

(No Model.)

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

No. 524,516.

Patented Aug. 14, 1894.

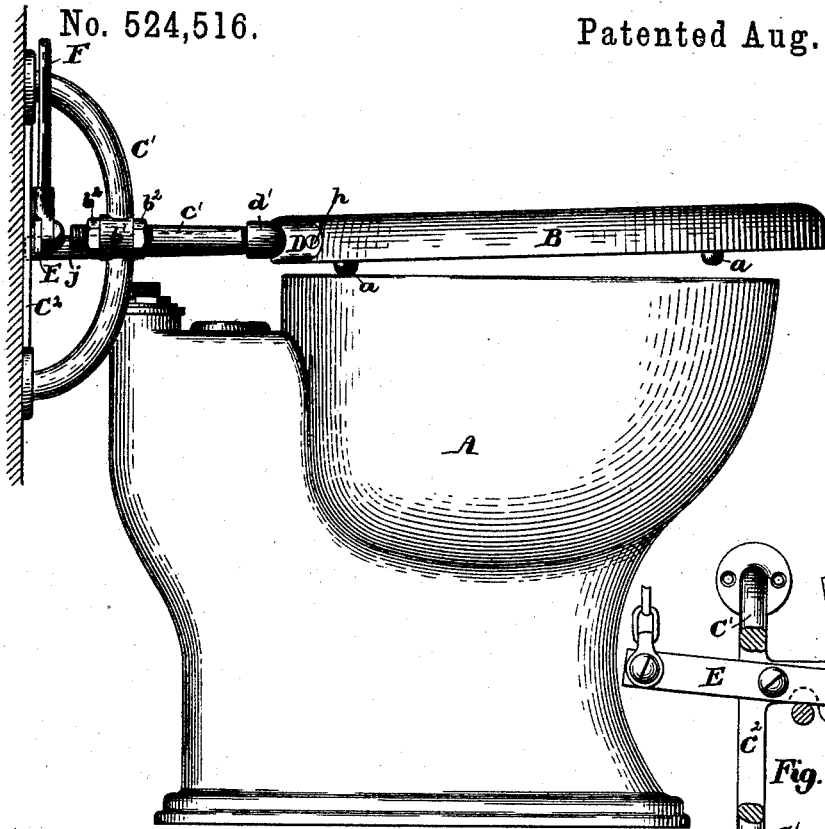


Fig. 1.

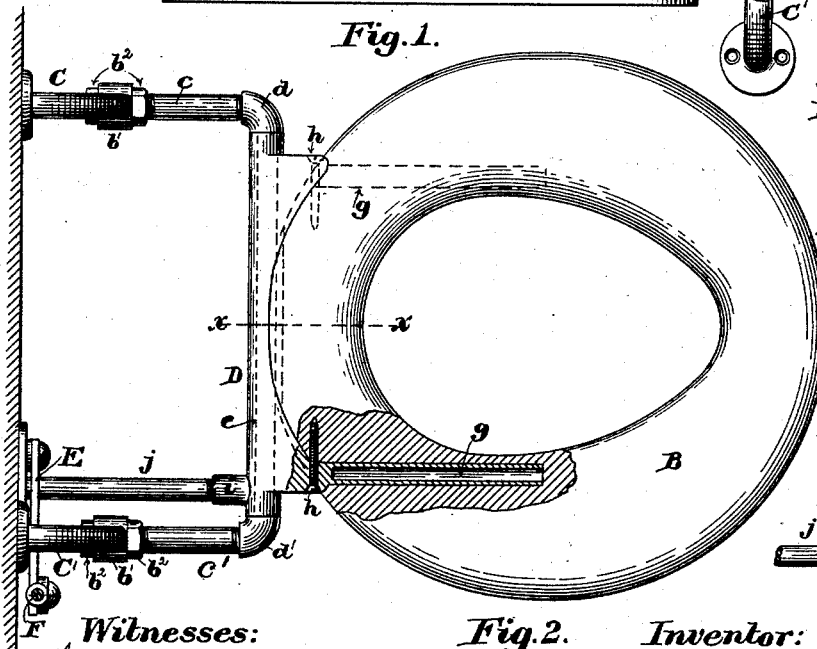


Fig. 2.

