

No. 679,681.

Patented July 30, 1901.

M. LATTA.
SAND POINT.

(Application filed Feb. 4, 1901.)

(No Model.)

Fig. 1.

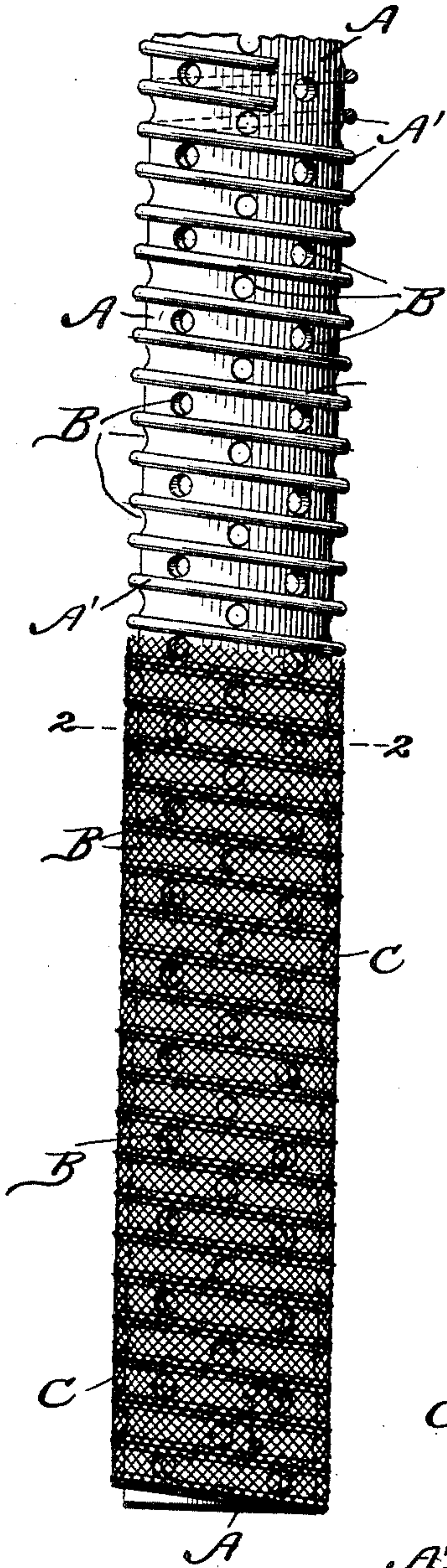


Fig. 2.

