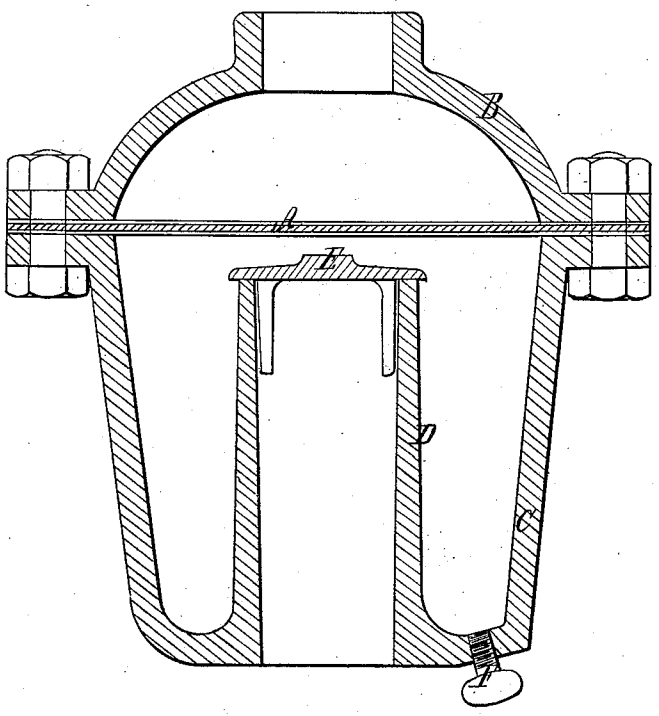
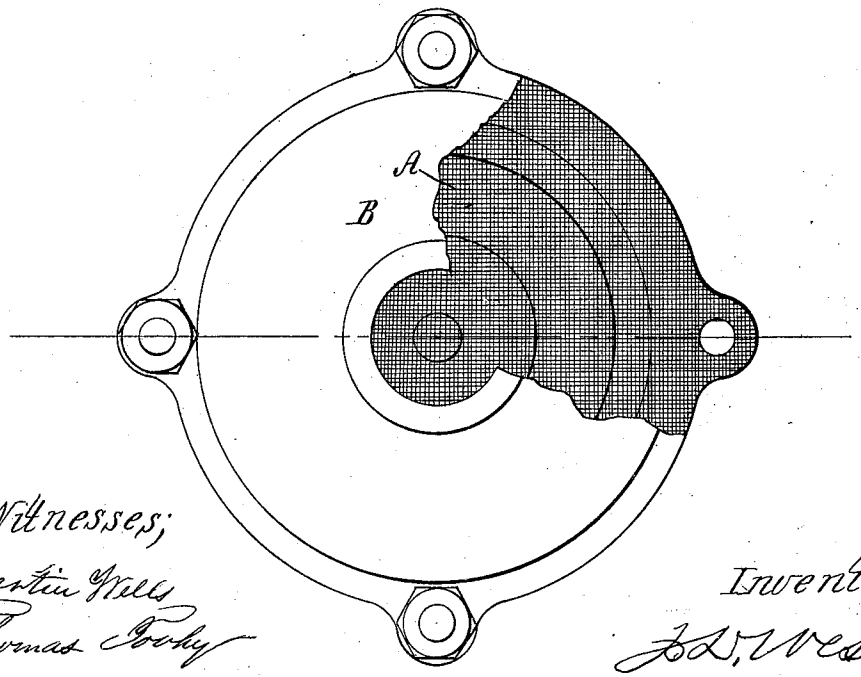
J. D. West,

Pump Cylinder,

No. 63,189. Patented Mar. 26, 1867.





Witnesses;
Martin Wells
Thomas Bosby

Inventor;
J. D. West

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United States Patent Office.

JOSEPH D. WEST, OF NEW YORK, N. Y.

Letters Patent No. 63,189, *dated March* 26, 1867.

IMPROVEMENT IN SAND-TRAPS FOR WATER PIPES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOSEPH D. WEST, of New York city, county, and State, have invented a new and improved Sand and Debris Check for Water Pipes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked therein.

My invention consists of a diaphragm of wire gauze, perforated metal, or its equivalent, marked A, placed between a hollow disk, B, above, and a receiver, C, underneath, from the bottom of which receiver an induction pipe, D, ascends nearly to the level of the diaphragm, having a cover or valve, E, upon its upper end, or so arranged as to obstruct the direct upward flow of the water, and discharge laterally into said receiver, from whence it passes through the diaphragm A, which intercepts the sand and debris, allowing them to settle to the bottom of the receiver, from which they can be drawn off at the screw tap F, in its bottom. The cover E may be made to act as a check-valve if desired. I cast my hollow disk, receiver, and cover, in iron or other metal, of sufficient strength, the disk and receiver having flanges and bolt-holes to match, for the purpose of bolting them together. Between the two I stretch the diaphragm, with ring packings of suitable material to form an air-tight joint when bolted together. The cover E may be cast in one piece with its pipe, having lateral holes for the water passage, or may be a separate piece lifting from its seat to permit the passage of the water, and guided by wings or pins working within the pipe or otherwise. A screw-thread, or other suitable device, must be provided at top and bottom for the purpose of coupling with the water pipes.

The operation is as follows: When placed in a perpendicular position in a line of water pipe, the water flowing upward through the induction pipe D is discharged laterally into the receiver. The current being thus suddenly enlarged, loses proportionally its force and its capacity to hold up the sand and debris which it may have raised thus far in its course, and its passage being obstructed by the diaphragm A, it naturally falls to the bottom of the receiver C, from whence it can be drawn off at pleasure through the tap F. The object is to prevent the sand and debris from injuring a pump or other receiver, into which the water may flow after leaving this invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

The gauze or perforated diaphragm check A, or its equivalent, receiver C, hollow disk B, or its equivalent, and induction pipe D, whether provided with a valve-cover or not, when all combined and arranged together so as to operate substantially in the manner and for the purpose described.

J. D. WEST.

Witnesses:

MARTIN WELLS,

THOMAS TOOHEY.