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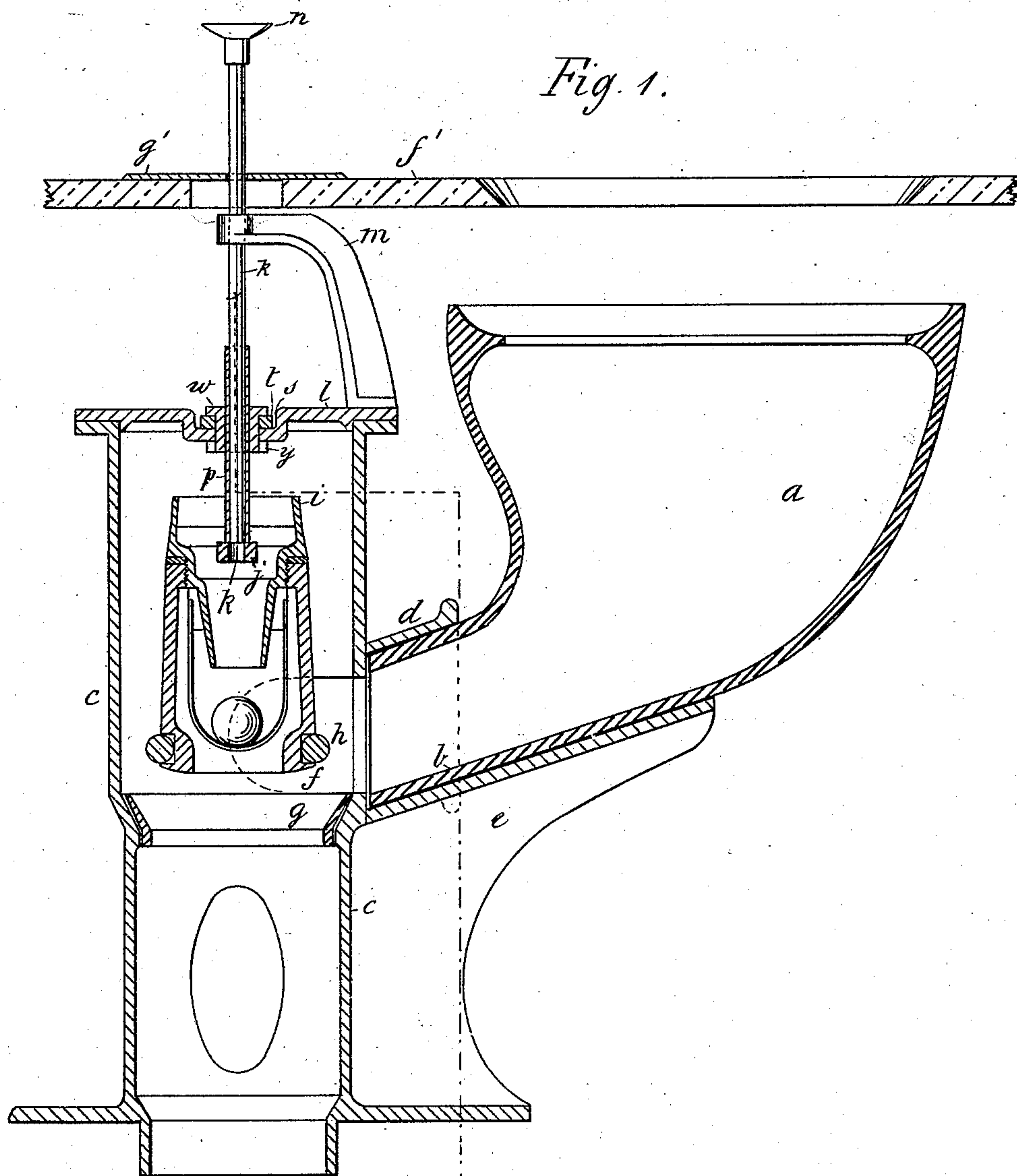
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L. WAEFELAER.

WATER CLOSET.

No. 286,874.

Patented Oct. 16, 1883.



WITNESSES:

Wm. H. Lowe
Chas. Morgan

INVENTOR

Louis Waefelaer
BY *A. P. Thayer*

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Fig. 3.

