

(No Model.)

J. H. STEVENS, Jr.
SEAT ATTACHMENT FOR WATER CLOSETS.

No. 583,662.

Patented June 1, 1897.

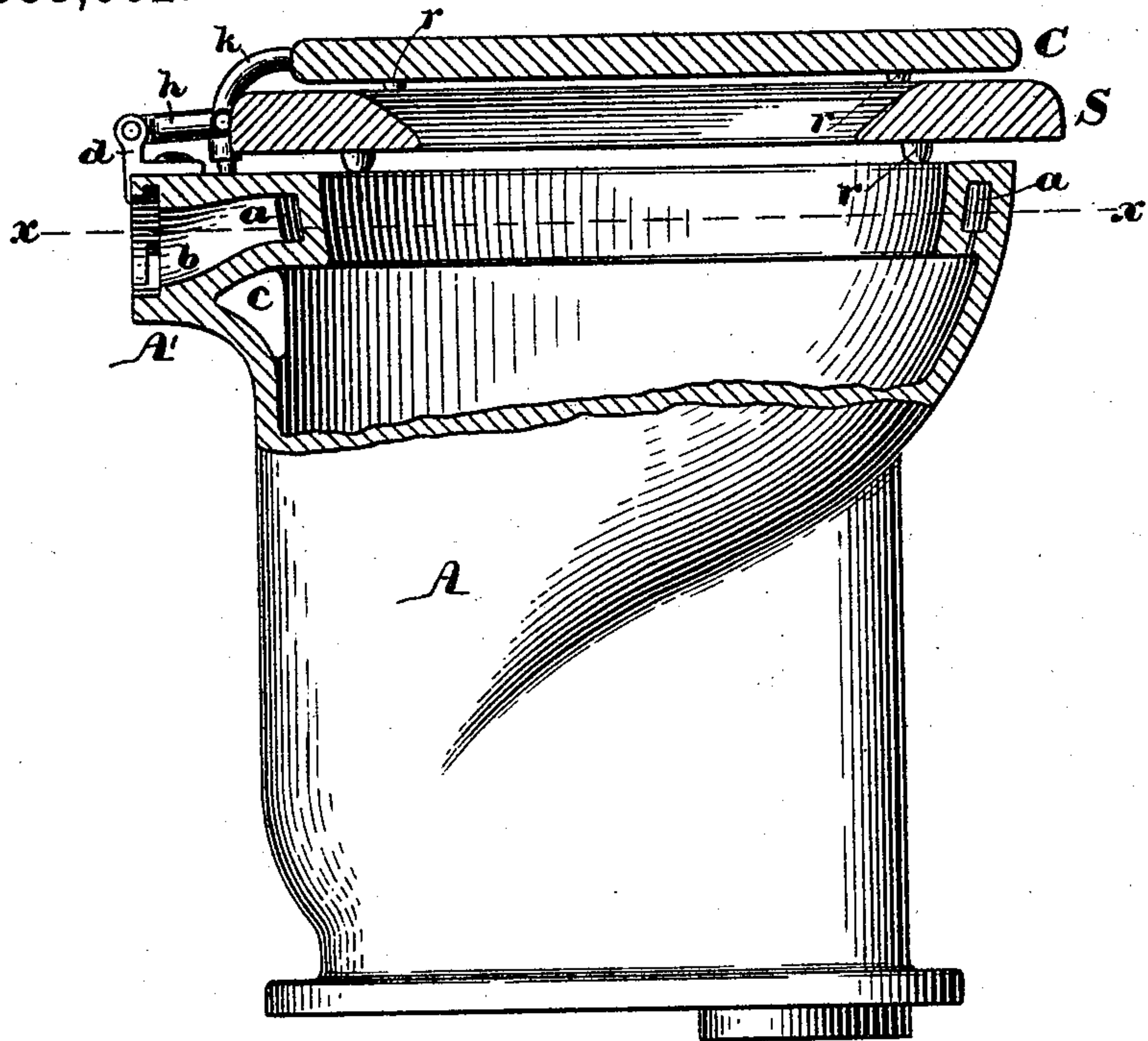


Fig. 1.

