(No Model.)

M. W. GRISWOLD.

WATER CLOSET SEAT.

No. 368,717. Patented Aug. 23, 1887.

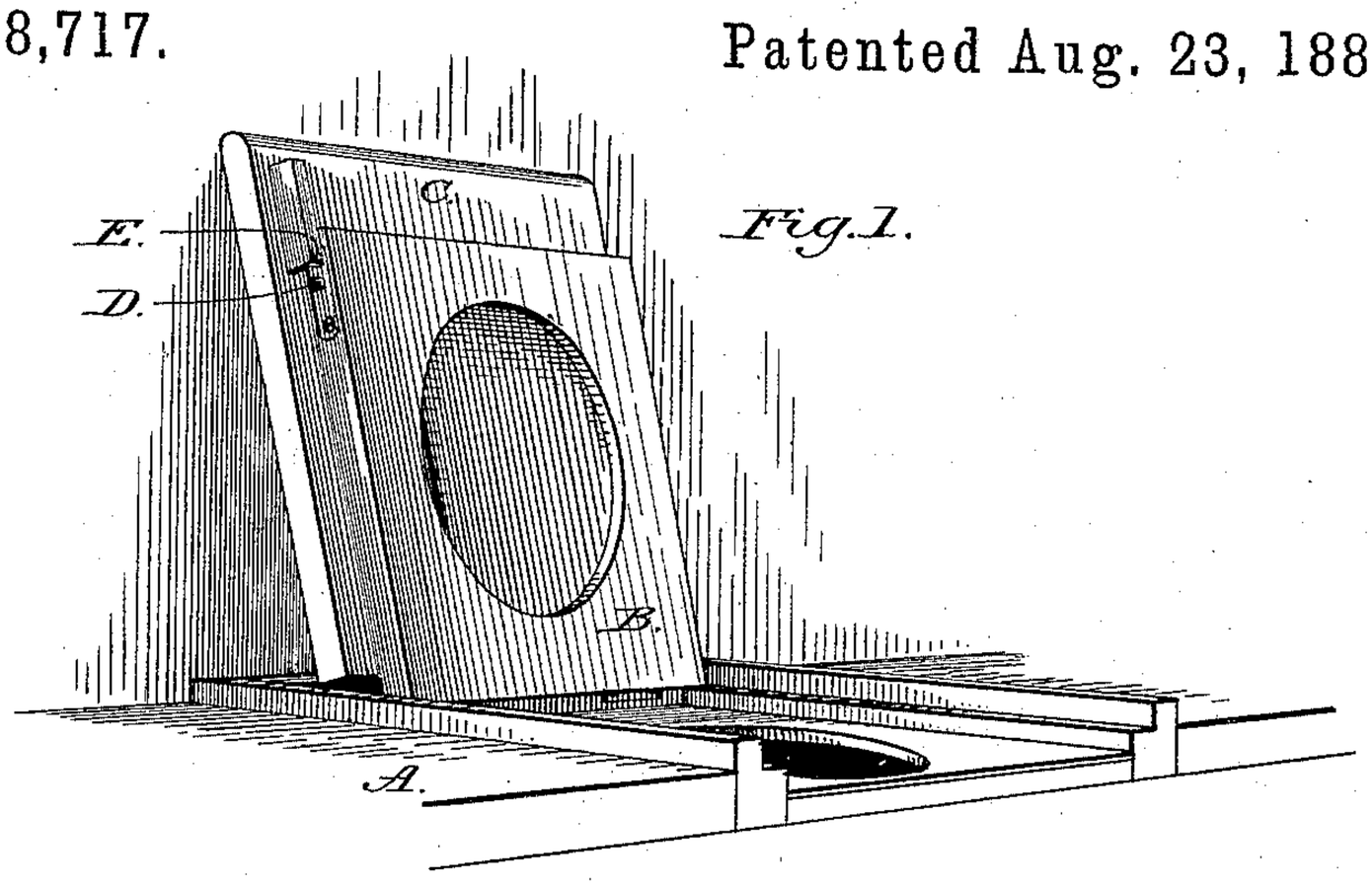


Fig. 1.

Fig. 2.

