No. 843,988. PATENTED FEB. 12, 1907.

T. BARTON.

VALVE.

APPLICATION FILED OCT. 4, 1905.

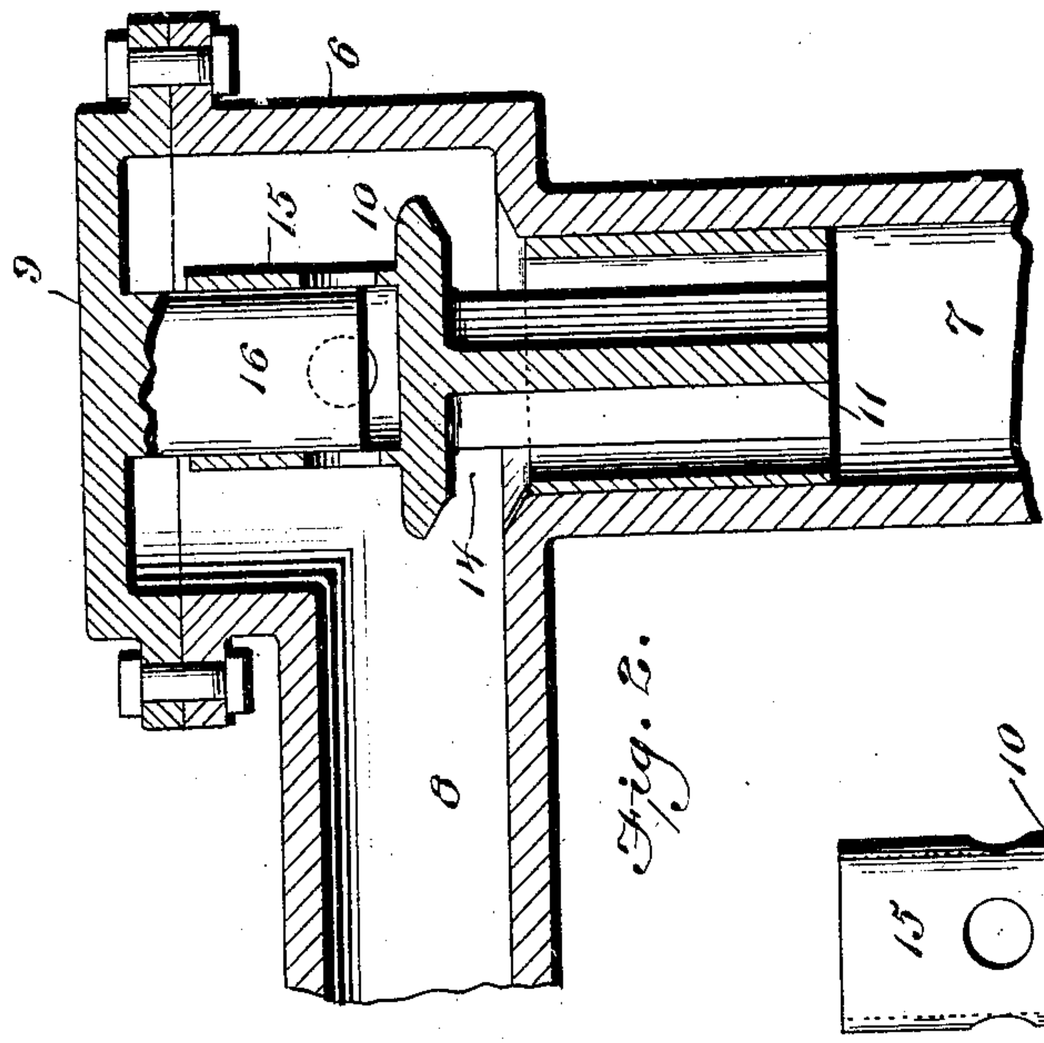

Fig. 2.

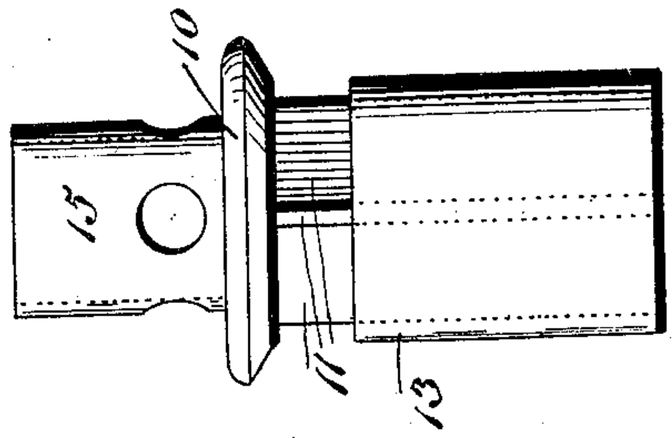

Fig. 4.

