P. E. ERICKSON.

SAND POINT.

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1,080,684. Patented Dec. 9, 1913.

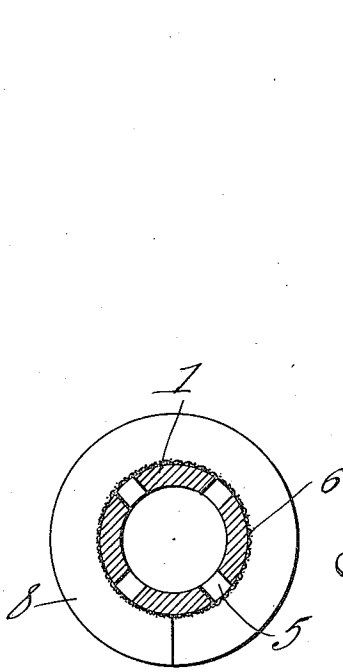


Fig. 2.

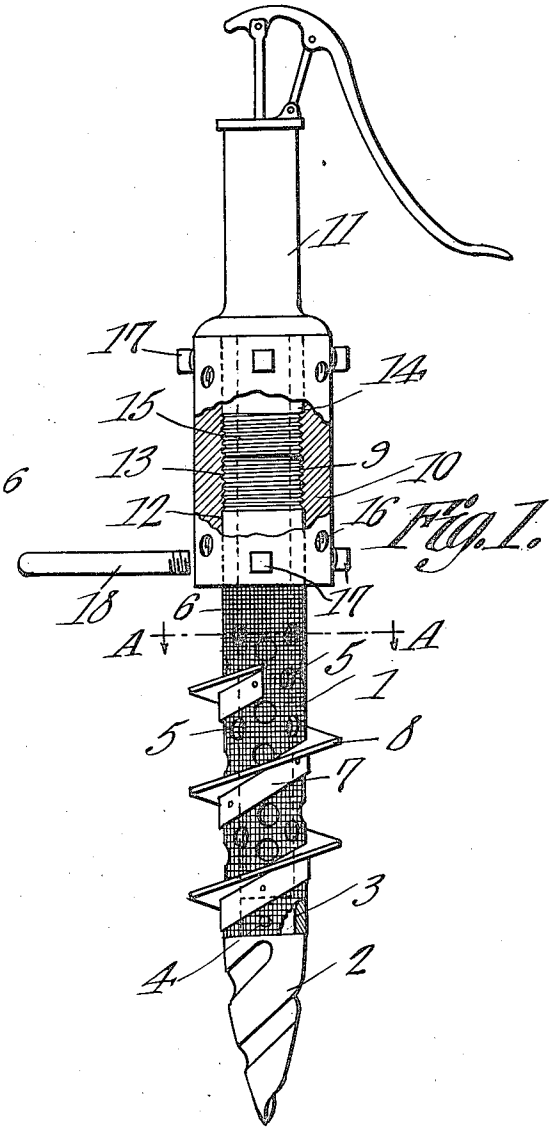


Fig. 1.

Witnesses

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PAUL E. ERICKSON, OF COURTLAND, KANSAS.

SAND-POINT.

1,080,684. Specification of Letters Patent. Patented Dec. 9, 1913.

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To all whom it may concern:

Be it known that I, PAUL E. ERICKSON, a citizen of the United States, residing at Courtland, in the county of Republic and State of Kansas, have invented a new and useful Sand-Point, of which the following is a specification.

This invention relates to improvements in sand points and ground screw whereby the same may be readily and quickly forced into the sand and surface water then drawn upward through the center of the said point.

An object of the present invention is to provide a sand point including an auger tip which is detachably secured to a hollow cylindrical body which is provided with a plurality of openings extending through the side walls thereof and to the upper extremity of the said hollow cylindrical body is detachably secured a manually operated pump.

A further object is to improve generally and to enhance the utility of articles to which the present invention pertains.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the drawings accompanying this specification and forming a part thereof, the preferable form of my invention is illustrated, in which:—

Figure 1 is a view in elevation of my improved sand point, parts being broken away. Fig. 2 is a horizontal cross sectional view taken on the line A—A of Fig. 1.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 is a hollow cylindrical tube and is termed the body portion of the sand point. The cylindrical body portion 1 is open at both ends and to the lower end thereof is detachably secured an auger tip, the same comprising the auger point 2 and the restricted shank 3 extending upwardly therefrom and which shank fits within the said hollow cylinder and is detachably held thereto by the pin 4 or other equivalent means. The said auger tip is of somewhat ordinary construction and by being detachably secured to the body portion may be removed from time to time to be sharpened or replaced by a new one.

The body portion 1 is provided with a plurality of apertures 5 extending through the side walls thereof and which communicate with the central bore whereby the surface water may pass through the said apertures into the central opening of the body portion and may be readily drawn upwardly by a pump. A wire screen 6 is wrapped around the outer periphery of the cylindrical body portion and prevents the sand or soil into which the apparatus is driven from entering within the body portion apertures which would clog and prevent the proper working of the pump. Rigidly secured to the outer surface of the cylindrical body portion and over the said wire screen is a spiral strip 7, the upper extremity of which is provided with the outstanding flange 8 and which coacting with the auger tip, is adapted to force the said body portion into the soil when the same is rotated about a longitudinal axis. The members 7 and 8 are in the nature of a screw thread the helical pitch of which may be varied according to the soil in which the apparatus is to be used. The helical members 7 and 8 preferably extend to the lower extremity of the cylindrical body portion 1 and terminate adjacent the upper extremity of the auger tip.

