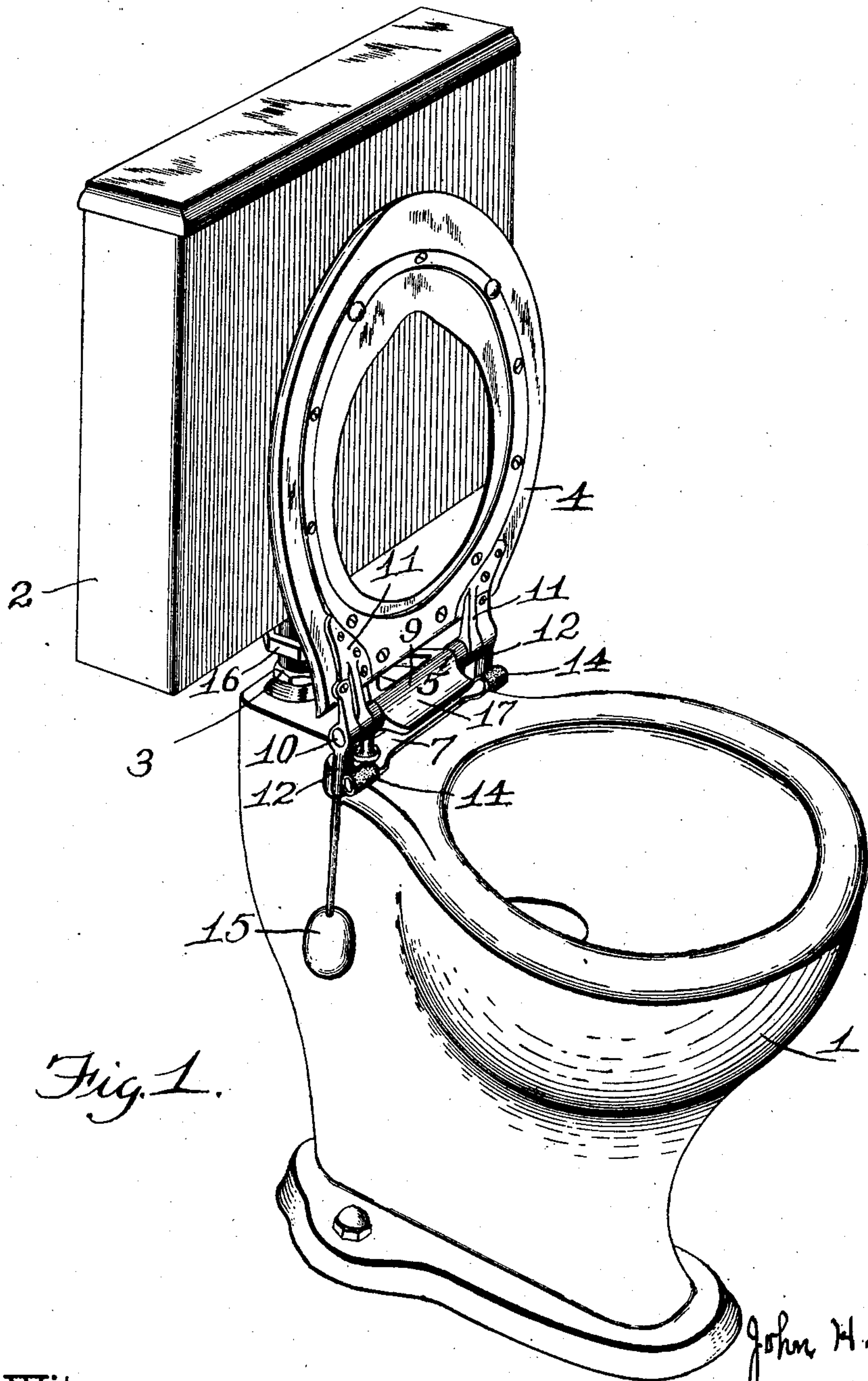


J. H. DAVIS.
SANITARY CLOSET.
APPLICATION FILED JAN. 16, 1909.

933,830.

