

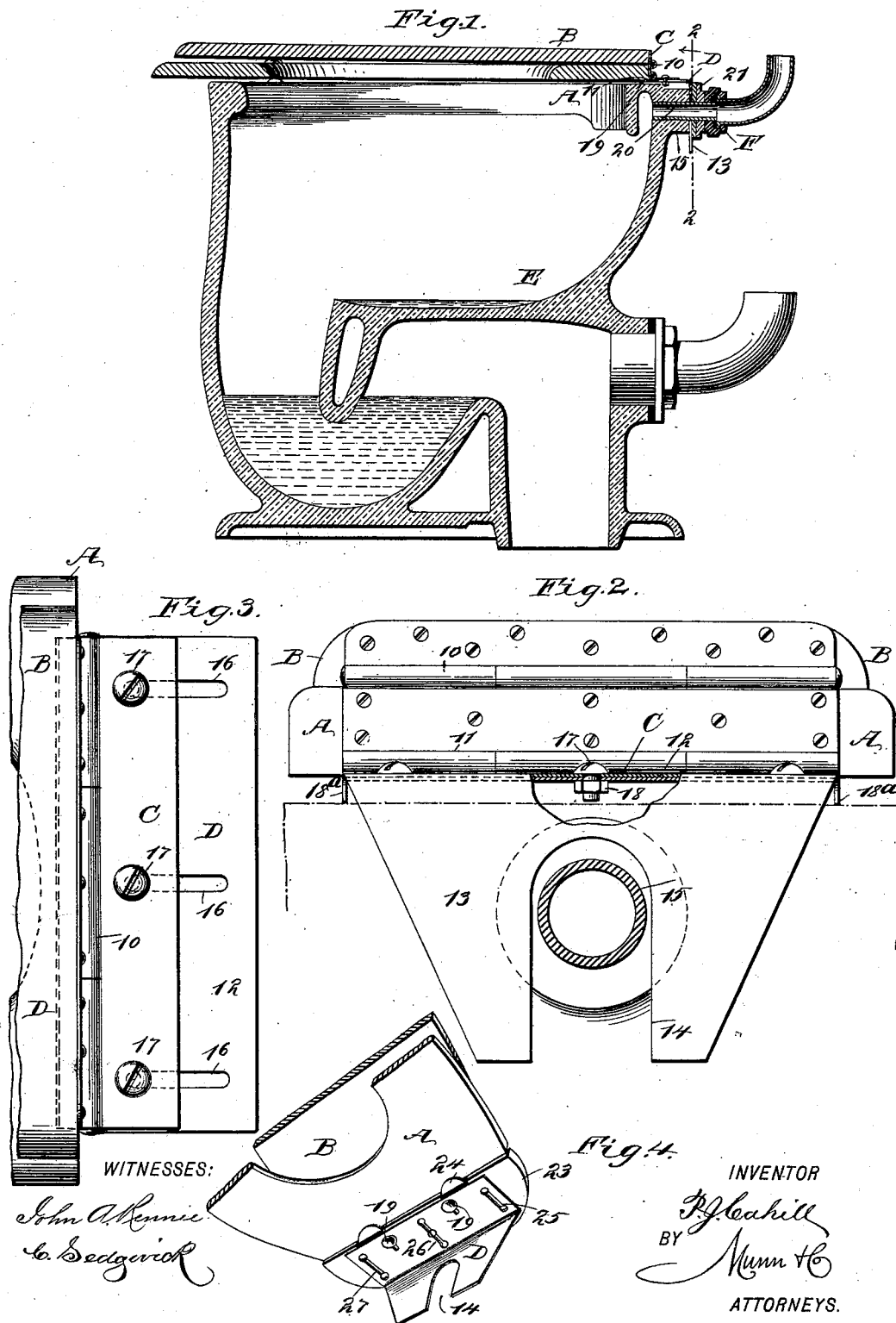
(No Model.)

2 Sheets—Sheet 1.

P. J. CAHILL.  
WATER CLOSET SEAT.

No. 522,553.

Patented July 3, 1894.



(No Model.)

