(No Model.)

G. W. BOWER.

TIME SIGNAL FOR CLOSETS.

No. 453,878. Patented June 9, 1891.

Fig. 1.

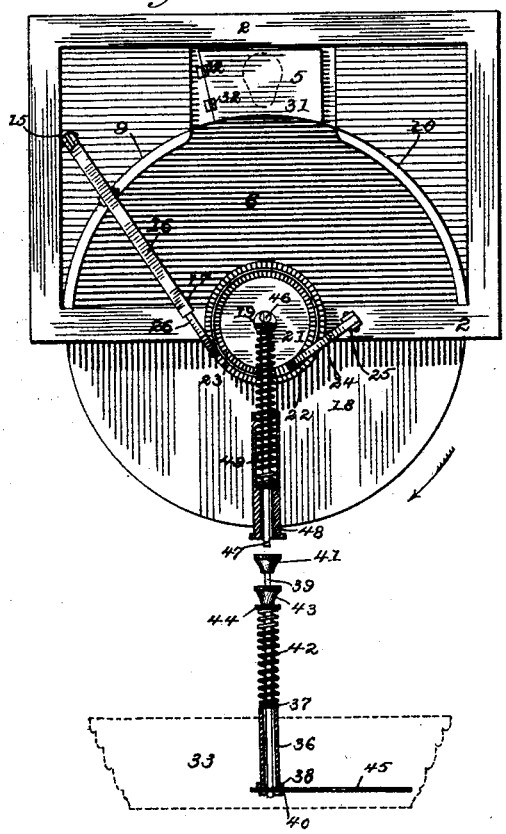
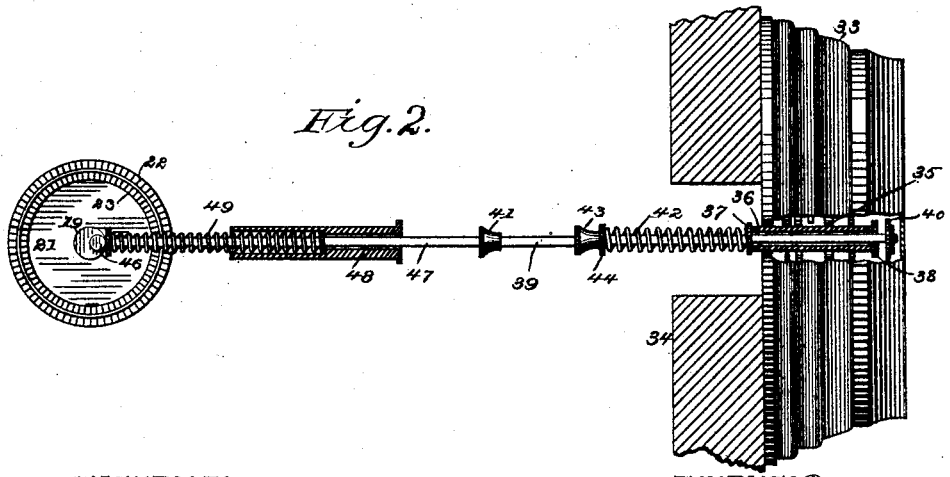


Fig. 2.



WITNESSES

Wm. Musser

A. B. Jenkins.

INVENTOR

Giles W. Bower,

by Willard Eddy Attorney

UNITED STATES PATENT OFFICE.

GILES W. BOWER, OF ENFIELD, CONNECTICUT, ASSIGNOR OF TWO-THIRDS TO SAMUEL H. NUTTING AND EDWARD PARSONS, BOTH OF SAME PLACE.

TIME-SIGNAL FOR CLOSETS.

SPECIFICATION forming part of Letters Patent No. 453,878, dated June 9, 1891.

Application filed October 20, 1890. Serial No. 368,632. (No model.)

To all whom it may concern:

Be it known that I, GILES W. BOWER, of Enfield, in Hartford county, Connecticut, have invented certain new and useful Improvements in Closets, which improvements are described in the following specification and are illustrated by the accompanying drawings.

