

(No Model.)

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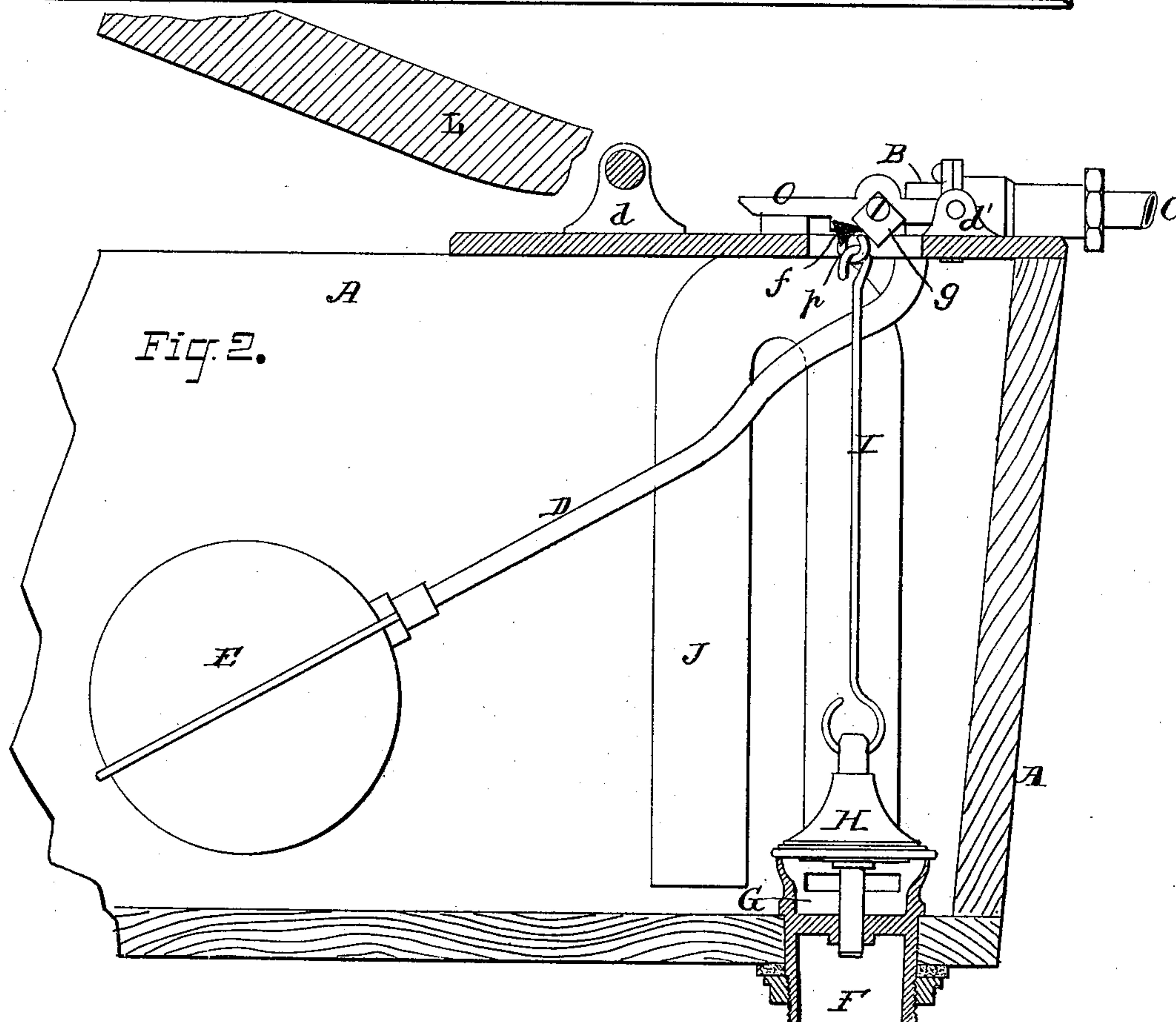
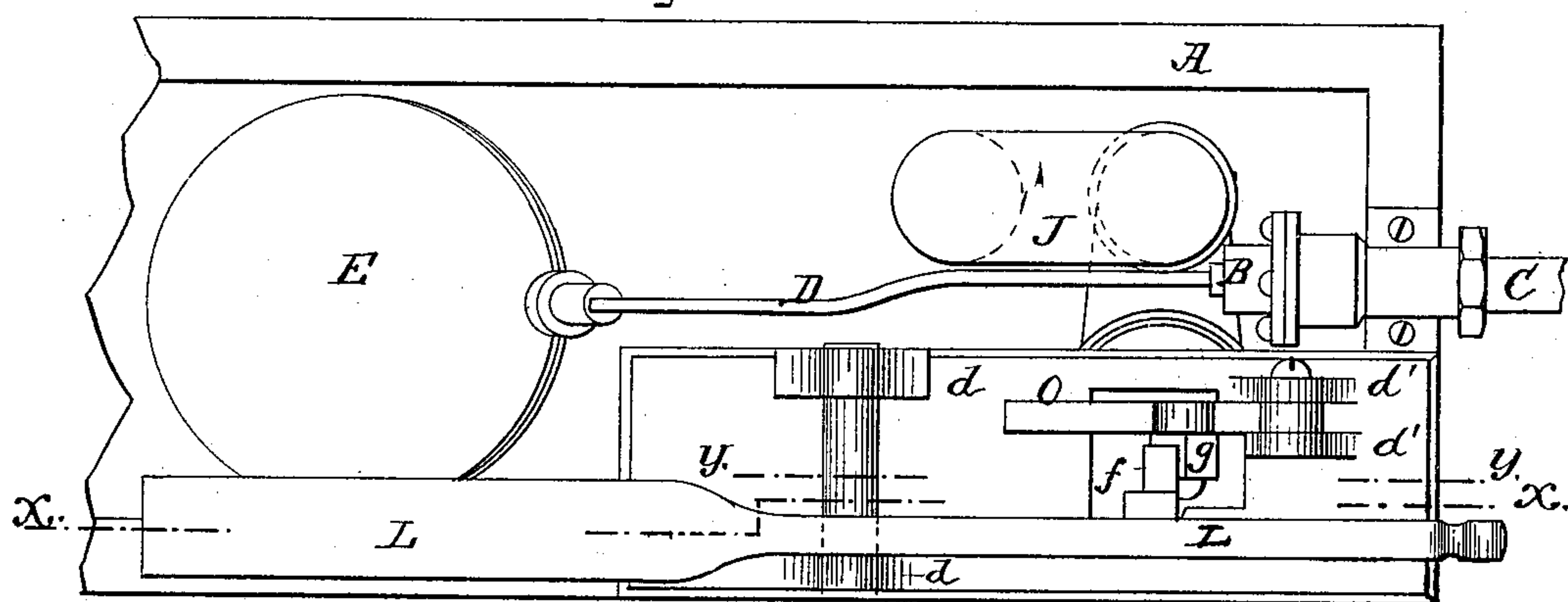
W. BUNTING, Jr.

