surface, and the apertures punched through with a punch suitable for the purpose, the punch necessarily pressing the edges down, so that they stand out when the sheet of brass is taken up; thus, by placing the same between ordinary rollers, and regulating the pressure thereupon, the edges may be pressed in so as to close the apertures to the degree of fineness required, according to the nature or kind of soil it is designed to use the screen in.

Fig. 2 shows a sheet of brass metal, having the apertures of the lower part thereof reduced to a different degree of fineness from that above, the apertures above, as will be seen, being larger than those at the bottom.

A wire, D, is wound spirally around the tube, and fastened thereto to keep the screen off from the tube, so that the water will have free passage around the tube and through the perforations.

As stated, the point B is cast with a shoulder, *g*, and the jam-nut shrunk on over it against the shoulder, this being the most feasible method of providing the point with screw-threads, it being difficult to bore the point out itself and put screw-threads on the interior thereof.

Having thus fully described my invention,

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

1. An external drive well-tube, constructed by perforating or incising the sheet metal, and then rolling or striking down the protruding lips of said punctures to a flat surface, so as to reduce the openings to the degree of fineness desired, substantially as set forth.

2. The case or screen, with turned-in edges *d*, constructed as described, in combination with the collar or ring *c* of tube, forming a shoulder thereon, and screw-point B, having the jam-nut *b* secured thereto, and provided with shoulder *g*, substantially as set forth.

As evidence that I claim the foregoing as my invention, I have hereunto set my hand in the presence of two witnesses.

D. A. DANFORTH.

Witnesses:

A. N. CHAMBERLAIN,  
B. TURNOCK.