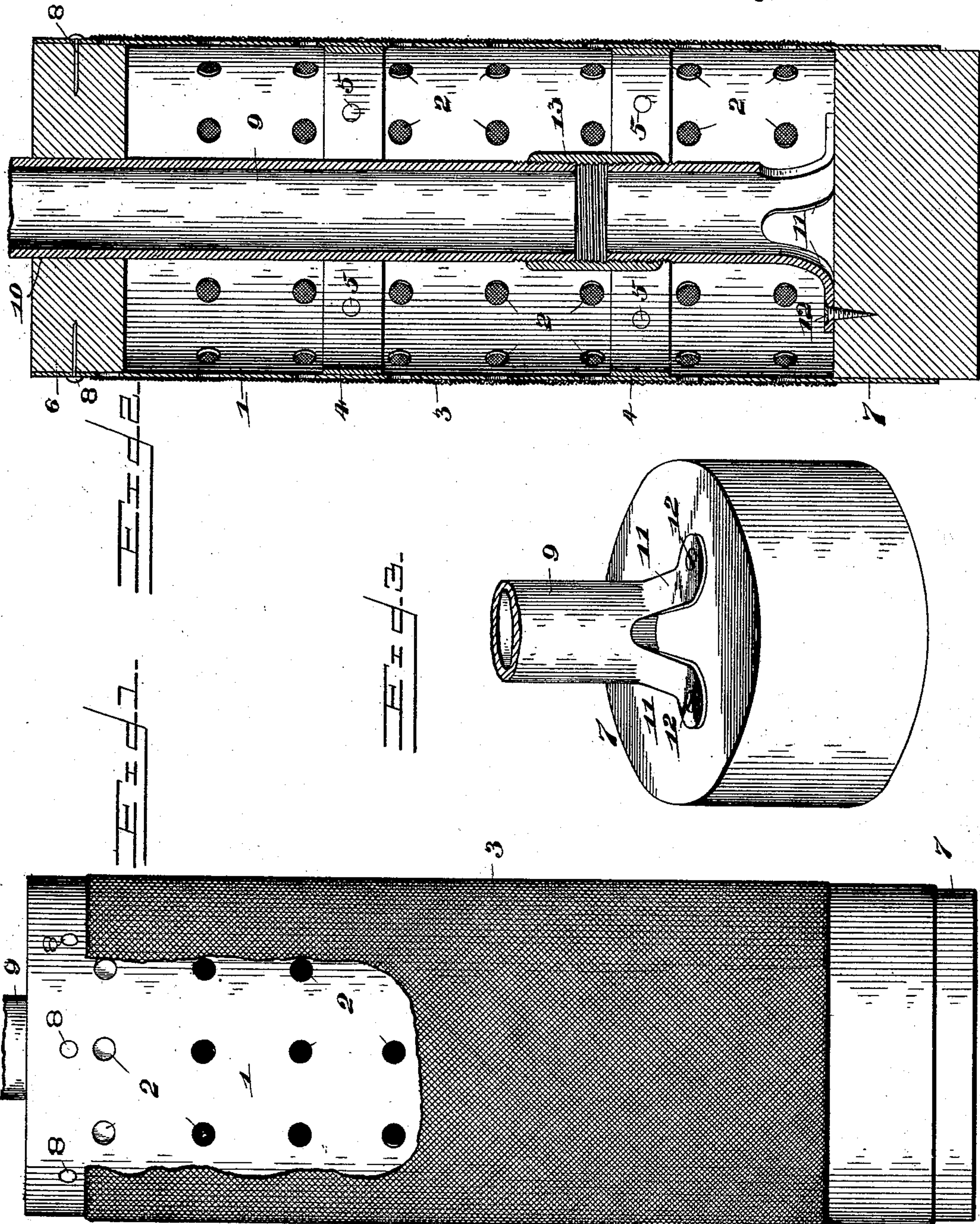


(No Model.)

G. W. DURANT.
PUMP STRAINER.

No. 539,800.

Patented May 28, 1895.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE W. DURANT, OF ALVIN, TEXAS.

PUMP-STRAINER.

SPECIFICATION forming part of Letters Patent No. 539,800, dated May 28, 1895.

Application filed March 20, 1895. Serial No. 542,516. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. DURANT, a citizen of the United States, residing at Alvin, in the county of Brazoria and State of Texas, have invented a new and useful Pump-Strainer, of which the following is a specification.

This invention relates to means for purifying and separating water, or liquid, drawn from wells, or reservoirs, so as to deliver the same free from impurities.

The improvement consists in the novel construction, arrangement and combination of the several parts which hereinafter will be more fully described and specifically claimed.

The objects of the invention are, first, to provide a strainer which will be light, cheap and lasting, and in which the body portion will be formed from sheet metal, being reinforced and strengthened by inner bands, and, second, to provide a strainer from which the water, or liquid, is adapted to be drawn from the bottom portion, and which is readily accessible for repairs or cleaning.

