

Dewey & Tillotson.

Cistern.

N^o 53,584.

Patented Apr. 3, 1866.

Fig. 1.

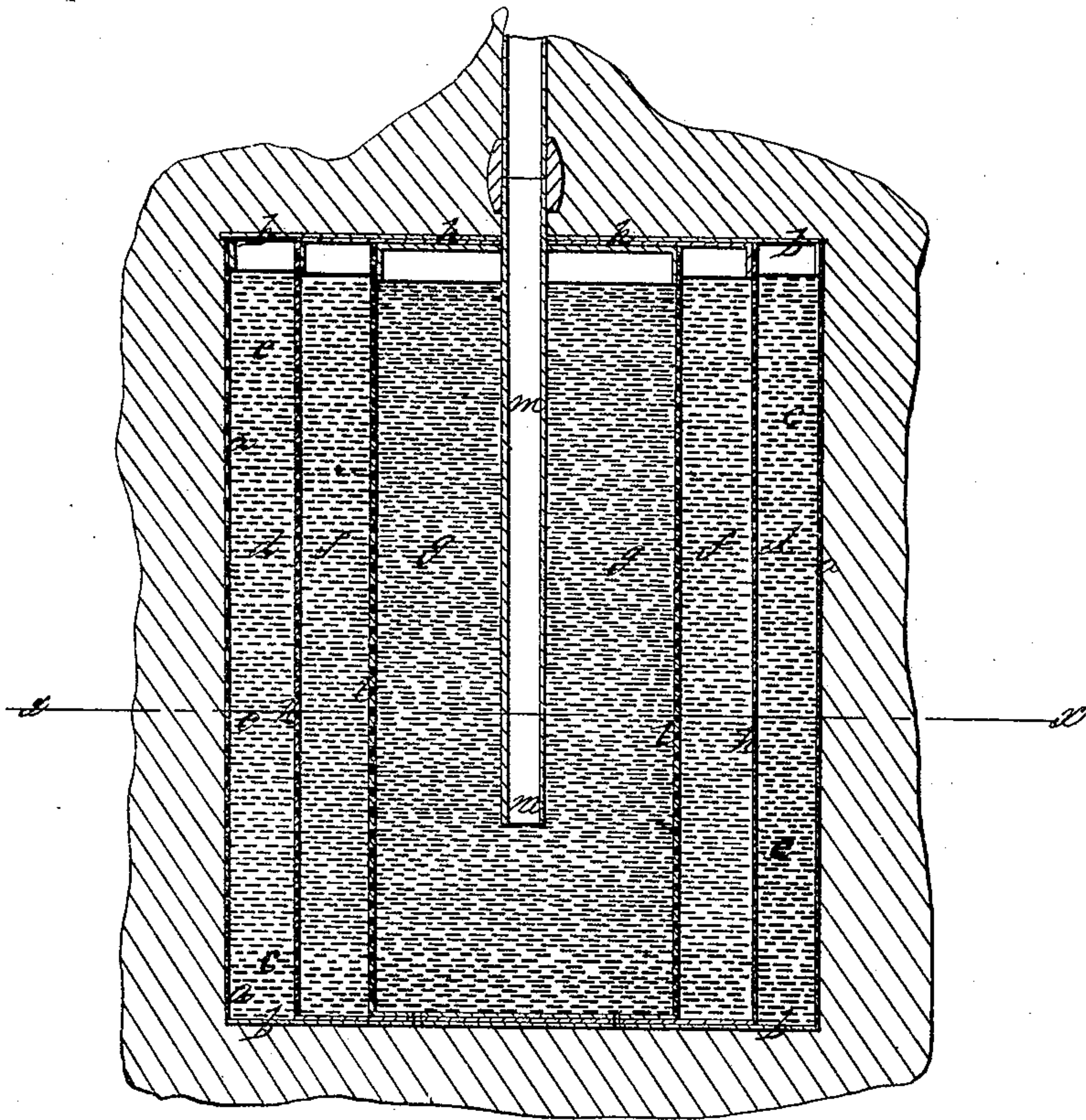
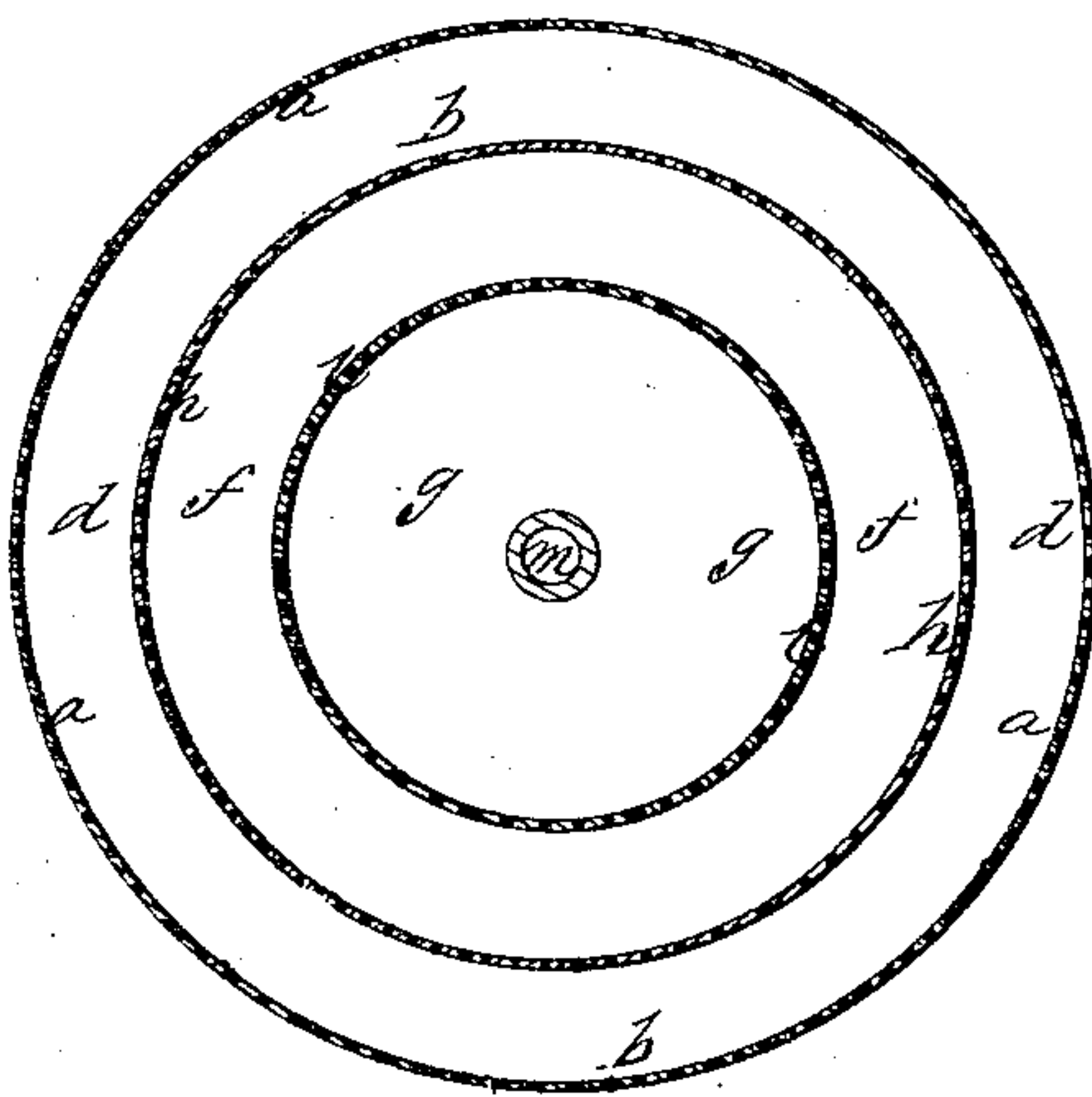