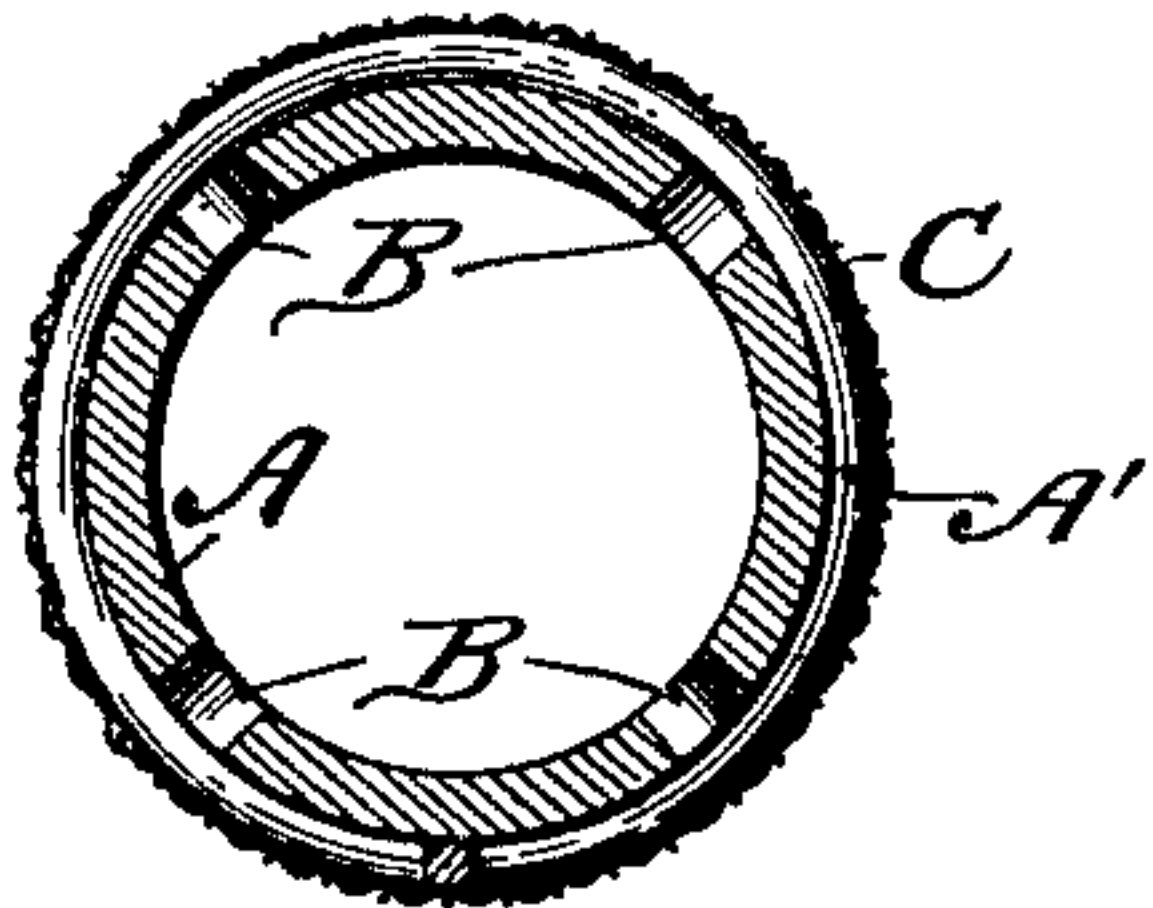


Fig. 4.