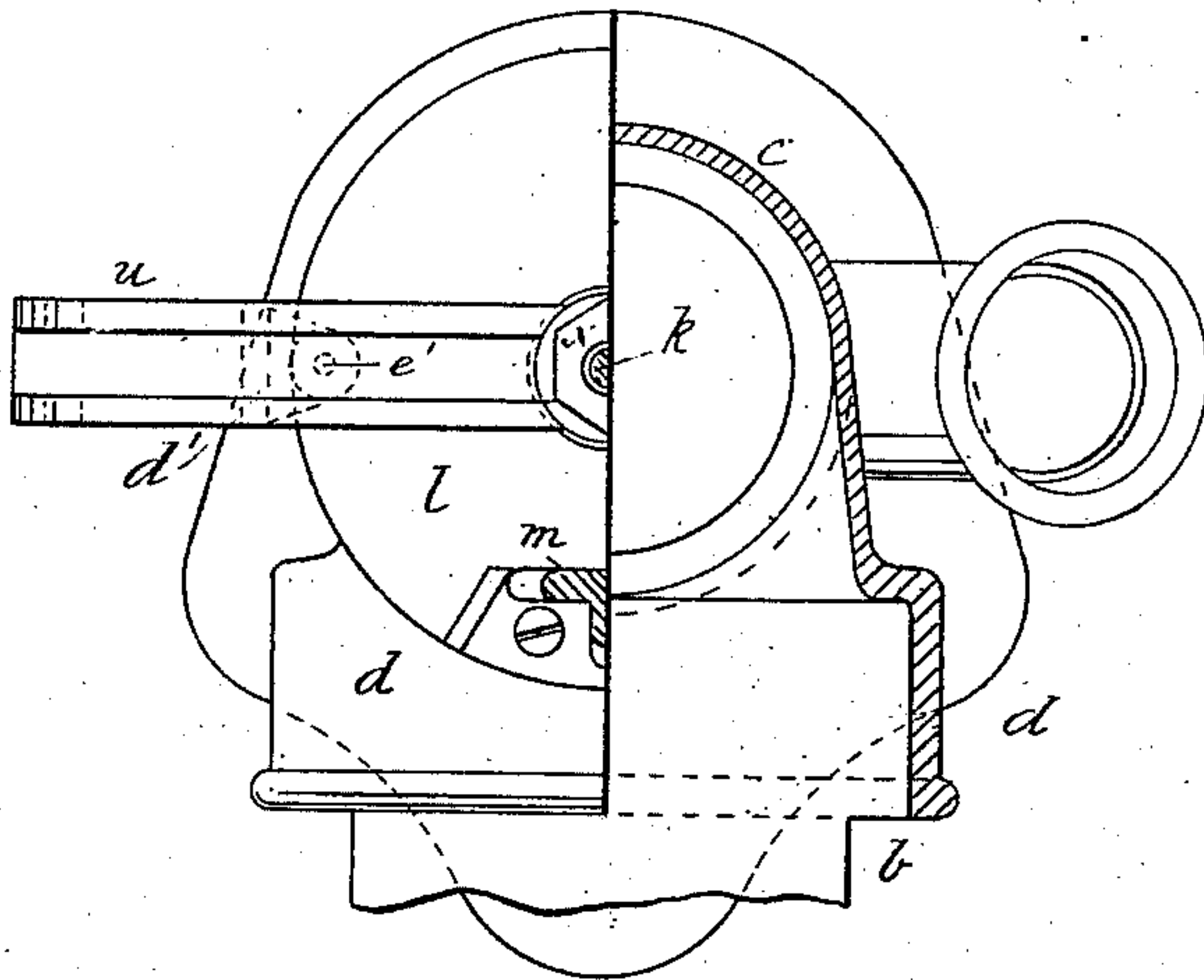
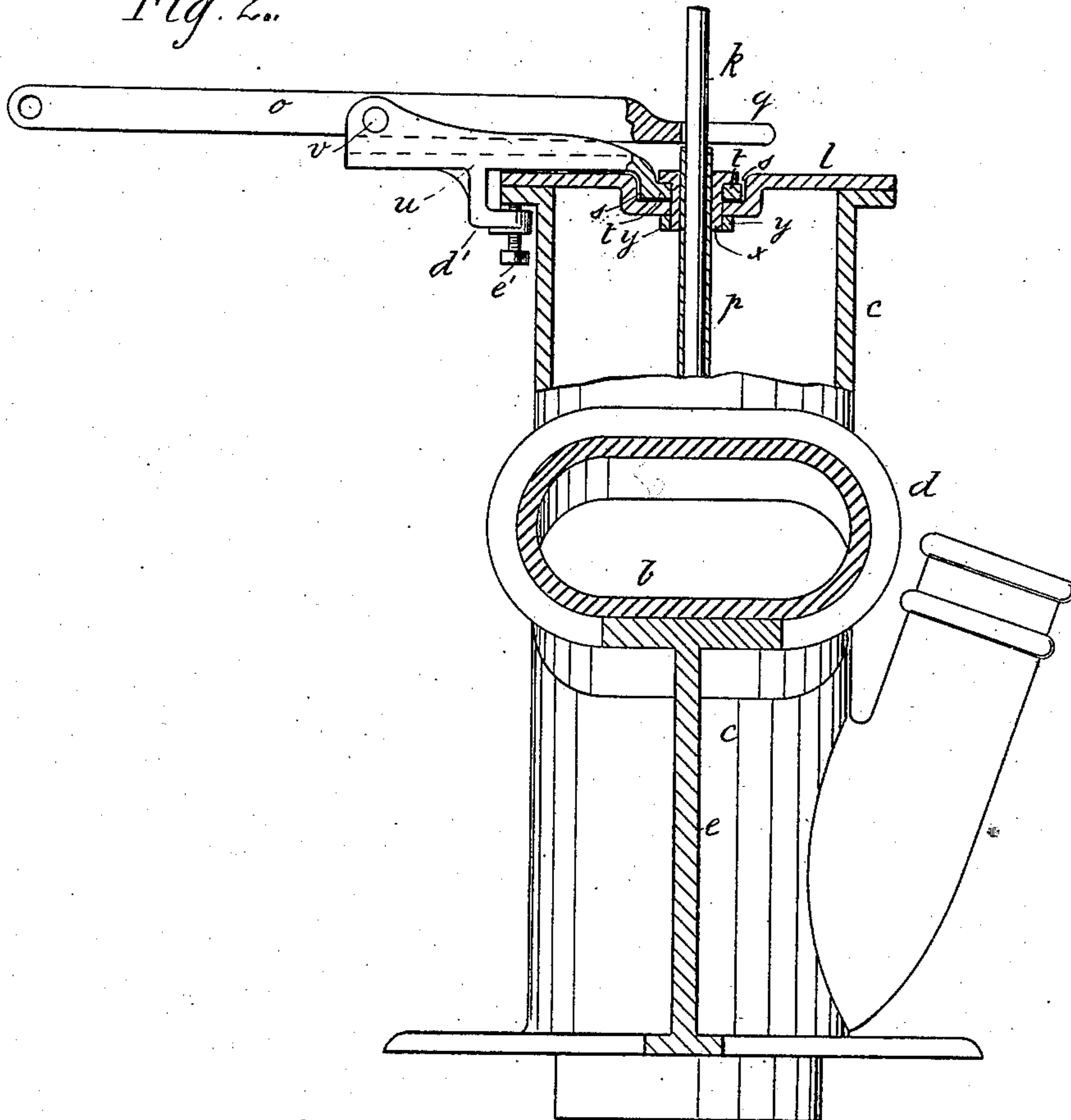