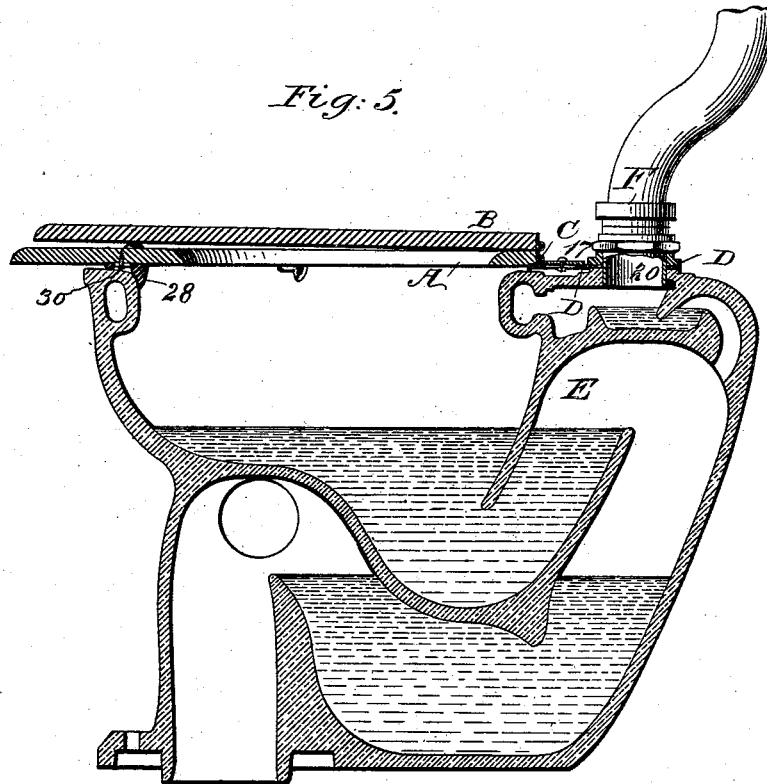
2 Sheets—Sheet 2.

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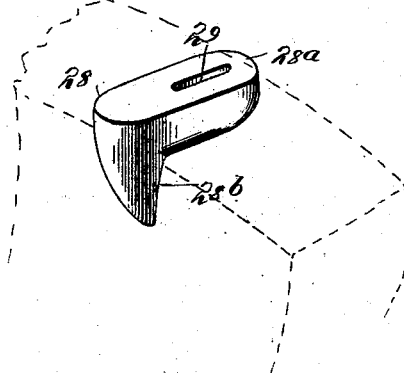
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*Fig. 5.*



*Fig. 6.*



WITNESSES:

*John A. Hennis*  
*Le Sedgwick*

INVENTOR

*P. J. Cahill*  
BY *Munn & Co*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

PATRICK J. CAHILL, OF UTICA, N. Y.

## WATER-CLOSET SEAT.

SPECIFICATION forming part of Letters Patent No. 522,553, dated July 3, 1894.

Application filed November 3, 1893. Serial No. 489,903. (No model.)

*To all whom it may concern:*

Be it known that I, PATRICK J. CAHILL, of Utica, in the county of Oneida and State of New York, have invented a new and useful Improvement in Water-Closet Seats, of which the following is a full, clear, and exact description.

My invention relates to an improvement in water-closet seats, and it has for its object to provide an improvement upon the seat for which application for Letters Patent was filed by myself June 28, 1893, Serial No. 479,085, and a further object of the invention is to provide a water-closet seat which may be expeditiously and conveniently fitted upon a bowl, the spud of the bowl and the spud coupling being utilized as fastening devices, or an equivalent of the spud, the seat being so connected with the bowl that it is rendered adjustable to any size of bowl, and to so construct the seat that when either member thereof is opened either partially or entirely, the hinges will not be placed under undue tension or strain.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a vertical section through a water-closet bowl and the improved seat applied thereto. Fig. 2 is a rear elevation of the seat, a portion thereof being broken away, and a section through the spud of the bowl, said section being taken practically on the line 2-2 of Fig. 1. Fig. 3 is a partial plan view of the rear portion of the seat, and a full plan view of the attachment through the medium of which the seat is connected with the bowl; and Fig. 4 is a perspective view, viewed from the bottom, of a portion of a seat illustrating a slight modification in the construction of the attachment. Fig. 5 is a vertical section through a siphon closet bowl, illustrating the application of the seat thereto; and Fig. 6 is a detail perspective view of

one of the cushions adapted to be carried by the seat and to engage with the bowl.