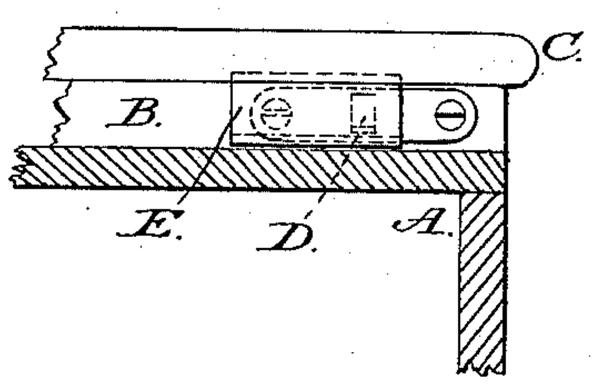


Fig. 3.

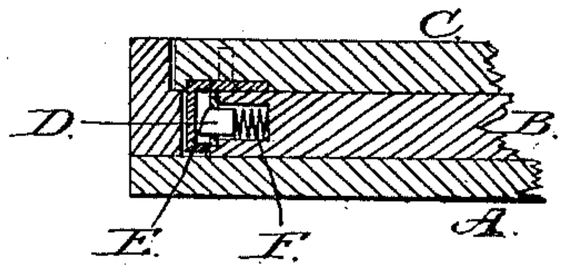


Fig. 4.

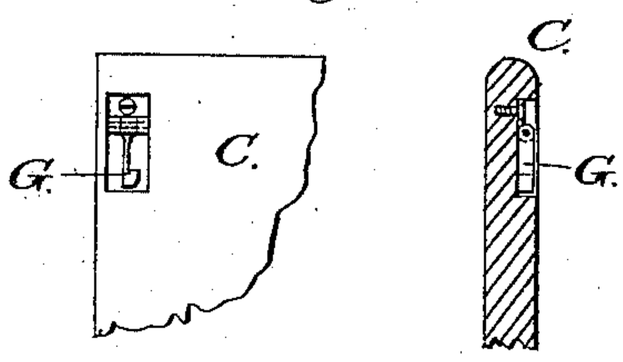
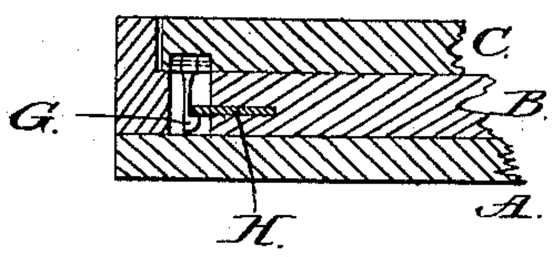


Fig. 5.



Attest:

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UNITED STATES PATENT OFFICE.

MERRITT W. GRISWOLD, OF NEW YORK, N. Y.

WATER-CLOSET SEAT.

SPECIFICATION forming part of Letters Patent No. 368,717, dated August 23, 1887.

Application filed October 6, 1884. Renewed January 25, 1887. Serial No. 225,488. (No model.)

To all whom it may concern:

Be it known that I, MERRITT W. GRISWOLD, of the city, county, and State of New York, have invented a new and useful Improvement in Water-Closet Seats; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to the hinged seats and lids of water-closets, and has for its object the automatic lifting of the seat by the raising of the lid, to facilitate thereby the use of the bowl or hopper as a slop-receptacle or urinal without danger of soiling the seat, the seat being left free to be closed independently of the lid after having been automatically lifted therewith.

It consists in the combination, with the seat and lid hinged separately to the casing of the closet, of a hook on the one adapted to engage a longitudinal catch-plate or offset on the other when the two are closed, the catch-plate or offset being so adjusted with reference to the hook as that the latter shall slide off the end of the former by reason of the differential movement of the seat and lid as they both turn up upon their hinges.

In the accompanying drawings, Figure 1 is a view in perspective of the seat and lid of a water-closet when thrown open; Fig. 2, a side view of the lid and seat when closed, the casing being in section; Fig. 3, a transverse section on line *x x* of Fig. 2; Fig. 4, details illustrating a modification of the invention; and Fig. 5, a transverse section of the seat and lid, illustrating said modification more fully.

A represents the casing, B the seat-board, and C the lid, of a water-closet.