Fig. 2.



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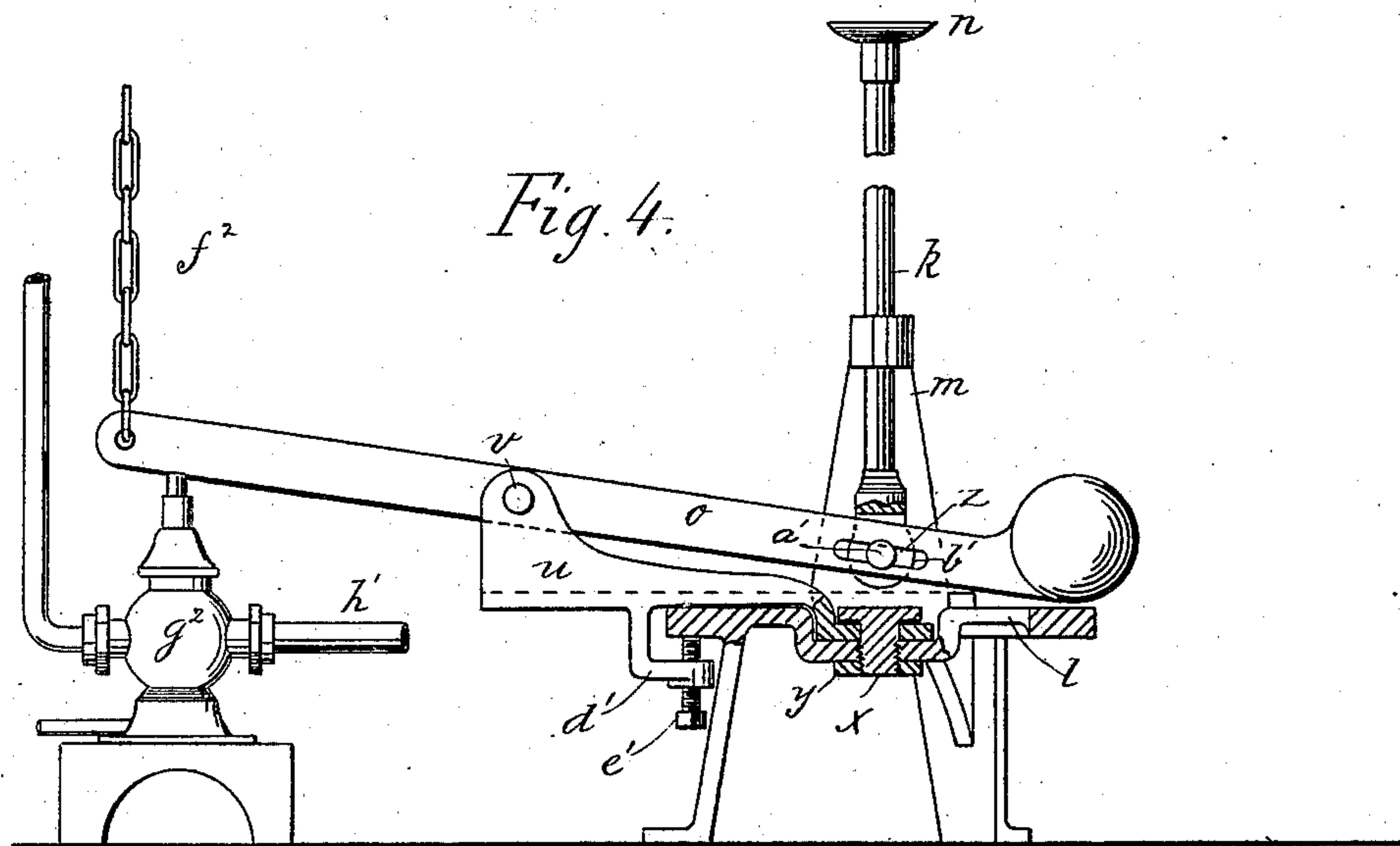
