(No Model.) 2 Sheets—Sheet 1.

G. J. KREMELBERG.

WATER CLOSET SEAT.

No. 454,743. Patented June 23, 1891.

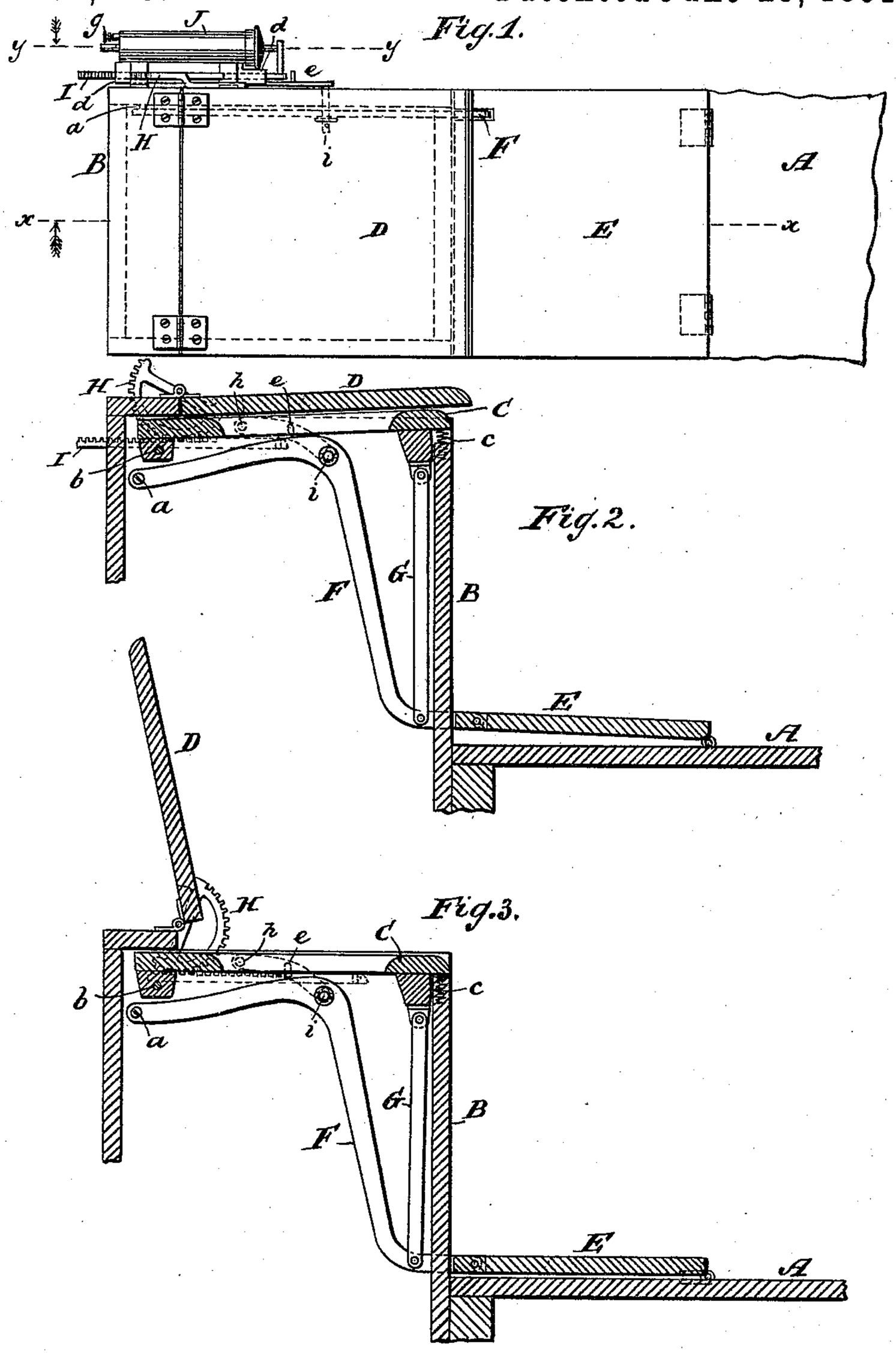

Fig. 1.

Fig. 2.

Fig. 3.