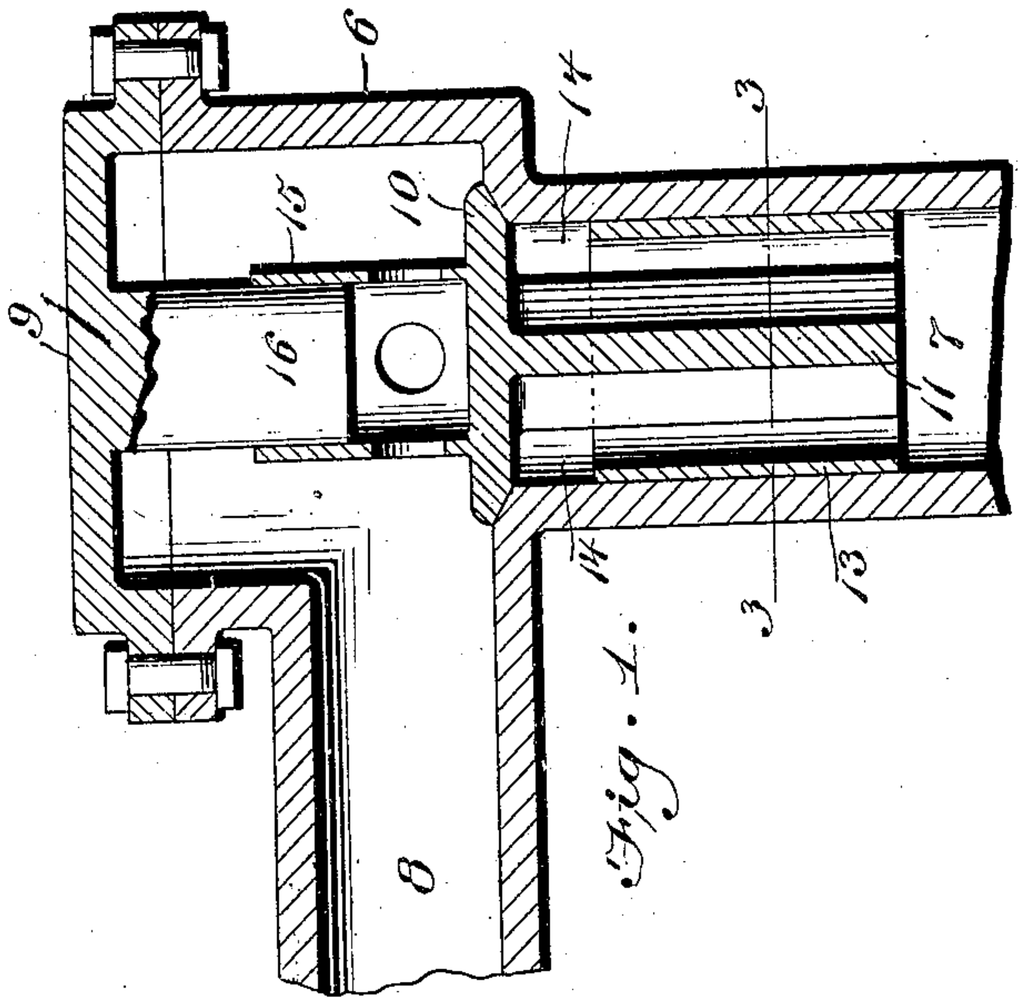

Fig. 1.

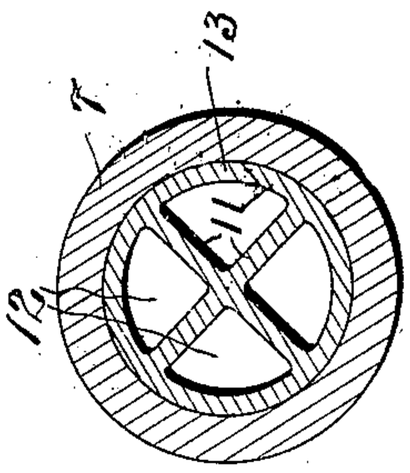

Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS BARTON, OF TAMAQUA, PENNSYLVANIA.

VALVE.

No. 843,988. Specification of Letters Patent. Patented Feb. 12, 1907.

Application filed October 4, 1905. Serial No. 281,284.

To all whom it may concern:

Be it known that I, THOMAS BARTON, a citizen of the United States, residing at Tamaqua, in the county of Schuylkill and State of Pennsylvania, have invented new and useful Improvements in Valves, of which the following is a specification.

This invention relates to valves, and has for its object to produce a valve of strong and simple construction and capable of use under heavy pressure and which cannot become displaced or cocked, but will be sure to seat under all conditions.

An embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view showing the valve closed. Fig. 2 is a similar view showing the valve open. Fig. 3 is a section on the line 3 3 of Fig. 1. Fig. 4 is a side elevation of the valve removed from the casing.

Referring specifically to the drawings, 6 indicates the valve-casing having an inlet-pipe 7 and an outlet-pipe 8 and covered at the top by a cap 9. The inlet 7 may be a part of the pipe leading to the valve, or it may be a machined bushing inserted in the end of such pipe. It is preferably a finished cylinder forming a guide for the valve within the same.

The valve-disk is indicated at 10, and depending from the under side thereof are crossed partitions 11, leaving vertical openings or passages 12, through which the liquid will flow. These passages and partitions are inclosed by a cylinder 13, which fits at a good fit in the pipe or bushing 7. The upper end of the cylinder 13 is spaced from the valve-disk 10, producing openings, as at 14, through which the fluid can pass. On top of the disk 10 is a cylinder 15, which fits over a depending plug or tube 16, extending downwardly from the cap 9.

The valve is guided to movement in a right line by means of the fit of the cylinder 13 in the pipe 7 and by the fit of the cylinder 15 over the tube or plug 16. The valve cannot get out of line even under very heavy pressure. When the valve lifts from its seat, the liquid flows up through the passages 12 and out through the openings 14. A large surface is presented for wear, so the valve will have long life and will also act slow enough to prevent injurious pounding, the slow motion or retardation being caused by the time required for the liquid to enter into and escape from the cylinder 15 through the openings in the sides thereof at each lift or drop of the valve.

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

The combination with a valve-casing having a pipe terminating in a valve-seat and a cap having a depending plug, of a valve in the casing comprising a disk having extending from one side a cylinder fitting in said pipe and provided with lateral openings, and having extending from the other side a guide-tube fitting over the plug projecting from the casing, the tube and plug forming a compression-chamber, substantially as and for the purpose described.

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

THOMAS BARTON.

Witnesses:

JOHN E. WELDY,

EDWARD E. WEAVER.