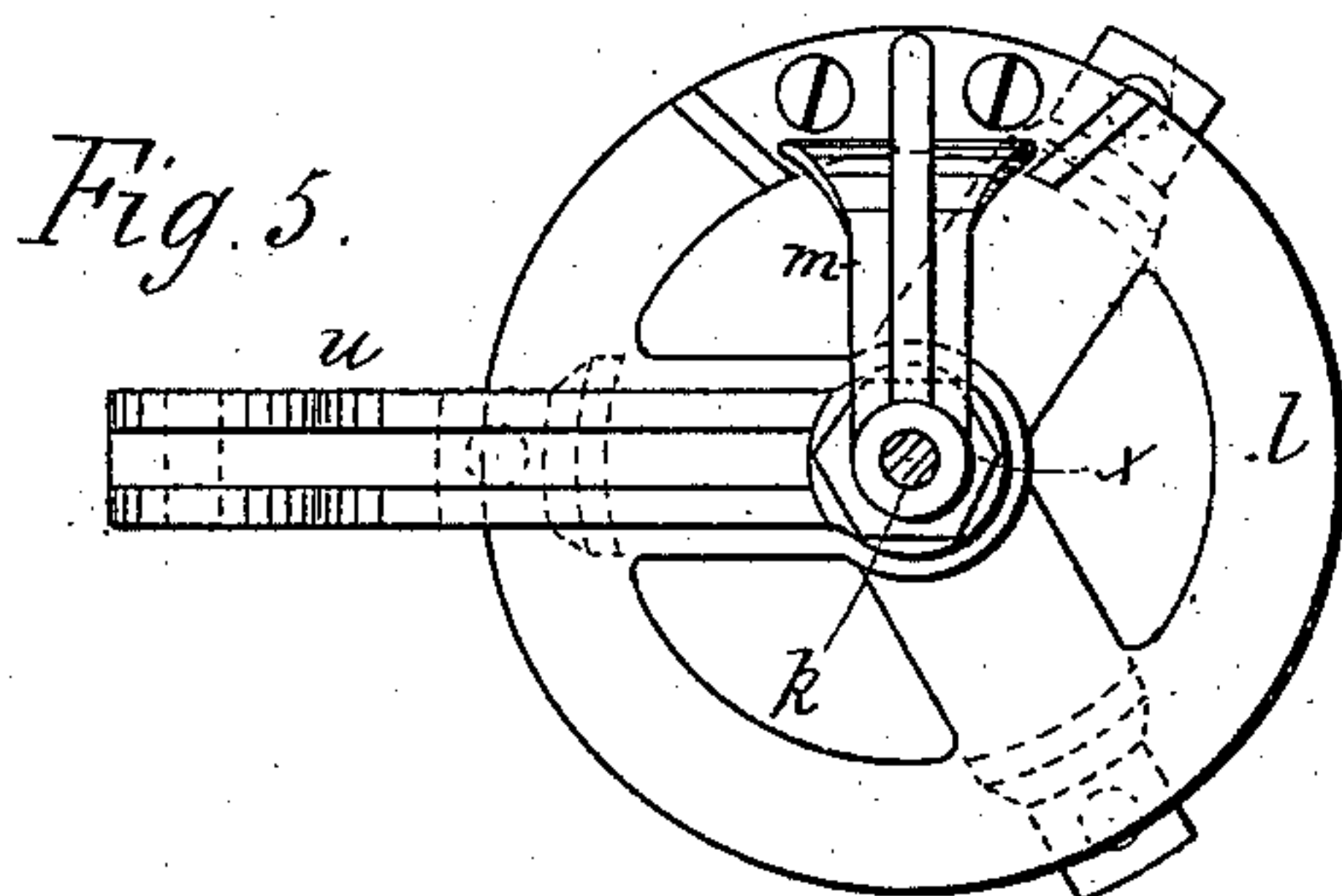
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UNITED STATES PATENT OFFICE.

