

(No Model.)

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

No. 534,018.

Patented Feb. 12, 1895.

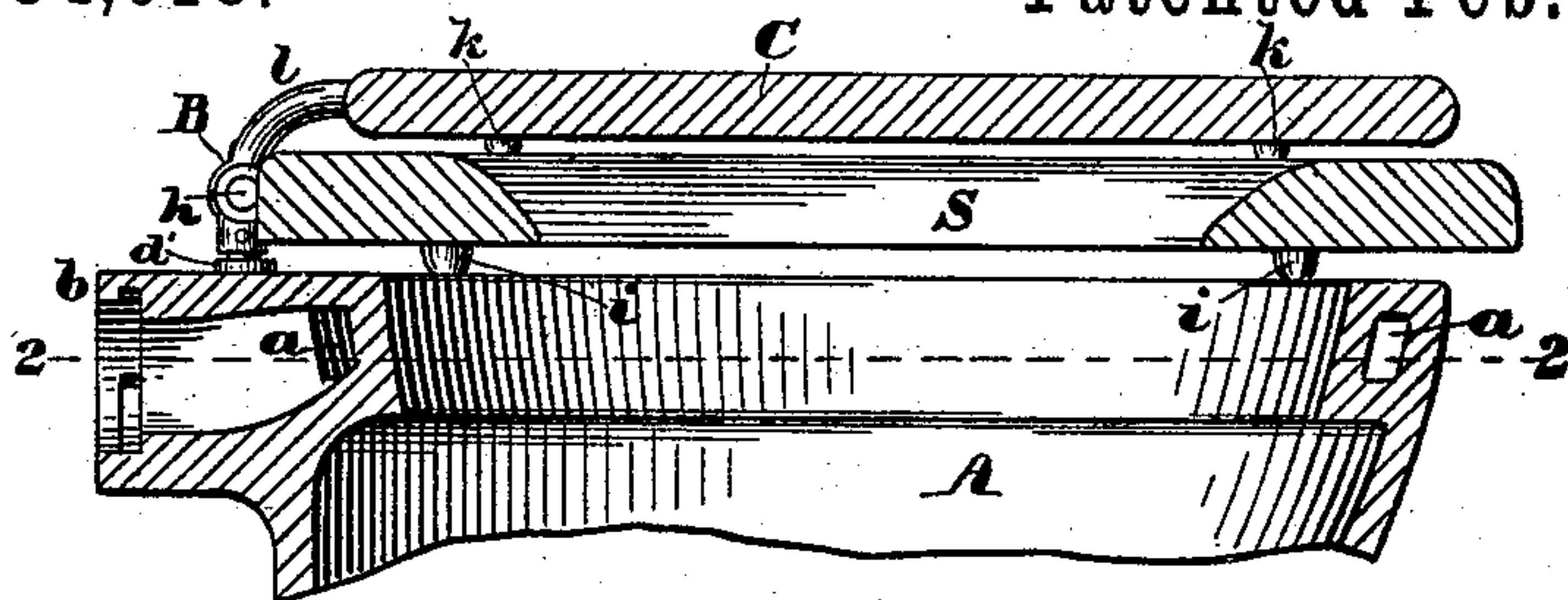


Fig. 1.