The upper extremity of the cylindrical body portion is threaded as at 9 and a coupling member 10 is adapted to threadedly engage the same and to support thereabove a pump 11. The coupling member 10 is provided with the bore 12 extending therethrough, which bore is restricted and threaded at its central portion as at 13 whereby said coupling member may extend down over the said cylindrical body portion and threadedly engage the upper extremity thereof. The pump 11 is provided with the downwardly extending tube 14 which is threaded at its lower extremity as at 15 and which thread is also adapted to engage the restricted threaded portion of the coupling. In order that the coupling member may be locked to thereby rigidly secure the same to the body portion, a number of threaded apertures 16 are formed in the side walls thereof and into which apertures extend

the set screws 17, the same adapted to tighten against the cylindrical body portion and prevent the relative movement of the coupling and said body portion. The upper extremity of the coupling member 10 is also provided with a plurality of threaded apertures with a corresponding number of set screws therefor, whereby relative movement between the coupling member and the pump 11 will be prevented. The threaded apertures 16 also provide means whereby a long threaded rod 18 may be secured to the said coupling to thereby provide a lever whereby the sand point may be rotated about a longitudinal axis which will drive the same into the ground or withdraw it therefrom.

The pump 11 is an ordinary suction pump and is detachably secured to the upper portion of the coupling member, from which it will be apparent that the various parts of my improved apparatus may be readily disassembled and thereby rendered portable. When the occasion arises, the various parts are secured together, the lever 18 is inserted within one of the threaded apertures of the coupling member, and the auger tip forced into the ground which in most cases will be of a sandy nature. By rotating the said lever 18, the auger tip bites into the ground and draws the body portion downwardly therein, and the helical outstanding flange 8 forces the body portion into the sandy soil and holds the same rigidly therein. The surface water which is in the sand flows through the wire screen into the central portion of the hollow cylindrical body member and is then drawn upwardly therefrom by reason of the manually operable pump 11.

Having thus fully described the invention, what I claim to be new and original with me is:—

1. In an apparatus of the class described, the combination of a hollow cylindrical body portion provided with a plurality of apertures extending through the side walls thereof, a screen wrapped around the said body portion and covering the said apertures, an auger tip disposed at the lower extremity of said hollow cylindrical body portion, and a helical member rigidly secured to said body portion and overlying the said screen.

2. In an apparatus of the class described, the combination of a hollow cylindrical body portion provided with a plurality of apertures extending through the side walls thereof, a screen wrapped around the said body portion and covering the said apertures, an auger tip detachably secured to the lower extremity of said hollow cylindrical body portion, and a helical member rigidly secured to the said body portion and overlying the said screen.

3. In an apparatus of the class described, the combination of a hollow cylindrical body portion provided with a plurality of apertures extending through the side walls thereof, an auger tip detachably secured to the lower extremity thereof, means for preventing foreign material from entering through the said body portion side wall apertures, a helical member rigidly secured to the said body portion, the lower extremity thereof terminating adjacent the upper extremity of said auger tip, and a coupling member threadedly engaging the upper extremity of said body portion and means for locking the same thereto.

4. In a sand point, the combination of a hollow cylindrical body portion provided with a plurality of water inlet openings extending through the side walls thereof, an auger tip detachably secured to the lower extremity of said body portion, means for preventing the entrance of foreign material through the said body portion apertures, a helical flange member rigidly secured to the said body portion and terminating adjacent the upper extremity of the said auger tip, a coupling member with an internally threaded central portion adapted to engage the upper extremity of said body portion, and means for locking the same thereto.

5. In an apparatus of the class described, the combination of a hollow cylindrical body portion with a plurality of water inlet apertures in the side walls thereof, an auger tip comprising a point and shank detachably secured to the lower extremity of the body portion, a screen wrapped around the outer periphery of the said body portion adapted to exclude foreign material therefrom, a helical strip rigidly secured to the said body portion and provided with an outstanding flange at the upper edge thereof, a coupling member with an internally threaded central portion adapted to engage the upper extremity of said body portion, and a pump provided with a portion projecting downwardly therefrom adapted to threadedly engage the said coupling member, and means for holding the said coupling member against movement relative to the said pump and body portion.

6. In an apparatus of the class described, the combination of a hollow cylindrical body portion provided with a plurality of water entering apertures extending through the side walls thereof, an auger tip comprising a point and a restricted shank extending within the lower extremity of the said hollow cylinder and detachably secured thereto, a helical strip rigidly secured to the said body portion and provided with an outstanding flange along its upper edge, a coupling member provided with an internally threaded central portion adapted to engage the upper extremity of said body portion, said coupling member provided with threaded apertures extending through the

side walls thereof, means extending through the said apertures adapted to wedgedly engage the said body portion to hold the same against relative movement with respect to the said coupling member, and an elongated lever adapted to extend within one of the said threaded apertures of the said coupling member to provide means whereby the said body portion and auger tip may be rotated about a longitudinal axis.

7. In an apparatus of the class described, the combination of a hollow cylindrical body portion provided with a plurality of water entering apertures extending through the side walls thereof, an auger tip comprising a point and a restricted shank, said restricted shank extending within and detachably secured to the lower extremity of the said body portion, a wire screen wrapped around the outer periphery of said body portion and adapted to prevent the entrance of foreign material within the said body portion apertures, a helical strip rigidly secured to the said body portion embracing the said wire screen and provided with an outstanding flange along the upper edge thereof, a coupling member internally threaded at its central portion adapted to threadedly engage the upper extremity of said body portion, a plurality of threaded apertures extending through the side walls of said coupling member adapted to receive therein an elongated lever to provide means for the rotating of the said body portion, and a pump detachably secured to the said coupling member adapted to draw water in through the said body portion apertures and up through the central bore thereof.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

PAUL E. ERICKSON.

Witnesses:
G. W. WIMOCKS,
J. H. SANDELL.