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William L. Miller

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

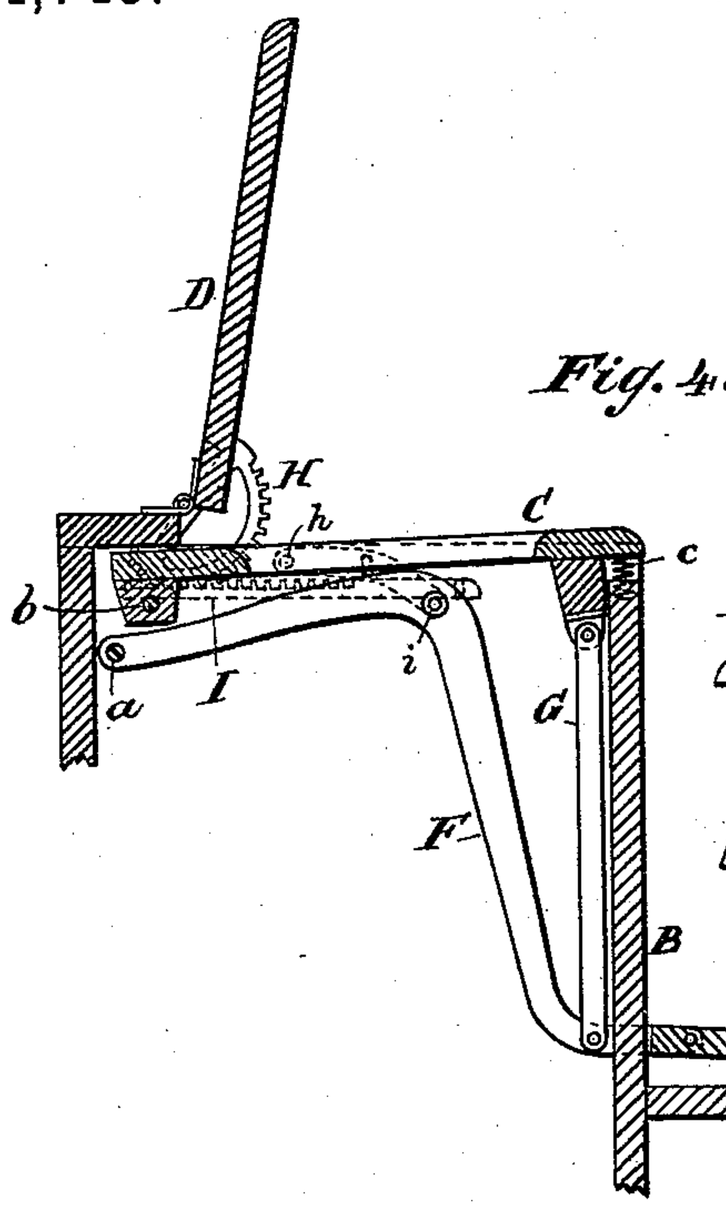


Fig. 8.

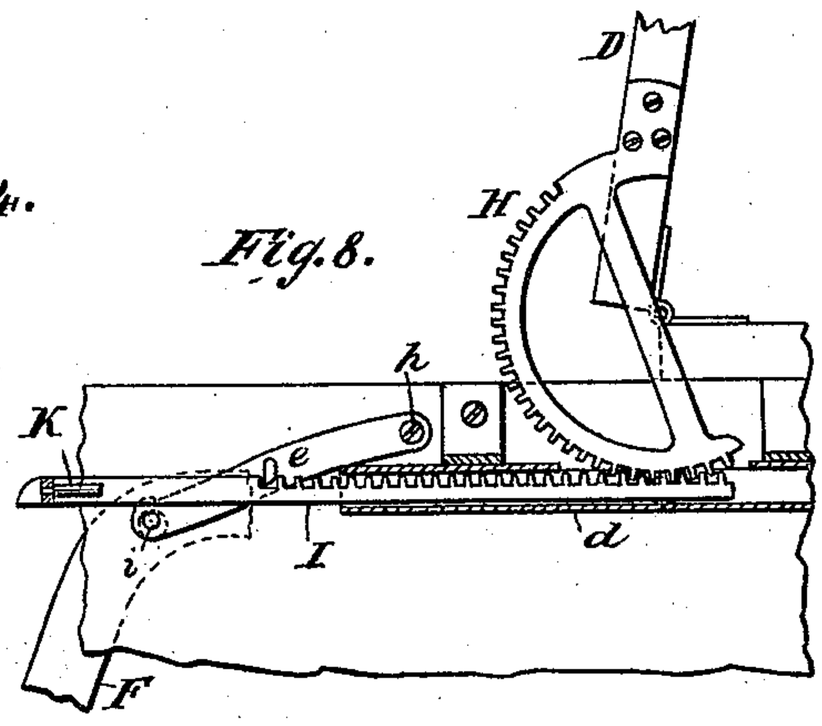


Fig. 5.

