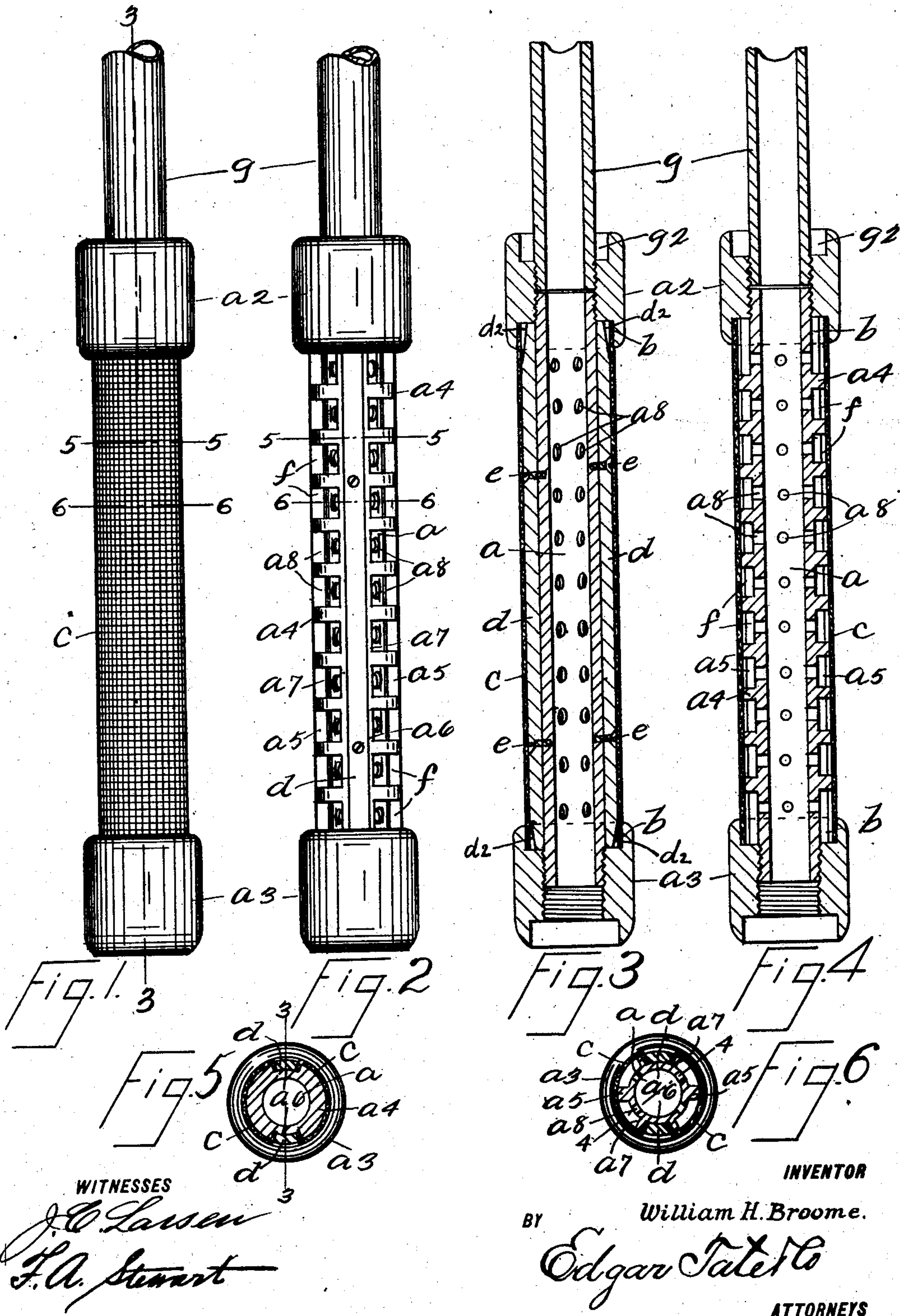


No. 753,846.

PATENTED MAR. 8, 1904.

W. H. BROOME.  
STRAINER FOR DRIVE WELLS.  
APPLICATION FILED MAY 20, 1903.

NO MODEL.





# UNITED STATES PATENT OFFICE.

WILLIAM H. BROOME, OF BROOKLYN, NEW YORK.

## STRAINER FOR DRIVE-WELLS.

SPECIFICATION forming part of Letters Patent No. 753,846, dated March 8, 1904.

Application filed May 20, 1903. Serial No. 157,896. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. BROOME, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Strainers for Drive-Wells, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved strainer for drive-wells whereby sand, dirt, and other substances may be separated from water drawn from the well, a further object being to provide a strainer of the class specified which is simple in construction and operation and which will not get out of repair and which may be used wherever devices of this class are required; and with these and other objects in view the invention consists in a strainer for drive-wells constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a side elevation of my improved drive-well strainer; Fig. 2, a similar view with the outer screen removed; Fig. 3, a longitudinal section on the line 3 3 of Fig. 1 and 3 3 of Fig. 5; Fig. 4, a longitudinal section on the line 4 4 of Fig. 6; Fig. 5, a cross-section on the line 5 5 of Fig. 1 and 5 5 of Fig. 2, and Fig. 6 a cross-section on the line 6 6 of Fig. 1 and 6 6 of Fig. 2.

