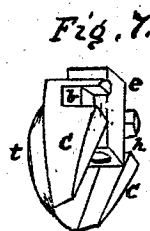
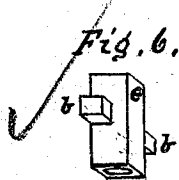
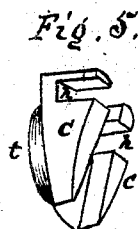
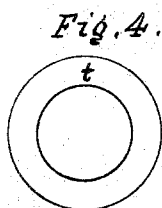
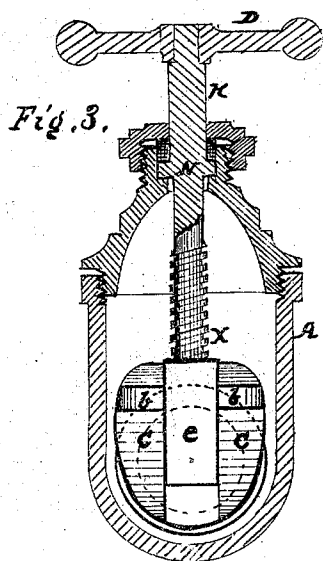
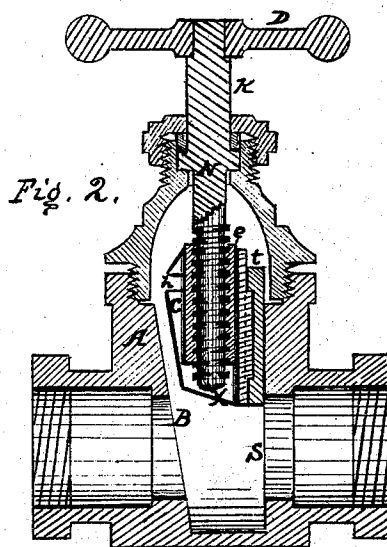
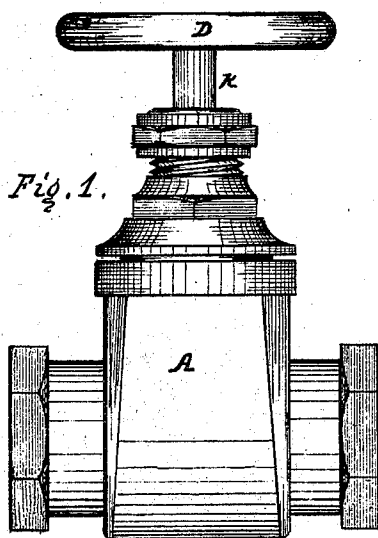


Edward McSteen's
VALVE

PATENTED JUL 4 1871

116619



— Witnesses —

E. McSteen
John B. Marshall

— Inventor —

Edward McSteen
per his Attorney
Josiah W. Ellis

UNITED STATES PATENT OFFICE.

EDWARD McSTEEN, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN VALVES.

Specification forming part of Letters Patent No. 116,619, dated July 4, 1871.

To all whom it may concern:

Be it known that I, EDWARD McSTEEN, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain Improvements in Stop-Cocks or Valves, of which the following is a specification:

My invention relates to an improvement in that class of stop-valves used for steam, water, and other enginery, wherein the face of the valve is set at right angles with a line drawn through the center of the inlet and outlet-pipes, and is forced against its seat by means of a wedge actuated by a screw on the stem. The nature of my invention consists in the use of a permanent incline plane, forming part of the shell, and in combination therewith a single valve, on the back of which are two wedges carrying between them a deep nut, in which the screw on the lower end of the stem works, and so arranging the parts with relation to each other as that the valve will be forced down and against its seat by the action of the screw driving the wedges between it and the permanent incline; also, combining the nut with the wedges in such a manner as that the lateral deviation of the wedges in their movement on the permanent incline will not interfere with or affect the right position of the valve, nut, or stem.

Figure 1 represents a side view of my stop-valve; Fig. 2, longitudinal vertical section, the valve represented as being open; Fig. 3, transverse vertical section, the valve represented closed; Fig. 4, face of the valve; Fig. 5, perspective view of the double wedge; Fig. 6, perspective view of the nut; Fig. 7, perspective view, showing the nut as applied to the wedges.

I make the valve-shell A in any desirable form, and with the usual stuffing-box, stem, handle, connecting-screws, &c., incident to such stop-valves, with this addition, a permanent incline, B, opposite the face of the valve-seat *s*. The op-

erating-stem K is provided with a collar, N, resting in the stuffing-box, which allows it to turn on its axis but prevents its upward or downward movement. On the lower end of this stem a screw is cut, which engages with and works in the long nut *e* placed between the wedges *c c*, so that an arm, *b*, on each side of the nut will extend into and rest each in an appropriate recess, *h*, made across the wedges for that purpose, while the reverse side of the united wedges carries, by means of a projection shown, in Fig. 2, the circular valve *t*. The parts, on being constructed and put together as shown, will, on turning the handle D to rotate the screw X in one direction, force the nut down, which will carry with it, by means of its arms *b b*, the wedges *c c* and valve *t* attached thereto, so that the valve will be brought directly over its seat *s*, when, by an additional turn of the screw X, the wedges *c c* will be forced down between the valve *t* and the incline plane B on the opposite side of the shell, pressing the valve tightly against its seat, the recesses *h h* in the wedges *c c* allowing the arms *b b* of the nut *e* to slide therein and give it play, by which all lateral strain is taken off the stem *k*. By reversing the motion of the screw X the wedges will be drawn up on the incline B, releasing the pressure on the valve *t* preparatory to its upward movement.

I claim—

The long screw-nut *e* furnished with arms *b b*, duplex wedges *c c*, the permanent incline B, valve *t*, screw on the stem *k*, in combination with each other and the inclosing-shell A, when said parts are constructed, arranged, and made to operate together in the manner shown and set forth.

EDWARD McSTEEN.

Witnesses:

V. McSTEEN,
JOHN D. MORELAND.