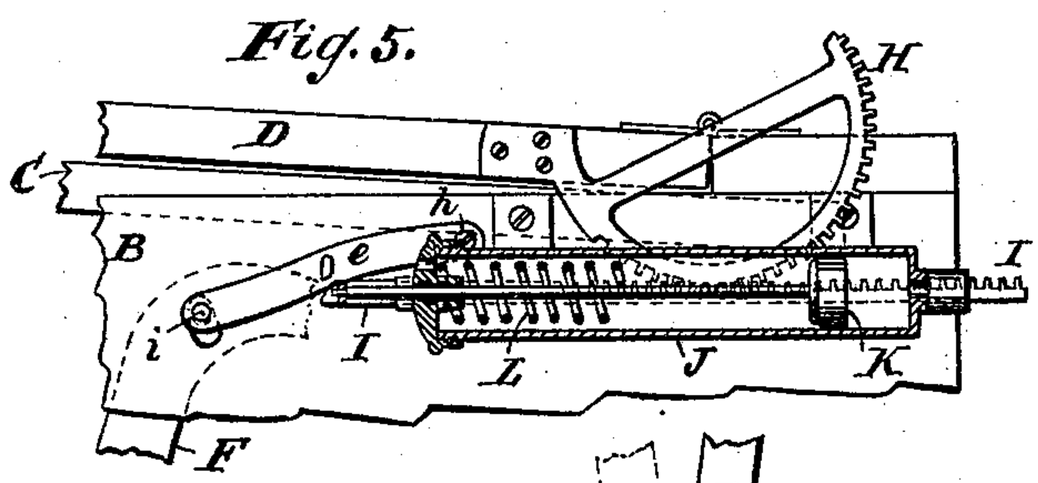


Fig. 7.

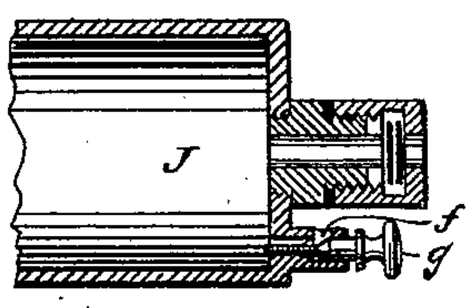
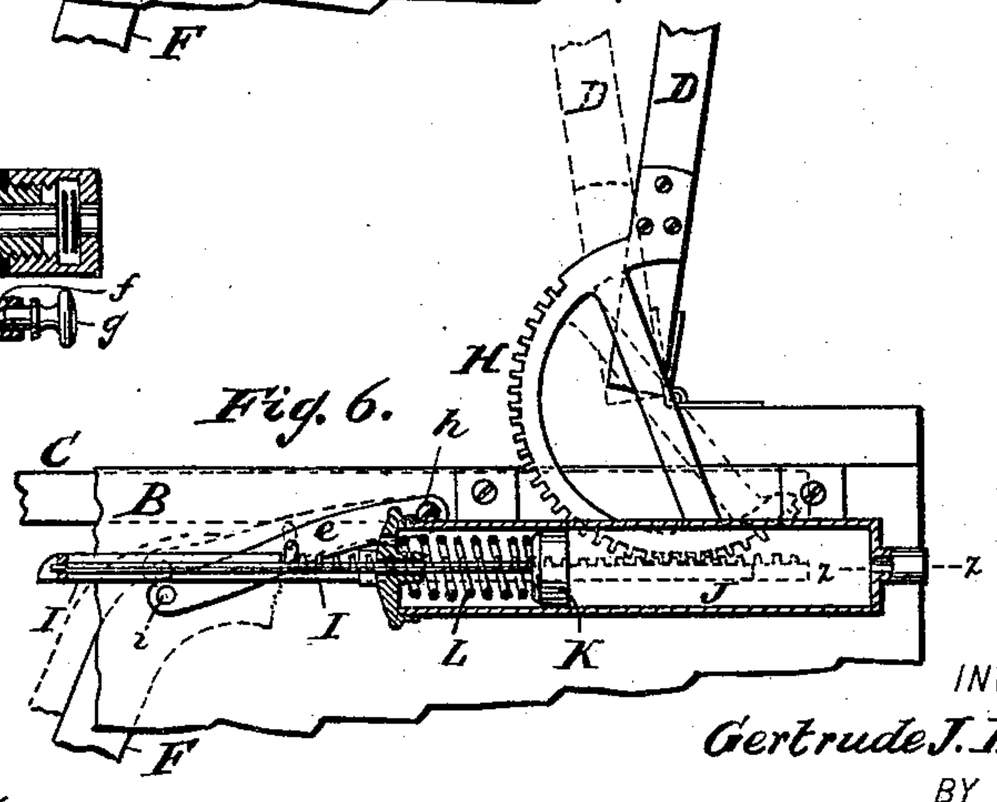


Fig. 6.



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UNITED STATES PATENT OFFICE.

GERTRUDE J. KREMELBERG, OF NEW YORK, N. Y.