SUPPLY TANK FOR WATER CLOSETS.

No. 329,885.

Patented Nov. 10, 1885.

Fig. 1.



ATTEST:

J. A. Murdle
Jacob Felbel

INVENTOR:

Wm Bunting Jr.
By atty. J. M. Lutz

(No Model.)

2 Sheets—Sheet 2.

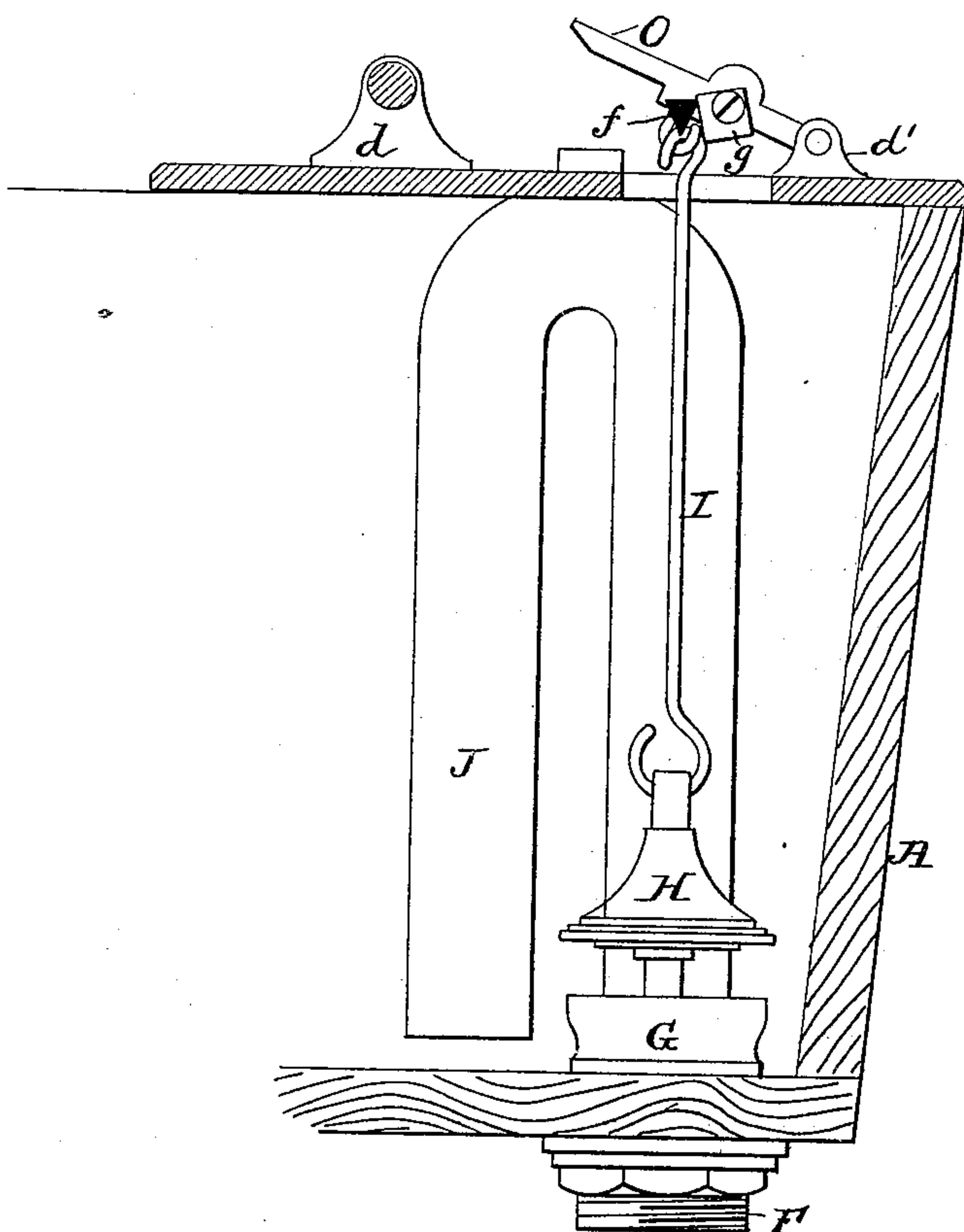
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SUPPLY TANK FOR WATER CLOSETS.

No. 329,885.

Patented Nov. 10, 1885.

Fig. 3.



ATTEST:

J. A. Hurdle
Jacob Felbel

INVENTOR:

Wm Bunting Jr
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UNITED STATES PATENT OFFICE.

WILLIAM BUNTING, JR., OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE MEYER-SNIFFEN COMPANY, (LIMITED,) OF NEW YORK, N. Y.

SUPPLY-TANK FOR WATER-CLOSETS.

SPECIFICATION forming part of Letters Patent No. 329,885, dated November 10, 1885.

Application filed June 9, 1885. Serial No. 168,160. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BUNTING, Jr., of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Supply-Tanks for Water-Closets; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My invention relates to that kind of water-closet tank or supply apparatus in which the tank is provided with a siphon, and in which the operating-lever, which is pulled down at its working end by the depression of the seat of the closet, co-operates with suitable means for opening the valve to afford the supply, which is subsequently kept up by means of the siphon whenever the seat is released and the working end of the operating-lever allowed to ascend.

Previous to my invention various forms of apparatus have been devised and used in which the operating-lever, which has one end pulled down by the depression of the seat and allowed to ascend when the seat is released, has been combined with some sort of mechanism for effecting the opening of the valve every time the seat of the closet should be released from pressure, and which at the same time could not be effected by the descent of the operating-lever whenever the seat might be depressed; but in all such contrivances that I know of there is more or less unnecessary complication of mechanism and constant liability of derangement.

I propose by my invention to provide for use an apparatus of the type referred to—that is, one in which the tank-valve is opened only once for the purpose of flushing out the bowl of the closet subsequent to the use thereof—that shall be extremely simple, durable, and efficient in its operation.

To these main ends and objects my invention consists in the novel construction or combination of devices which will be hereinafter more fully explained, and that will be found particularly pointed out and specifically defined in the claim of this specification.

To enable those skilled in the art to which

my improvement relates to make and use the same, I will now proceed to more fully describe my invention, referring by letters of reference to the accompanying drawings, which form part of this specification, and in which I have shown my invention carried out in that form in which I have so far successfully practiced it, and which is the best now known to me.

In the accompanying drawings, Figure 1 is a top view of the water-closet-tank apparatus made according to my invention. Fig. 2 is a vertical longitudinal section at the line *xx*, Fig. 1, showing the parts in the positions in which they would be during the occupancy of the seat of the closet—i. e., with the working end of the operating-lever of the tank pulled down to its lowermost position. Fig. 3 is a similar section, but with the parts in the positions in which they would be when the seat has been released from pressure and the working end of the operating-lever allowed to ascend to about its highest position.