In the practice of my invention I provide a central tube  $a$ , which is provided with enlarged end members  $a^2$  and  $a^3$ , and these enlarged end members  $a^2$  and  $a^3$  are in the construction shown made in the manner of ordinary couplings; but they may be made or formed integrally with the tube  $a$ , if desired, and for the purpose of this description the end member  $a^2$  will be described as the top member or coupling of the strainer and the end member  $a^3$  as the bottom member or coupling of the strainer.

The tube  $a$  is provided at regular intervals

with annular ribs  $a^4$  and also with two longitudinal ribs  $a^5$  at opposite sides thereof, and at right angles to the longitudinal ribs  $a^5$  and at the opposite sides of the tube  $a$  are longitudinal grooves  $a^6$ , formed by longitudinal ribs  $a^7$ , and the ribs  $a^4$ , the longitudinal ribs  $a^5$ , and the longitudinal ribs  $a^7$ , forming the longitudinal grooves  $a^6$ , are all of the same depth.

The end members  $a^2$  and  $a^3$  are provided in their adjacent ends each with an annular recess  $b$ , and around the tube  $a$  is placed a wire screen  $c$  of any described mesh and composed of two longitudinal sheets held in place by longitudinal strips or plates  $d$ , secured in the longitudinal grooves  $a^6$ . The longitudinal strips or plates  $d$  may be secured to the tube  $a$  by means of screws  $e$  or in any preferred way, and these strips or plates securely hold and bind the separate parts of the screen  $c$  in place.

By forming the annular recess  $b$  in the adjacent ends of the couplings or end members  $a^2$  and  $a^3$  a space is provided to receive the ends of the screen  $c$  or the separate parts thereof, and this makes a secure and tight connection for the screen and protects the ends thereof.

The tube  $a$  is provided at regular intervals with perforations  $a^8$ , through which the water is free to pass, and the annular ribs  $a^4$ , the longitudinal ribs  $a^5$ , and the longitudinal ribs  $a^7$  support the screen  $c$  and hold it out of contact with the tube  $a$  and prevent it being crushed in on said tube, and between the screen and the tube are spaces  $f$  formed by said ribs or an annular space broken by said ribs and in which the water is free to circulate, and the longitudinal ribs  $a^5$  and  $a^7$  extend into the recesses  $b$  in the end members or couplings  $a^2$  and  $a^3$  and protect said screen throughout its full length, while the ends of the strips or plates  $d$ , which are secured in the grooves  $a^6$ , also extend into said recesses and are preferably beveled, as shown at  $d^2$ , and said strips or plates  $d$  may be sprung into position, or if the end members or couplings  $a^2$  and  $a^3$  are formed separate from the tube  $a$  and screwed thereonto, as shown in the drawings, the said strips or plates may be secured in place by the screws  $e$ , and the end couplings or members



$a^2$  and  $a^3$  can otherwise be screwed onto the said tube  $a$ , in which operation the ends of the screen  $c$  will pass into the recesses  $b$ .

In the form of construction shown the top end member or coupling  $a^2$  is provided with a well-tube  $g$  and also at its upper end with an annular recess  $g^2$ , similar to the recess  $b$ , and, if desired, another strainer may be connected with the upper end of the member or coupling  $a^2$  instead of the well-tube  $g$ .

The lower member or coupling  $a^3$  in the form of construction shown is open, or the opening through the tube  $a$  extends there-through, and, if desired, an ordinary drive-well point may be secured therein, or the device may be used without a point, and when this device is inserted into a well already driven the member or coupling  $a^3$  is first closed at its lower end; but the device may be used in the ordinary manner in the operation of driving a well, and when a sufficient depth has been reached the member or coupling  $a$  may be closed by a plug, which is passed downwardly through the well-tube and through the strainer-tube  $a$ .

My invention is not limited to the exact forms of the end members or couplings  $a^2$  and  $a^3$ , and said parts may be formed integrally with or separately from the tube  $a$ , all that is necessary in this connection being that the tube  $a$  be provided with end members or couplings the adjacent ends of which are provided with annular recesses  $b$ .

By securing the screen  $c$  in the manner described I avoid the use of solder or other destructible substances, and the life of the strainer and the successful operation thereof may thus be extended independently, and by making the entire device, including the screen

$c$ , of brass I also avoid galvanic action and consequent decomposition of the parts; but it will be understood that my invention is not limited to the use of brass in the connection of the various parts thereof.

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

1. A strainer for drive-wells comprising a perforated tube provided with enlarged end members having annular recesses in their adjacent ends and around said tube, said tube being also provided with annular and longitudinal ribs, and in the opposite sides thereof with longitudinal grooves or spaces, a wire screen placed on said tube and strips or plates secured in said grooves or spaces and by which the screen is held in place, substantially as shown and described.

2. A strainer for drive-wells, comprising a perforated tube provided with annular and longitudinal ribs and at its opposite ends with enlarged members, said tube being also provided at the sides thereof with longitudinal grooves or spaces, a wire screen placed on said tube and composed of two longitudinal parts and strips or plates secured in said grooves or spaces and by which the separate parts of the screen are held in place, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 18th day of May, 1903.

WILLIAM H. BROOME.

Witnesses:

F. A. STEWART,  
C. E. MULREANY.