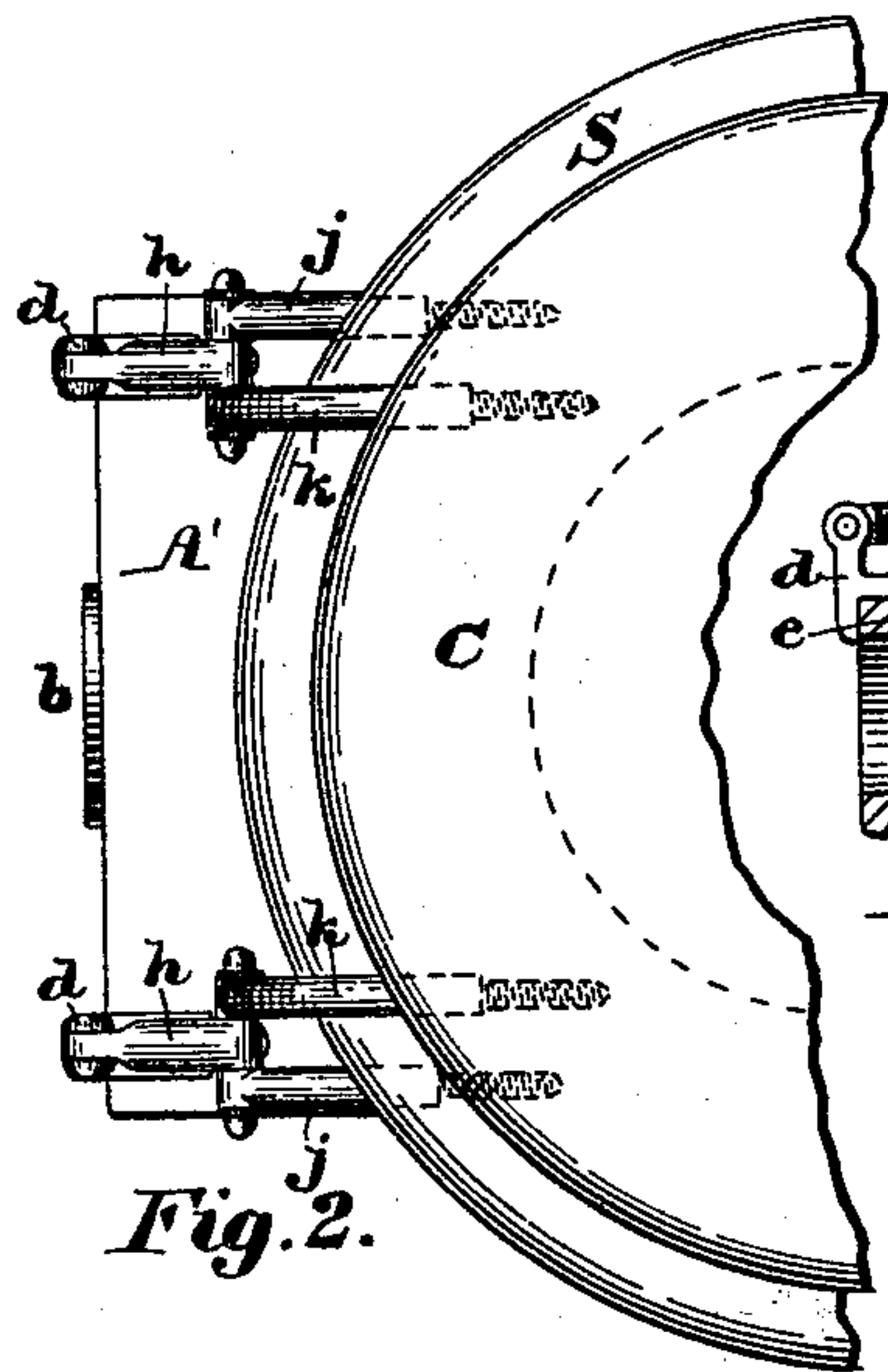


Fig. 2.