In the several figures the same part will be found designated by the same letter of reference.

A is the tank, of ordinary construction, which is supplied with water from a supply-pipe, C, through an ordinary ball-cock, B, that is provided with a lever, D, and float E, for closing the cock in the manner well understood.

F is the exit-pipe, through which the contents of the tank is discharged into the bowl of the water-closet, and at the upper end of which is formed the usual valve-chamber, G, provided with a valve, H, the stem or rod I of which extends upward and has its upper end flexibly connected to a lever for lifting the valve in a manner and by means which will be presently explained.

J is the siphon, which is arranged, as usual, with its longer leg communicating with the interior of the valve-chamber G, so that when set in operation the water in the tank will be drawn off down to a level coincident with the lower end of the inner and shorter leg of the siphon.

L is the main working or operating lever, which, as usual, is weighted at one end, and at the other end is connected by a pull cord or

chain with the seat of the water-closet. Said lever has its pivot or axis arranged to turn freely in ears or bearing-boxes *d*, which are permanently located, and is provided at *f* with a laterally-projecting lug, that engages with an eccentrically-pivoted block, *g*, arranged on one side of the valve-lifting lever *O*. Said lever *O* is pivoted at one end in permanently-arranged ear-pieces or bearing-boxes *d*, and at its other end rests, preferably, on a supporting-ledge or top portion of the tank-cover.

The valve-stem *I* is flexibly connected at its upper end with the valve-lever *O* by being hooked into a depending eye or loop, *p*, on the lower side of said valve-lever.

The eccentrically-pivoted block *g* is so arranged on the valve-lever, as shown, that whenever the operating-lever *L* descends at its working end the laterally-projecting lug *f* will slightly turn said block *g* on its pivot, and pass by it without in any other manner affecting the devices connected with the valve and its lever. When, however, the working end of the main lever *L* begins to ascend, the lug *f* comes into contact with one of the lower inclined faces of the block *g*, and engages or interlocks with said block in such manner as to lift up bodily, both the block and the lever *O*, to which it is pivoted (and consequently the valve *H*), until the working end of said lever *L* shall have almost reached its highest position, when the said lug *f* and the said eccentrically-pivoted block *g* will become disengaged, so that the valve *H* and the parts directly connected therewith may descend or fall by gravity to their lowermost positions, (to close up the valvular opening at the bottom of the tank.) This operation of the valve-lifting mechanism will be best understood by reference to Fig. 3 of the drawings, in which the parts are represented in the positions in which they would be just previous to the time when, by reason of the block *g* and the lug *f* having moved, respectively, to the proper extent in diverging arcs, they begin to part company or become disengaged.

It will be seen that by the use, simply, of the eccentrically-pivoted block *g*, arranged on a lever or arm—such as *O*, for lifting the valve—

and a simple lateral projection—such as *f* on the working end of the operating-lever *L*—a perfectly efficient and at the same time extremely strong, simple, and durable mechanism is produced for properly lifting or opening the valve of the tank at each ascending movement of the working end of the main lever *L*.

Of course the precise shapes and sizes of the parts shown may be varied without changing the principle of construction or mode of operation of my novel contrivance. I have found the forms shown of lug *f* and block *g* to work well in practice; but I am well aware that the lug *f* might be of a different shape and the block *g* formed somewhat differently without materially changing the operations and results of the combined working parts, so long as the block *g* shall be pivoted, so as to permit the lug *f* to freely pass by it during the descent of the working end of the lever *L*, and so long as said block *g* shall be eccentrically pivoted, so as to crowd against and keep in engagement with the lug *f* when the latter ascends against said block until, when the valve-lifting lever shall have been sufficiently raised, the said block *g* and said lug *f* diverge from each other in their respective paths of motion and completely part company.

Having now so fully explained the construction and operation of my improved apparatus that those skilled in the art can make and use my invention, what I claim as new, and desire to secure by Letters Patent, is—

In combination with the working end of the main lever *L* and a vibrating valve-lifting lever, *O*, an eccentrically-pivoted device, *g*, arranged on the valve-lifting lever, and a lateral projecting lug or lifting device, *f*, arranged on the operating-lever, the whole constructed and arranged to operate in substantially the manner and for the purpose hereinbefore set forth.

In witness whereof I have hereunto set my hand this 2d day of May, 1885.

WM. BUNTING, JR.

In presence of—

JAS. TURK,
GEO. Z. HAMBLIN.