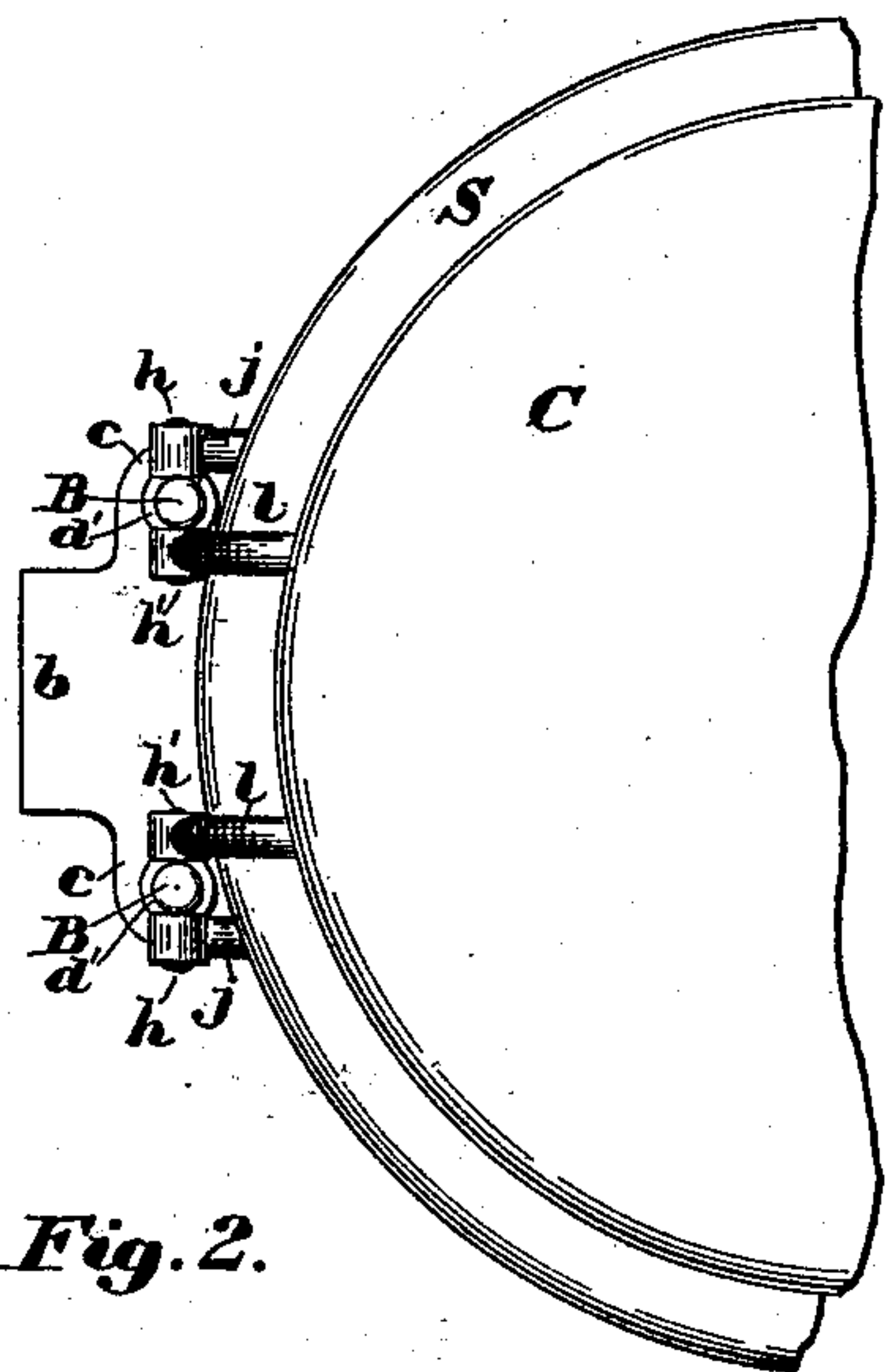


Fig. 2.

