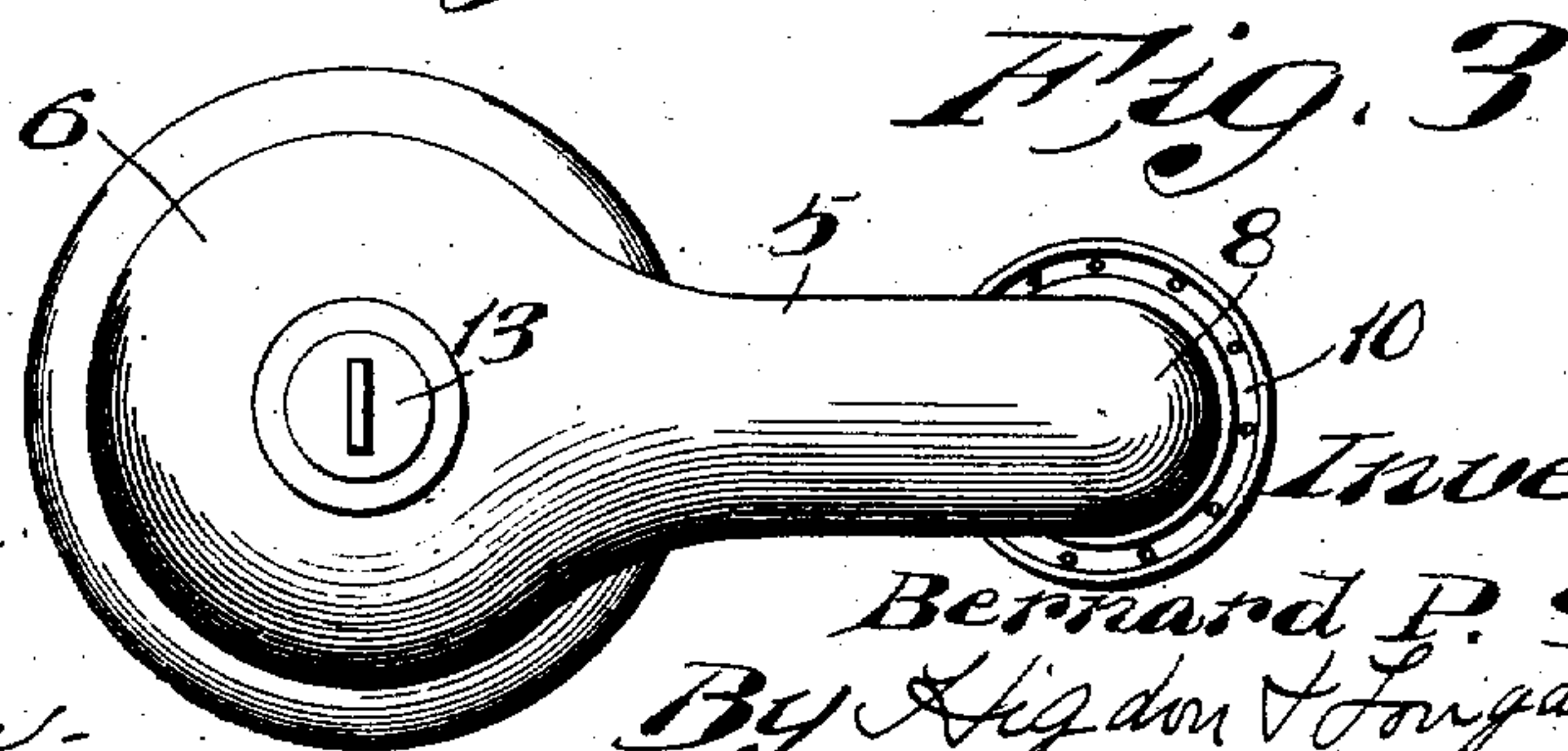
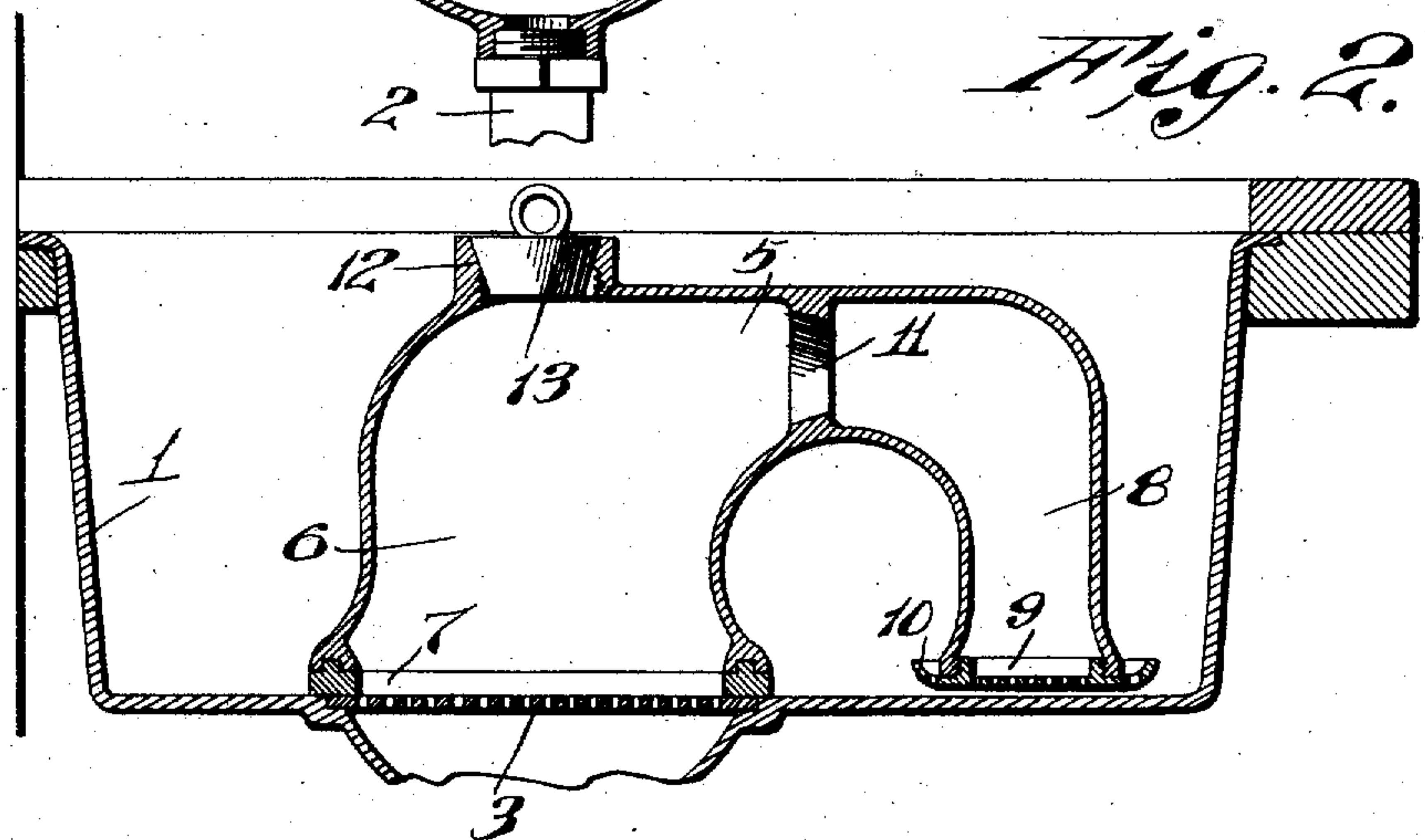
