

No. 846,317.

PATENTED MAR. 5, 1907.

R. H. KIDDLE.
CHECK VALVE.
APPLICATION FILED JAN. 3, 1906.

Fig. 1.

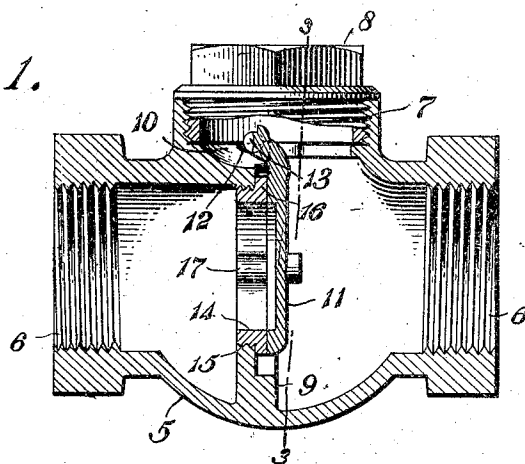


Fig. 2.

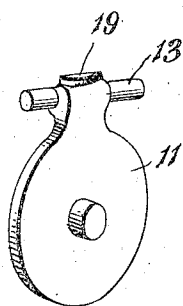
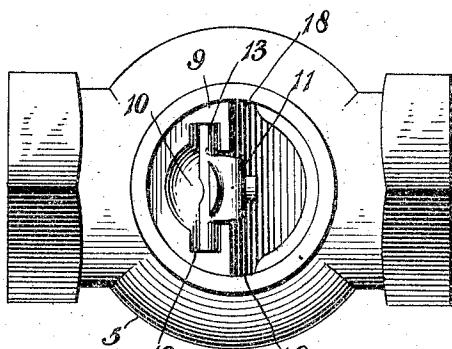


Fig. 4

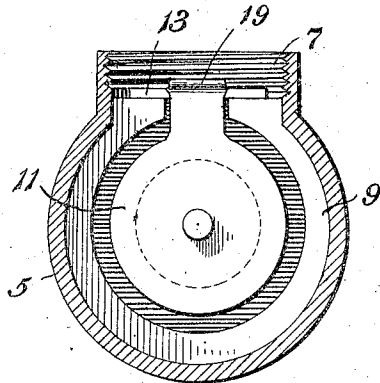


Fig. 3. Richard H. Kiddle,
INVENTOR.

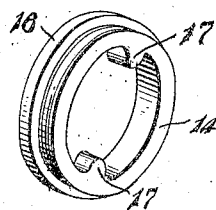


Fig. 5.

WITNESSES:
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UNITED STATES PATENT OFFICE.

RICHARD H. KIDDLE, OF KINSMAN, OHIO.

CHECK-VALVE.

No. 846,317.

Specification of Letters Patent.

Patented March 5, 1907.

Application filed January 3, 1906. Serial No. 294,440.

To all whom it may concern:

Be it known that I, RICHARD H. KIDDLE, a citizen of the United States, residing at Kinsman, in the county of Trumbull and State of Ohio, have invented a new and useful Check-Valve, of which the following is a specification.

This invention relates to check-valves, and has for its object to provide a simple, inexpensive, and efficient device of this character in which the valve is mounted for swinging movement within the casing and movable to closed position by gravity.

A further object of the invention is to provide means for insuring the positive seating of the valve and means for preventing accidental displacement of said valve.

A still further object is to provide a valve and valve-seat capable of being quickly removed when worn or injured from constant use, so that the same may be conveniently reground or replaced by new parts when necessary. With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended, it being understood that various changes in form, proportions, and minor details of construction may be resorted to within the scope of the appended claim.

In the accompanying drawings, forming a part of this specification, Figure 1 is a longitudinal sectional view of a check-valve constructed in accordance with my invention. Fig. 2 is a top plan view of the same with the threaded cap or closure removed. Fig. 3 is a transverse sectional view on the line 3 3 of Fig. 1. Fig. 4 is a perspective view of the valve detached. Fig. 5 is a similar view of the valve-seat detached.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The improved device consists of a valve-casing 5, provided with oppositely-disposed threaded openings 6 for connection with a fluid-supply pipe and having a threaded opening 7 formed in the top thereof and communicating with the interior of the casing, the latter opening being normally closed by a threaded cap or cover 8, as shown.

Extending transversely of the valve-casing

is a partition 9, the upper end of which partially closes the opening 7 and is extended laterally to form a shoulder or horizontal support 10 for the swinging valve 11. The support 10 is formed with alined recesses or pockets 12, adapted to receive the trunnions 13 of the valve 11, said recesses or pockets being slightly wider than the trunnions to permit the valve to readily accommodate itself to the valve-seat 14. The valve-seat 14 is threaded in an opening 15 in the partition 9 and is provided with an annular stop-flange 16 and a pair of inwardly-extending ears or lugs 17 to permit the same to be readily engaged and rotated by a suitable tool when it is desired to remove and regrind said valve-seat.

The walls of the valve-casing at the opening 7 are provided with oppositely-disposed guiding-recesses 18 to permit the ready insertion and removal of the valve 11, the latter being retained in position by the cap or closure 8, which is hollowed out, as shown, to permit free swinging movement of said valve. The pivoted end of the valve is preferably provided with a lug or finger-piece 19, by means of which the valve may be moved manually to open position when the cap is removed and which serves as a convenient means for grasping and elevating the valve when it is desired to remove and regrind the same.

Attention is called to the fact that the trunnions 13 have a limited lateral play within the pockets or recesses 12, so that the valve will accommodate itself to its seat, and thus insure a positive closing movement of said valve and also render the valves interchangeable.

It will of course be understood that the valve may be placed in either an upright or horizontal position and that the valve and valve-seat may be provided with gaskets in cases where they are found desirable.

Having thus described the invention, what is claimed is—

In a valve, a valve-casing provided with a transverse partition having a threaded opening formed therein and having one end thereof extended laterally to form a support and provided with alined bearings, there being a depression formed in the extension between the bearings, a detachable valve-seat threaded in said opening and provided with in-

wardly-extending lugs, a valve pivoted in
said bearings and having a limited lateral
movement, and a finger-piece formed on the
pivoted end of the valve and movable into
5 engagement with the walls of the depression
when the valve is moved to open position.
In testimony that I claim the foregoing as

my own I have hereto affixed my signature
in the presence of two witnesses.

RICHARD H. KIDDLE.

Witnesses:

PAUL K. FOBES,
FRANK A. GRIFFITH.