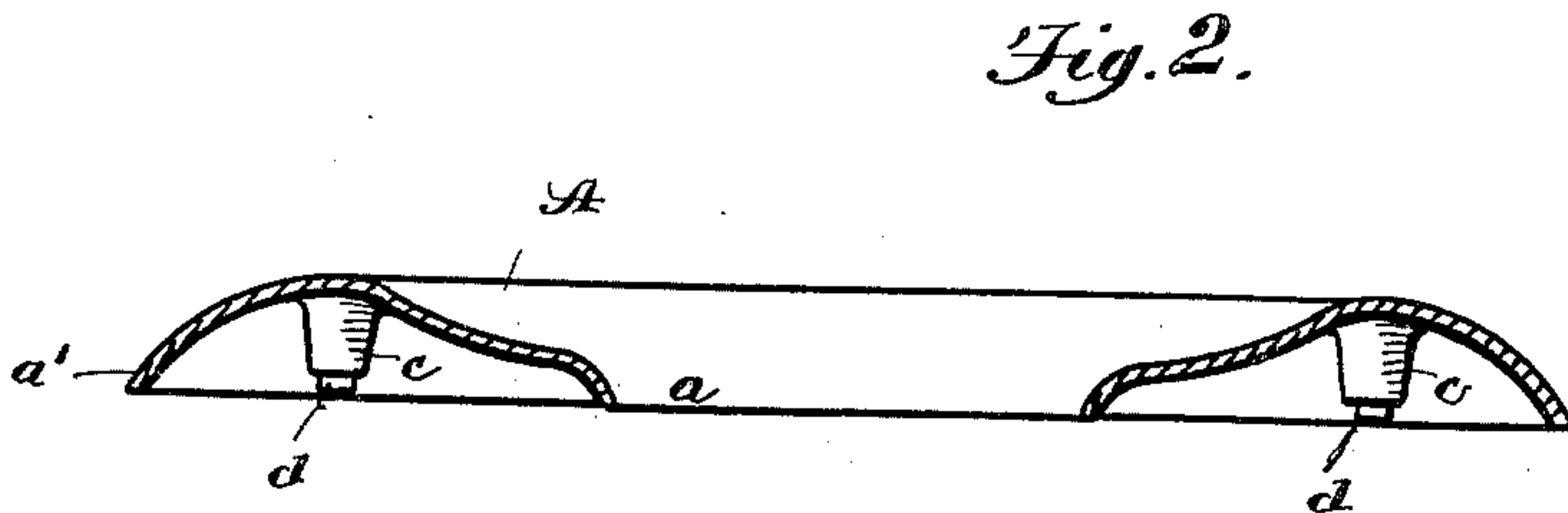
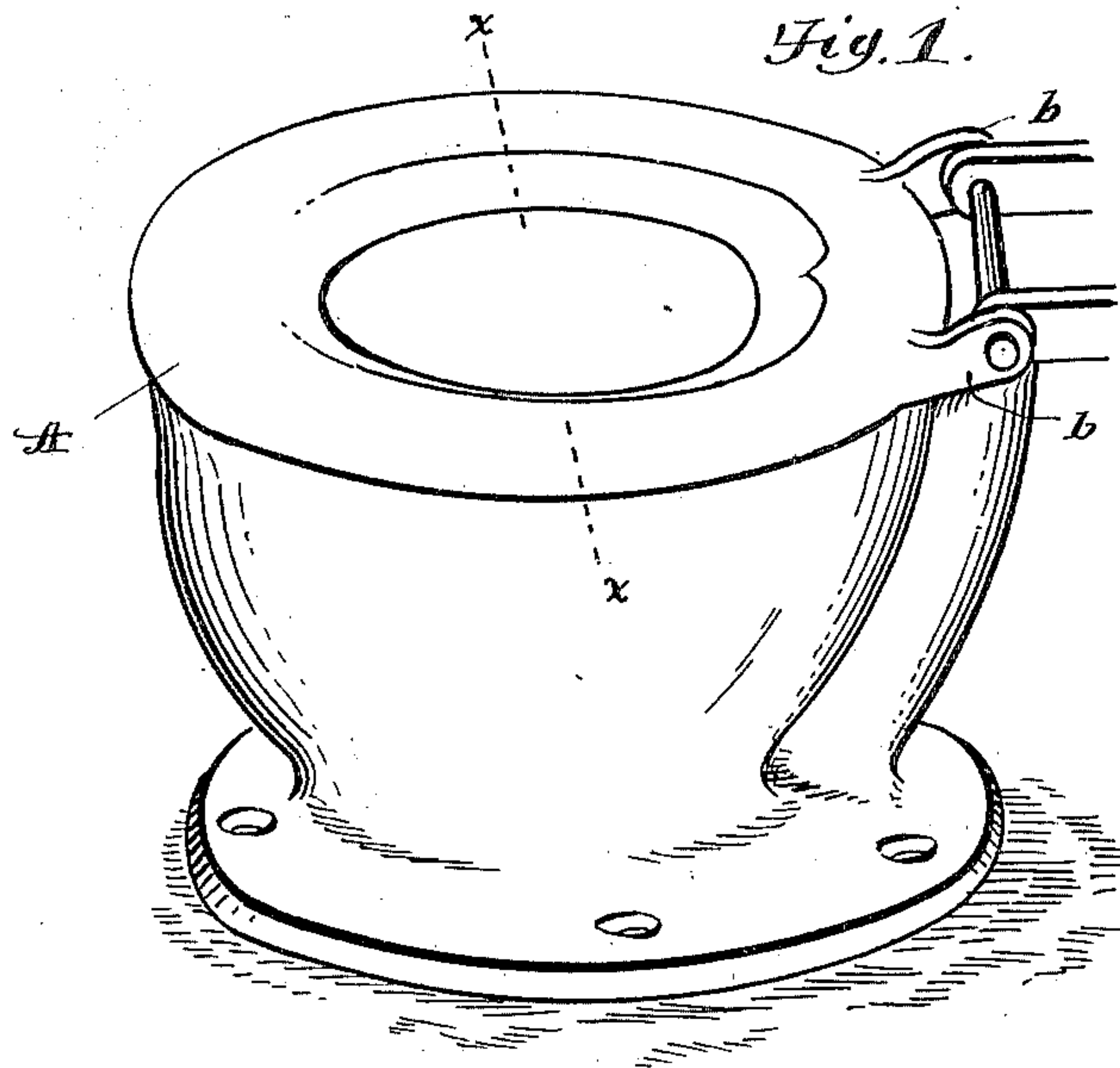