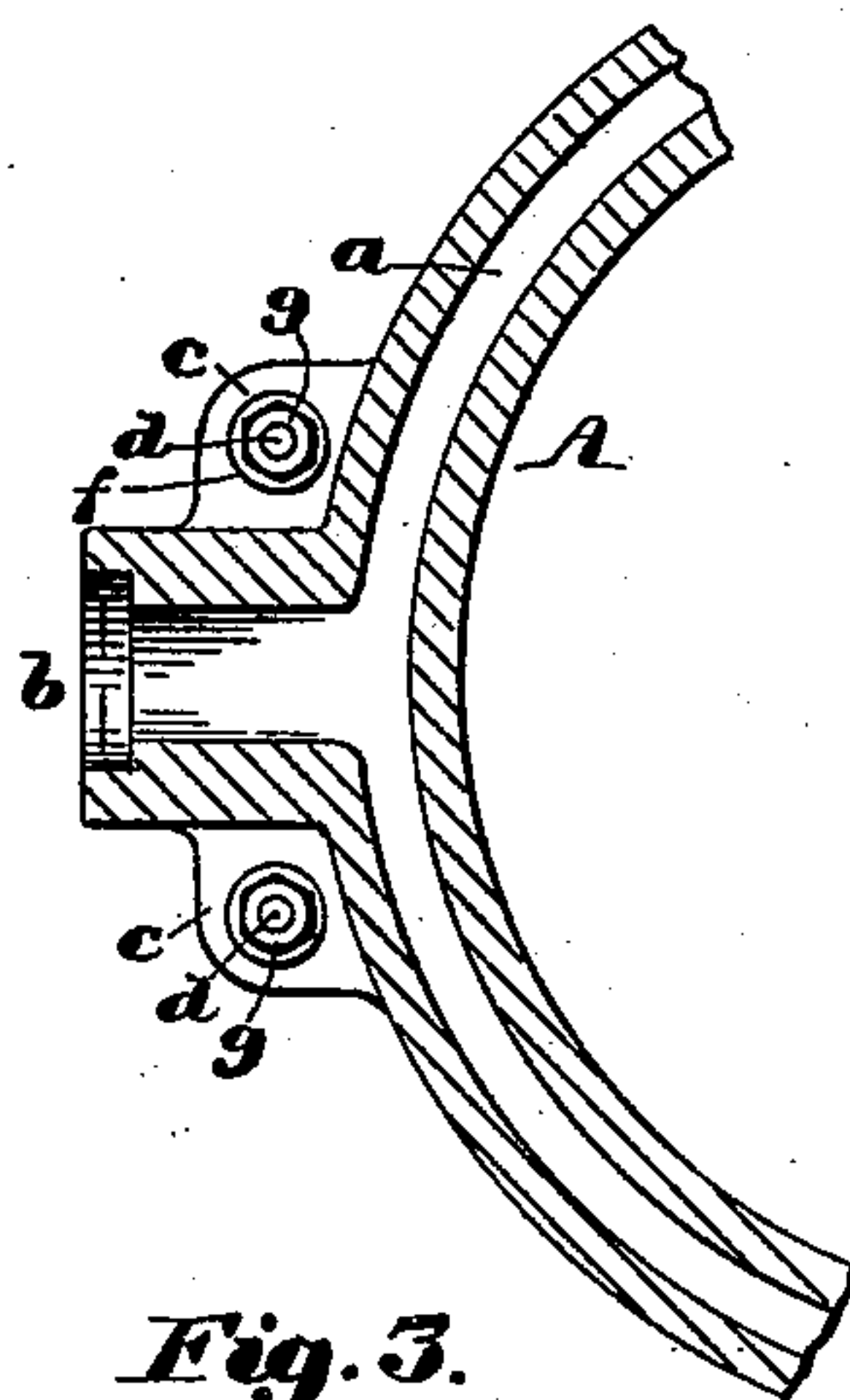


Fig. 3.

