

D. D. JAMES.
WELL STRAINER.

APPLICATION FILED MAY 26, 1911.

1,012,557.

Patented Dec. 19, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

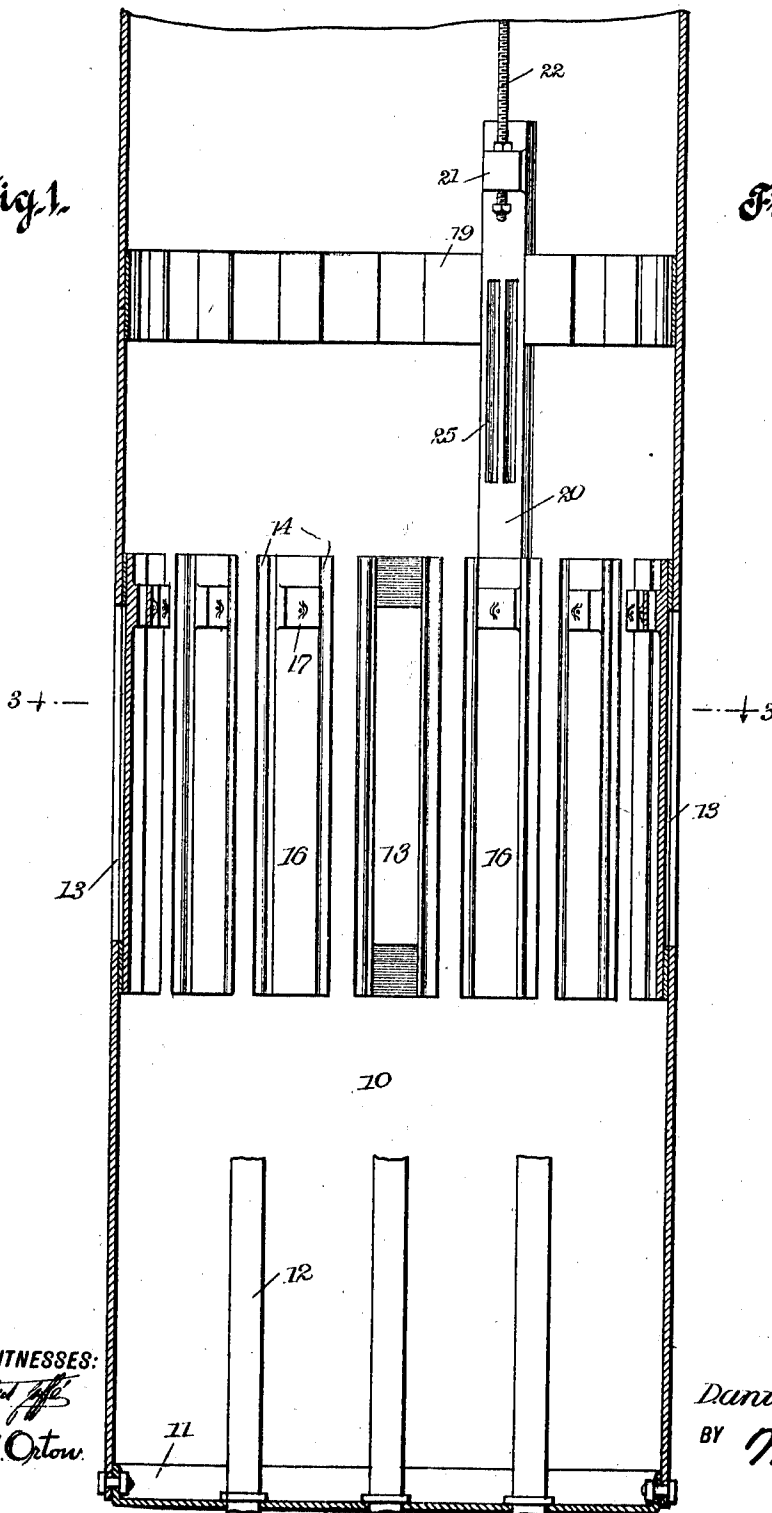
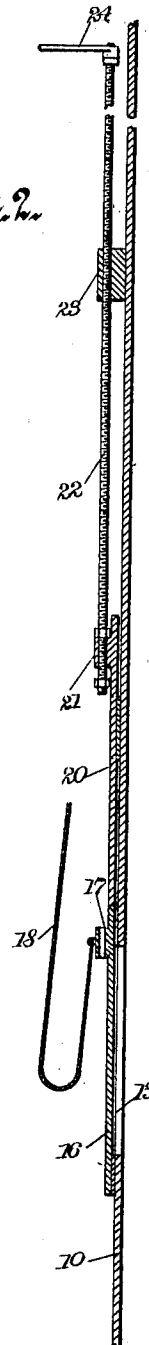


