

(No Model.)

H. K. BREARLEY.
WELL POINT.

No. 572,860.

Patented Dec. 8, 1896.

FIG. 1.

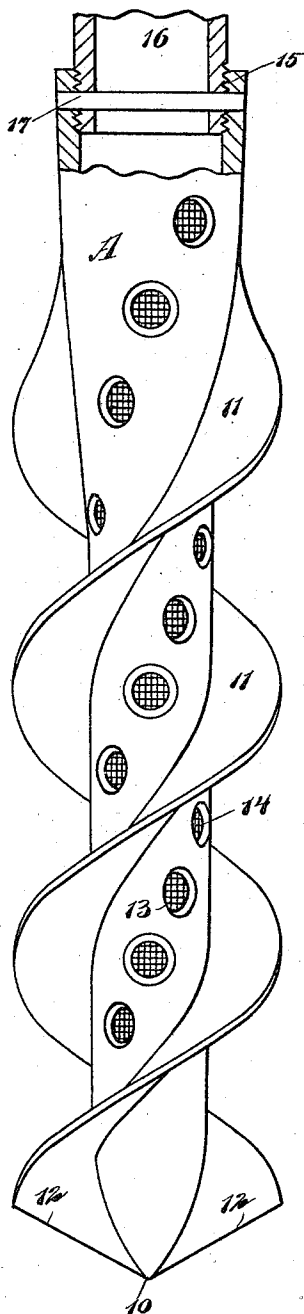


FIG. 2.

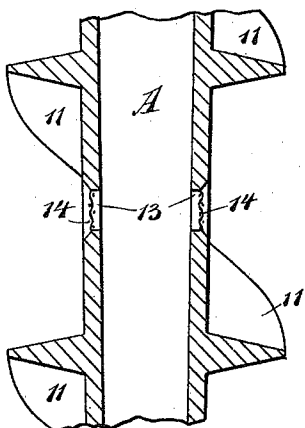
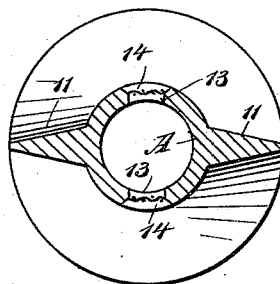


FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY K. BREARLEY, OF WEST DULUTH, MINNESOTA.

WELL-POINT.

SPECIFICATION forming part of Letters Patent No. 572,860, dated December 8, 1896.

Application filed July 15, 1896. Serial No. 599,256. (No model.)

To all whom it may concern:

Be it known that I, HENRY K. BREARLEY, of West Duluth, in the county of St. Louis and State of Minnesota, have invented a new and Improved Well-Point, of which the following is a full, clear, and exact description.

The object of my invention is to provide a well-point constructed in a simple, durable, and economic manner, and which will pass through ore, clay, and rock much easier than the point ordinarily used.

A further object of the invention is to provide openings in the point arranged to receive water and particles of earth and rock, which latter will follow the pipe on the outside to the surface, so as to indicate the nature of the strata through which the point is passing, and also to indicate when water has been reached.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improved well-point, the top being in section and represented as coupled to a tube, the tube being also in section. Fig. 2 is a vertical section through a portion of the well-point, and Fig. 3 is a horizontal section through the same.

The entire point is ordinarily made of cast-steel, and the body A is of tapering shape, being largest at the top, and the lower end 10 of the body is decidedly conical. Two flanges 11 are made integral with the body or attached thereto in any approved manner, and these flanges are carried spirally in opposite directions around the body from top to bottom. The flanges are of the same width throughout their entire length, except at the top, where they gradually merge into the body of the point, and at the bottom, where the said flanges are given a taper in a downwardly direction, meeting the apex of the conical lower extremity 10 of the body, and these tapering portions of the flanges are diametrically op-

posite and are sharpened to form cutting edges 12. Preferably in cross-section the flanges are triangular or essentially V-shaped, as shown in Fig. 3, being narrowest at their outer edges.

The body A is tubular, and it is provided with spirally-arranged openings 13, located between the flanges, and these openings are provided with screens 14. As the point is screwed into the earth water that may have been met will enter the openings 13 to their full capacity, and will thus indicate to the operator, when the pump is attached, whether or not water has been encountered.

The body of the point is provided with an interior or an exterior thread 15 at its upper end, whereby it may be secured upon the end of a tubular section 16, any desired number of the said tubes being employed, and the point is held to the tube 16 ordinarily by means of a pin 17, driven through the point and through the tube, as illustrated in Fig. 1, so that the point may be withdrawn in the event water is not found.

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

A well-point comprising a tapering tubular body, flanges located exteriorly of the body and carried spirally around the same in opposite directions, the flanges being of even width throughout their length except at the bottom and at the top, the lower ends of the flanges being tapered to meet the apex of the lower end of the body which is closed and of conical form, the tapering portions of the flanges forming cutting edges which are diametrically opposite, the said body being provided with openings therein arranged at intervals in spiral order from top to bottom, the said flanges being substantially V-shaped in cross-section, and the body provided at the top with an interior thread and a locking-pin, as and for the purpose set forth.

HENRY K. BREARLEY.

Witnesses:

ALFRED LE RICHEUX,
A. H. BROCKLEHURST.