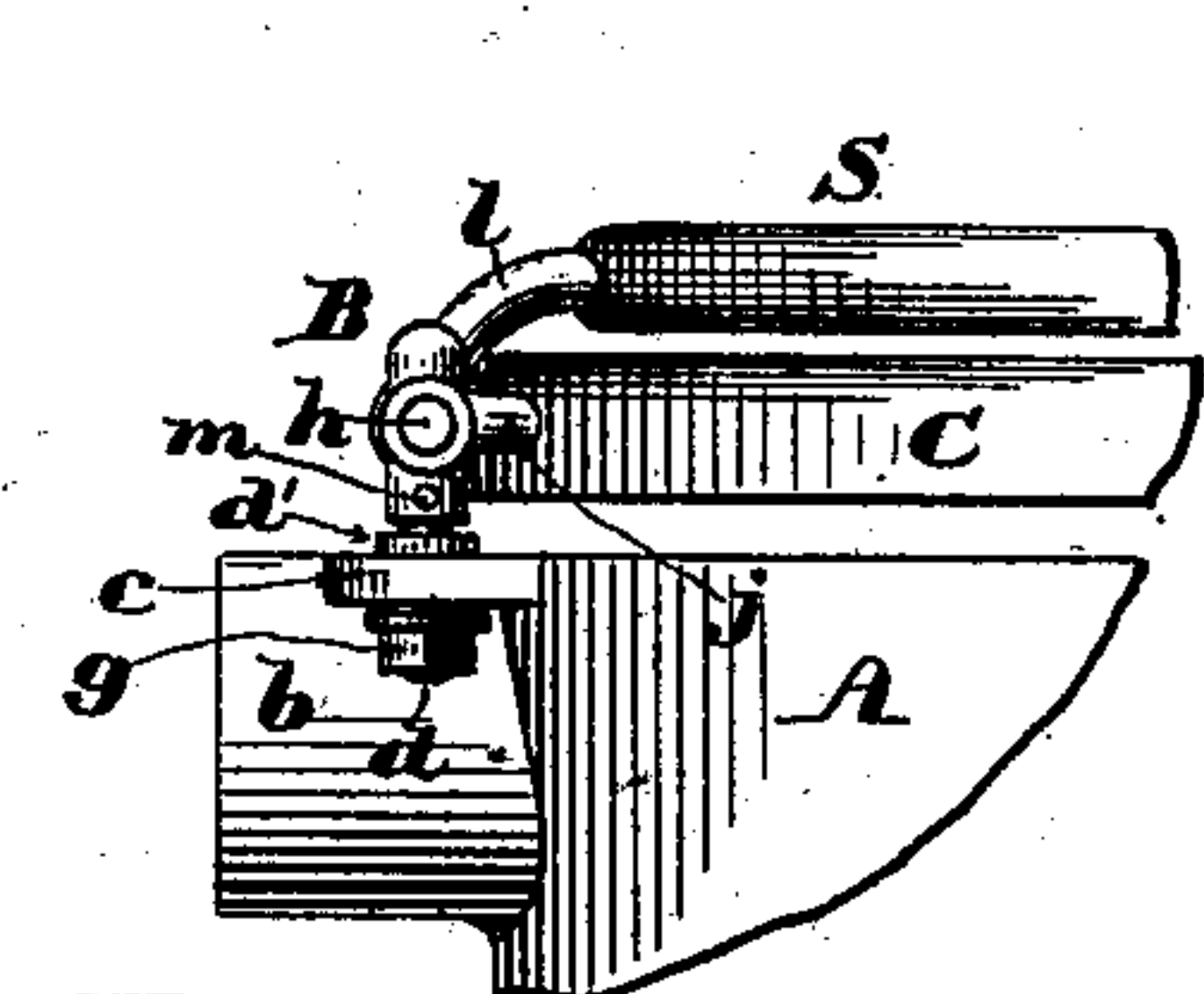


Fig. 4.

