

No. 712,268.

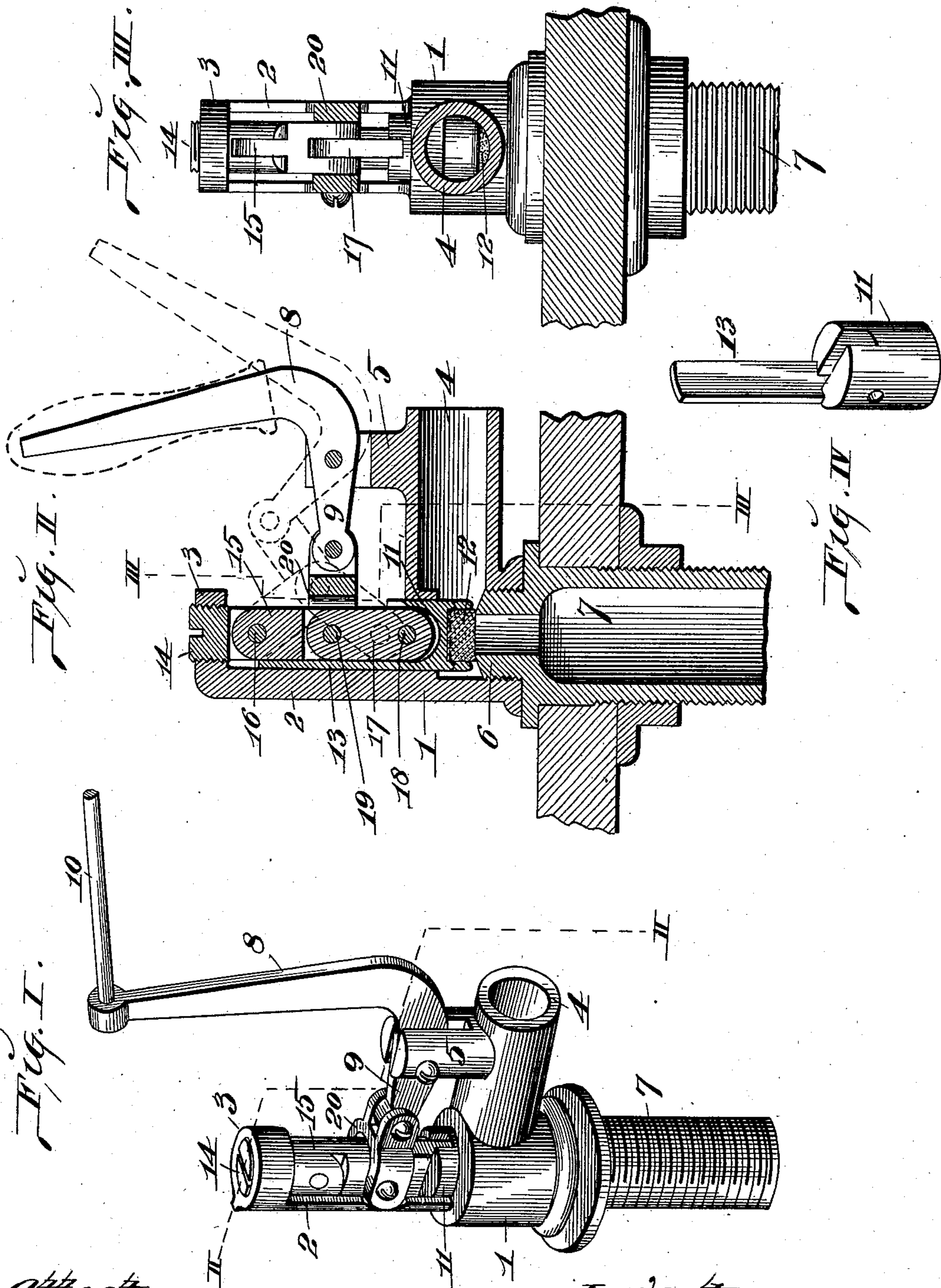
Patented Oct. 28, 1902.

J. J. T. DEHEKKER.

VALVE.