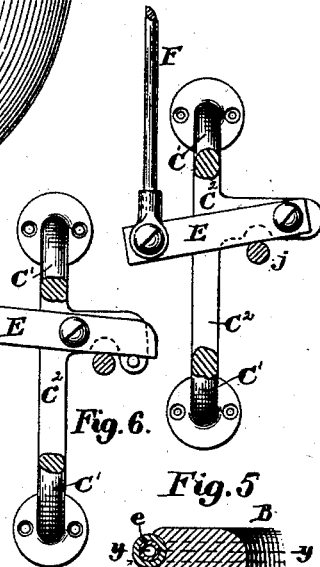


Fig. 3.

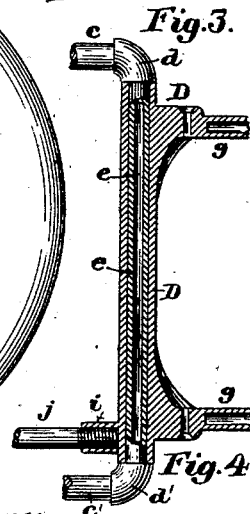


Fig. 4.

Witnesses:
Walter E. Lombard
Geo A. Sewall

Inventor:
John H. Stevens, Jr.,
by N. C. Lombard
Attorney.

UNITED STATES PATENT OFFICE.

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

SEAT ATTACHMENT FOR WATER-CLOSETS.

SPECIFICATION forming part of Letters Patent No. 524,516, dated August 14, 1894.

Application filed February 17, 1894. Serial No. 500,539. (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 accompanying drawings and to the claims here-
to appended and in which my invention is clearly pointed out.

My invention is designed especially for use in connection with water closet bowls that are not inclosed, but stand out from the wall and are exposed to view, and is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a water closet bowl with my invention applied thereto. Fig. 2 is a plan of same with a small portion of the seat cut in section in order to more clearly illustrate the manner of connecting the metal hinge to the seat. Fig. 3 is a section through the hinge and a portion of the seat on line *x, x*, on Fig. 2. Fig. 4 is a partial sectional plan of the hinge detached from the seat, the cutting plane being on line *y y* on Fig. 3. Fig. 5 is a sectional elevation of one of the brackets and the mechanism for operating the discharge valve in the flushing tank, not shown, and Fig. 6 is a similar view illustrating the application of my invention to the operation of said valve by a flexible connection instead of a rod.

In the drawings A is the closet bowl of porcelain or any other suitable material and made of any desired form, and provided with any suitable means of supplying flushing water thereto.

B is the seat made of wood and provided with the usual rubber lugs or cushions *a, a*, set in its under side so as to bear upon the upper surface of the rim of the bowl when the seat is occupied.

C and C' are two brackets secured by suitable screws to the wall of the room, and provided with perforated hubs *b* and *b'* to re-

ceive the rearwardly projecting arms *c, c'*, respectively, of the fixed portion of the hinge, said rods or arms *c c'* being adjustably secured in said hubs by the nuts *b²*, or in any well known manner, for the purpose of varying the distance from the wall of the room to the center of the hinge.

The rods or arms *c, c'*, are screwed into the quarter turns *d, d'* respectively and said quarter turns are connected together by the pintle rod *e* which passes through the sleeve D of the movable part of the hinge, and is screwed into said quarter turns. The sleeve D is formed to fit the curved rear edge of the seat B and has formed integral therewith the two rods or arms *g, g*, which project at right angles to the axis of said sleeve and parallel to each other and are fitted into holes bored into the seat B and are secured therein by screws *h h* passing through said arms and screwing into the wood of the seat as shown in Fig. 2.

The rear edge of the seat B is grooved so as to partially surround the central portion of the sleeve D while the two end portions of the sleeve are expanded on curved lines to conform to the shape of the contiguous portions of the seat edge as shown in Figs. 2, 3, and 4, and the inner faces of said curved end portions of the sleeve are made concave as shown in Fig. 4 to the better conform to the shape of the seat. The sleeve D also has formed thereon a hollow boss *i* projecting toward the rear into which is screwed the arm *j* so as to form in connection with the seat a lever to operate the discharge valve in the tank.

The arms *c, c', g, g'*, and *j* are preferably made tubular in order to reduce the weight of the parts but they may be made solid if desired without affecting the principles of my invention.

