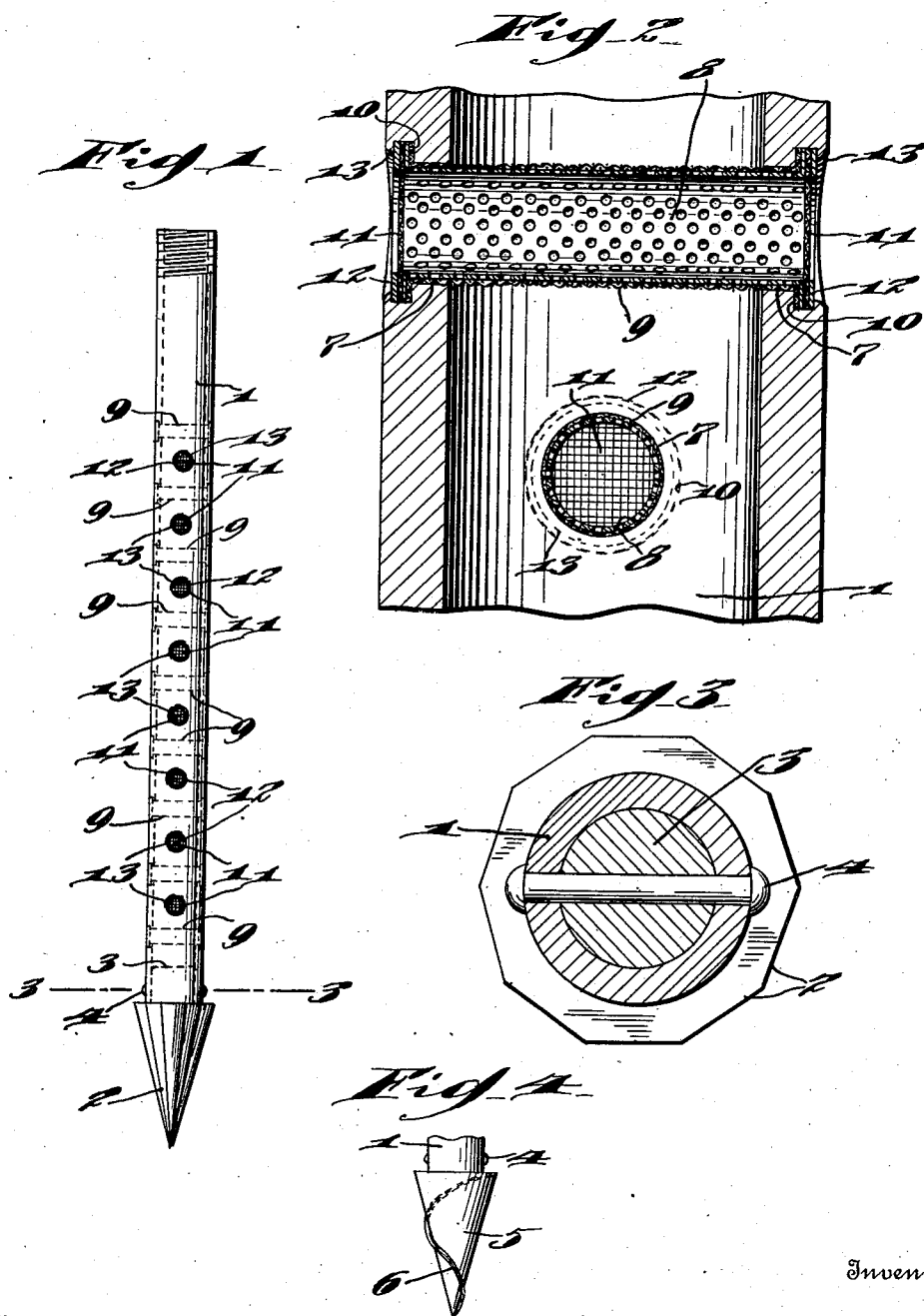


J. SHARP.
 DRIVEN WELL SPEAR OR POINT.
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Patented Dec. 26, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

JACOB SHARP, OF PHILADELPHIA, PENNSYLVANIA.

DRIVEN-WELL SPEAR OR POINT.

1,012,727.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JACOB SHARP, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Driven-Well Spears or Points, of which the following is a specification.

My invention relates to improvements in driven well spears or points, the object of the invention being to provide a device of this character which may be easily driven into the ground, and which will be so constructed that the screen cannot be ripped from the device as it is driven into the ground.

A further object is to provide a driven well point or spear which is provided with a plurality of transversely positioned screened tubes protected at their entrances, located within the surface of the tube, and protected from the sand and gravel in driving wells in use. Heretofore, as is well known in driving wells of this kind, the screens are commonly ripped in the driving operation, which renders the well useless.

My improvements are designed to overcome this common objection and serious fault, and consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described and pointed out in the claim.

In the accompanying drawings: Figure 1, is a view in side elevation illustrating my improvements. Fig. 2, is a fragmentary view in longitudinal section on an enlarged scale. Fig. 3, is a view in cross section on an enlarged scale on the line 3—3 of Fig. 1, and Fig. 4, is a view in elevation illustrating a modified form of point.

1, represents a tube in the lower end of which a boring point 2 is secured. This boring point has a shank 3, which is secured in the end of tube 1 by means of a rivet 4, and at its upper end is of appreciably greater diameter than the tube, so that it forms a hole larger than the tube to allow clearance around the tube, as the latter is driven.

The boring point 2, as shown in Fig. 1, may be a many sided device tapering to a

sharp point to facilitate its downward movement, or the point 5, as shown in Fig. 4, may be conical, and provided on its outer face with a thread or worm 6 to draw the point down into the ground when it is turned from above. Tube 1, is provided at opposite sides with two alternately arranged series of openings 7, for the reception of perforated metal screen tubes 8, and tubes 9 of wire mesh. The openings 7 are so arranged that each alternate tube 8 is at right angles to the other, and the openings 7 are of two diameters forming shoulders 10, against which the outer ends of the tubes 8 and 9 are bent forming flanges or heads. Against these ends of the tubes 8 and 9, disks 11 preferably of wire mesh, are positioned, and rings 12 are located in the openings 7 against the disks 11. To rigidly secure the parts in this position, the metal around the openings is preferably upset or forced inward as shown at 13 to effectually rivet the screens in place.

By reason of a construction of this character, the screens do not project beyond the surface of the tube, and there is no danger of ripping when driving the tube. Furthermore, the disks 11 prevent the entrance of gravel into the tube, and the inner metal tube 8 protects the wire mesh tube 9.

A construction of this character it is believed insures a more perfect well, as it not only overcomes the danger of ripping the screen in driving the well, but also is a superior protection against the action of gravel in cutting the screen while the well is in use.

Various slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claim.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

A device of the character described, comprising a tube having alined openings, each opening of two diameters forming shoulders, an inner tube of perforated metal, an outer tube of wire netting projected through

said openings, the ends of said tubes flared outward against said shoulders, screen disks against the ends of said tubes, rings against said disks, and the metal of said first-men-
5 tioned tube forced inward confining the ring, substantially as described.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

JACOB SHARP.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