(No Model.)

H. P. COPE.
SEAT FOR WATER CLOSETS.

No. 604,558.

Patented May 24, 1898.



WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY P. COPE, OF DETROIT, MICHIGAN.

SEAT FOR WATER-CLOSETS.

SPECIFICATION forming part of Letters Patent No. 604,558, dated May 24, 1898.

Application filed December 19, 1896. Serial No. 616,257. (No model.)

To all whom it may concern:

Be it known that I, HENRY P. COPE, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Seats for Water-Closets; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to seats for water-closets, and has for its object an improved form of seat which overcomes many of the disadvantages that pertain to those seats which are in common use at the present time.

It is desirable that the exterior periphery of a water-closet seat be as small as possible and that the interior periphery be as nearly of the same size as the opening into the bowl as is possible, and in the ordinary wooden seat as made from pieces of plank that are held together sometimes by glue and sometimes by mechanical means, such as screws or bolts, or mitering or dovetailing or tenoning the parts together, the small amount of wood that is contained in the ring renders it difficult to make the ring firm and substantial, and the joints are apt to open up, and, inasmuch as the seat is always subject to the action of water and, in many instances, to the action of steam where it is located in bath-rooms, as soon as any one of the joints begins to open up it fills with moisture, which follows along the crack until the seat is destroyed or so injured as to be unsightly. For the same reason it is impracticable to cover a wooden form with any article such as leather or any similar substance, because where there is more than one part to the seat the joint between them invariably forms a receptacle for moisture and sometimes a receptacle for foul matter that gathers therein. Another objection to the wooden seat is that it can rarely or never rest closely against the top of the bowl, inasmuch as it is necessary to place underneath it and between it and the bowl a bumper or cushion which must project from its under side far enough to prevent the seat itself from striking with force against the top of the bowl, and this furnishes an opening be-

tween the seat and the bowl wherein foul matter is apt to accumulate. Attempts have been made to overcome the last-mentioned difficulty in some cases by placing a curtain or fringe of metal that hangs downward around the inner periphery or around a part of the inner periphery of the ring, overhanging the walls of the bowl somewhat; but here again comes in the objection first spoken of—that cracks and openings form between the wood and the metal, which in time serve to destroy the seat, and if they do not destroy it serve as receptacles for foul matter. My improved seat overcomes all of these difficulties and is not objectionable for other reasons.

In the drawings, Figure 1 shows the seat in perspective resting at the top of the bowl. Fig. 2 shows it in cross-section at the line xx of Fig. 1.

A indicates the seat, which is made in the form of an oval ring, the cross-section of which is convex on the upper side and concave on the inner side, so that the entire seat is a concavo-convex oval ring.

$b\ b$ indicate ears provided with suitable holes for the reception of hinge-bolts, and by means of these ears on the hinge-bolts the seat is hinged to the bowl.

$c\ c$ indicate cushion-seats hollowed out on their underside that project downward within the concave side of the ring and receive rubber plugs $d\ d$, which are used as bumpers or stops to prevent the seat from striking against the top of the porcelain bowl. The inner edge a of the ring should preferably project below the edge of the bumper d , so as to form a curtain or guard extending down along the inner walls of the bowl for a slight distance.

a' indicates a similar downward-projecting extension at the outer periphery of the ring. The outward extension, however, is not so essential as the inner one, as the liability to the deposit of foul matter on the edge of the bowl is from the inside of the bowl and not from the outside.

This seat is made integral from a single homogeneous material and may be made either of metal or any one of the numerous materials that are adapted for such use—such as gutta-percha, celluloid, vulcanized fiber, hard rub-

ber, &c.—the only requisite being that the material shall be sufficiently rigid to hold its shape and of a character such that it is not readily acted upon by liquids or steam.

5 What I claim is—

1. A seat for water - closets, comprising a single-piece ring of concavo-convex cross-section and of the same general shape as the rim of the bowl to which it is to be applied, and
10 provided with cushion-seats on the concave side thereof for supporting said ring from the bowl.

2. In combination with the bowl of a water-closet, a seat therefor comprising a jointless
15 ring of concavo-convex cross-section and of the same general shape as the rim of the bowl,

cushion-seats on the concave side thereof, and hinge-lugs.

3. A seat for water-closets, consisting of a ring of homogeneous material of the same
20 general shape as the bowl of the closet to which it is to be applied, and of concavo-convex cross-section, and having formed on its concave side cushion-seats, for supporting it from the bowl.

25 In testimony whereof I sign this specification in the presence of two witnesses.

HENRY P. COPE.

Witnesses:

CHARLES F. BURTON,
VIRGINIA M. CLOUGH.