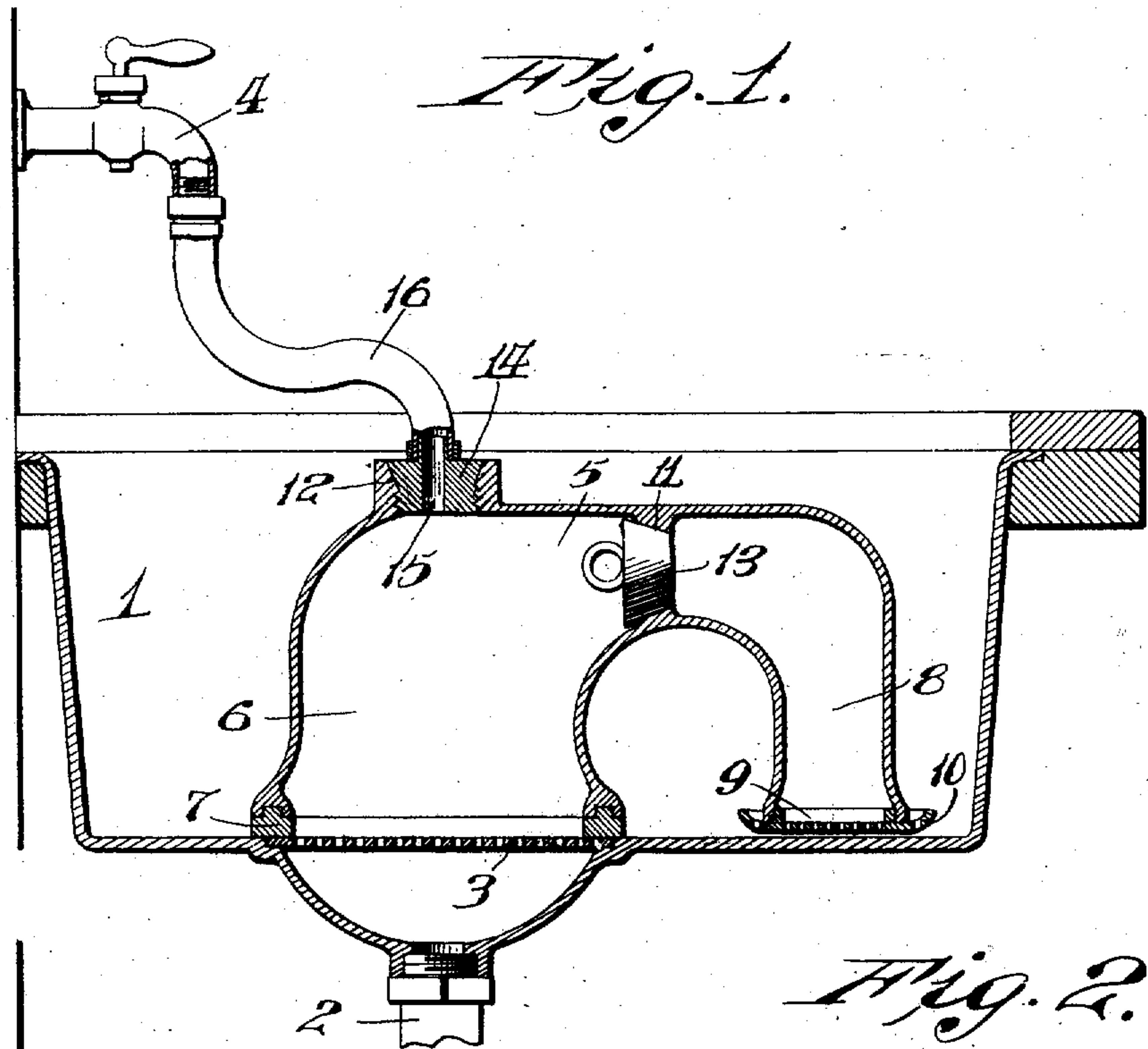


