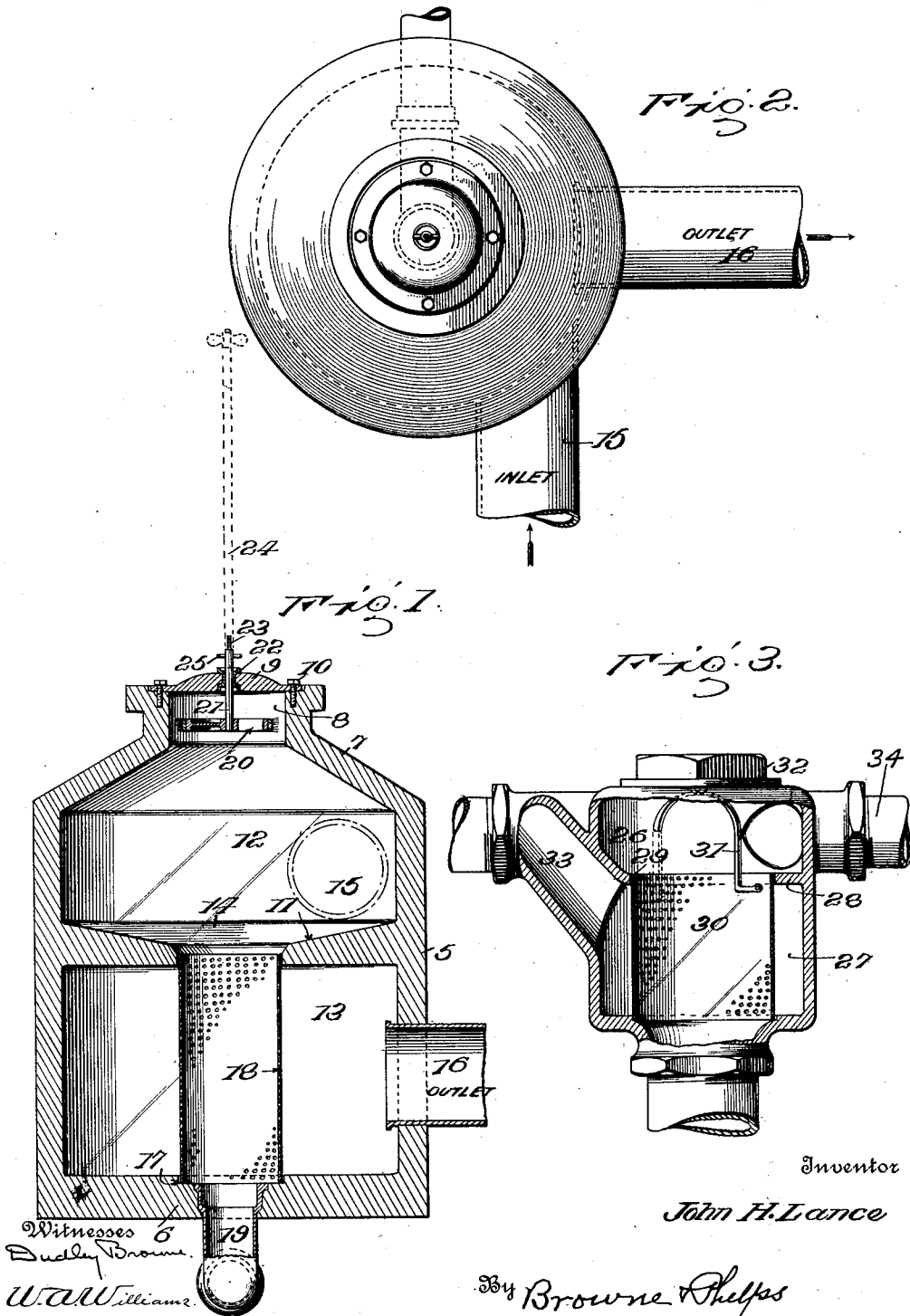


J. H. LANCE.
 SCREEN CHAMBER.
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UNITED STATES PATENT OFFICE.

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SCREEN-CHAMBER.

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To all whom it may concern:

Be it known that I, JOHN H. LANCE, a citizen of the United States, residing at Kingston, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Screen-Chambers, of which the following is a specification.

