

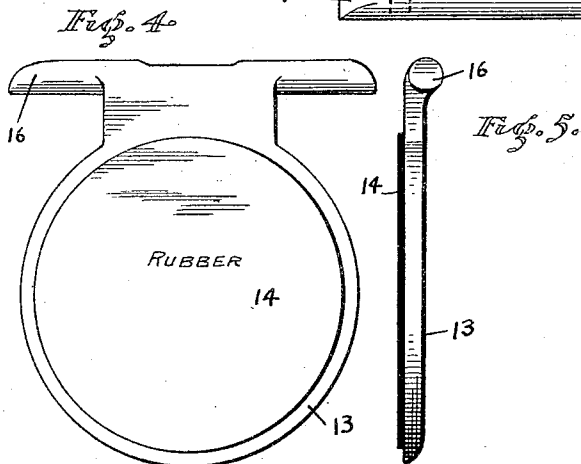
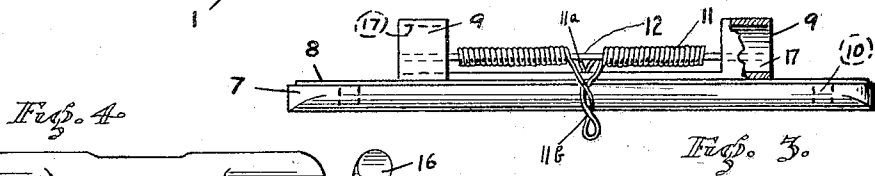
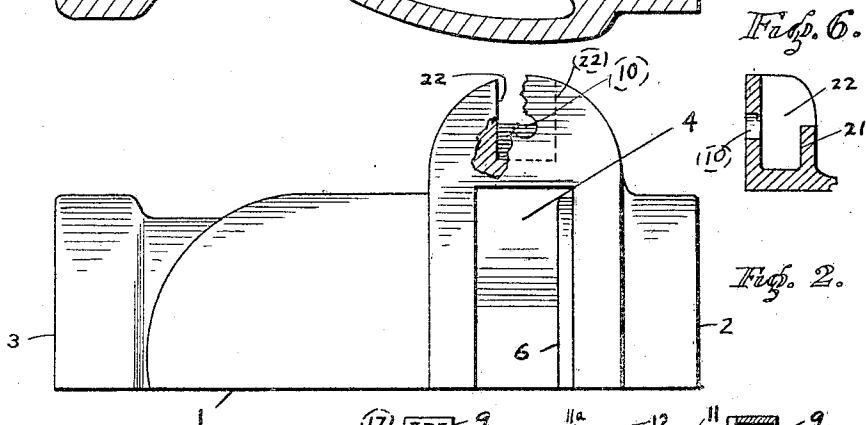
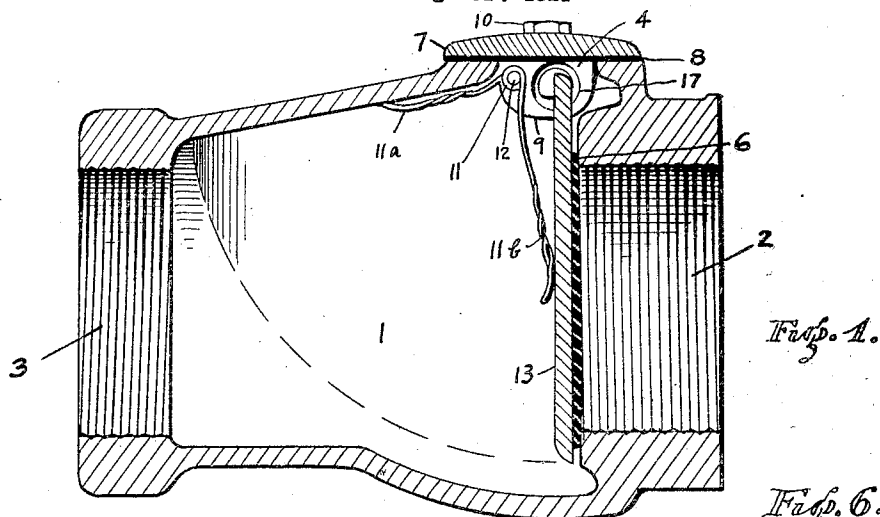
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1,505,958

S. E. HUNTTING

VALVE

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INVENTOR
SAMUEL E. HUNTTING
BY
Bradley L. Benson
ATTORNEY

UNITED STATES PATENT OFFICE.