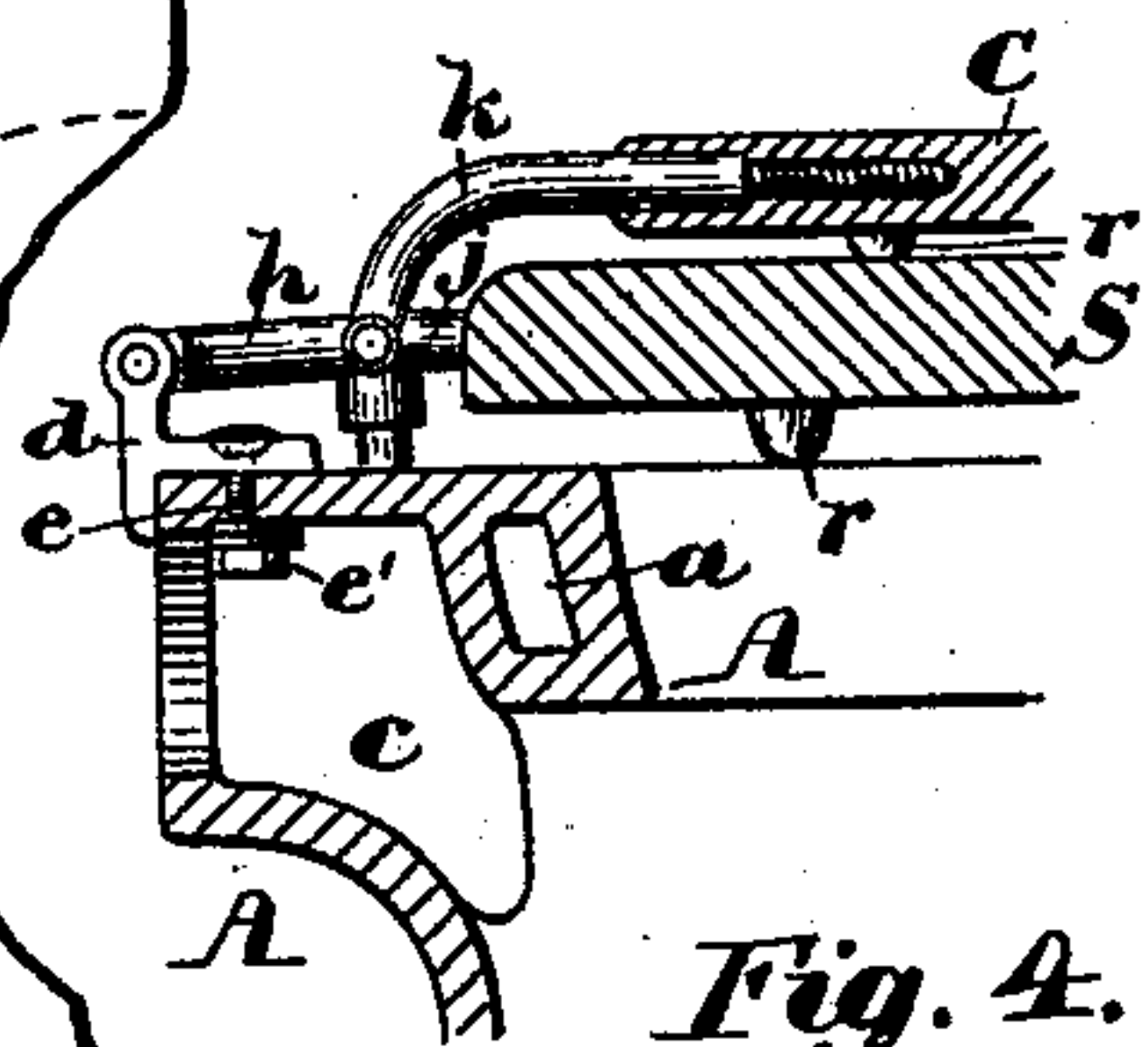


Fig. 4.

