

G. W. Hemmaway,

Well Tube.

No. 110,136.

Patented Dec. 13, 1870.

Fig. 1.

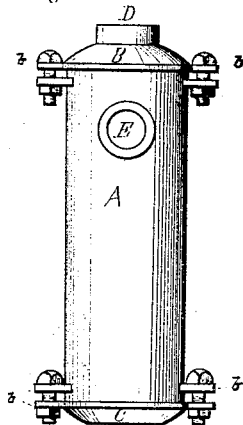


Fig. 2.

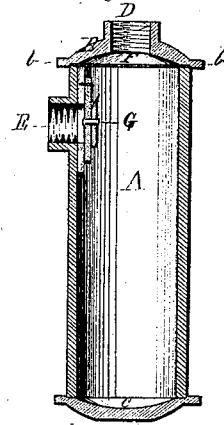
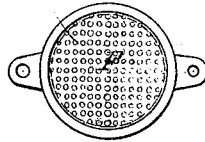


Fig. 3.



Witnesses.

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GEORGE W. HEMENWAY, OF ELMIRA, NEW YORK.

Letters Patent No. 110,136, dated December 13, 1870.

IMPROVEMENT IN WELL-TUBINGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE W. HEMENWAY, of Elmira, in the county of Chemung and State of New York, have invented a new and valuable Improvement in Wells; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a side view of my invention.

Figure 2 is a central vertical section thereof.

Figure 3 is a top view of the cylinder with the upper head removed, showing the strainer.

My invention has relation to means for keeping the pump and tubes of a driven well clear of sand; and

It consists in the construction and novel arrangement of a sand reservoir with strainer and valve.

The bottom of the reservoir is made easily removable, for the purpose of affording a ready means of cleansing out the deposits of sand.

The letter A of the drawing designates the cylindrical body of the sand reservoir.

B represents the upper cylinder-head duly bolted thereto, through suitable flanges or lugs *b b*; and

C represents the lower cylinder-head bolted to the cylinder in a similar manner, and arranged to be easily removable when it is desired to empty the reservoir of the accumulated sand.

D represents the collar into which the discharge-pipe is screwed.

E represents the opening in which the inlet-pipe is secured. This opening is in the side of the cylinder, near the top.

F represents a perforated plate or strainer secured between the upper edge of the cylinder and the upper cylinder-head. This strainer serves to prevent the sand from passing upward through the discharge-pipe.

G designates a valve, arranged on the inside of the

cylinder, and against the inlet orifice, in such a manner as to permit the free inward flow of the water, but instantly closing the orifice whenever, from any cause, a retrograde flow sets up.

By this means the supply-pipe is also kept free from any undue proportion of sand.

The operation of my invention is as follows:

Water, carrying sand and other extraneous matter, as is usual in driven wells, flows upward through the pipe E and valve G into the reservoir A. In this chamber much of the sand will be deposited, the water therein being in a state of comparative rest. But those particles of sand, &c., which may not have had time to settle, are prevented from being carried by the upward flow of the water into the pipe D, leading to the pump or spout, by the strainer B.

The main portion of the reservoir being below the inlet and outlet openings, a large quantity of sand may be accumulated therein before it becomes necessary to empty the same.

When the reservoir is filled with sand, &c., up to the mouth of the pipe E, it should be cleaned by removing the bottom and emptying the contents.

The valve G prevents a backward flow of water and sand into the pipe E, thus keeping it free.

The strainer may be reached for cleaning purposes by removing the upper head of the cylinder.

I claim—

In combination with the cylinder A, having its inlet and outlet orifices at or near its upper end, the strainer F, valve G, and removable top and bottom C, all constructed and arranged to operate substantially in the manner and for the purpose specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

GEORGE W. HEMENWAY.

Witnesses:

CHARLES R. HEMENWAY,
HENRY O. HEMENWAY.