WATER-CLOSET SEAT.

SPECIFICATION forming part of Letters Patent No. 454,743, dated June 23, 1891.

Application filed March 5, 1891. Serial No. 383,825. (No model.)

To all whom it may concern:

Be it known that I, GERTRUDE J. KREMELBERG, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Water-Closet Seats, of which the following is a specification.

This invention relates to a sanitary closet-seat which closes automatically when the person having occupied the seat leaves the closet.

The peculiar and novel mechanism which constitutes the subject-matter of my invention is pointed out in the following specification and claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan or top view when the seat is closed. Fig. 2 is a longitudinal vertical section in the plane *x x*, Fig. 1, when the seat is closed. Fig. 3 is a similar section when the seat is wide open. Fig. 4 is a similar section when the seat has been thrown into a position to close by its own gravity. Fig. 5 is a sectional view of the cushioning-cylinder when the seat is closed, on a larger scale than the previous figures. Fig. 6 is a similar view of the same parts when the seat is open. Fig. 7 is an enlarged sectional view of the end of the cushioning-cylinder. Fig. 8 is a detached elevation of the rack-bar and stop which form part of the mechanism for controlling the position of the seat.

In the drawings, the letter A designates the floor of a water-closet.

B is the case or box which incloses the pan.

C is the seat, and D is the cover.

On the floor is secured a hinged platform E, from which extends a lever F into the interior of the case B. This lever has its fulcrum on a pivot *a*, secured in the side of the case, and it connects by a rod G with the seat C. This seat is supported at its rear end by pintle or hinge joint *b*, and its front end rests upon a spring *c*, and in its normal position the seat occupies the position shown in Fig. 2, the cover D being closed.

On the edge of the cover is firmly secured a toothed segment H, which engages a rack-bar I. (Best seen in Figs. 5, 6, and 8.) This rack-bar is movably fitted into a guide or box *d*, which is firmly secured to the case B, and when the cover D is closed the rack-bar occupies the position shown in Figs. 2 and 5; but if the cover is opened to the position shown in Fig. 3 and in full lines in Fig. 6 the rack-bar I is pushed out to the position shown in Figs. 3, 6, and 8. If at the same time sufficient pressure is brought to bear upon the platform E or upon the seat C, the lever F acts upon a dog *e* and throws the same into engagement with the rack-bar I, so as to prevent the same from moving backward.

J is a cushioning-cylinder, the piston K of which is connected to the rack-bar I, so that when the cover D is opened to the position shown in Fig. 6 the piston K is brought to bear upon a spring L, situated in the interior of the cylinder J, so as to compress the same. At the same time air is sucked into the cylinder through a channel *f*, Fig. 7, the area of which can be regulated by a valve *g*.

As already stated, the dog *e* is held in engagement with the rack-bar I by the pressure brought to bear upon the seat C or upon the platform E; but as soon as this pressure ceases the rack-bar is released by the dog *e*, and the piston K (which carries the rack-bar I) is driven backward by the spring L a sufficient distance to move the cover D from the position shown in Fig. 3 and in full lines in Fig. 6 to the position, shown in Fig. 4 and in dotted lines in Fig. 6. When the cover has reached this position its downward motion is checked by the air-cushion in the cylinder J, the air-valve *g* being adjusted so that the air can escape from the interior of the cylinder with more or less velocity, according to the weight of the cover. The dog *e* swings on a pivot *h*, which is secured in the side of the case B, and it engages the lever E by means of a pin *i*, which extends through the case, as seen in Fig. 1. From this description it will be seen that the cushioning-cylinder forms a check to prevent the cover from slamming down when the seat is relieved from pressure, said check being so constructed that its power is spent when the cover approaches its closing position, so that the cover is permitted to close down snugly upon the seat.

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

1. The combination, with the elastically-supported seat C and with the cover D, of the dog *e*, the rack-bar I, geared with the cover,

the spring L, which acts upon the rack-bar when the cover is open, and a check for the descending cover, the power of which is spent as the cover approaches its closing position, substantially as described.

2. The combination, with the elastically-supported seat C and with the cover D, of the dog *e*, the rack-bar I, geared with the cover, the cushioning-cylinder J, the piston K, connected to the rack-bar I, and the spring L, which acts upon the piston when the cover is open, substantially as described.

3. The combination, with the elastically-supported seat C and with the cover D, of the hinged platform E, connected with the seat, the dog *e*, the rack-bar I, geared with the cover, the cushioning-cylinder J, the piston K, connected to the rack-bar, and the spring L, which acts upon the piston when the cover is open, substantially as described.

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

GERTRUDE J. KREMELBERG.

Witnesses:
J. VAN SANTVOORD,
E. F. KASTENHUBER.