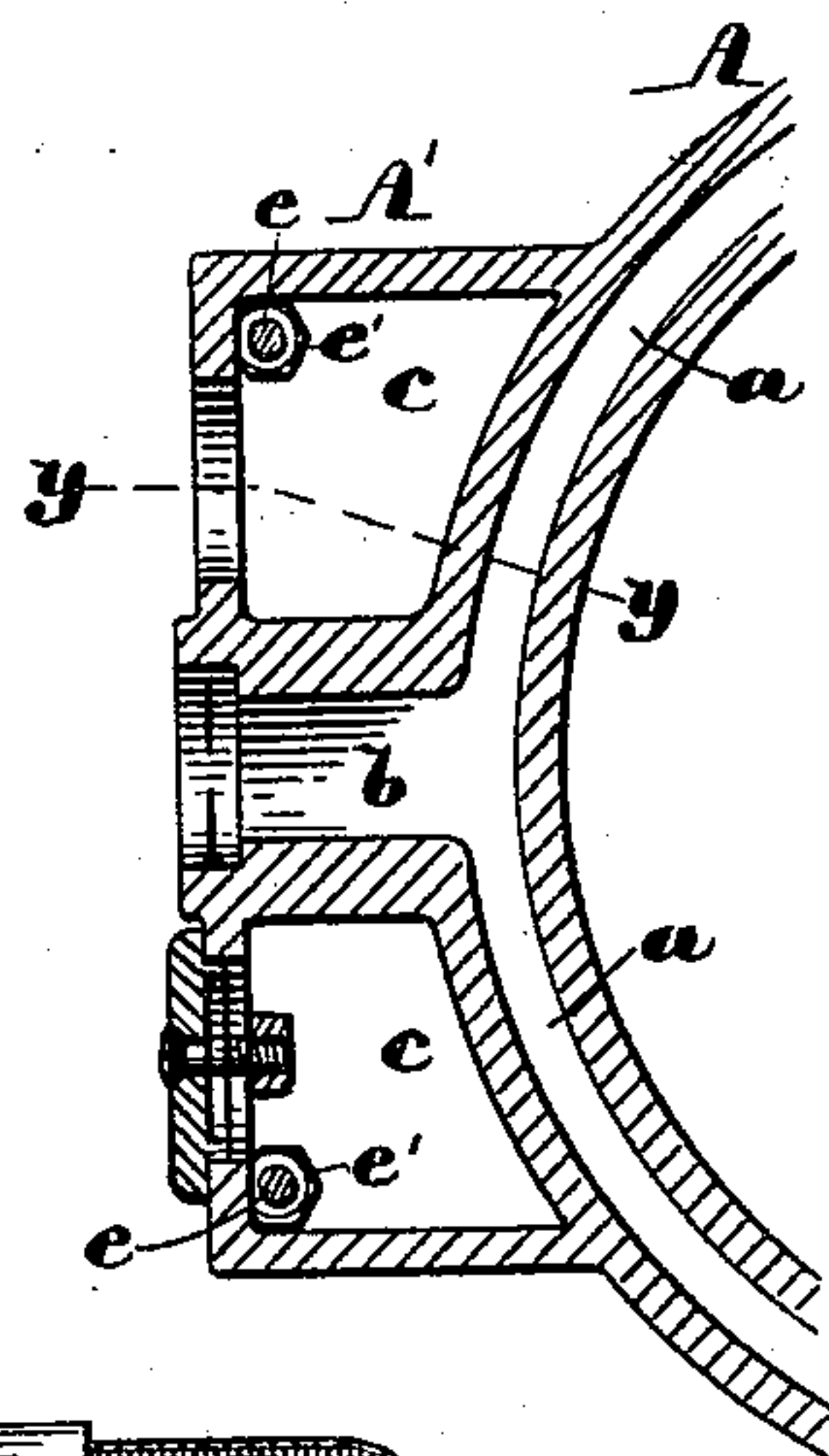


Fig. 3.