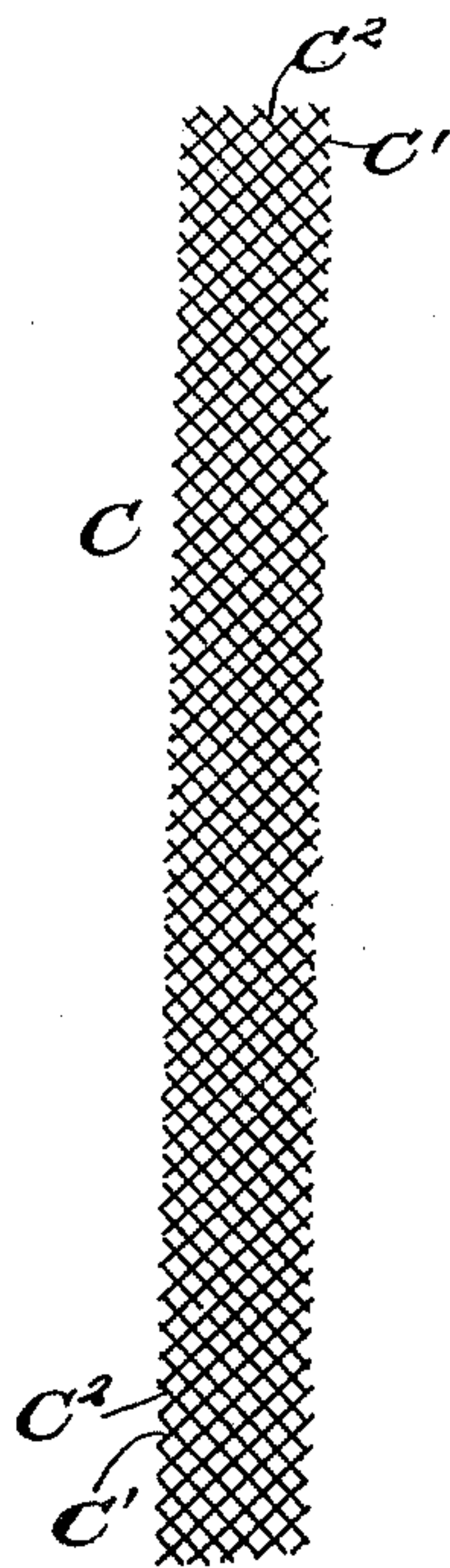
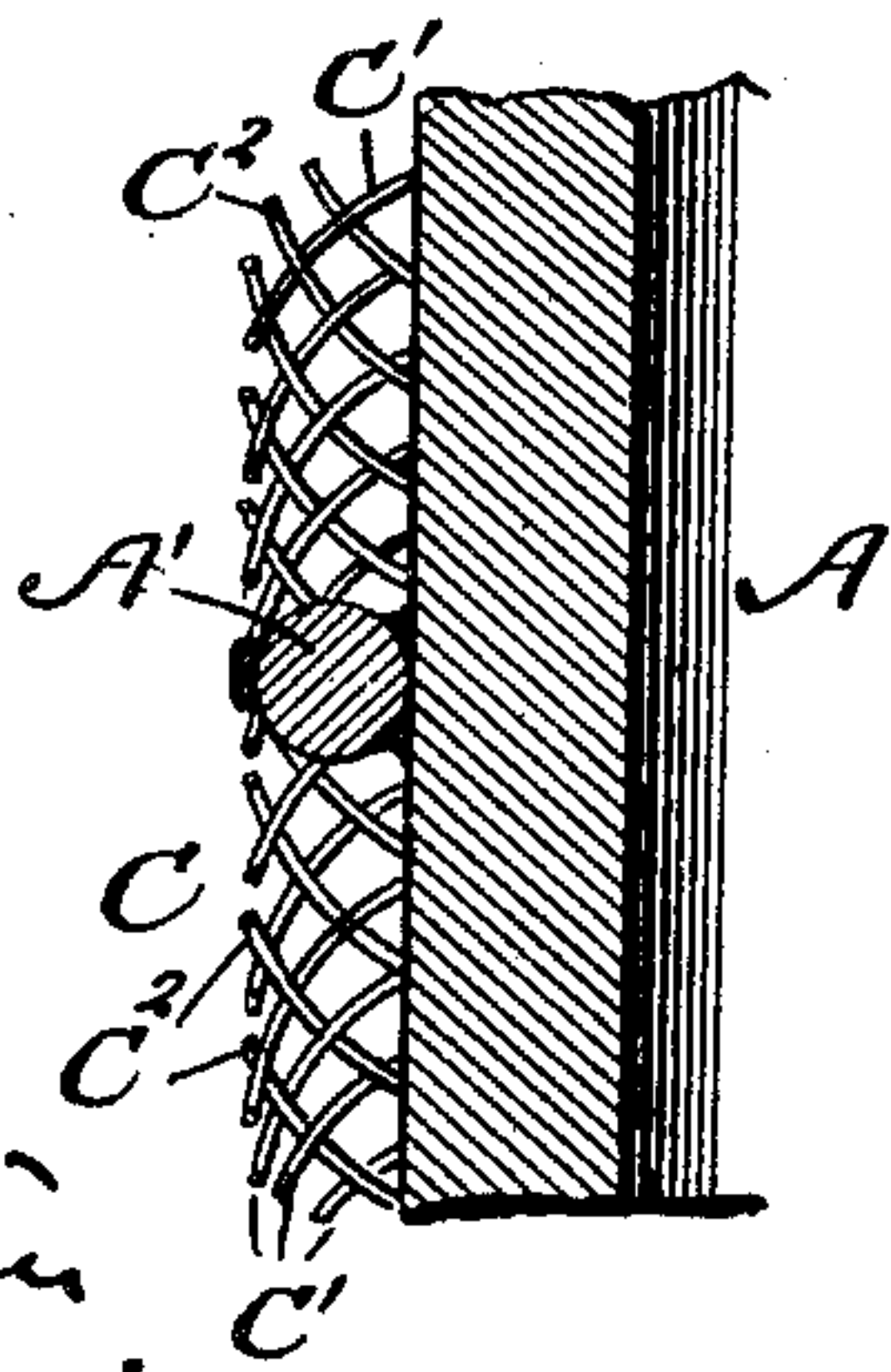


Fig. 3.



WITNESSES:

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SAND-POINT.

SPECIFICATION forming part of Letters Patent No. 679,681, dated July 30, 1901.

Application filed February 4, 1901. Serial No. 45,840. (No model.)