SAMUEL E. HUNTTING, OF SAN FRANCISCO, CALIFORNIA.

VALVE.

Application filed August 11, 1921. Serial No. 491,456.

To all whom it may concern:

Be it known that I, SAMUEL E. HUNTTING, a citizen of the United States of America, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Valves, of which the following is a specification.

My invention relates to improvements in check valves and foot valves, in which the flap that closes the orifice in the valve is hinged to the cover that closes the orifice in the valve and the principal objects of my invention are:

First: To make a valve of this type seat more quickly and closely when there is no pressure of water against the flap to close it.

Second: To insure more accurate adjustment of the flap upon its seat.

Third: To provide a valve of the character described which will operate successfully in different positions.

Fourth: To provide a valve in which the working parts are readily accessible for replacement or repair.

To these specifications and the annexed drawings, the invention is illustrated in the form considered to be the best, but it is to be understood that the invention is not limited to such form, because it may be embodied in other forms and it is also to be understood that in and by the claims following the description it is desired to cover the invention in whatever form it may be embodied.

In the drawings:—

Figure 1 is a cross-section of a valve constructed in accordance with my invention.

Figure 2 is a half top plan view of a valve casting partly in section.

Figure 3 is a side view of a cover, partly in section with a spring mounted thereon.

Figure 4 is a front elevation of a valve flapper.

Figure 5 is a side elevation of Fig. 4.

Figure 6 is a fragmentary section of Fig. 2 showing a bolt engaging means.

Referring to the drawings in detail, like numerals correspond to similar parts in all the views.

The numeral 1 designates a casting having a screw threaded inlet connection 2 and a screw threaded outlet 3 here shown as being in axial alignment. It is obvious, however, that the inlet and outlet may be so

arranged as to be readily adaptable to other uses than that of a straight line job.

The numeral 4 designates an orifice in one side of the casting 1 and at a point in close proximity to the valve seat 6 which surrounds the inlet 2. This orifice 4 is adapted to be closed by a cover 7 bolted or otherwise attached to the casting 1. A suitable gasket 8 is introduced between the plate 7 and the casting 1 for the purpose of preventing leakage. This cover 7 carries two depending lugs 9 which enter the interior of the casting 1 a short distance. These lugs support a shaft 12 around which is coiled a spring 11 one end 11^a of which presses against the wall of the casting 1, and the other free end 11^b of which presses against a flapper 13 at approximately the center thereof.

This flapper is best shown in Figs. 4 and 5. The body or major portion 13 is of a shape adapted to close the valve seat 6 and on the surface contacting therewith, is provided with a rubber packing 14 which is vulcanized to the flapper.

The upper end of the flapper 13 is provided with a pintle or shaft 16 of a length adapted to permit said shaft to clear the space between the lugs 9 when one end of said shaft is inserted in either of openings 17 in said lugs.

By reason of this structure the parts may be assembled as follows: One end of the shaft 16 is inserted in one of the holes 17 far enough to allow the other end of the shaft to be inserted in the hole 17 in the other lug 9 and the entire shaft moved back to central position relative to said lugs.

These openings 17 are considerably larger than the cross sectional area of the shaft 16.

It will be seen that by removing bolts 10, the cover 7, flapper 13 and spring 11 may be removed as a unit from the casting 1. The purpose of having these openings larger than the shaft pin is to permit the valve flap to accurately fit on the valve seat without any interference from these hinge openings, and to permit the flap to adjust its position to the seat without accurate alignment between the two.

I claim:

1. A valve provided with inlet and outlet orifices and with a side orifice, a cover for said orifice provided with lugs extending into the said orifice, said lugs provided with

holes, a flapper adapted to close the inlet orifice of said valve and dependent from said holes by a shaft at the top of the flapper and an integral part of it, said shaft so constructed as to permit one end of said shaft to be inserted in a hole in one of said lugs and passed therethrough far enough to allow the other end to be inserted in the hole in the other of said lugs, and the entire shaft to be moved back to a central position.

2. A valve provided with inlet and outlet orifices and with a side orifice, a cover for said orifice provided with lugs extending into said orifice, said lugs provided with

holes, a flapper suspended from a shaft in said holes, and adapted to close the inlet orifice of said valve and dependent from said holes, a shaft supported by said lugs, a spring on said shaft adapted to close said flapper by bearing against it at approximately the middle thereof, the said orifice in said valve being of sufficient width to admit the said flapper shaft and spring shaft and to limit longitudinal movement thereof.

In testimony whereof I affix my signature.

SAMUEL E. HUNTING.