LOUIS WAEFELAER, OF HOBOKEN, NEW JERSEY.

WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 286,874, dated October 16, 1882.

Application filed March 21, 1883. (No model.)

To all whom it may concern:

Be it known that I, LOUIS WAEFELAER, a citizen of the United States, and residing at Hoboken, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Water-Closets, of which the following is a specification.

My invention relates to the lever and the pull-handle contrivance, whereby the valve in the cistern is opened for flushing the basin with water when the pull is operated to discharge the contents of the basin, and whereby the valve in the stand-pipe is also operated when a stand-pipe containing a valve for the discharge of the contents of the basin is used.

The invention consists of an arrangement of the pull apparatus, to obtain the requisite movement of the lever between the top of the stand-pipe and the seat for opening the stand-pipe valve sufficiently to afford unobstructed flow of the contents of the basin into the stand-pipe; also, an arrangement for connecting the lever to the stand, so that it may be shifted around the stand to range in any desired direction in which it may be most convenient for placing it to connect directly with the cistern, whether it is directly over the closet or not, doing away with all cranks and axles.

The invention also consists of the arrangement of the joint by which the bracket for the support of the fulcrum-pin of the lever is connected to the stand for shifting the lever around the stand, and it also consists of the method of connecting the stem of the pull-rod of the stand-pipe valve and the lever for causing the lever to act by the pull when said pull is operated for the discharge of the basin, as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a sectional elevation of a basin and a stand-pipe. Fig. 2 is a side elevation of the stand-pipe, with a part in section on line *x x*, Fig. 1. Fig. 3 is a plan view of Fig. 2. Fig. 4 is a sectional elevation of a special stand used for the support of the lever when the stand-pipe is not used. Fig. 5 is a plan view of part of Fig. 4.

In Fig. 1 the basin *a* is represented with a sloping bottom and a lateral discharge-passage, *b*, which connects with the side of the

