Ayres & Payne,

Well Tube.

NO. 102,647. Patented May 3. 1870.

Fig. 1.

Fig. 2.

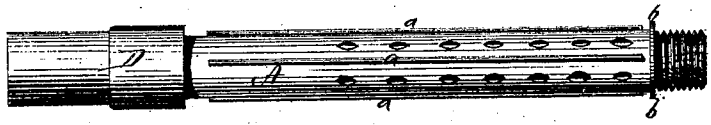
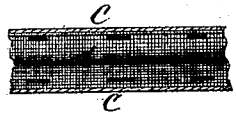


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

ISAAC AYRES, OF ELKHART, IND., AND D. C. PAYNE, OF DELAVAN, WIS.

IMPROVEMENT IN WELL-TUBES.

Specification forming part of Letters Patent No. **102,647**, dated May 3, 1870; antedated April 25, 1870.

To all whom it may concern:

Be it known that we, ISAAC AYRES, of Elkhart, Elkhart county, Indiana, and DAVID C. PAYNE, of Delavan, in the county of Walworth, and in the State of Wisconsin, have invented certain new and useful Improvements in Well-Tubes; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the construction and general arrangement of a filter for a well-tube to be used in driven wells.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side view of the well-tube with filter attached. Fig. 2 is a side view of the well-tube prepared to receive the filter. Fig. 3 is a section of the filter.

A represents an iron pipe having a series of rows of holes drilled into it, said rows of holes running up and down the pipe, as seen in Fig. 2. Strips of wire *a a* are then soldered on the pipe running longitudinally or half circular from top to bottom for the purpose of holding the strainer-cloth off from the pipe, so that when the water enters through the strainer-cloth it has a free circulation to enter the holes in the pipe from top to bottom. The pipe A has a thread on each end and a ring, *b*, shrunk on it near the lower end for the purpose of forming a shoulder or jamb to turn the lower end of the shield over to keep it from slipping up when driven down.

The drive-point B is hollow with thread, so that it can be screwed on the pipe up firmly against the end of the shield, where it turns over the jamb to prevent the shield from slipping up when driven into the ground.

The outer shield, C, is made of galvanized or other suitable sheet metal with oblong slots running up and down, as seen in Figs. 1 and 3. The lower end of the shield is turned over the jamb-ring *b*, so that when the point B is screwed on it will hold the shield to its place. A strainer-cloth, *d*, of gauze-wire, is soldered to the inside of the shield C, so as to hold it firmly to its place; or the wire-gauze may be formed in pipe shape, soldering the seam, then slipping it over the pipe A and its wires *a a*, then firmly winding it at each end with wire to hold it to its place.

The upper coupling, D, is constructed with an opening in the lower end to receive the upper end of the shield C to prevent it from slipping up.

The filter or strainer is so constructed that it can be taken apart and two put together where the vein of water is slow, and give a larger amount of filtering-surface to supply a pump with water.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination and arrangement of the slotted pipe A with wires *a a* and ring *b*, point B, shield C, strainer *d*, and coupling D, all constructed as described, substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 10th day of September, 1869.

ISAAC AYRES.
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Witnesses:
ARBA CHUBB,
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