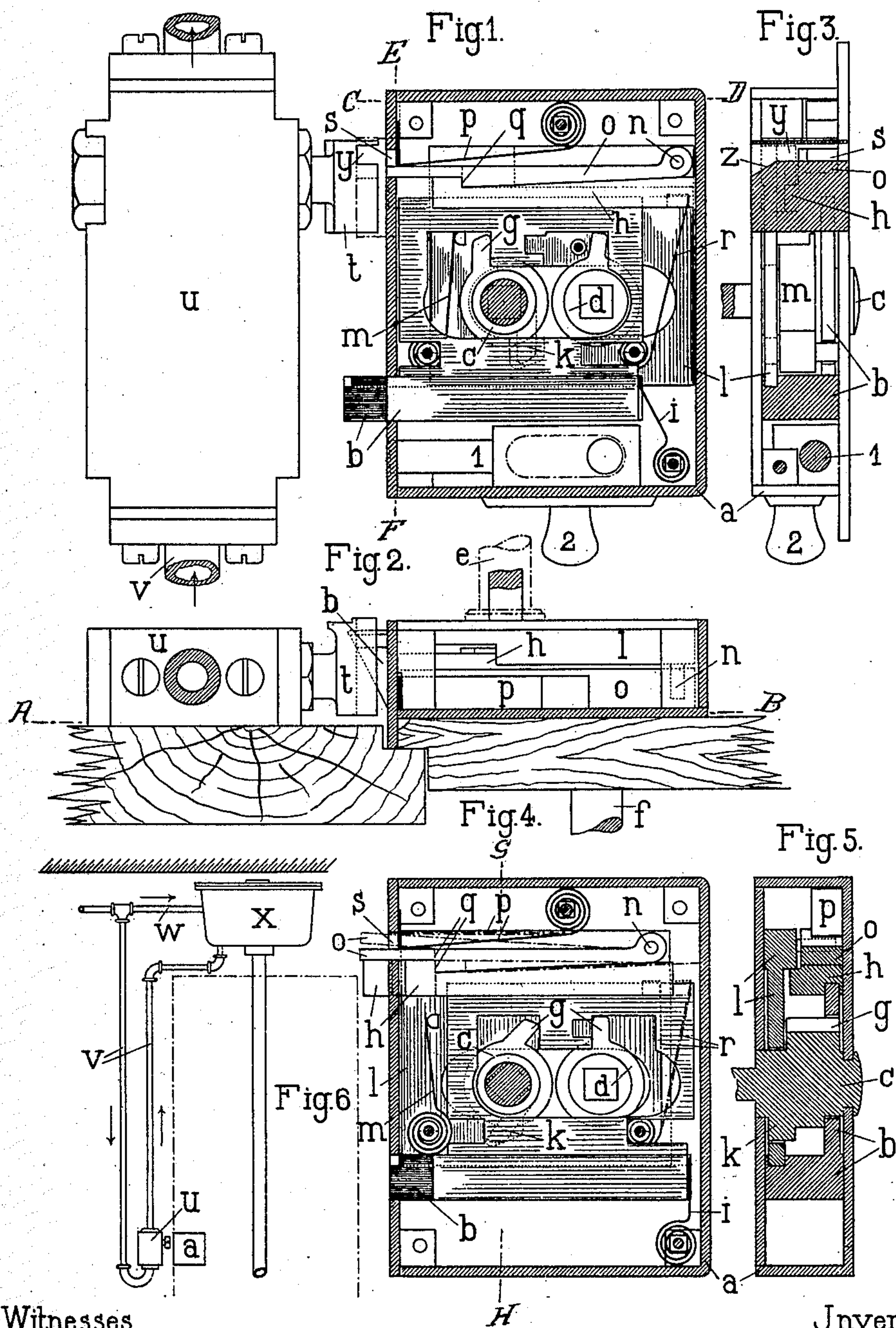


No. 860,548.

PATENTED JULY 16, 1907.

W. KESSELRING.  
CLOSET FLUSHING APPARATUS.  
APPLICATION FILED MAR. 29, 1907.



Witnesses

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# UNITED STATES PATENT OFFICE.

WILHELM KESSELRING, OF STRASSBURG, GERMANY.

## CLOSET-FLUSHING APPARATUS.

No. 860,548.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed March 29, 1907. Serial No. 365,298.

To all whom it may concern:

Be it known that I, WILHELM KESSELRING, a subject of the German Emperor, and residing at Strassburg, German Empire, have invented certain new and useful  
5 Improvements in Closet-Flushing Apparatus, of which the following is a specification.

The subject of my invention is a closet flushing apparatus which is actuated automatically on the closet door being opened by the person leaving the apart-  
10 ment.

According to my invention the door lock is furnished with extra latch mechanism of such description that on the inside handle of the closet door being turned by the user quitting the privy, said mechanism automatically  
15 operates the valve of a flushing apparatus. Flushing, therefore, must take place every time the door is opened from within. The mechanism is so constructed that the door can be closed by a person about to occupy the closet even should the inside handle be held in turned  
20 position.

One form of construction of my novel apparatus is illustrated in the accompanying drawing, in which

Figure 1 is a section of the door lock seen from the outside of the door, the section being taken on the line  
25 A—B of Fig. 2. Fig. 2 is a sectional plan on the line C—D of Fig. 1. Fig. 3 is a section on the line E—F of Fig. 1. Fig. 4 shows the lock portion of Fig. 1, the parts being in the position they occupy after the inside handle has been turned. Fig. 5 is a section on the line  
30 G—H of Fig. 4. Fig. 6 is a general view of the entire flushing apparatus.

