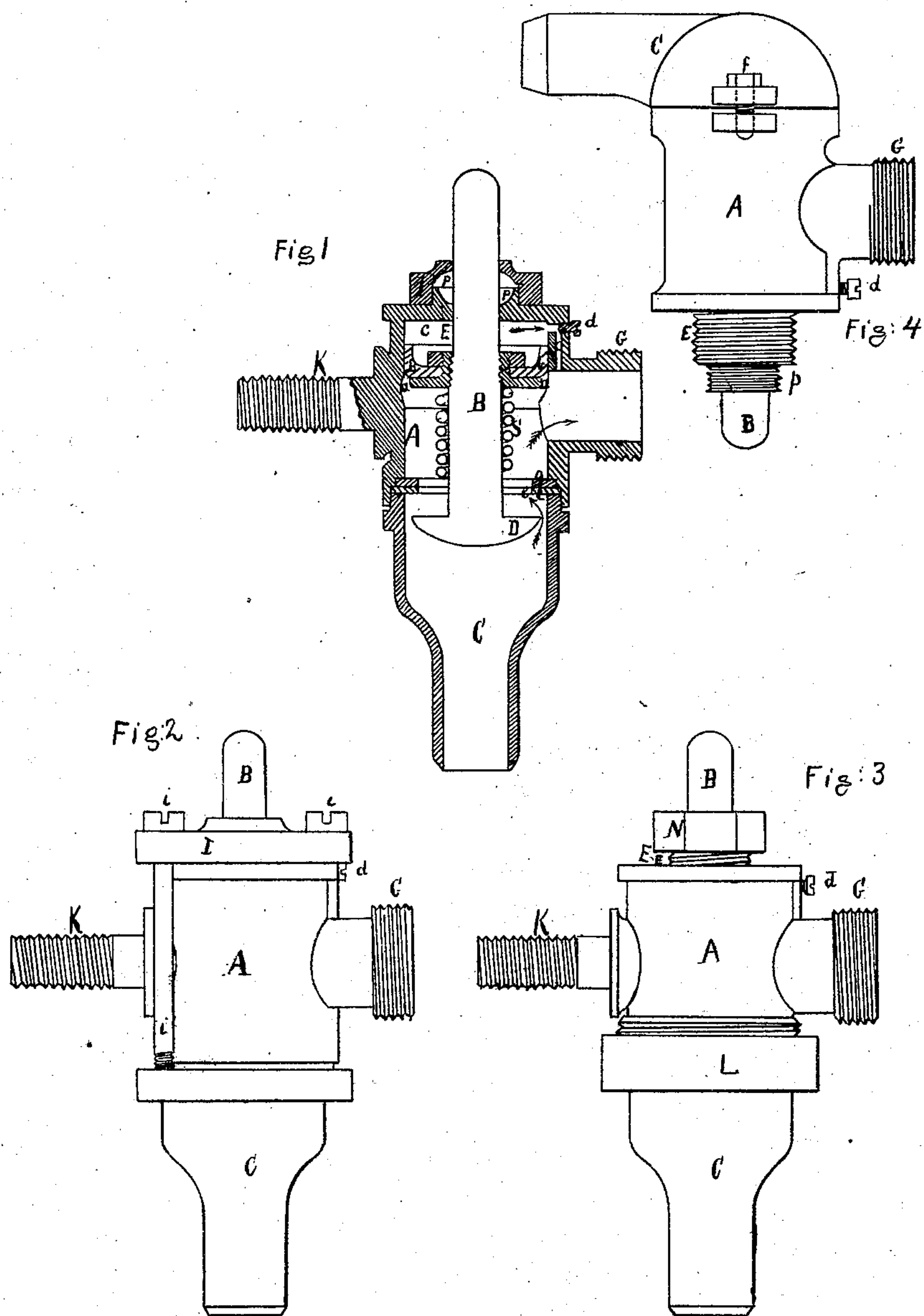


G. R. Moore.

Valves for Water Closet Pipes.

No 93,547.

Patented Aug. 10. 1869.



Witnesses:

J. J. Renard
J. P. Jones Jr.

Inventor:

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UNITED STATES PATENT OFFICE.

GEORGE R. MOORE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN VALVES FOR WATER-CLOSET PIPES.

Specification forming part of Letters Patent No. 93,547, dated August 10, 1869.

To all whom it may concern:

Be it known that I, GEO. R. MOORE, of Philadelphia, in the county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Valves for Water-Closet 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 thereon.

Figure 1 is a vertical longitudinal section. Fig. 2 is a side elevation. Figs. 3 and 4 are side elevations, showing optional modes of shaping and finishing up the valves, the internal construction being the same in all cases, and as shown distinctly in Fig. 1.

This valve now contains some improvements which I have added to it since my application for a patent, which was granted March 24, 1868.

First. The valve-barrel A is made with an elevation or cup, E, which holds the packing P, used about the valve-stem B, with the help of the yoke I, which fits over the elevation and embraces the packing; also, a packing-nut may be substituted for the yoke I, as seen in Fig. 3, N, the packing itself being in the same place as before; or, again, this elevation or cup may have a screw upon it, as shown in Fig. 4, E, for holding the valve upon the container or hopper in that class of closets where the upright position of the valve is more convenient. The elevation E, on account of each one of the uses above named, is an important improvement to this class of closet-valves.

Second. The valve-barrel A is enlarged or grooved out at *a*, so as to give room, when the valve is opened, for the water to pass up freely above the packing *b* upon the valve-stem B, and thus fill the chamber *c*.

When the valve begins to close, the packing *b* becomes water-tight at the upper edge of the groove *a*, so that all the water thus inclosed in the chamber *c* would prevent the valve from closing at all were it not that a small aperture, *o*, is provided to let the water off gradually; also, a regulating screw-stopper, *d*, is applied to this aperture, so as to regulate this off-let

of water at will, and thus what is called the "after-flow" of the valve is made to conform to the will of the mechanic.

I am aware that in the Bartholomew balance-valve, as improved by W. S. Cooper, the after-flow is regulated by a screw controlling an aperture from the vacuum-chamber to the mouth of the inlet to the valve; but mine is not a balance-valve. I have no vacuum-chamber, and no small aperture to the inlet. The two valves are constructed throughout upon distinct principles. That is closed through the small passage; mine by the main head of water.

Fig. 4 shows the valve reversed in position, section C at the top, and the part connecting with the supply-pipe turned down to a horizontal position. The internal construction is the same as in Fig. 1, excepting in the mode of holding the packing, which is by the hollow screw-plug *p*. Short bolts *f* are used to bolt C upon the valve-barrel, as shown in the drawings.

D is the valve; *i i*, bolts; *e*, packing; *g*, water-way; *s*, spring; K, a stem for bolting the valve to other work. G is an ordinary coupling-screw; L, a coupling-nut.

Having thus fully described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The combination of the solid-headed valve-barrel A, projection E, packing P, cap I, and valve-stem B, substantially as and for the purposes herein set forth.

2. The aperture *o* and plug-screw *d*, combined and arranged in relation to the chamber *c* and discharge-pipe G, substantially in the manner and for the purpose herein set forth.

3. The groove or enlargement *a*, constructed and arranged in relation to the chamber *c* and packing *b*, substantially in the manner and for the purpose herein set forth.

GEO. R. MOORE.

Witnesses:

SAML. P. JONES, Jr.,
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