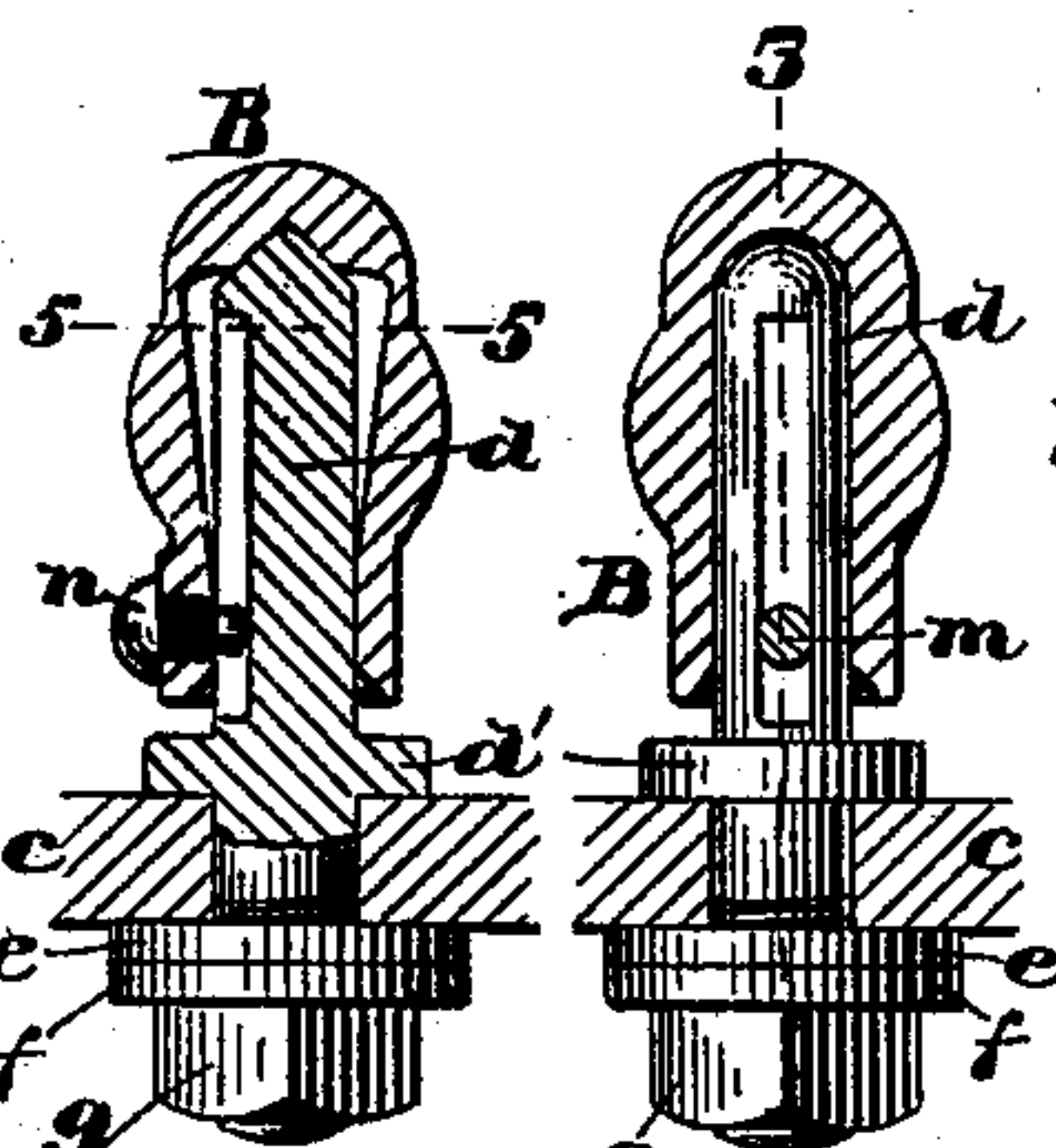


Fig. 5.

