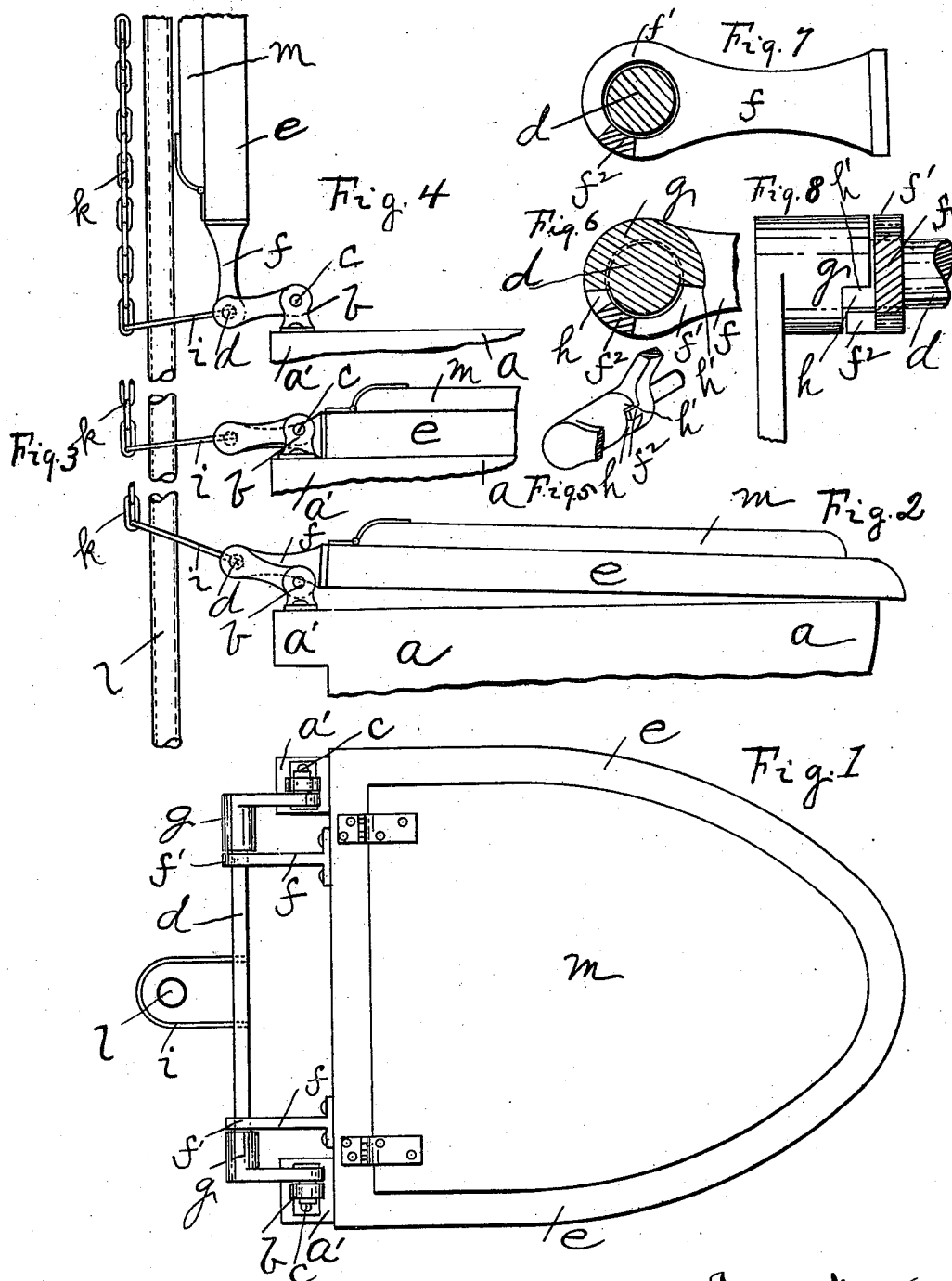


(No Model.)

T. GRACE.
WATER CLOSET.

No. 574,679.

Patented Jan. 5, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS GRACE, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE BAILEY-FARRELL MANUFACTURING COMPANY, OF SAME PLACE.

WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 574,679, dated January 5, 1897.

Application filed April 29, 1895. Serial No. 547,544. (No model.)

To all whom it may concern:

Be it known that I, THOMAS GRACE, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Water-Closets; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to water-closets.