My invention relates in general to earth-closets, water-closets, and other closets which are used as emunctories, and in particular to closets of the general construction which is described in Letters Patent of the United States No. 425,083, which were issued April 8, 1890, to S. H. Nutting, E. Parsons, and myself for improvements in closets. The closet which is described in said Letters Patent is characterized by a rotary door, a locking device which is adapted to engage said door, mechanism for weighing the occupants of the closets, and connecting mechanism, whereby such locking device is caused to engage or to disengage such door, according to the load which is imposed upon the weighing mechanism.

The present improvements consist in providing the closet with a time-piece, which is controlled by the operation of the closet, and in the peculiar construction of the mechanism whereby the control of the time-piece is effected. That mechanism includes a spring-clamp and a reciprocating member, whereby the clamp is actuated.

The best manner in which I have contemplated applying the principle of my invention is illustrated in said drawings, in which—

Figure 1 is a top view of my improved closet closed, as when occupied, including a sectional view of the mechanism which controls the time-piece; and Fig. 2 is an enlarged top view of the clock and clock-regulating mechanism, partly in horizontal section.

In Fig. 1, as in said Letters Patent, the numeral 2 denotes the top sills of a closet, whose semi-cylindrical door 18 is pivoted vertically in the middle of the otherwise open entrance of the closet by means of a vertical axial arm 19, which passes rotatably through a hole or bearing in the front sill 2. By means of pawls 24 and 26, which engage a double ratchet 21 on arm 19, the rotation of door 18 is regulated, substantially as set forth in said Letters Patent.

That which is peculiar to the present invention remains to be described.

The numeral 33 denotes a clock, which is conveniently attached to the wall 34 of a work-room or other apartment adjacent to the closet. The clock-train 35 drives the center pinion 36, which is a tube passing through the clock from front to rear and provided with terminal flanges 37 and 38, as seen in Fig. 2. Through the middle of this tubular pinion passes a loose-fitting stem 39, carrying at its forward end a fixed ring or disk 40 and at its rear end, behind the clock, a thumb-nut 41. On the same stem, between flange 37 and nut 41, is a coiled spring 42, which is slightly compressed against flange 37 by means of a thumb-nut and a washer 43 and 44.

The clock is provided with a minute hand or pointer 45, which fits loosely upon said stem 39, between flange 38 and disk 40.

On top of axial arm 19 is an eccentric 46, working against the end of a rod 47, which is spring-seated in a guiding-tube 48, and is supported thereby in line with stem 39.

The mode of operation of this improvement is such that whenever door 18 is closed, occupying the closet, eccentric 46, advancing against the end of rod 47, pushes the latter against stem 39 or terminal nut 41, so that disk 40 is separated from flange 38, as seen in Fig. 2. Pointer 45, being thus left free upon stem 39, hangs down vertically therefrom, indicating that the closet is unoccupied; but when the door rotates from that position and is closed in the reverse position, which is indicated in Fig. 1, eccentric 46 retires and spring-seated rod 47 separates itself from stem 39. Under these circumstances pointer 45, being held fast against flange 38 by disk 40, actuated by spring 42, indicates the length of time during which the door remains in the last-mentioned position. Said flange and disk thus operate as a spring-clamp, effecting an engagement between the clock-train and the pointer. When the door is turned again into the closet, disk 40 is separated from flange 38, as before, and pointer 45, being thus released, falls to its original vertical position. By this improvement, therefore, the duration of each successive occupancy of the closet is indicated upon the face of the clock by the greater or

less movement of the pointer from that position.

Such being the construction and operation of my invention, I claim—

1. A clock having a pointer which is normally held in operative engagement with the driving mechanism of the clock by means of a spring-clamp, in combination with a rotary closet-door, an eccentric which is actuated thereby, and an eccentric-rod engaging or disengaging said clamp, according to the position of said door, substantially as and for the purpose specified.

2. A clock having driving mechanism and a pointer, which are adapted to engage each other by means of a spring-clamp, in combination with a rotary closet-door provided with an eccentric and eccentric-rod, which are adapted to open the clamp and release the pointer whenever the closet is vacated, substantially as and for the purpose specified.

3. A clock which is provided with a rotary spring-clamp between the driving mechanism and the pointer, in combination with eccentric mechanism engaging or disengaging said clamp according to the position of rotation of the eccentric, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my name in the presence of two witnesses.

GILES W. BOWER.

Witnesses:

SAMUEL H. NUTTING,

EDWARD PARSONS.