B. P. SMITH.
 COMBINED SIPHON SINK STRAINER AND WASTE PIPE CLEANER.
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986,601.

Patented Mar. 14, 1911.



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UNITED STATES PATENT OFFICE.

BERNARD P. SMITH, OF ST. LOUIS, MISSOURI.

COMBINED SIPHON SINK-STRAINER AND WASTE-PIPE CLEANER.

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Specification of Letters Patent.

Patented Mar. 14, 1911.

Application filed March 19, 1910. Serial No. 550,384.

To all whom it may concern:

Be it known that I, BERNARD P. SMITH, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain
5 new and useful Improvements in Combined Siphon Sink-Strainers and Waste-Pipe Cleaners, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in combined siphon sink strainers and waste pipe cleaners, the object of my invention being to construct a substantially U-shaped,
15 tubular device arranged to be placed in a sink over the waste pipe, one of the legs of the tubular device being larger than the other leg and provided with a yielding base so as to form an air and water tight joint
20 over the waste pipe, said tubular device arranged to act as a siphon to conduct the water in a defined path over the waste pipe from the sink.

A further object of my invention is to
25 provide a device of the class described with an attachment whereby the same may be connected with a service-cock so that water under pressure may be forced through the device and through the waste pipe.

For the above purposes my invention consists in certain novel features of construction and arrangement of parts as will be hereinafter more fully described, pointed
30 out in the claims and illustrated by the accompanying drawing, in which:

Figure 1 is a sectional view illustrating my invention as applied to the waste pipe of a sink and connected with a service-cock for forcing an opening through the waste
40 pipe; Fig. 2 is an illustration similar to Fig. 1 and shows the connection with the service-cock removed and the device applied for use as a siphon sink strainer; and Fig. 3 is a plan of the complete strainer removed
45 from the sink.