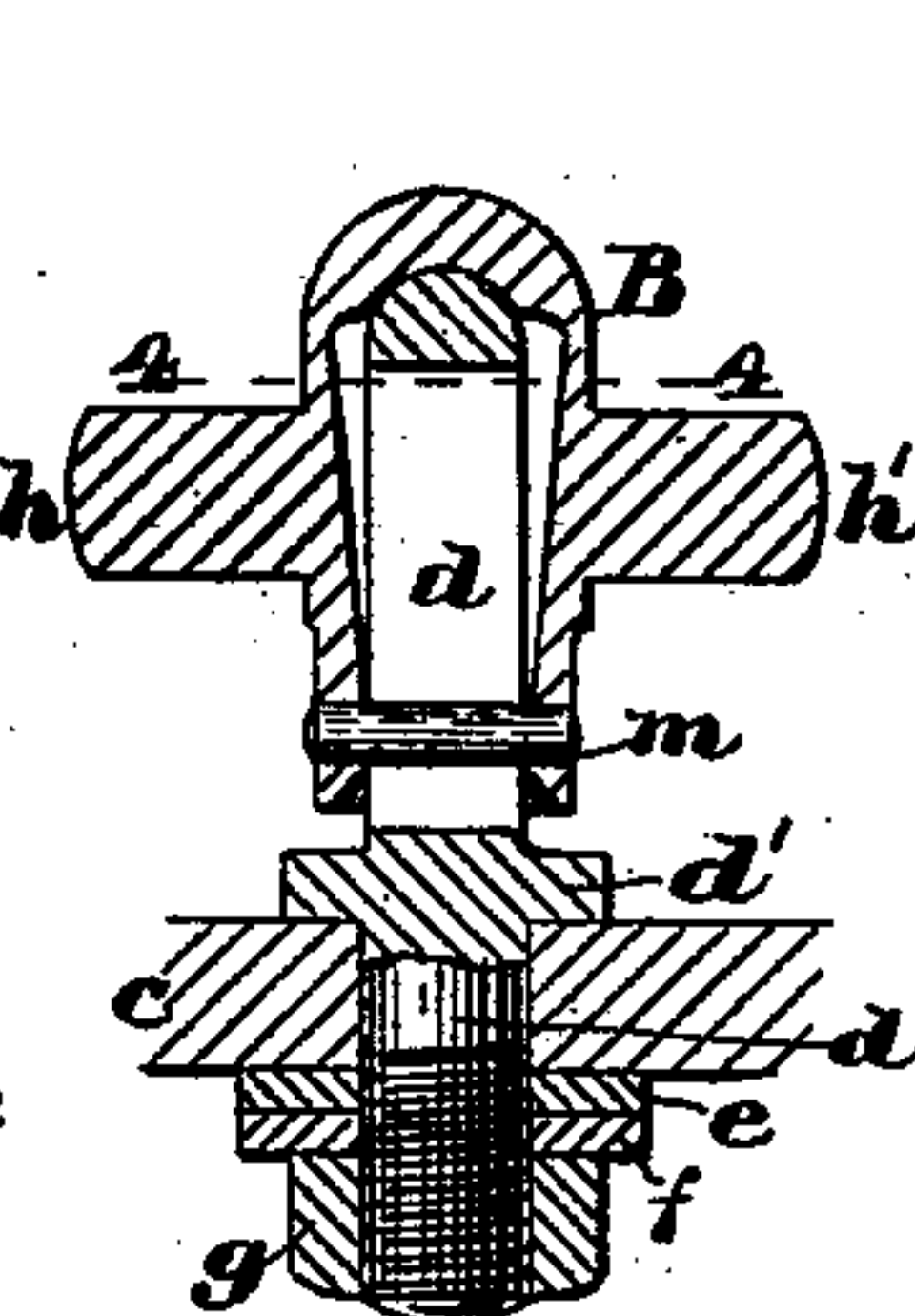


Fig. 6.

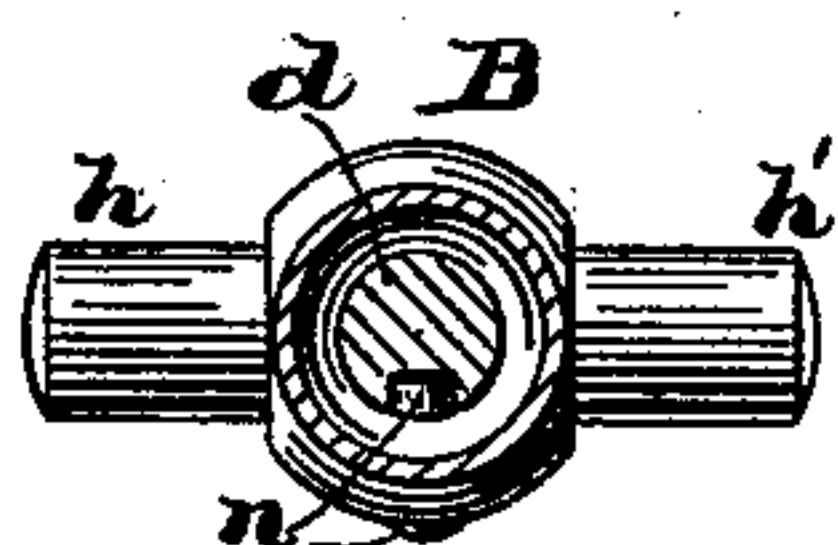


Fig. 7.

Fig. 9.

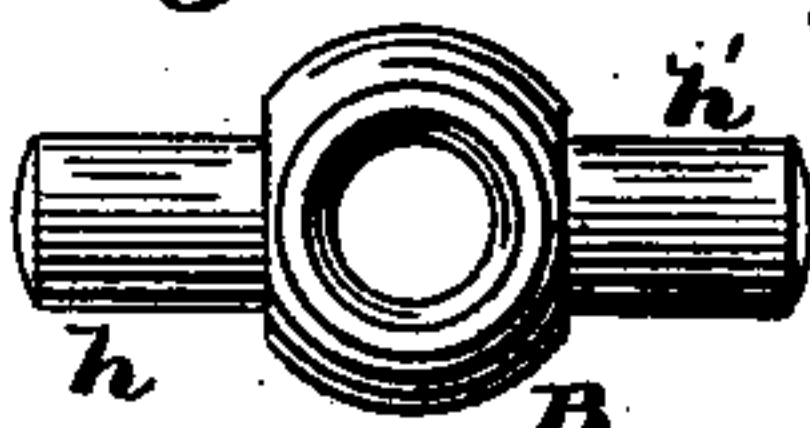


Fig. 8.