To all whom it may concern:

Be it known that I, MILTON LATTA, a citizen of the United States, residing at Burwell, in the county of Garfield and State of Nebraska, have made certain new and useful Improvements in Sand-Points, of which the following is a specification.

This invention is an improvement in sand-points for wells, and particularly in such points which are formed with perforations, a spiral rib extending around the perforated portion, and with a wire-cloth strainer secured upon the said rib over the perforated portion; and the present invention has for an object to provide an improved construction and arrangement of the wire-cloth with a view to securing distribution of the strain or pressure upon all the wires of the cloth so such strain or pressure will be distributed between the wires of such cloth which cross each other at right angles.

The invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a side view of a point embodying my invention. Fig. 2 is a cross-section on about line 2 2 of Fig. 1. Fig. 3 is a longitudinal section, enlarged, on about line 3 3 of Fig. 1; and Fig. 4 is a detail view of a portion of the wire-cloth strip employed in the construction of the improved point.

The sand-point, as shown, is formed with a perforated tube A, upon which is formed or otherwise provided the spiral rib A', extending along the perforated portion of the tube, forming a spiral recess, in the base of which are arranged the perforations B, as shown. The point as thus constructed may be generally of the ordinary form, and it is usual to provide a wire-cloth strainer over the point, resting upon the ribs and inclosing the space between the said ribs. Ordinarily this strainer has been formed from a strip of wire-cloth which is laid longitudinally parallel to the axis of the tube and bent around the same and secured at its edges. This construction has proven objectionable and defective in practice because the inward pressure or strain has been borne to a great extent on the wires, which extend in the direction of length of

the tube and cross the ribs in the direction of the axis of such tube. By my invention I arrange the wire-cloth so that its strands, which extend at right angles to each other, will extend between the adjacent ribs on approximately the same angle to said ribs and at an incline to the axis of the tube, so that the strain of inward pressure will be borne equally by both sets of strands. I also wind the cloth strip spirally upon the sand-point, over the ribs thereof, thus avoiding any seam in the direction of the axis of the tube and enabling me to secure the wire-cloth in place in a stronger better manner than when such cloth is held upon the tube in the direction of its length and bent around the same in the ordinary way. I secure these results by employing the wire-cloth strip C, (shown in Fig. 4,) whose strands C' and C² cross each other at right angles. This strip C is wound spirally upon the sand-point, over the ribs thereof, as shown, and is suitably secured, preferably by soldering its edges together and by soldering or otherwise suitably securing the strip at its opposite ends. When thus secured, as shown in Fig. 1, the spiral strip will be held at both ends and throughout its spiral length, so that if it should get loose at any point it will not spread open, but will be held by the fastenings at other points snugly and firmly to the body of the sand-point.

In the construction shown it will be noticed that the convolutions of the spirally-wound wire-cloth are so arranged that the edges of the cloth strip lie upon the spiral ribs of the tube, thus facilitating the soldering of the edges of the spiral cloth together and also enabling the fastening of the cloth to the tube, as will be readily understood from the drawings. By preference the spiral ribs are secured by the construction shown, in which I employ a galvanized wire of suitable size, which is wound upon the perforated tube, as best shown in Figs. 1 and 3, and operates efficiently to hold the wire screen above the outer surface of the tube. The spiral ribs form little ditches, and the water strains through the whole face of the strainer, filling the ditches, and the water runs around the tube until it passes through one of the perforations into the tube.

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

1. A sand-point, consisting of the perforated
5 tube, the spiral rib thereon, and the strainer
consisting of the strip of wire-cloth wound
spirally upon the tube, over the spiral rib,
thereon, having the edges of such cloth lapped
upon the said rib and secured, the strands of
10 such strainer being arranged to extend be-
tween the convolutions of the rib at approxi-
mately the same angle, whereby to secure an
equal distribution of the strain, substantially
as and for the purposes set forth.

2. A sand-point consisting of the perforated 15
tube having a spiral rib on its outer side, a
strainer consisting of a foraminated strip of a
width to extend between the spiral ribs and
wound spirally on said ribs in the same di-
rection as and at the same pitch as the said 20
ribs and having their edges united together
and upon the crowns of the said ribs substan-
tially as and for the purposes set forth.

MILTON LATTA.

Witnesses:

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