stand-pipe *c* by entering the pipe-connection *d*, in which it is secured by cement, the bottom of the basin resting on the bracket *e* of the stand-pipe. The stand-pipe contains a valve, *f*, which closes down on the seat *g*, to close the passage below the basin, and forms an overflow for the basin when filled to the maximum height, said valve having an elastic packing-ring, *h*, for tightly closing it, and being hollow and forming an overflow-dam at *i* for the escape of the contents of the basin when filled to the maximum height. From the cross-bar *j* in the upper part of this valve a pull-rod, *k*, extends up through the cover *l* of the stand-pipe, also through the guide-bracket *m*, to the pull-handle *n*, by which the valve is to be raised to empty the basin, and also to open the flushing-valve by means of the lever *o*. When the stand-pipe is used and the valve forming the overflow, the height is such that the range between the top of it and the under side of the seat *f'* is rather limited for the lever, so that when the ordinary deep pull-cup is used for the handle of the pull-rod the lever is prevented from rising as high as is necessary for lifting the valve *f* to the top of the opening into the stand-pipe, so as not to obstruct the flow from the basin into it. I therefore propose to dispense with the dish-shaped pull-cup, and utilize the vertical space which it occupies, or most of it, for greater rise of the lever by the use of a thin flat plate, *g'*, placed directly on the top of the wood *f'*, allowing the top of the pull-handle *n* to project as much above the plate as is necessary for slipping the fingers of the operator under it, the same as when it drops into the cup, thus enabling the lever to rise some two inches higher or more than when the said pull-cup is used. Another advantage of the flat plate is that it is not confined so much to the hole cut through the seat for the rod as the cup is, for the hole must be cut so large for the cup that there is but little margin for lateral adjustment in case the rod is not central to the hole, whereas the plate may shift nearly half its breadth to accommodate the rod without uncovering the hole. When a seat is made of two thicknesses of boards, the plate may be on the lower board, and the handle may drop into a recess in the upper one, flush with the surface. The fulcrum-bracket *u*, for

the support of lever *o*, has an elbow, *d'*, projecting under the cover, and secured by an adjusting-screw, *e'*, set up against the cover or the flange of the stand-pipe, on which the cover rests, the fulcrum being thus secured adjustably, so that it may be shifted to range in any desired direction from the pull-rod to enable it to be set as circumstances may require in any particular case. For making the connection of the lever *o* with the rod *k*, to be operated by said rod, I arrange a tube, *p*, on the rod, extending down through the cover *l*, and connected to the cross-bar *j* of the valve, said tube being properly adjusted to reach the under side of the lever when the valve is closed and the lever is down, the lever being crotched in the end, and the two branches, *q*, of the crotch projecting along the sides of the rod, so as to be lifted by the tube when the pull is raised.

For the support of the lever I make the cover *l* with a central recess, *s*, in which I fit a pivot-eye, *t*, of the end of a fulcrum-bracket, *u*, which radiates across the flat top *l* a suitable distance from the rod for the support of the fulcrum-pivot *v*, the said bracket lying on the flat upper surface of the cover, while the pivot-eye is bent down into the recess *s* sufficiently to make room under the lever for the head *w* of a pivot-bolt, *x*, extending down through cover *l* and secured by the nut *y*, screwed up under the cover, the said bolt being tubular when the lever is used with the stand-pipe to allow the pull-rod to extend down to the valve; but when said stand-pipe is not used, the pull-rod terminates in the slotted end *z*, and is connected to the lever by the pin *a'* and slot *b'*, and the bolt *x* is made solid.

These improvements apply to the lever alike, whether it is employed in connection with the stand-pipe valve or not, and also whether it be employed to raise a valve in an elevated tank by a chain, *f*², for the supply of water to flush the basin or to work a self-closing valve, *g*²,

located in the supply-pipe *h'* near the basin and within the range of the lever, as represented in Fig. 5.

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

1. The seat *f'*, having a flat pull-rod plate, *g'*, arranged on said seat, and the pull-rod extended above said flat plate for utilizing more of the space under the seat for the range of the lever, substantially as described.

2. In combination with the supporting stand, the fulcrum-bracket for the flush-valve lever, fitted adjustably on said stand, whereby it may be shifted around the stand, substantially as and for the purpose described.

3. A flat cover having a recess, *s*, in combination with the stand, the flushing-valve lever, and its fulcrum-bracket, said fulcrum-bracket having a pivot-eye connected to the cover in said recess, substantially as described.

4. A flat cover having a recess, *s*, in combination with the stand and the bracket for the lever-fulcrum, said bracket having a pivot-eye located in said recess and secured by a bolt extending through the cover, said bolt secured by a nut, *y*, below the cover, substantially as described.

5. In a water-closet having a stand-pipe and a valve therein, the pull-rod of which is made to actuate the flushing-valve lever, the fulcrum-bracket of the said lever resting on the cover of the stand-pipe, and having an eye-pivot located in a recess in the center of the cover, and secured by a tubular bolt extending through the cover, and a fastening-nut on the other side, said fulcrum-bracket also having the pull-rod extending through it, substantially as described.

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Witnesses:

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