Fig. 2.



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2 SHEETS—SHEET 2.

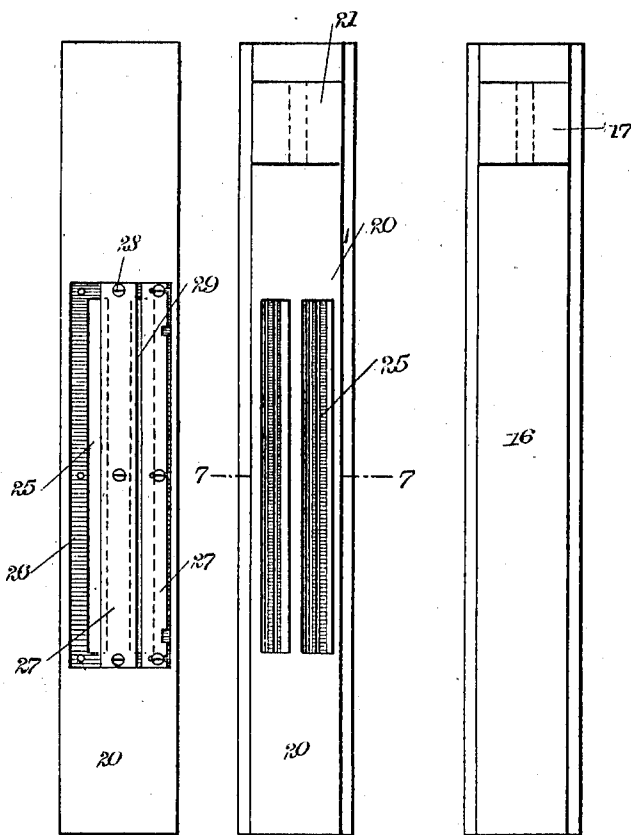


Fig. 6.

Fig. 5.

Fig. 4.

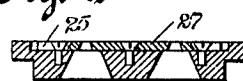


Fig. 7.

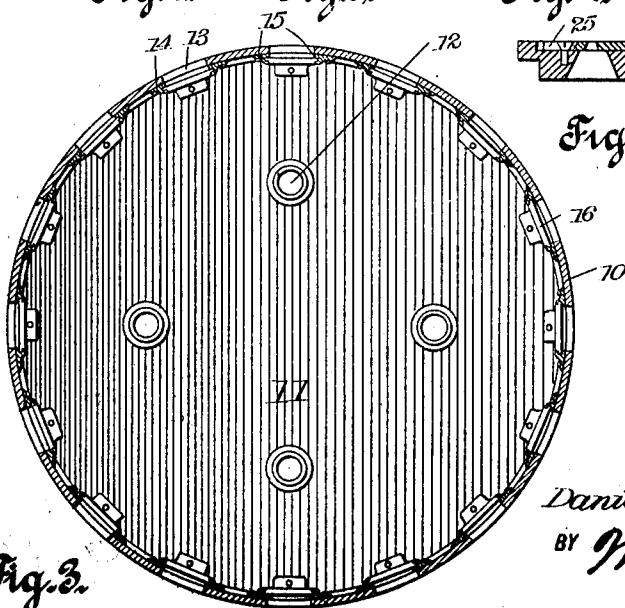


Fig. 3.

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UNITED STATES PATENT OFFICE.

DANIEL D. JAMES, OF MATTOON, ILLINOIS.

WELL-STRAINER.