*a* is the case of the lock in which the latch *b* works in well-known manner. The inner portion of the latch is of L cross section (Fig. 5) so as to present an upright  
35 plate, which is provided with a suitably shaped aperture to receive the hubs *c d*, which are rotated on the door handles *e f* (Fig. 2) being turned, and by means of the horns *g* retract the latch *b* from the keeper. The handle *e* of the hub *c* is located on the closet side, while  
40 the handle *f* which fits into the square hole in the hub *d* is on the outside of the door. The top edge of the plate portion of the latch *b* fits into a groove provided in a bolt-shaped slide *h* and it is actuated by a spring *i*, which has the tendency always to keep the latch *b*  
45 protruded, *i. e.* to shoot it into the keeper. The sole function of the outside handle *f* is to retract the latch *b* when the door is to be opened. The hub *c* of the inside handle *e* has in addition to the horn *g* for retraction of the latch, a second horn *k* (Figs. 1, 4, 5). This horn *k*  
50 engages in a notch in a second latch plate *l* and tends on the handle *e* being turned to advance the plate *l* in a direction contrary to the direction of motion of the latch *b*. The latch plate *l* slides in a longitudinal groove in the latch *b* (Figs. 3 & 5) and is actuated by a  
55 spring *m*. Projecting from the plate *l* there is a rigid pin *n* (Figs. 1, 2 & 4), which forms a pivot for a lever

*o*. This lever *o* is acted upon by a spring *p* and in the position of rest of the lock is depressed, its lug *q* fitting into the corresponding recess in the slide *h*, so that it can carry the latter along with it on the inside handle  
60 *e* being turned, whereby the flushing apparatus can be set in operation. The slide *h* is acted upon by a spring *r*, which has the tendency to retain it in the position shown in Fig. 1. The face plate of the case *a* has in addition to the aperture for the latch *b*, another suitably  
65 shaped aperture for the lever *o* and slide *h*. The slot *s* for the lever *o* (Figs. 1, 3 & 4) is of sufficient height to admit of a certain amount of rotation of the free end of this lever about the pin *n*. Opposite the outer ends of the slide *h* and lever *o* there is a prismatic shaped  
70 head *t* of the sliding stem of a water valve *u*. The latter is located in a metal box (not shown) secured at the door jamb and is connected in a branch pipe *v* of the water supply pipe *w* (Fig. 6). The branch *v* terminates below a siphon in the flushing cistern *x*. The latter is  
75 fed by the pipe *w*, which is closed by means of a float valve in well-known manner.

If the person quitting the closet turns the handle *e* the hub *c* will be rotated from the position shown in Fig. 1 into that illustrated in Fig. 4, whereby the latch  
80 *b* will be retracted by the horn *g* of this hub, so that the door can be opened. At the same time the horn *k* of the same hub *c* will advance the plate *l* with lever *o*, and the lug *q* of the latter will protrude the slide *h* from the case *a*. The ends of the lever *o* and slide *h* will  
85 thus strike the face of the head *t* and push it and its stem back into its box. This will cause the said water-valve *u* to open and the flushing apparatus will come into operation, while the occupant of the closet can  
90 leave the same. Most persons are in the habit of closing a closet door while the handle is held turned. To provide for this the arrangement is such that the parts *h o* thus caused to protrude from the case *a* will not operate the head *t* on coming within its province. For this purpose the head *t* is provided with a groove *y* (Fig. 3),  
95 which is widened at the one side by the provision of a chamfer *z*. On closing the door from within the protruding lever *o* strikes first against the chamfer *z* and sliding up the same will come into the dotted-line position indicated in Fig. 4. During this ascent, however,  
100 the lug *q* of the lever will move out of the province of the slide *h*, whereby the latter will be set free and under the influence of the spring *r* will snap back into the case *a*. This return of the slide will take place before the moment in which the slide, moving with the clos-  
105 ing door, arrives within the province of the head *t*. Thus the door can be closed without any obstruction or disturbance of the parts.

When the handle *e* is released after the door has been shut, the plate *l* with lever *o* will return into the posi-  
110 tion of rest, and the lug *q* of the lever on arriving above the recess in the slide *h* will snap into the same under



the influence of the spring *p*. The door can be bolted from within by means of the bolt 1 actuated by the knob

2. Simultaneously with the operation of the bolt 1 an inscription, such as "Engaged," "Vacant," is rendered visible by suitable mechanical means. When the handle *e* is again turned on the occupant of the closet desiring to leave the same, the lever *o* and slide *h* will advance simultaneously in the manner already described out of the case *a*. The head *t* with valve seat stem will thus be pushed back and the flushing apparatus will come into operation. After the pressure on the front of the head *t* has ceased, the latter will return under the action of a spring automatically into the position of rest indicated, in which position the seat of the valve *u* is closed.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is—

1. In a closet door lock, a double horned hub actuated by the inner handle, a spring controlled latch actuated by the one horn, a spring controlled latch plate operated by the other horn, and spring controlled means actuated by

said latch plate, in combination with a flushing valve having a sliding stem located in the path of said means, whereby when said hub is turned the latch is retracted and the valve opened by said means, substantially as described.

2. In a closet door lock, a double horned hub actuated by the inner handle, a spring controlled latch actuated by the one horn, a spring controlled latch plate operated by the other horn, a spring controlled lever pivoted to said latch plate, and a spring controlled slide engaged by said lever, in combination with a flushing valve having a sliding headed stem located in the path of said lever and slide, said stem head being furnished with a slot presenting a chamfer adapted to receive the end of said lever, whereby when the said hub is turned during closing of the door, the latch is retracted and the lever and slide protruded but prevented from striking the head and opening the valve, owing to the lever end ascending the chamfer and releasing the slide, substantially as described.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

WILHELM KESSELRING.

Witnesses:

JOSEPH ROHMER,  
LAWRENCE M. McDERMOTTE.