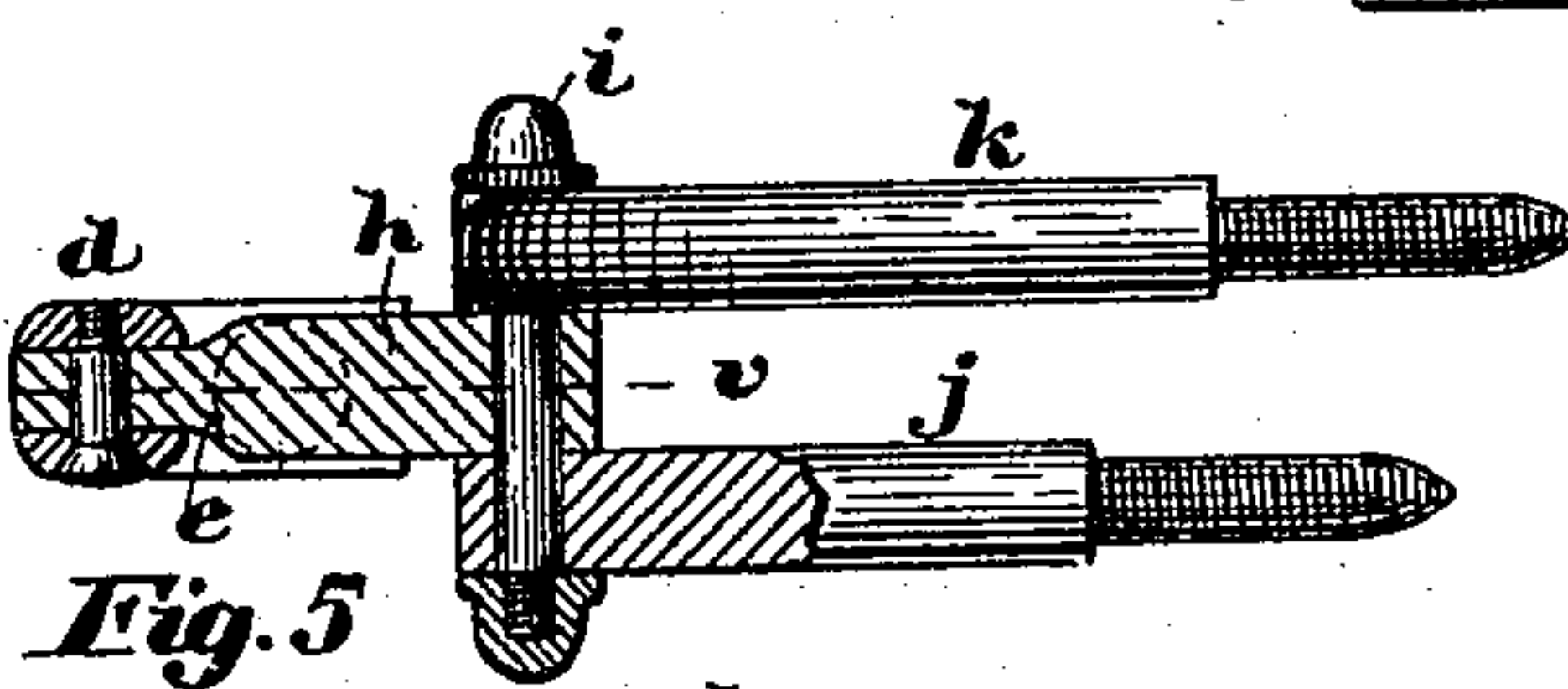


Fig. 5.