The bracket C has formed therewith, or secured thereto, the three armed tie-plate C² to which is pivoted the lever E, in position to be acted upon by the arm *j* to move it about its fulcrum when the front of the seat is depressed by a person sitting thereon.

The lever E may be pivoted by one end to the plate C², be connected at its other end to one of the ends of the rod F, the other end of which is connected to the valve operating le-

ver (not shown) in a well known manner, and the arm *j* be arranged to act upon said lever between its fulcrum and its connection with the rod *F*, as shown in Fig. 5, or the fulcrum of said lever *E* may be between its two ends, be connected at one end to a chain or other flexible connection extending therefrom to the valve lever, (not shown) and the arm *j* act upon said lever *E* at or near its other end, as shown in Fig. 6.

The parts at the rear of the center of the hinge are to be constructed or weighted so as to slightly overbalance the weight of the seat in such a manner that when the seat is unoccupied its front will be slightly raised, as shown in Fig. 1. By this construction a very strong connection of the hinge to the seat is obtained which will not easily get out of order, and a strong rigid lever is obtained for operating the flushing valve, with very little additional cost and without disfiguring the seat, or the expense of a bracket at the side of the bowl to hang the valve operating lever upon, as heretofore practiced, but which detracts materially from the appearance of the closet.

The arm *j* may be screwed into the boss *i* as shown or it may be cast integral with the sleeve or hinge section *D* if preferred without affecting the principles of my invention.

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

1. In a water closet the combination with the closet bowl of a pair of brackets secured to the wall of the room and connected together by a hinge pintle at right angles thereto; the closet seat provided with two holes or sockets extending from its rear side toward the front edge thereof and parallel to each other; and a sleeve surrounding said pintle and provided with two arms extending at right angles therefrom and inserted in said sockets in the seat and secured therein.

2. The combination of a water-closet-seat provided with parallel sockets extending thereinto from its rear edge; a hinge sleeve provided with two parallel arms extending therefrom at right angles to the axis of said sleeve and firmly secured within said sockets; a third arm extending from the opposite side of said sleeve; a pintle extending through said sleeve; a pair of parallel arms secured to opposite ends of said pintle and a pair of brackets secured to the wall of a room and provided with bearings or sockets to receive said arms; a lever mounted on a fixed fulcrum in position to be acted upon by the arm projecting from the rear of said sleeve to move it about its fulcrum; and a connec-

tion extending from said lever to the flushing valve or a lever connected thereto.

3. In a water closet, the combination with the closet bowl of a pair of supports or bearings secured to the wall or other fixed portion of the building; a hinge pintle or shaft connecting said supports together; a closet seat provided with a socket extending thereinto from its rear edge; a sleeve surrounding said pintle or shaft and provided with an arm extending at right angles therefrom into said socket and secured therein, and another arm formed upon or secured to said sleeve and projecting to the rear thereof as and for the purposes described.

4. The combination of a movable water-closet seat; a revoluble section of a hinge firmly secured to and movable with said seat and provided with a rearwardly projecting arm; a pair of brackets or stands secured to the wall or other fixed portion of the building and pivotally connected at their front ends to the portion of the hinge that is secured to the seat; a lever mounted upon a fixed fulcrum in position to be acted upon by the end of the arm which projects from the rear of the seat section of the hinge; and a connection extending from said lever for operating the flushing valve.

5. The combination of a movable water closet seat; a hinge section firmly secured to and movable with said seat; a rearwardly projecting arm firmly attached to or formed in one piece with said hinge section and movable therewith; a fixed or non revoluble support or bearing for said seat hinge; a lever mounted upon a fixed fulcrum in position to be acted directly upon by said rearwardly projecting arm but disconnected therefrom; and a connection operated by said lever for controlling the flushing valve.

6. The combination of the seat *B* having two parallel holes bored therein from its rear edge and extending toward its front; the hinge section *D* provided with the two parallel arms *g, g'*, extending therefrom into the holes in said seat and secured therein; a fixed or non-revoluble support for said hinge section; and the arm *j* firmly secured to said hinge section and movable therewith as a means of operating the flushing valve.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 14th day of February, A. D. 1894.

JOHN H. STEVENS, JR.

Witnesses:

N. C. LOMBARD,
JAMES T. MURRAY.