The object of my invention is to provide a simple form of mechanism for flushing the bowl by the movement of the seat, and the particular points of the invention will be fully hereinafter set forth and claimed.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a top view of a closet embodying my invention. Fig. 2 is a side view. Fig. 3 is a view of the seat depressed. Fig. 4 is a view of the seat when raised. Figs. 5, 6, 7, and 8 are detail views.

Like letters indicate like parts in each of the figures.

The bowl *a* may be the ordinary earthenware bowl, and secured within suitable recesses formed within the projections *a'* of said bowl are the bearings *b*. Within said bearings *b* are journaled the studs or journals *c'* of the cranks *c*. These cranks *c* are secured to the crank-shaft *d*. Secured to the seat *e* are the rods *f*. Said rods may enter seats in said seat so as to be capable of being withdrawn or forced into said seats, according to the distance at which the bowl is located from the wall. This construction is fully set forth and claimed in an application for Letters Patent filed by me April 10, 1895, Serial No. 545,149. The outer ends of the rods *f* have the rings *f'*, which encircle the crank-shaft *d*. One or both of the sockets *g*, in which the ends of the crank-shaft *d* are secured, have a seat or recess *h* formed therein, and one or both of said rods *f* have a lug *f*² thereon, which engages with the recess *h*, formed in said sockets. The said lug *f*² is capable of moving freely in said recess when the seat *e* is raised to a certain height, but when said lug strikes against the shoulder *h'*, formed by said recess

h, the crank-shaft *d* will be acted on in a manner more fully hereinafter set forth.

Secured to the crank-shaft *d* is the rigid loop *i*, which is connected to the operating-chain *k*. A rigid rod may be employed instead of said chain, if so desired. The chain *k* is connected with the flushing mechanism, such as that shown and described in the application for Letters Patent hereinbefore referred to.

The loop *i* is preferably employed, because it permits of the passage of the flushing-pipe *l* therethrough; but I do not confine myself to such a form of connection between the rocking-bar and the chain.

The seat *e* in its normal position has its front end in contact with the bowl and its rear end slightly elevated from said bowl. When the seat is occupied, the rear end is depressed, as shown in Fig. 3, whereupon the crank-shaft *d*, acted on by the rods *f*, is lowered. The loop *i* will also be lowered, carrying with it the chain *k*. This chain being connected to suitable flushing mechanism in the tank will so operate said mechanism that immediately the seat is vacated and the chain raised the bowl will be flushed.

The bowl may be flushed in another way. By lifting the seat *e* the rings *f'* on the rods *f* will turn on the crank-shaft *d* until the lug *f*² comes in contact with the shoulder *h'* of the recess *h*. As soon as said lug *f*² strikes the shoulder *h'* and the seat is forced back still farther the crank-shaft *d* will be forced down and with it the loop *i*, as shown in Fig. 4. The chain will be lowered and the mechanism in the tank above so operated that when the seat is again lowered and the crank-shaft *d* permitted to assume its normal position the bowl will be flushed. It is apparent that the lid *m* could be connected up with the crank-shaft in the same manner as the seat, so that upon the raising or lowering of the lid the bowl will be flushed.

I have used the term "rock-bar" in the claims as designating any form of a bar which will rock or turn to operate the flushing mechanism.

I do not confine myself to any particular

manner of flushing the bowl, and I have only alluded to the flushing mechanism as set forth in the application for Letters Patent hereinbefore referred to as being a convenient form.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of a rock-bar and connections therefrom to the flushing mechanism, a seat mounted on the rock-bar, and connections between the seat and bar, whereby upon lifting said seat to an upright position the flushing mechanism is operated, substantially as set forth.

2. In a water-closet, the combination of a swinging seat, a rock-bar, rods in said seat and journaled on said rock-bar, a lug on said rod

adapted to engage a shoulder on said rock-bar, and connections between said rock-bar and flushing mechanism, substantially as set forth.

3. In a water-closet, the combination of a swinging seat, a rock-bar, rods in said seat and journaled on said rock-bar, a lug on said rod fitting in a recess on said rock-bar, and connections between said rock-bar and the flushing mechanism, substantially as set forth.

In testimony whereof I, the said THOMAS GRACE, have hereunto set my hand.

THOMAS GRACE.

Witnesses:

ROBT. D. TOTTEN,
ROBERT C. TOTTEN.