Referring by numerals to the accompanying drawing: 1 designates a sink, 2 the waste pipe therefrom, 3 the ordinary sink strainer over the top of the waste pipe and
50 4 the ordinary service-cock.

5 designates a substantially U-shaped hollow shell preferably cast in one piece, the leg 6 of which is of a size sufficient to cover the opening over the waste pipe and is provided with a yielding base 7 arranged to
55 form an air and water tight joint between

the leg 6 and the body of the sink around the waste pipe opening.

8 designates the smaller leg of the shell which terminates a slight distance above the
60 bottom of the sink or in a plane above the lower face of the base 7. The leg 8 is internally threaded adjacent its bottom and a perforated cap 9 is threaded thereto. The cap 9 is provided with an integral bowl-
65 shaped extension 10 which is designed to prevent larger particles of waste matter from entering in the space between the cap 9 and sink.

Within the shell at a point between the
70 legs 6 and 8 is a plug seat 11, and arranged centrally in the top of the shell over the leg 8 is a plug seat 12, the upper portion of which is tapered and of a size corresponding with the largest portion of the seat 11, while
75 the lower portion of the seat is internally threaded.

13 designates a plug which may be seated in either plug seat 11 or 12.

14 designates a plug having an opening
80 therethrough to which is secured a flexible hose section 16 which is arranged for attachment with the service-cock 4. As shown the plug 14 is provided with a tapering portion arranged to seat in the upper portion of the
85 plug seat 12 and with a threaded portion arranged to seat in the threaded portion of the plug seat 12.

When the device is used as a siphon sink strainer the plug 14 is removed and the plug
90 13 is inserted in the seat 12. In this condition the device is placed over the waste pipe opening and the sink is filled or partially filled with water. To start the water flowing through the device water is applied to
95 the sink in a quantity sufficient to overflow the connection between the legs of the device and air, which was compressed in the device by filling up the smaller leg with water from the sink, is released by a temporary removal
100 of the plug from the seat 12, or the siphon may be started by simply lifting one side of the whole device from over the sink opening, thus permitting water to start through the waste pipe, which flowing water through the
105 waste pipe creates sufficient suction to draw the water into and through the siphon. After the siphon is sufficiently started the plug is again seated and the water will continue to flow through the device from the
110 sink to and through the waste pipe.

If the waste pipe is clogged so that water

will not flow as readily therethrough as when the device is employed as a siphon the plug 13 is seated in the plug seat 11 between the legs of the siphon and the plug 14 is seated in the seat 12 and the hose section attached to the service-cock. In this condition the device is placed over the waste pipe opening and when the service-cock is opened the water under pressure will be forced through the waste pipe thus removing the matter clogging the pipe.

While I have shown and described the cap 9 as having an integral bowl-shaped extension to prevent large particles of matter from entering between the cap 9 and the sink I do not wish to be understood as limiting myself to a cap provided with such an extension.

I claim:

1. In a device of the class described, a substantially U-shaped, hollow shell, one leg of which is provided with a yielding base, the opposite leg terminating in a plane a slight distance above the bottom of the yielding base, a plug seat within the shell between said legs and a plug seat in the shell over the top of the leg having the yielding base and a plug arranged to be seated in one or the other of said plug seats.

2. In a device of the class described, the combination of a substantially U-shaped, hollow shell, one leg of which is provided with a yielding base and the opposite leg being provided with a detachable, perforated cap, said last mentioned leg terminating in a plane above the bottom of the yielding base,

a plug seat within the shell between the legs thereof, a plug seat in the shell over the leg provided with a yielding base, a plug detachably arranged in the first mentioned seat, a hollow plug detachably seated in the second mentioned seat and means for flexibly connecting the hollow plug with a source of water supply.

3. In a device of the class described, a hollow shell comprising two legs of substantially the same length, a plug seat in one of said legs, a plug seat within the shell between said legs and a plug arranged to be seated in one or the other of said plug seats.

4. A combined siphon sink strainer and waste pipe cleaner, a substantially U-shaped, metallic shell, having legs of unequal diameters and lengths, the larger leg being provided with a yielding base arranged to be fitted over a waste pipe opening, the smaller leg being provided with a detachable, perforated cap, a plug seat intermediate the ends of the shell, a plug seat over the larger leg of the shell, a detachable plug in the first mentioned seat, a detachable plug in the second mentioned seat, and a flexible connection with said last mentioned plug and a source of water supply.

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

BERNARD P. SMITH.

Witnesses:

E. E. LONGAN,
E. L. WALLACE.