(Application filed Oct. 30, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JOHN J. T. DEHEKKER, OF ST. LOUIS, MISSOURI.

VALVE.

SPECIFICATION forming part of Letters Patent No. 712,268, dated October 28, 1902.

Application filed October 30, 1901. Serial No. 80,496. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. T. DEHEKKER, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Valves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to a valve wherein compound motion is utilized and the valve-lever is so arranged as to be capable of movement to or past a dead-center, so that the valve is effectually seated and maintained to its seat without the necessity of a spring or other means for retaining it.

The valve is designed for use either in connection with a float or as a hand-operated valve.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claim.

Figure I is a perspective view of the valve. Fig. II is an enlarged vertical sectional view taken on line II II, Fig. I. Fig. III is a view, partly in elevation and partly in vertical section, taken on line III III, Fig. II. Fig. IV is a detail view of the valve-carrying member.

1 designates a valve-frame provided with a vertical post 2 of semicircular shape and having at its upper end an overhanging head 3.

4 is the outlet-neck carried by the valve-frame and surmounted by a slotted upright 5. The valve-frame is mounted on and attached to the nipple 6 of the supply-pipe 7.

8 designates a lever rockingly pivoted in the slotted upright 5 and having its inner arm 9 positioned to extend from said post in a direction toward the post 2 of the valve-frame. The lever 8 is adapted to receive the attachment of a rod 10 to carry a suitable float, or it may be provided with a suitable handle, as shown by dotted lines in Fig. II, by which the valve may be moved to seat or unseat the valve hereinafter described.

11 designates a valve-carrying member that contains a valve 12, adapted to seat on the nipple 6 of the supply-pipe when lowered thereto, and projecting upwardly from said member 11 is a vertical guide-stem 13, that is

positioned against the inner face of the frame-post 2, so as to ride in contact therewith and guide the member 11 in the rise and fall of said member.

14 designates an adjustable knuckle provided with screw-thread connection to the post-head 3, in which it is mounted, so as to be capable of vertical adjustment in said head.

15 is an upper toggle-link, pivoted at 16 to the knuckle 14, and 17 is a lower toggle-link, pivoted at 18 to the valve-carrying member 11. The toggle-links 15 and 17 are pivotally connected at 19, (see Fig. II,) and mounted on the pivot that joins said toggle-links is a yoke 20, that receives the pivotal connection of the arm 9 of the lever 8, whereby movement of said toggle-links is provided for in the movement of said lever. The upward throw of the lever-arm 9 exerts a pull upon the toggle-links 15 and 17 at their hinged connection, and thereby a compound motion is imparted to said parts to raise the valve-carrying member 11, suspended therefrom, and unseat the valve 12, whereas a reverse movement of the lever-arm in a downward direction carries the toggle-links into alinement with each other and forces the valve-carrying member downwardly to seat the valve in an effectual manner. The downward throw of the lever-arm 9 causes the pivot between said arm and the yoke 20 to be moved to a dead-center with relation to the pivot on which the lever is mounted, as seen in Fig. II, so that when the valve is seated the lever is maintained in a fixed position that provides for the holding of the valve seated, obviating the necessity for additional retaining parts.

By adjustably mounting the knuckle 14 in the post-head 3 said knuckle may be raised or lowered to any desired degree in order to increase or shorten the distance between said knuckle and the nipple 6, so that the parts may be accurately positioned to carry the valve 12 to its seat on said nipple and cause the lever arm 9 to partake of a position when the valve is seated that will carry its end to or past a dead-center with relation to its pivot-pin and provide for the retention of the parts as stated.

I claim as my invention—

The combination of a valve-frame provided

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with a semicircular post having an overhang-
ing head, a pair of toggle-links suspended
from said head, a valve-carrying member hav-
ing connection with said toggle-links, a guide-
5 stem projecting upwardly from said member
and having a convex outer face positioned
against the inner face of said post, so as to

ride in contact therewith, and a pivotally-
mounted operating-lever having connections
with said toggle-links.

JOHN J. T. DEHEKKER.

In presence of—

E. S. KNIGHT,
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