Fig. 10.

Witnesses:  
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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. 534,018, dated February 12, 1895.

Application filed December 15, 1894. Serial No. 531,897. (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 central vertical section of so much of a water closet as is necessary to illustrate my invention. Fig. 2 is a partial plan of same. Fig. 3 is a horizontal section on line 2, 2, on Fig. 1 looking upward, and Fig. 4, is a partial side elevation of the same. Fig. 5 is a sectional elevation of the hinge bearing stud and socket drawn to an enlarged scale. Fig. 6 is a vertical section of the same on line 3, 3, on Fig. 5. Fig. 7 is a sectional plan the cutting plane being on line 4, 4, on Fig. 6. Fig. 8 is a vertical section illustrating a modified construction of the hinge stud and socket. Fig. 9 is a sectional plan of said modified form of hinge stud and socket, the cutting plane being on line 5, 5, on Fig. 8; and Fig. 10 is an inverted plan of both forms of hinge socket.

In the drawings A is the closet bowl having the annular flushing passage *a* and the flushing pipe spud *b* to which the water supply pipe, not shown, may be connected in any well known manner, and having formed integral therewith two ears *c, c*, on opposite sides of the spud *b* as shown, all formed of porcelain or earthenware.

In an opening in each of the ears *c, c* is set a stud *d* provided with a collar *d'* to rest upon the upper surface of the ear *c* and has fitted on its lower end the washer *e* of rubber or other elastic material, the metal washer *f* and the nut *g*.

The stud *d* extends upward from the collar *d'*, terminates at its upper end in a conical or rounded bearing surface and is provided with a longitudinal slot extending from near

the collar *d'* nearly to its conical upper end which slot may extend through the stud *d* as shown in Figs. 5, 6 and 7 or only a short distance into said stud as shown in Figs. 8 and 9.

A hinge section B, provided with oppositely projecting studs or journals *h* and *h'*, and a socket extending from its lower and upward nearly to its upper end, with a conical or concave bearing in the upper end of said socket, is mounted upon each of the studs *d*, so as to rest upon its conical or rounded upper end.

The sockets in said hinge sections B are made to fit the studs *d*, at points near their lower ends but are enlarged above said points so as to permit said hinge sections to be tilted out of perpendicular positions when for any reason they are lifted from their bearing upon the conical points of the studs *d*. These sockets may be enlarged only in two opposite directions, so that a cross section of said sockets near their upper ends will be oblong as shown in Fig. 7, or the upper part of said socket may be in the form of an inverted frustum of a cone, a cross section of said sockets being circular in all its parts as shown in Fig. 9.

S is the closed seat provided on its under side with the rubber buttons or cushions *i i* to rest upon the rim of the bowl A in a well known manner and having set in its rear edge or otherwise secured thereto the hinge sections *j, j*, in the outer end of each of which is formed an eye to receive one of the studs, or journals *h, h*, about which said seat moves when raised or lowered. C is the cover, also provided with rubber cushions *k, k*, to rest upon said seat in a well known manner, and having secured to its rear edge the hinge sections *l l* fitted to bearings on the studs or journals *h' h'* of the hinge sections B, about which said cover moves when raised or lowered.

The hinge sections B are connected to the studs *d d*, so as to prevent the seat S and cover C being lifted entirely away from the closet bowl, by the pins *m m* which are set in the socketed hinge sections B B and pass through the longitudinal slots in the studs *d, d*, as shown in Figs. 5, 6, and 7, or by the screw pins *n* set in said socketed hinge sections and projecting into the shallow slots or



grooves in said studs as shown in Figs. 8 and 9.

In the case illustrated in Figs. 5, 6 and 7 the pins *m* are arranged with their axes parallel to the axes of the journals *h*, *h'*, but when the modification illustrated in Figs. 8 and 9 is employed the screw pins *n* *n* are arranged with their axes in vertical planes at right angles to the axes of the journals *h*, *h'*. By this construction of the hinge connection to the porcelain closet, provision is made for the possibility of a considerable obstruction being, accidentally or otherwise, placed upon the closet beneath the seat which if the seat were rigidly hinged to the porcelain closet would be very liable to break the closet. With this construction if an obstruction be placed beneath the seat at the rear of its center and upon both sides of the bowl and a person sits upon the seat the front of the seat will be depressed and its rear will be raised but as the hinge sections *B B* will readily move upward on the studs *d*, *d*, no damage will result. If the obstruction should be on one side only of the bowl, the hinge sections *B B* would be lifted unequally and therefore would be tilted out of their normal perpendicular positions which the expanded sockets formed therein would permit, and no damage would be done.