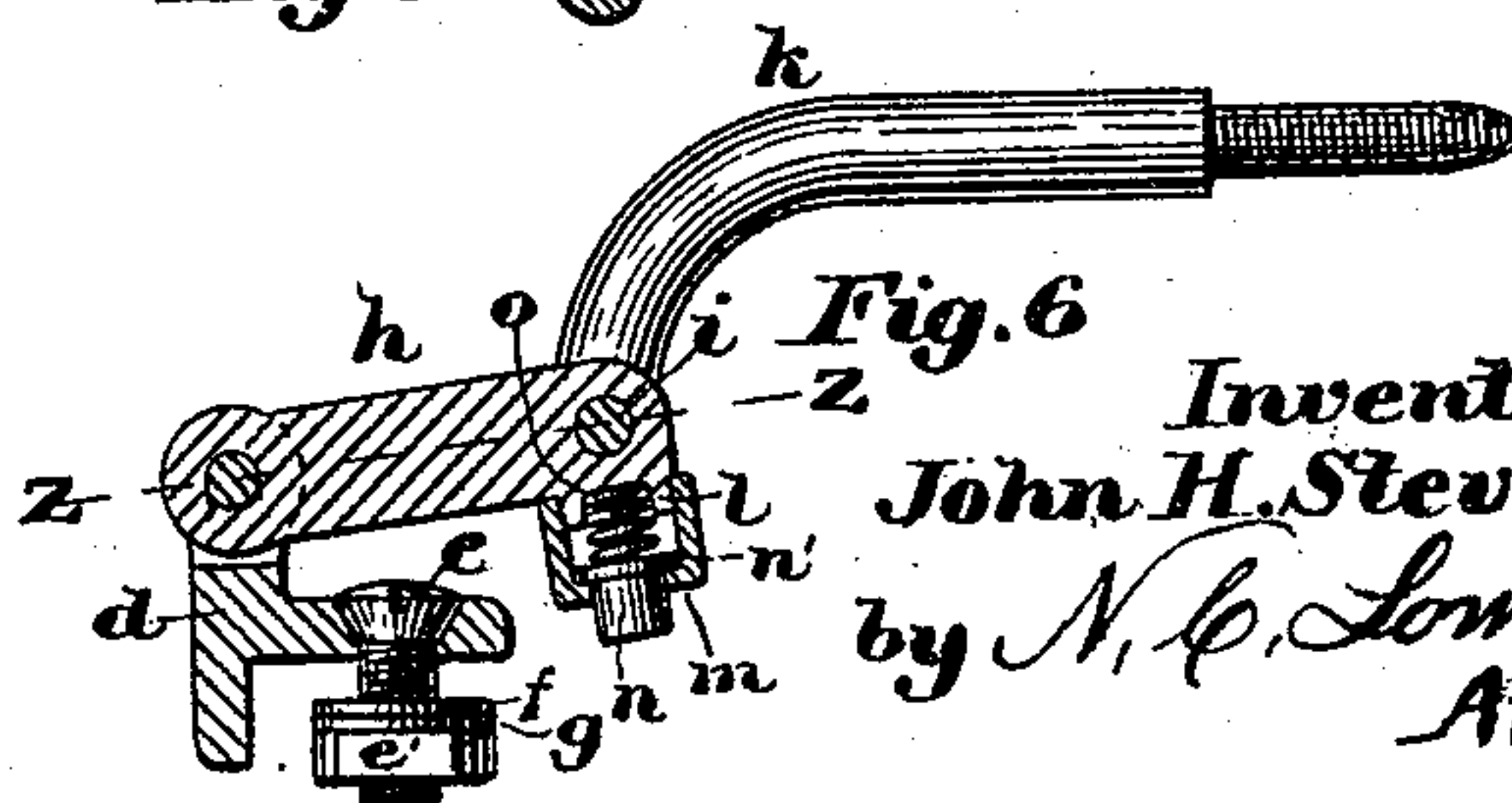


Fig. 6.

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UNITED STATES PATENT OFFICE.

JOHN H. STEVENS, JR., OF CAMBRIDGE, MASSACHUSETTS.

SEAT ATTACHMENT FOR WATER-CLOSETS.

SPECIFICATION forming part of Letters Patent No. 583,662, dated June 1, 1897.