1,012,557.

Specification of Letters Patent.

Patented Dec. 19, 1911.

Application filed May 26, 1911. Serial No. 629,565.

To all whom it may concern:

Be it known that I, DANIEL D. JAMES, a citizen of the United States, and a resident of Mattoon, in the county of Coles and State of Illinois, have invented a new and Improved Well-Strainer, of which the following is a full, clear, and exact description.

My invention relates to a new and improved form of well strainer and casing, and more particularly pertains to that class of well casings which are adapted to be sunk into sand strata, to collect the subterraneous water.

An object of my invention is to provide a casing which may be sunk into the ground, said casing having closed port closures, which may be replaced by an improved form of screen.

I attain the above-outlined object by constructing a metallic cylinder having elongated ports in the side adjacent the lower end, which ports are first closed by solid gates, which gates are replaced by gates in the form of strainers.

With the above and other objects in view, as will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims.

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, and in which—

Figure 1 is a vertical sectional view showing the lower end of my improved casing; Fig. 2 is a transverse sectional view taken through the side of the casing and one of the ports; Fig. 3 is a transverse view taken on the line 3—3 of Fig. 1 and looking in the direction of the arrow; Fig. 4 is a detailed front elevation of a solid gate; Fig. 5 is a view similar to Fig. 4, but showing the gate in the form of a strainer; Fig. 6 is a view similar to Fig. 5, but showing the same reversed; Fig. 7 is a transverse sectional view taken on the line 7—7 of Fig. 5.

In the several figures I have shown a cylindrical form of casing 10 having a detachable bottom 11, through which projects the common form of suction pipes 12, said suction pipe 12 being used to draw the loose material up from the outside and bottom of

the casing, as is common with constructions of this character. Disposed circumferentially about the side of the casing 10, a short distance above the bottom thereof, is a series of longitudinally-extending ports 13, and within the cylinder and disposed on opposite sides of the ports 13 are pairs of guideways 14, which guideways have alined slots 15 in which are originally disposed and adapted to slide, solid gates 16. The upper end of each of these gates has extended from the rear thereof, a boss 17, to which is attached a flexible member 18, by means of which the gate is withdrawn from the casing after it has been removed from the guideway 14, as hereinafter described. The bosses 17 are perforated in order to attach the vertically movable screw-threaded rod 32 to the gate 16, should it be desired to manipulate said gate by a rigid or stronger connection than is afforded by the flexible members 18.

Resting upon each of the gates 16, positioned above the same and carried in guiding blocks 19, is a series of sliding screens 20, so disposed in line with the alined slots 15, that when each screen 20 is lowered, it will displace the gate 16 from said alined slots. In order to actuate these screens, there is extended from the rear face of each of the same, a lug 21 carrying a vertically-movable screw-threaded rod 22 inserted in a screw-threaded block 23 and actuated by a lever 24. The screens are recessed longitudinally, as shown at 25, and have extending about these recesses, a depressed shoulder 26, upon which shoulder is disposed a series of spaced-apart longitudinally-extending plates 27 fastened to the shoulder 26 by means of screws 28, and so disposed as to afford a variable opening 29 between the several plates, so as to permit the inflow of water but to prevent the passage of grains of sand. These plates may be constructed of brass or any other suitable material.

Many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof. It is intended that all matters contained herein, in the above description or shown in the accompanying drawings, shall be interpreted as illustrative and not in a limiting sense except as embodied in the claims.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent:

1. A well strainer comprising a cylindrical casing having a series of openings therein, a sliding gate normally closing each of said openings, and a sliding strainer adapted to displace each of said gates when the casing is in position.

2. In a well strainer having a series of vertical openings extending therethrough, means closing said openings, means actuating the upper part of the strainer to displace said first-mentioned means, whereby the strainer is opened to permit the entrance

of fluid therein, and means whereby the extent of said opening is regulated.

3. A well strainer, comprising a casing having a series of openings therein, means normally closing each of said openings, and a strainer adapted to displace each of said means when the casing is in position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DANIEL D. JAMES.

Witnesses:

HOMER RAGLAND,
A. C. LOOMIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."