The upper ends of the studs *d*, *d*, may be made conical as shown in Fig. 8, or rounded as shown in Figs. 5 and 6, the upper end of the socket formed in the hinge sections *B* being made to fit the upper ends of said studs, and the journals *h* or *h'* on said hinge sections *B* may be arranged with their axes in the same vertical plane as the axes of the socketed hinge sections *B* as shown or in front or at the rear of said plane and may be formed integral with said hinge section or be made separate therefrom, or the sockets may be secured in fixed positions to the closet and the studs form part of the hinge sections without affecting the principles of my invention, and therefore I do not wish to be limited to the precise construction shown in the drawings so long as the seat is so hinged to the closet that the hinge may rise and fall and be tilted from a perpendicular position when an obstruction is placed beneath the seat.

The studs *d d* may be secured to the closet as shown in the drawings or they may be set in a plate or form parts of brackets which are secured to the earthenware closet by independent bolts or in any other well known manner without affecting the principles of my invention as the particular manner of securing said studs to the closet is not a part of my present invention.

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

1. In combination with an earthenware water-closet; a seat mounted upon said closet; and a hinge connection between said seat and closet made in three parts one of which is se-

cured in a fixed position to said closet, another is secured to said seat and the third is fitted to and movable vertically upon the part secured to said closet, and pivotally connected to the part secured to said seat.

2. In combination with an earthenware water closet; a pair of upwardly projecting studs secured in fixed positions to said closet; a vertically movable socketed hinge section mounted on each of said studs; a seat mounted upon said closet and a pair of hinge sections secured to said seat and pivotally connected to said socketed hinge sections.

3. In combination with an earthenware water closet, a pair of upwardly projecting studs secured in fixed positions to said closet; a pair of vertically movable socketed hinge sections mounted upon said studs and each provided with a horizontally projecting stud or journal; a seat mounted upon said closet; and a pair of hinge sections secured at one end to said seat, and mounted at their other ends upon and movable about said horizontally projecting studs or journals.

4. The combination of an earthenware water-closet; a pair of upwardly projecting studs secured in fixed positions to said closet; a pair of hinge sections provided with sockets extending from their lower ends upward and gradually enlarged toward their upper ends, to fit upon said studs, and movable vertically thereon; a stud or journal projecting horizontally from each of said hinge sections; a seat mounted upon said closet; and a pair of hinge sections secured at one end to said seat and mounted at their other ends upon and movable about said horizontally projecting studs or journals.

5. The combination of an earthenware water-closet; a pair of upwardly projecting studs secured in fixed position to said closet, and each provided with a longitudinal slot; a pair of socketed hinge sections fitted to and movable vertically on said studs; a pin set in each of said hinge sections and entering the slots in said studs; a seat mounted upon said closet; and a pair of hinge sections secured to said seat and pivotally connected to said socketed hinge sections.

6. The combination of an earthenware water-closet; a pair of upwardly projecting studs secured in fixed positions to said closet; a pair of hinge sections provided with sockets extending from their lower ends upward and enlarged toward their upper ends in two opposite directions only, and fitted to rest upon the upper end of said studs; a seat mounted upon said closet; and a pair of hinge sections secured to said seat and pivotally connected to said socketed hinge sections.

7. The combination of an earthenware water-closet; a seat mounted upon said closet; a pair of hinge sections secured to said seat; a cover mounted upon said seat; a pair of hinge sections secured to said cover; a pair of upwardly projecting studs secured in fixed po-



sitions to said closet; and a pair of hinge sections, provided with sockets to receive said studs, and movable vertically thereon and connected by suitable pivotal connections to  
5 the hinge sections secured to the seat and the hinge sections secured to the cover.

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:

N. C. LOMBARD,

WALTER E. LOMBARD.