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

R. H. DEWEY AND E. N. TILLOTSON, OF PITTSFIELD, MASSACHUSETTS.

IMPROVEMENT IN RESERVOIRS FOR WELLS.

Specification forming part of Letters Patent No. 53,584, dated April 3, 1866.

To all whom it may concern:

Be it known that we, R. H. DEWEY and E. N. TILLOTSON, of Pittsfield, in the county of Berkshire and State of Massachusetts, have invented a new and Improved Reservoir for Wells; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

In the sinking of wells in and below the surface of the ground for obtaining water much annoyance and trouble have heretofore been experienced from sand and other earthy or gritty substances getting into the pump used for raising the water to the surface of the ground, which oftentimes injures the pump to such a degree that if a new one is not soon required, at least repairs are frequent, thus resulting in much expense and outlay, besides the annoyance and delay; and, furthermore, the presence of such substances in the water is not agreeable to the taste when it is used for drinking purposes, and it is in many other respects extremely objectionable.

In order to keep the water in the well free from sand, &c., so as to obviate the liability of injury to the pump, &c., it is often necessary to clean the well of such debris, which, as is self-evident, is disadvantageous and causes much trouble and inconvenience.

Now, to obviate all these objections and defects in water-wells is the principal object of the present invention, and is, we think, successfully and satisfactorily accomplished thereby. It consists in inserting within the bottom of the well a cylindrical or other suitably-shaped receiver or vessel closed at both of its ends, and with its sides perforated with a series of small apertures for forming communication between the inside and outside, so that the water surrounding such vessel, or contained in the stratum of earth in which it may be placed can freely pass into the same, while at the same time the entrance of sand, &c., and other debris is entirely prevented, the inside of such vessel or receiver being divided into two or more separate compartments by concentric perforated partition-plates, in the outer one of which chambers may be placed charcoal or other suitable filtrating substances for cleansing the

water of all impurities, a pipe being connected with the inner chamber having upon its upper end, above or near the surface of the ground, a suitable lifting-pump for raising the water contained in the same.

Having thus in general terms stated the object of the present invention and the manner in which it is accomplished, we will now proceed to describe in detail its peculiar construction and arrangement, reference being had to the accompanying plate of drawings, of which—

Figure 1 is a central vertical section taken through the well receiver or vessel; Fig. 2, a horizontal transverse section taken in the plane of the line *xx*, Fig. 1.

a a in the drawings represent a cylindrical vessel made of sheet-iron, tin, or other suitable metal or material, closed at both of its ends *b b*, but with a series of perforations or apertures, *c c*, &c., upon and around its side, communicating with the interior thereof, which is divided into three separate and distinct chambers or compartments, *d*, *f*, and *g*, by two concentric perforated plates, *h* and *l*, placed one within and a short distance from each other, and parallel to and extending in the same direction with the exterior side plate of the vessel; *m*, a pipe or tube inserted in and passed through the top plate *n* of the vessel, through the center or inner chamber, *g*, of which it extends nearly to the bottom thereof, which pipe is to be of sufficient length to reach to the top of the well, or nearly so, when the receiver is placed therein, where a lifting-pump of any suitable description for raising water is to be secured.

Within the outer one, *d*, of the chambers we place coarse sand, and in the intermediate one charcoal or other suitable filtrating substance or substances, so that as the water passes from the well or ground into the inner chamber of the receiver to the pump-pipe it shall be cleansed of all impurities, thus preventing any possibility of sand or other gritty substances or debris reaching the pump and clogging its operation as well as injuring its parts, the importance and advantages of which result are obvious to all.

As has been before stated, this cylindrical vessel is placed in the bottom of the well, and it can be then entirely covered up to any depth,

if so desired, with earth, the pipe forming the communication with its interior for the pump to withdraw the water which enters the same.

The vessel or receiver may be made of forms other than that herein described, and in lieu of dividing it into three compartments it may be divided into less or more, or they may be dispensed with; but we deem it best to interpose between the inlet of the water to the receiver and its exit therefrom charcoal or other suitable filtrating substance, as and for the purpose hereinbefore specified.

It will be perceived that originality in the detail of construction is not relied upon as constituting any important element in this invention, nor is the mere idea of use, application, or of position so presented; but it is assumed that there are both invention and great utility in this adaptation of the filter to an or-

dinary water-pump, and in its arrangement in relation to the pump and to the superincumbent earth.

We claim as new and desire to secure by Letters Patent—

In its application as a buried water-reservoir in the bottom of a well, the filtering-chamber consisting of perforated cylinders, whose intervening spaces are filled with filtering material, the central space forming a chamber from which the water-supply is drawn by an ordinary elevating device, as described.

The above specification of our invention signed on this 31st day of July, 1865.

R. H. DEWEY.
E. N. TILLOTSON.

Witnesses:

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