My invention relates to certain new and useful improvements in screen chambers for water mains, sewerage systems, and the like, and one object thereof is to provide a device of this character which will be simple in construction, highly efficient in operation, and one in which the screen chamber can be quickly and easily cleaned.

With the foregoing and other objects in view my invention consists in certain constructions, combinations and arrangements of parts, two forms of which will be first described in connection with the accompanying drawings and then the invention particularly pointed out in the appended claims.

Referring to the drawings wherein the same part is designated by the same reference numeral wherever it occurs: Figure 1 is a central longitudinal section of the preferred form of my invention for use in connection with large mains; Fig. 2 is a top plan view of the construction shown in Fig. 1 and Fig. 3 is a central, longitudinal section of a modified form of construction particularly adapted for use in small mains and pipes.

Referring to the form of construction illustrated in Figs. 1 and 2, 5 designates the casing, circular in cross section and provided with a bottom 6 and converging upper portion 7, terminating in the hand-hole 8, closed by a cover 9, held in position by the screws 10. It is to be understood, however, that the form, shape and particular construction just described is not essential and may be varied as described. Extending inwardly from the side wall of the casing and preferably slightly above the middle thereof is a partition wall 11, dividing the casing into an upper chamber 12 and a lower chamber 13. The wall 11 is provided with a central opening 14 which affords communication between the chambers. The upper surface of the partition wall 11 is preferably inclined, as shown, toward the opening 14 and thus gives the chamber 12 a floor which

slopes from all sides toward the central opening 14.

15 designates the inlet pipe which discharges into the chamber 12 in a line substantially tangential thereto, whereby the liquid will be given a rotary or cyclone movement therein.

16 designate the outlet pipe which preferably extends out from the lower chamber on a radial line as shown.

Mounted in the chamber 13 with its upper end extending into the opening 14 and its lower end fitting into a socket 17 is a cylindrical screen 18 through which all the liquid passes on its way to the outlet, whereby the solid matter will be separated from the liquid.

19 designates a blow-off pipe connected to the bottom of the socket 17, by which the accumulation in the screen may be removed.

In order to better clean the screen than would be possible were merely the blow-off used, I provide a circular brush 20, mounted on the lower end of a rod 21, which extends through a packing gland 22 in the cover 9. I prefer to make the rod 21 short and thread its upper end as shown at 23, so that when it is desired to use the brush a handle portion 24 may be screwed thereto.

25 designates a key removably passed through an opening in the rod 21 to hold the brush in its normal position in the opening 8, as shown in Fig. 2. The brush is of such a size as to closely fit the interior of the screen 18 and consequently when the brush is reciprocated therein it will operate to scrub the interior of the screen and remove matter that may adhere thereto.

In the form of invention shown in Fig. 3, 26 designates the upper and 27 the lower chamber, separated by the wall 28 having the opening 29 centrally disposed in the wall.

30 designates the cylindrical screen which in this form is preferably provided with a device, as the bail 31, which can be readily taken hold of to lift the screen through a handhole in the top of the casing which is normally closed by a screw plug 32. The inlet 34 enters the chamber 26 substantially tangentially and the liquid after passing through the screen and chamber 27 passes out through the outlet 33.

I realize that considerable variation is

possible in the details of construction and arrangement of parts without departing from the spirit of my invention, and I therefore do not intend to limit myself to the specific form shown and described.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a device of the class described the combination with a casing, of a wall dividing the casing into an upper and lower chamber, said wall being provided with a central opening, with the upper surface of said wall sloping toward said opening, a cylindrical screen having its upper end supported in said opening and extending downwardly into contact with the floor of the lower chamber, a tangentially arranged inlet opening extending into the side wall of the upper chamber, and an outlet opening extending from the lower chamber.

2. In a device of the class described the combination with a casing, of a wall di-

viding the casing into an upper and lower chamber, said wall being provided with a central opening, with the upper surface of said wall sloping toward said opening, a cylindrical screen having its upper end supported in said opening and extending downwardly into contact with the floor of the lower chamber, an inlet opening into the upper chamber, an outlet opening extending from the lower chamber, a blow-off pipe extending from within the screen at the bottom thereof, a rod extending through the top of the casing in line with the screen, a cleaning device of a size to fit the screen mounted on the rod, and the top of the casing being formed with a recess in which the cleaning device is normally housed.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. LANCE.

Witnesses:

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