In carrying out the invention the seat A is preferably provided with a cover B, and the cover and seat are connected at their rear end or portion through the medium of a hinge C, the hinge being a double one, comprising two knuckles 10 and 11, one of the knuckles being located at the rear junction of the seat with the cover, and the other knuckle being located at the intersection of the two leaves or members of the hinge, since the hinge practically consists of two members, one normally standing at a right-angle to the other, as shown in Figs. 1 and 2. The vertical member or section is attached to the seat and to the cover, while the horizontal member of the section is attached to a knuckle plate D, which plate may be made of any suitable material, and comprises a horizontal member 12 and a vertical member 13, the vertical member being provided with a vertical slot 14, located preferably at or near its center, and said slot is adapted to receive the spud 15 of the closet bowl E.

The horizontal member of the attaching angle plate D, has adjustable connection with the horizontal member of the hinge C, as is shown in Fig. 3; and to that end the horizontal member of the attaching plate is provided with transverse slots 16, which receive screw bolts 17, passed through the horizontal member of the hinge C; and the bolts are provided with nuts 18, whereby the horizontal member of the hinge and the corresponding member of the attaching plate may be held in firm and positive engagement, and whereby further, by loosening the screw bolts the attaching plate may be adjusted upon the hinge, or the hinge upon the plate, so as to bring the opening in the seat A in proper registry with the closet bowl E.

The horizontal member of the attaching plate is made to extend forwardly under the seat A, even when the attaching plate is in its outermost adjustment with the hinge; therefore, when the seat is raised to a vertical position undue tension will not be brought to bear against the knuckles of the hinge, since the forward extension of the attaching plate

will in a great measure support the seat. The attaching plate is adapted to be brought into close engagement with the upper surface of the bowl; and in order that ample room shall be provided between the bowl and horizontal portion of the attaching plate to prevent the lower portion of the bolts 17 and nuts 18 from interfering with the bowl E, flanges 18<sup>a</sup> are projected downward from the ends of the said horizontal member of the attaching plate, as shown in Fig. 2, said flanges being made to rest upon the top of the bowl, as illustrated in Fig. 2.

If in practice, however, it is found desirable, instead of flanges being employed cushioned buttons 19, may be used, as shown in Fig. 4, and such buttons may likewise be applied to the bottom of the seat A, or they may be secured upon the top of the bowl, as illustrated in Fig. 1.

In attaching the seat to a bowl, the vertical member of the attaching plate being made to span the spud 15 of the bowl, or any equivalent projection, and the said vertical member of the attaching plate is held in positive and firm engagement with the spud sleeve 20 of the bowl by means of the lock nut 21 of the spud coupling F. Thus it will be observed that no extra fastening devices are employed, since in connection with a flushing bowl, for example, a spud coupling is always used, and this coupling is brought into use as a fastening device for the seat attachment. It is evident that the seat may be adjusted upon the bowl by the manipulation of the screw bolts 17, as heretofore stated.

In the form of attachment above described and shown in Figs. 1, 2 and 3, a backboard is not needed, but should a backboard 23 be desired, the attachment is made as shown in Fig. 4, in which the backboard has hinged connection with the seat and cover, and the hinges 24 thereof are carried beneath the seat as a support therefor. In this event the angled attaching plate or slide D, is adjustably attached to the bottom of the backboard 23; and preferably the horizontal member of the said attaching plate is provided with three transverse slots 25, 26 and 27, the center one having a single screw passed through it, while the end ones are made to receive two screws, one near each extremity, and in adjusting the angled plate one of the end screws from each end slot is removed, the adjustment of the seat is then made, and when a proper adjustment has been accomplished the said end screws are again placed in position.

It will be understood that the cover B may be omitted, if in practice it is found desirable, and that the hinge will be modified accordingly.

