No. 834,268. PATENTED OCT. 30, 1906.

W. A. CRUMLY.

WELL.

APPLICATION FILED MAR. 30, 1906.

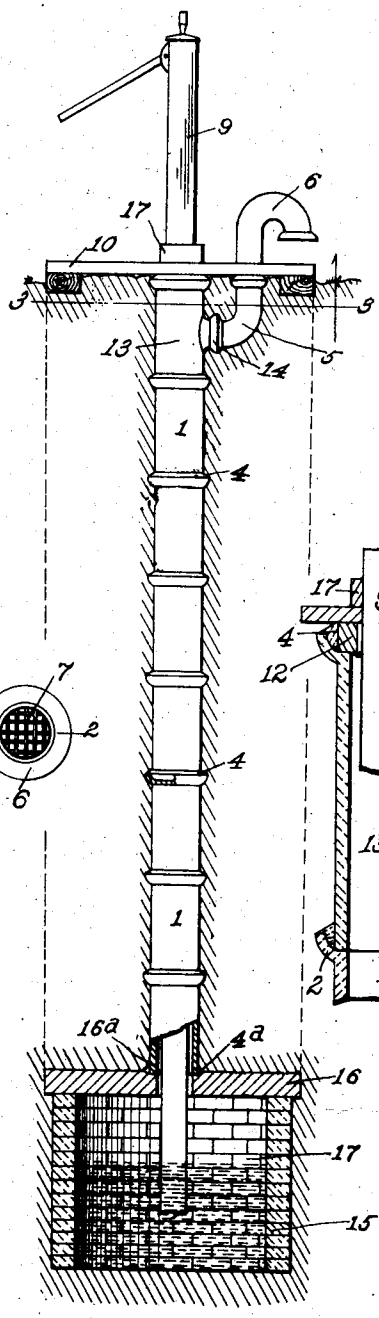


FIG. 1.

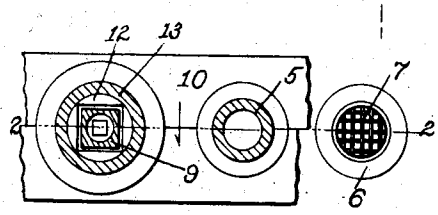


FIG. 3.

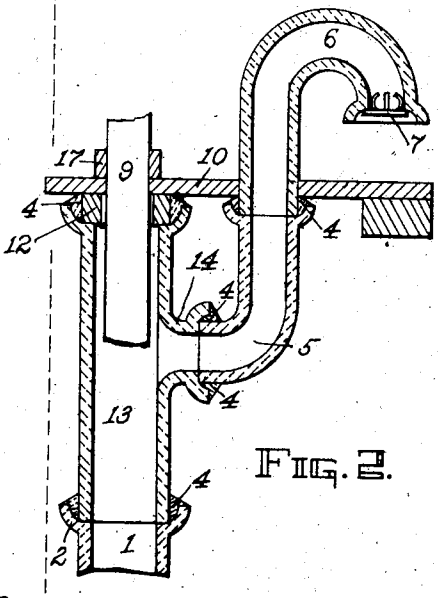


FIG. 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM A. CRUMLY, OF SPRINGFIELD, ILLINOIS.

WELL.

No. 834,268. Specification of Letters Patent. Patented Oct. 30, 1906.

Application filed March 30, 1906. Serial No. 308,906.

To all whom it may concern:

Be it known that I, WILLIAM A. CRUMLY, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in Wells, of which the following is such a full, clear, and exact description as will enable others skilled in the art to which it appertains to make and use my said invention.

My invention relates to wells of that kind which are usually dug in the ground to the water-yielding strata and are then walled to form a reservoir to contain the water flowing from the water-bearing strata.

The purposes of my invention are to provide a system of well construction whereby wells may be expeditiously and cheaply constructed, to provide an inclosed reservoir to contain the water, and to provide simple and effective means for ventilating the well and preventing the introduction of extraneous or contaminating matter into the well.

With these ends in view my invention consists in the novel features of construction and combinations of parts shown in the annexed drawings, to which reference is hereby made, and hereinafter particularly described, and finally recited in the claims.

Referring to the drawings, Figure 1 is a combined elevation and sectional view of the well. Fig. 2 is an enlarged partial vertical axial section through the well-lining and the ventilating-tube, and Fig. 3 is a horizontal transverse section on the line 3 3 of Fig. 1 looking upward.

Similar reference-numerals designate like parts in the several views.

In constructing the well the procedure is as follows: A hole of the same diameter as the enlarged lower part or reservoir is dug in the ground to the required depth, as indicated by dotted lines in Fig. 1. The lower part of the hole is then walled with loosely-laid brick 15 or equivalent material to form a reservoir 17 suitable to contain a supply of water. A slab of stone 16, having a central hole 16^a and a central depression 4^a, is then laid on top of the slab. Glazed sewer-pipes 1 are then placed one on top of the other and extending upward to the surface of the ground. The lower end of the bottom tile rests in the depression 4^a, and the depression is filled with cement 4. The flanges of the tiles are also filled with cement in like manner to form a continuous water-tight tube extending from the slab 16 to the top of the ground. The upper tile 13 has a T 14, in which a flanged elbow 5 fits. A similar flanged elbow 6 fits in the flange of the elbow 5. The elbow 6 is cemented in the elbow 5, and the elbow 5 is cemented in the T 14. A block 12, preferably of stone or cement, and has a central hole in which the pump-stock fits tightly and to form a seal for the upper end of the well-lining, is cemented in the upper end of the section 13. The tubing of the pump 9 extends downward through the tiles to the water-reservoir. A suitable platform 10 is placed at the upper end of the well-lining. A perforated plate 7 is secured in the flange of the elbow 6 and admits air to the well. The upper end of the pipe 6 being turned downward prevents the obstruction of the pipe by reason of dirt accumulating thereon, and the perforated plate 7 prevents the entry of vermin or dirt into the tube.

From the foregoing it will be seen that the reservoir of the well is so constructed as not to interfere with the flow of water into the well, and the well-lining above the reservoir being water-tight prevents surface water or other contaminating matter from flowing into or entering the well. There is also practical advantage on account of the facility with which the well may be constructed.

When the reservoir has been built and the well-lining placed thereon as described, the dirt dug from the well is replaced and tamped around the well-lining to prevent displacement of the tiles. Owing to the nature of the material the well is cleanly and sanitary and practically indestructible.

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

1. In a well a reservoir having a wall through which the live water of water-yielding strata percolates, a slab on top of said reservoir glazed tiles supported on said slab, cement forming a water-tight connection of said tiles with each other and of the bottom tile with the slab on top of the reservoir, a top tile having a T, an elbow fitting in said T, and a downwardly-curved elbow fitting in said first-named elbow, said elbows being cemented to each other and to said T as set forth.

2. In a well a reservoir having a wall through which the live water of water-yielding strata percolates, a slab on top of said reservoir, glazed tiles supported on said slab,

cement forming a water-tight connection of said tiles with each other and of the bottom tile with the slab on top, of the reservoir, a top tile having a T, an elbow fitting in said T, a downwardly-curved elbow fitting in said first-named elbow, said elbows being cemented to each other and to said T as set forth, and a seal in the upper end of the top tile.

In witness whereof I have hereunto subscribed my name, at Springfield, Illinois, this 31st day of August, 1905.

WILLIAM A. CRUMLY.

Witnesses:
ROBERT H. DOOLING,
MARGARET MCDONALD.