Application filed December 15, 1894. Serial No. 531,896. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. STEVENS, Jr., of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Seat Attachments for Water-Closets, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to seat attachments for water-closets; and it consists in certain novel features of construction, arrangement, and combination of parts, which will be readily understood by reference to the description of the accompanying drawings and to the claims hereto appended and in which my invention is clearly pointed out.

Figure 1 of the drawings is a sectional elevation of a water-closet, illustrating my invention, the sectional portion being cut through the center of the bowl and the flushing pipe, spud, or passage. Fig. 2 is a partial plan of same. Fig. 3 is a partial horizontal section on line $x x$ on Fig. 1, looking up. Fig. 4 is a partial vertical section on line $y y$ on Fig. 3. Fig. 5 is a sectional plan of the seat and cover hanging devices, the cutting-plane being on line $z z$ on Fig. 6; and Fig. 6 is a sectional elevation of the same, the cutting-plane being on line $v v$ on Fig. 5.

Water-closets have been made in which the seat and cover hinges have been secured directly to the porcelain closet, and it is a very desirable thing to do; but as heretofore constructed the porcelain is liable to be subjected to so great a strain as to break the porcelain, owing to an obstruction accidentally being placed between the seat and bowl, near the rear side thereof, so that when a person sits down upon the seat said seat acts as a lever and the obstruction as a fulcrum to lift the hinge connection to the bowl.

The object of my present invention is to obviate this objection; and to this end I construct the closet and its seat and cover attachments as illustrated in the accompanying drawings, in which A is the closet proper, made of porcelain or earthenware, and may be made of any of the well-known forms, as hopper, siphon, or front or rear wash-out, and may be provided with any suitable arrangement for flushing the bowl and for ventilating the same.

The closet illustrated is a combined hopper-trap closet and has the annular flushing-passage a in its rim and is provided with the chambered rectangular rearward projection A', formed integral with the bowl and, preferably, with its upper surface on a level with the upper surface of the rim of the bowl, as shown in Fig. 1. Within this rectangular projection A' is formed the passage b , to the outer end of which may be coupled in any well-known manner the water-supply pipe (not shown) for flushing the bowl, the inner end of said passage b being connected with the annular passage a , as shown. The rectangular projection A' also has formed therein a ventilating-chamber c on each side of the flushing-passage b , which chambers communicate at their inner ends with the interior of the bowl and are each provided with an opening thereinto, in either one of which the ordinary ventilating-pipe may be inserted, while the other may be capped, the particular location of the ventilating-pipe being determined by the circumstance of each individual case. These openings to receive the ventilating-pipe may be in the rear walls of said chambers, as shown, or they may be in the top or side walls of said chambers, or there may be but a single ventilating-chamber, without in any way affecting the principles of my invention.

Two brackets or stands $d d$ are secured to the rear upper surface of the projecting portions A' of the closet by means of the bolts e and nuts e' , said bolts passing through the upper plate of said projection with their lower ends within the ventilating-chambers c and each provided with a rubber washer f and a metal washer g between the nut e' and the upper plate of said ventilating-chamber.

To each of the stands $d d$ is pivoted one end of a link h , the opposite end of which has pivoted thereto by a common fulcrum-pin i the two rods j and k , each having formed upon its movable end a screw-thread suitable to screw into the seat S and cover C, respectively, the holes in said seat and cover being counterbored to receive a portion of the length of the larger cylindrical portion of each of said rods, as shown in Figs. 2 and 4.

The links $h h$ are each provided on the under sides of their inner ends with a downwardly-projecting annular lip or chambered

hub *l*, to the exterior of which is screwed the coupling *m*, in a bearing in the bottom of which is fitted the hub *n*, having formed thereon the annular collar *n'* to limit the downward movement of said hub and having a spring *o* interposed between said collar and the upper surface of the chamber in the under side of the link *h*, as shown in Fig. 6.

The seat *S* and cover *C* are each provided with rubber buttons or cushions *r* set in their under sides to rest respectively upon the closet and the seat.