In Fig. 5 I have illustrated the application of the seat attachment to a siphon closet, in which the spud is vertically located. This form of the seat attaching device does not differ from the form heretofore described ex-

cept in the fact that the attaching plate or slide D is horizontal, the vertical member being omitted, and the opening adapted to receive the spud of the closet bowl is produced in the plate at the rear of its connection with the handle. After the plate has received the spud, the spud coupling is utilized, to secure the plate in connection with the bowl.

The attaching plate D may be and preferably is provided with a slight offset or marginal flange, in order that when the flange rests upon the bowl the attaching plate will be raised a sufficient distance to cause the bolts adjustably connecting the hinge with the attaching plate to clear the top of the bowl, and the plate is raised also in order that the back portion thereof, or that portion in which the spud-receiving opening is located, may lie flat on the earthenware or material of the bowl around the spud, and therefore present a firm bearing surface to the lock nut of the spud coupling.

The preferred form of cushion used in connection with the seat is that shown in Figs. 5 and 6 and designated by the reference numeral 28. The device comprises a horizontal member 28<sup>a</sup>, and a vertical member 28<sup>b</sup>, extending preferably at a right angle from one end of the horizontal member. The top of the horizontal member is flat, and the bottom is more or less rounding, while the vertical member is more or less tapering and hook-shaped. One object of the vertical member 28<sup>b</sup> is to form a wedge for holding the seat in position, and another object of the said member is to afford a better yielding support for the seat than the horizontal member would afford if used alone, as the thickness of the member 28<sup>a</sup> is comparatively small.

A slot 29, is produced longitudinally in the horizontal member to receive a screw 30, or other form of fastening device, and the screw is passed through this slot into the under face of the seat; the cushion may be adjusted toward or from the edge of the bowl in a manner to cause the concave surface of its vertical member to engage with the rim of the bowl, while the bottom of the horizontal member rests upon the top of the bowl rim, cushioning the seat.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the seat, of a movable attaching plate having a sliding connection with the seat to permit of adjusting the seat relatively to the attaching plate, the latter being provided with an elongated recess to adjustably engage a projection upon the bowl, substantially as described.

2. The combination, with the seat and its hinge, of a support connected to the hinge in the rear of the seat and extending forwardly under the seat to support the same, substantially as described.

3. The combination, with the seat and its

hinge, of an attaching plate having a sliding connection with the hinge in the rear of the seat, and extending forwardly under the seat to support the same, substantially as described.

4. In a water closet seat, the combination, with the seat and its cover, of a hinge connecting the said seat and cover, and an attaching plate of angular construction, the horizontal member of which has adjustable connection with the hinge, and extends forwardly beyond the hinged connection with the seat, the vertical member of the plate being adapted to span or engage with a projection upon the closet bowl, as and for the purpose specified.

5. In a closet seat, the combination, with a bowl, the spud and spud coupling, of a seat adjustably located upon the bowl, a hinge connected with the seat, and an attaching plate slidably connected with the hinge, provided with an elongated recess to adjustably engage the spud of the bowl and to be locked in position by the spud coupling, as and for the purpose specified.

6. The combination, with a closet bowl and its spud and coupling, of a seat and cover, a hinge connecting the seat and cover, and an attaching plate of angular construction, the horizontal member whereof is provided with side flanges and is slidably connected with the

hinge, the vertical member of the said attaching plate being provided with an elongated recess to adjustably engage the bowl spud, the spud coupling locking the plate to the bowl, substantially as shown and described.

7. The combination, with a closet seat, of a cushion adjustably secured thereto said cushion being provided with a projection extending essentially perpendicular to the surface of the seat, to engage the rim of the bowl at its vertical surface, as specified.

8. The combination, with a closet seat, of a cushion of substantially angular construction, one of the members whereof is slotted and attaching devices, adapted to pass through the slot of the cushion, for fastening the latter to the seat, as and for the purpose set forth.

9. A cushion for closet seats, constructed of a yielding material, comprising two members arranged at angles to each other, one member being provided with a slot to receive the attaching device, and being adapted to engage the upper surface of the bowl, and the other member being tapered to act as a wedge for engagement with the vertical surface of the rim of the closet bowl, as and for the purpose set forth.

PATRICK J. CAHILL.

Witnesses:

JACOB AGUE, Jr.,  
ISAAC J. GRIFFITH.