Referring to the accompanying drawings for a more complete explanation of the invention, Figure 1 is a side elevation of a strainer embodying the essence of the invention, part of the screening being broken away. Fig. 2 is a central vertical section of the device. Fig. 3 is a detail view of the lower end of the eduction-pipe and the block to which it is attached, and which is adapted to close the lower end of the strainer.

The numeral 1 represents the body of the strainer, which forms the chamber for receiving and holding the purified water. This body 1 may be of suitable shape and size to adapt it to the nature of the work for which it is designed. In the preferable form, the body will be cylindrical and constructed from sheet metal, preferably galvanized sheet iron, which is cut in the required size and bent in the required cylindrical shape, the meeting edges being secured together in any desired manner common in jointing edges of sheet metal.

The body 1 is provided with a series of perforations 2 for the passage of the water into the strainer.

A screen 3 envelops the body 1, and is secured to the latter at its extremities by being

soldered to the said body. This screen 3 is formed from exceedingly closely-woven wire fabric, and is adapted to prevent the entrance of foreign matter into the strainer. In order to give strength and stability to the structure, it has been found expedient to provide stout metal bands 4, which are located at proper intervals apart in the length of the body 1, and are secured to the latter by rivets, or like fastenings, 5. These bands 4 are formed from heavy strips of metal, which are cut into the required length and have their ends brought together and riveted in the usual and well-known manner. These bands are located within the body 1 and sustain the latter against external pressure.

Blocks 6 and 7 close the ends of the body 1, and are held in place by any desired means. The lower block 7 is comparatively thick and forms a plug which is held in the lower end of the body 1 by frictional contact with the inner sides thereof. The top block 6 is preferably secured within the body by nails, or other fastenings, 8, which are passed through the sides of the body and enter the said block 6.

The eduction pipe 9 is attached at its lower end to the block 7, and extends through the body of the strainer and through an opening 10 in the block 6. The lower end of the eduction pipe is provided with feet 11, which are apertured and secured to the block 7 by screws, or other fastenings, 12, which pass through the openings in the feet 11 and enter the said block. The feet 11 are an integral part of the eduction pipe, and are formed by slitting the said pipe for a short distance from its end and deflecting the portions between the slits substantially in the manner shown. These slits should be of a sufficient width to provide ample space between the feet for the free passage of the water, or liquid, from the body of the strainer to the interior of the pipe when drawing the said water, or liquid, from the well or reservoir. For convenience in constructing the lower end of the eduction pipe in the manner just described, the portion having direct attachment to the block 7 is a comparatively short length of pipe, and the main body of the pipe is connected thereto by means of a coupling 13.

In the operation of the strainer, the latter

is attached to the lower end of an eduction pipe of suitable length, and is lowered thereby into the well, or reservoir, from which it is designed to draw the water, or other fluid.

5 The water, or liquid, passes through the screen 3, which separates all impurities therefrom, and enters the body of the strainer through the perforations 2 and fills said body. On drawing the water, or liquid, from the
10 body of the strainer, it passes into the lower end of the eduction pipe from the bottom portion of the said body. Hence should the upper portion of the strainer project above the level of the water, or liquid, the operation of
15 the pump will not be interrupted, and a free flow of the water, or liquid, is obtained.

It will be observed that the end blocks 6 and 7, in conjunction with the metal bands 4, serve to brace the body 1 from within and
20 against pressure from without.

The relative disposition of the eduction pipe is not essential so long as it serves to take the liquid from the bottom portion of the strainer; however, it is preferred to have
25 it occupy a central position as shown.

Having thus described the invention, what is claimed as new is—

1. A pump strainer comprising a body formed from sheet metal, and provided with
30 perforations throughout its surface, metal bands located within the body at proper intervals, and attached thereto by positive means, a screen enveloping the said body,

and attached thereto near its end portions, blocks for closing the ends of the body, and
35 serving in conjunction with the metal bands to strengthen and brace the said body against external pressure, and an eduction pipe attached to the lower block, and passing through
40 the body of the strainer and through the upper block, and adapted in the operation of the strainer to draw the water, or fluid, from the bottom thereof, substantially as and for the purpose set forth.

2. The herein-specified pump strainer, comprising a cylindrical body formed from sheet metal, and having a series of perforations throughout its surface, a screen enveloping the said body, and attached thereto at its end
45 portions, blocks fitted into the ends of the body for closing the latter and forming inner braces, metal bands located within the body and attached thereto by positive means, and an eduction pipe extending through the body
50 and the upper block, and having its lower end slitted and formed into feet, which are attached to the lower block and provide spaces
55 for the passage of the water into the lower end of the said pipe, substantially as set forth.

In testimony that I claim the foregoing as
60 my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE W. DURANT.

Witnesses:

OAK HOCKER,
JAKE SMITH.