(No Model.)

# M. J. GIBBONS.

## STRAIGHT WAY VALVE.

No. 273,271. Patented Mar. 6, 1883.

*Fig. 1.*

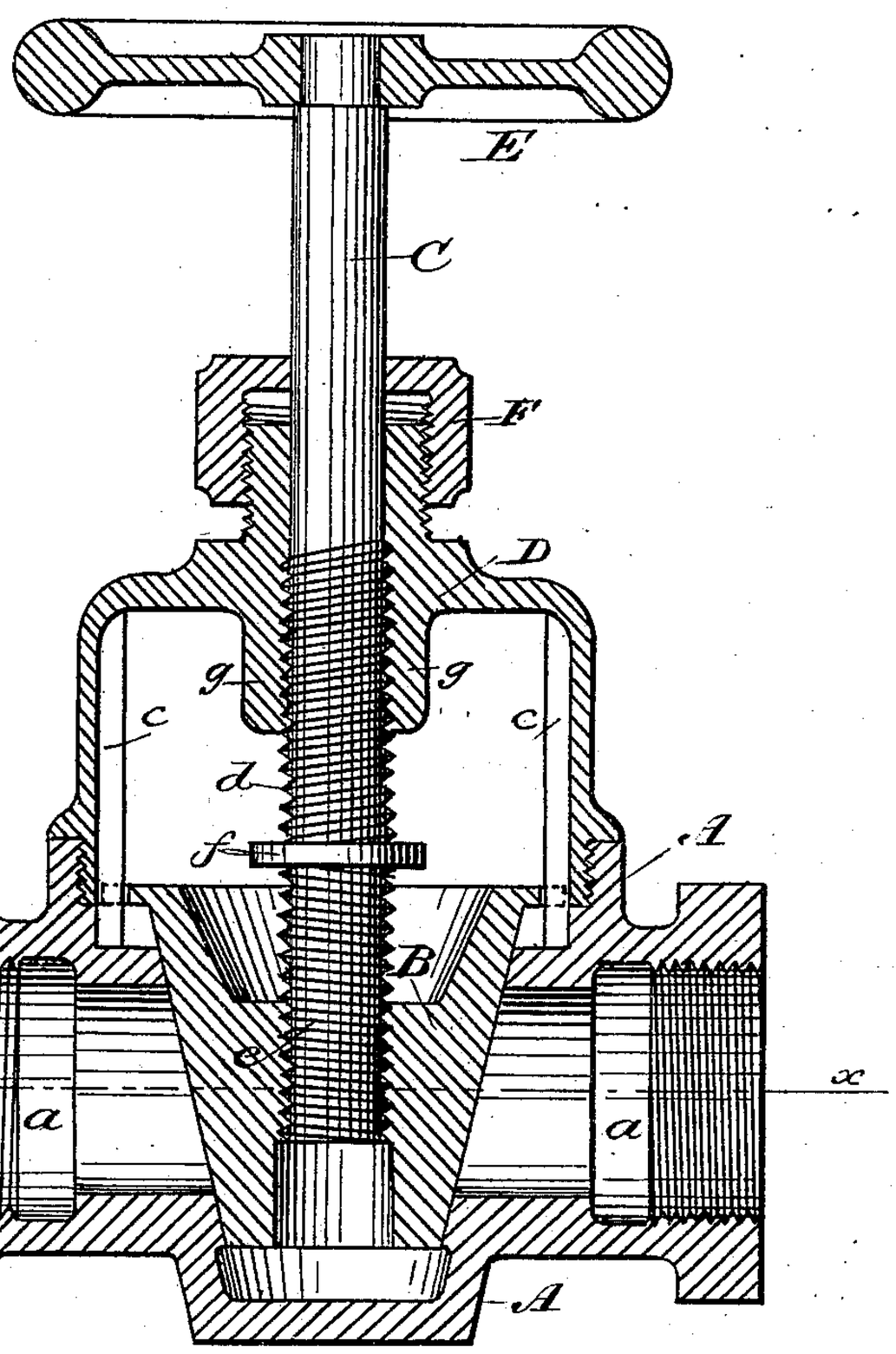



*Fig. 2.*

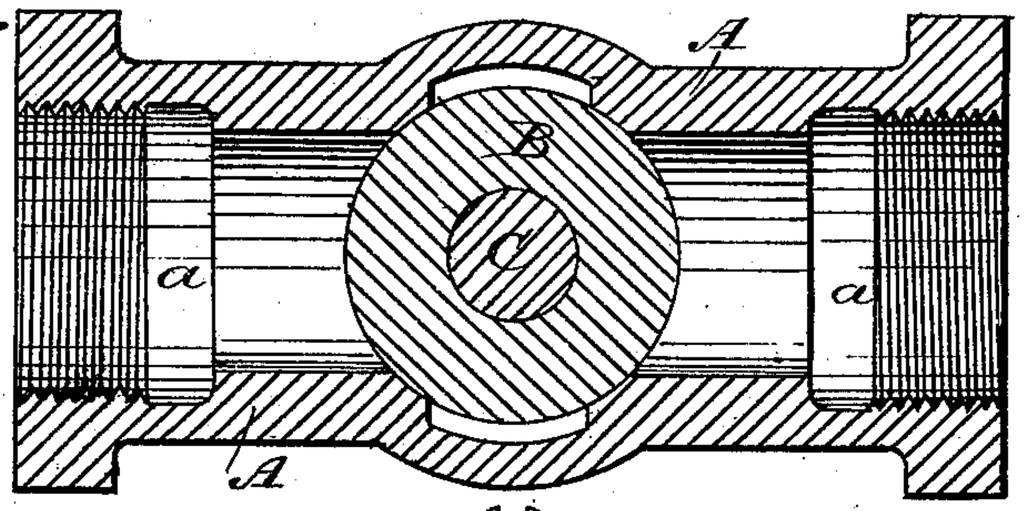
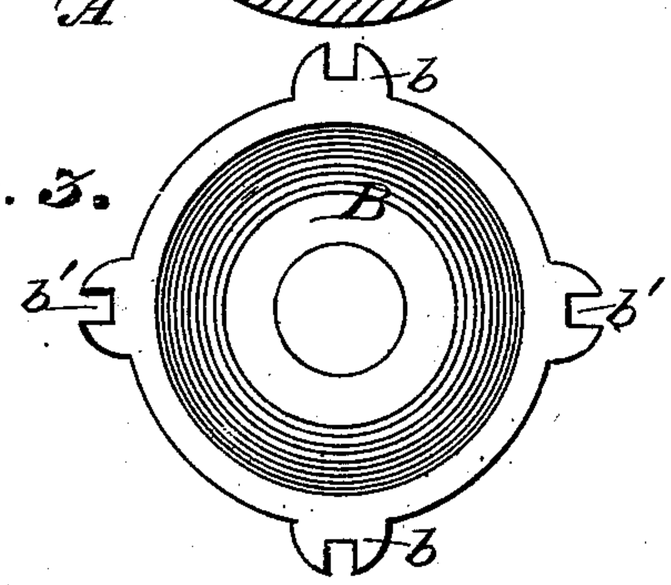



*Fig. 3.*




WITNESSES

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# UNITED STATES PATENT OFFICE.

MICHAEL J. GIBBONS, OF DAYTON, OHIO.

## STRAIGHT-WAY VALVE.

SPECIFICATION forming part of Letters Patent No. 273,271, dated March 6, 1883.

Application filed June 20, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, MICHAEL J. GIBBONS, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Straight-Way Valves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in straight-way valves; and the object is to produce a valve that can be opened and closed twice as fast as the ordinary valve, and that can be ground in its seat by means of the valve-stem.

The invention consists in the construction and arrangement of parts, as will be more fully described hereinafter, reference being had to the accompanying drawings and the letters of reference marked thereon.

Like letters of reference refer to like parts in the different figures of the drawings, in which—

Figure 1 is a vertical longitudinal section of my improved valve. Fig. 2 is a horizontal section on line *x x* of Fig. 1. Fig. 3 is a plan view of the cone-disk.

In the drawings, A is the casing or shell of the valve, having the usual ports, *a a*, which connect with the pipes. In this casing is arranged the cone-disk or plug B, having two or more lugs, *b*, with notches *b'*, that fit on the guides *c*, on the inside of the casing or cap thereof. The valve-stem C is provided with a right-hand thread, *d*, and a left-hand thread, *e*. The thread *d* fits into a suitable thread in the cap D and the thread *e* into the cone-disk B, so that in turning the hand-wheel E in one direction the valve will be opened as the cone rises on the stem, while the stem itself rises in the cap, and when closing the valve the reverse action takes place, and the valve in this way will be opened or closed twice as fast as when provided with the ordinary screw-thread. The usual stuffing-box, F, and packing are attached to the cap, so as to prevent leakage of the valve. A collar, *f*, on the stem checks the movement of the valve when it comes in contact with the projecting sleeve or hub *g* of the cap. The seats may be either raised or flat.

When it is desired to grind the valve to its seat the cap can be removed, and the valve can then be readily turned or revolved by the stem, and the cone-disk properly ground.

It will also be readily seen that the valve can be opened as fast by the right-and-left-hand screw as if it had a thread of double pitch, and it is very simple in construction and not liable to get out of order.

When the valve-stem is used for grinding the disk into its seat the stem is screwed into it until the collar comes in contact with the disk.

Having thus described my invention, what I claim as new is—

A straight-way valve consisting of a casing, A, having ports *a a*, and cap provided with guides *c*, a cone-disk, B, with lugs *b*, having notches *b'*, and the valve-stem C, provided with right and left hand screw-threads *d e*, and hand-wheel E, all constructed and arranged substantially as and for the purpose set forth.

In testimony whereof I hereby affix my signature in presence of two witnesses.

MICHAEL J. GIBBONS.

Witnesses:

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