The ends of the hubs *n n* rest upon the upper surface of the rearward projection *A'*, and when a person sits upon the seat *S* said hubs and the rubber cushions *r* yield, so that the seat is depressed bodily, and when the weight is removed the seat rises bodily to the extent of the expansive force of the cushions *r* and the springs *o*, the links *h* moving slightly about their pivotal connections to the stands *d d*. If, however, an obstruction should be placed between the seat and the bowl at a point between the pivotal connections of said seat to the links *h* and the center of the seat and a person sits upon the seat the front of the seat will be depressed and the rear would be raised, which may be done without danger of injury to the crockery because of the fact that the forward ends of the links *h* are free to be moved upward about their pivotal connection to the stands *d d*.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination of an earthenware water-closet; a fixed hinge-section secured directly to said closet; a seat mounted upon said closet; a hinge-section secured firmly to said seat; a hinge-section pivoted at one end to the hinge-section secured to the closet and at its other end to the hinge-section secured to the seat; and a yielding hub or cushion interposed between said hinge-sections and the closet to normally hold the rear of said seat in a raised position.

2. The combination of an earthenware water-closet provided with a chambered projection; a seat mounted upon said closet; hinge-sections secured to said seat; hinge-sections mounted upon said closet; fastening devices within the chamber of said projection for securing said hinge-sections to said closet; and hinge-sections pivoted at one end to the hinge-sections secured to the closet and at their other ends to the hinge-sections secured to the seat.

3. An earthenware water-closet having a chambered projection, a flushing-passage and a ventilating-chamber formed within said projection, and means for connecting the flushing and ventilating pipes thereto; in combination with fixed hinge-sections mounted upon said projection; bolts passing through said hinge-sections and the walls of said projection; into the chamber thereof; nuts fitted to said bolts within said chamber; a seat mounted upon

said closet; hinge-sections firmly secured to said seat; and links connecting the hinge-sections secured to the closet with the hinge-sections secured to the seat.

4. The combination of an earthenware water-closet having a rectangular, chambered rearward projection; fixed hinge-sections secured to said closet; a seat mounted upon said closet and provided with hinge-sections firmly secured thereto; hinge-sections pivoted at one end to the sections secured to the closet and at their other ends to the sections secured to the seat and provided at their front ends with downwardly-projecting and yielding hubs to bear upon the closet.

5. The combination of an earthenware water-closet provided with a chambered projection; a seat mounted on said closet; a cover mounted on said seat; a hinge-section secured to said seat; a hinge-section secured to said cover; a hinge-section supported upon said chambered projection; a fastening bolt or screw for fastening said hinge-section to said chambered projection, and extending into the interior of said chamber; a nut within said chamber for clamping said bolt in position; and a link or hinge-section pivoted at one end to the hinge-section on said chambered projection, and connected at its other end, by a common fulcrum-pin, or pivot, to the hinge-sections on the seat and cover.

6. As a means of securing the seat and cover to an earthenware water-closet the combination of fixed hinge-sections secured to said closet; a seat provided with hinge-sections firmly secured thereto; a cover provided with hinge-sections firmly secured thereto; and links or hinge-sections pivoted at one end to the hinge-section secured to the closet, and at their other ends connected by a common fulcrum-pin or pivot to the hinge-sections secured to the seat and to the hinge-sections secured to the cover.

7. In combination with an earthenware water-closet, a seat mounted upon said closet; and a hinge connecting said seat to said closet, and made in three parts, one of which is bolted directly to a rearward projection of said earthenware closet, another part is firmly secured to the seat and the third part is pivoted at one end to the section secured to seat, and at its other end to the hinge-section secured to the closet, said pivotal centers being in the same horizontal or nearly horizontal plane, and so constructed that the rear of the seat may be lifted from the closet while the front of the seat rests upon the closet, without danger of breaking any of the parts.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 10th day of December, A. D. 1894.

JOHN H. STEVENS, JR.

Witnesses:

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WALTER E. LOMBARD.