The rear edge of the seat-board B is hinged to the casing in the customary manner, and the lid C is in like manner hinged to the casing immediately in the rear of the seat and parallel therewith, so as to close down thereon, the lid being made, as usual, wider than the seat. A pin, D, is inserted in the side of the seat near to the front end thereof, to project out slightly therefrom, as shown in Fig. 3.

An extended metallic flange, E, is secured to the under face of the overlapping portion of the lid, to project therefrom parallel with its side in position to depend in front of the pin D when the lid is closed upon the seat, and the lower edge of said extended flange is bent inward to pass under and engage the pin when the two are thus brought together.

To permit the inwardly-bent lip S of the flange to pass under the end of the pin when the lid is closed upon the seat, the flange is made sufficiently elastic to yield and spring back from the pin when its lower edge strikes it, the upper edge of the pin being beveled to compel and facilitate the outward spring of the flange as it passes the point of the pin; or, as an equivalent device, the flange may be made perfectly rigid and the pin be mounted to play in a recess in the edge of the seat and be forced out automatically far enough to engage the lip S of the flange by means of a spring, F, which will allow the pin to spring back as the flange in its descent passes its point, the pin being beveled, as above described, to enforce and facilitate its inward movement.

The lid and the seat are so united by the engagement of the pin D with the flange E as that the lid cannot be raised without lifting the seat with it; but the flange and the pin are so placed relatively to each other as that so soon as the seat and lid are thrown fully back when opened, as illustrated in Fig. 1, the inner end of the flange E shall be carried up beyond the pin and entirely free therefrom. As the lid and seat rise together, the difference in their pivotal centers will cause the flange to move longitudinally over the pin until, when the seat has been carried past the perpendicular and its center of gravity thrown to the rear of its pivotal support, the end of the flange passes entirely away from the pin, as shown in Fig. 1, leaving the seat free to be closed independently of the lid. When, however, the lid is closed, the flange is thereby brought again into register with the pin and made to engage the same, as above described, and as illustrated in Figs. 2 and 3 of the drawings.

In the modification of the invention illustrated in Figs. 4 and 5 a hook, G, is hinged in a recess upon the under side of the lid in position to swing out automatically from the lid at a right angle thereto when the lid is

closed and brought into a horizontal position. The pivotal axis of the hook is made parallel with that of the lid, so that the body of the hook shall, when the lid is raised, lie parallel with the side edge of the lid, as shown in Fig. 4, and the hook is turned inward, so that as it drops out in the descent of the lid it shall be in position to engage a longitudinal flange or offset, H, upon the lateral edge or side of the seat near to its front end.

The body of the hook is made sufficiently elastic to permit the hook to spring away from the flange when it strikes it in the fall of the lid. As the lid is lifted the hook, engaging the flange, will draw up the seat with it; but the difference in the pivotal centers of the lid and seat causes the hook to move outward along the flange until when the seat has been carried past its center of gravity over its hinges the end of the hook passes out beyond the end of the flange and is wholly released therefrom, and, being left unsupported, swings back upon its own hinge into the recess, which serves to inclose it, and to prevent thereby annoyance therefrom to persons leaning back against the lid.

As by means of this invention the seat is invariably and automatically lifted by the opening of the lid, so as to fully uncover thereby the bowl or hopper and its encircling drip-tray, the seat is fully protected from becoming soiled inadvertently by parties intending to use the bowl or hopper only. The seat, after being thus raised with the lid, is very readily dropped again, if desired, independently of the lid.

I claim as my invention—

1. The combination, with the hinged seat of a water-closet, and with a lid hinged independently of the seat and in a different horizontal plane to close down thereon, of a device upon the one adapted to engage a longitudinal offset upon the other and to be disengaged by the automatic separation of the two produced by the differential movement of the lid and seat as they are swung upward together, substantially in the manner and for the purpose herein set forth.

2. The combination, with the hinged seat B of a water-closet, and with a lid, C, hinged in a different horizontal plane to close upon and cover said seat, of a spring-actuated pin, F, projecting from the lateral edge of the seat, and a lipped flange, E, projecting from the lid in position to be engaged by the pin when the lid and seat are closed, and to be carried away and disengaged therefrom as they are opened, substantially in the manner and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MERRITT W. GRISWOLD.

Witnesses:

JOHN A. ELLIS,

G. H. SPENCER.