Patented Sept. 14, 1909.
2 SHEETS—SHEET 1.



Witnesses:
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M. S. Belden.

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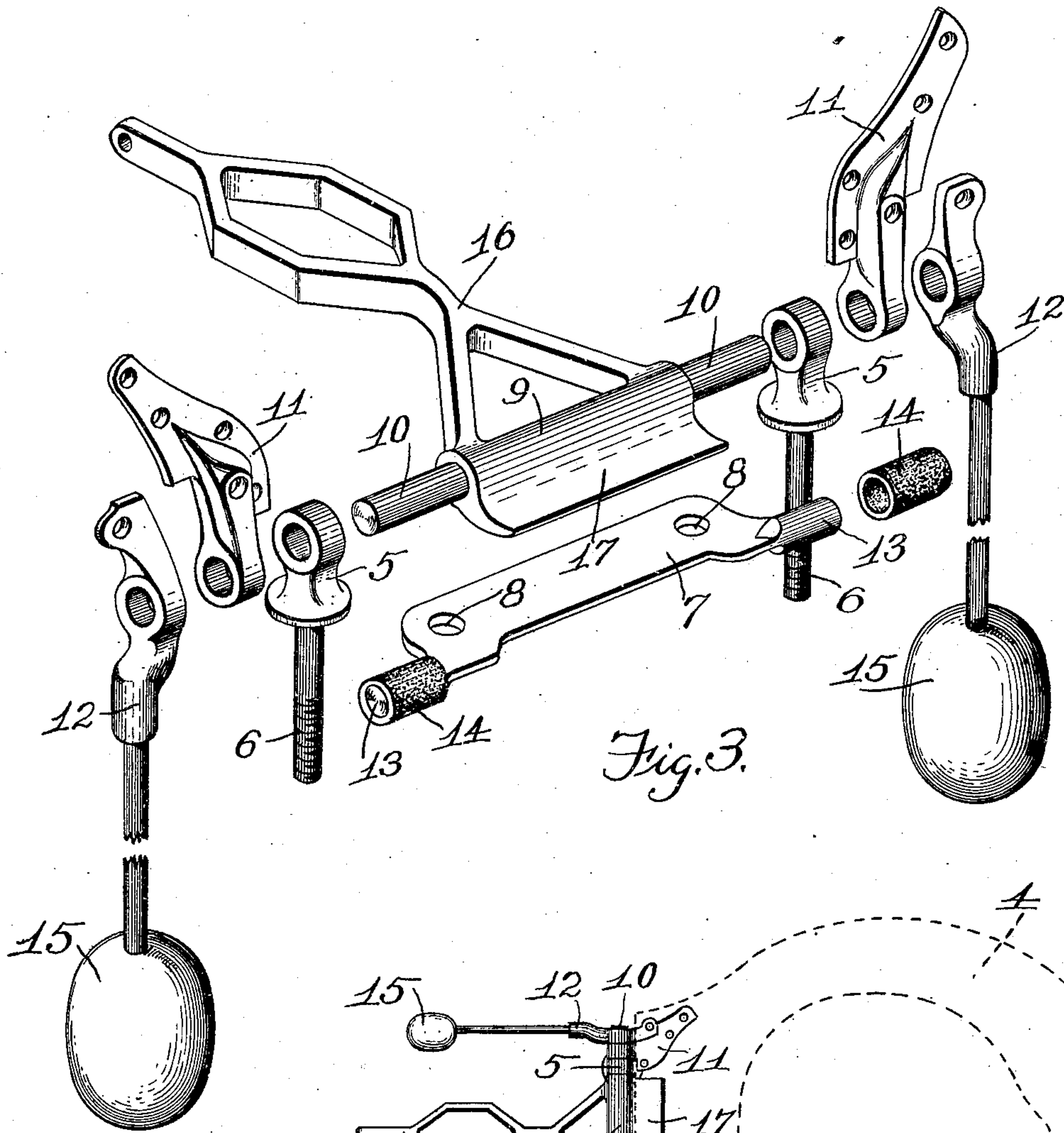


Fig. 3.

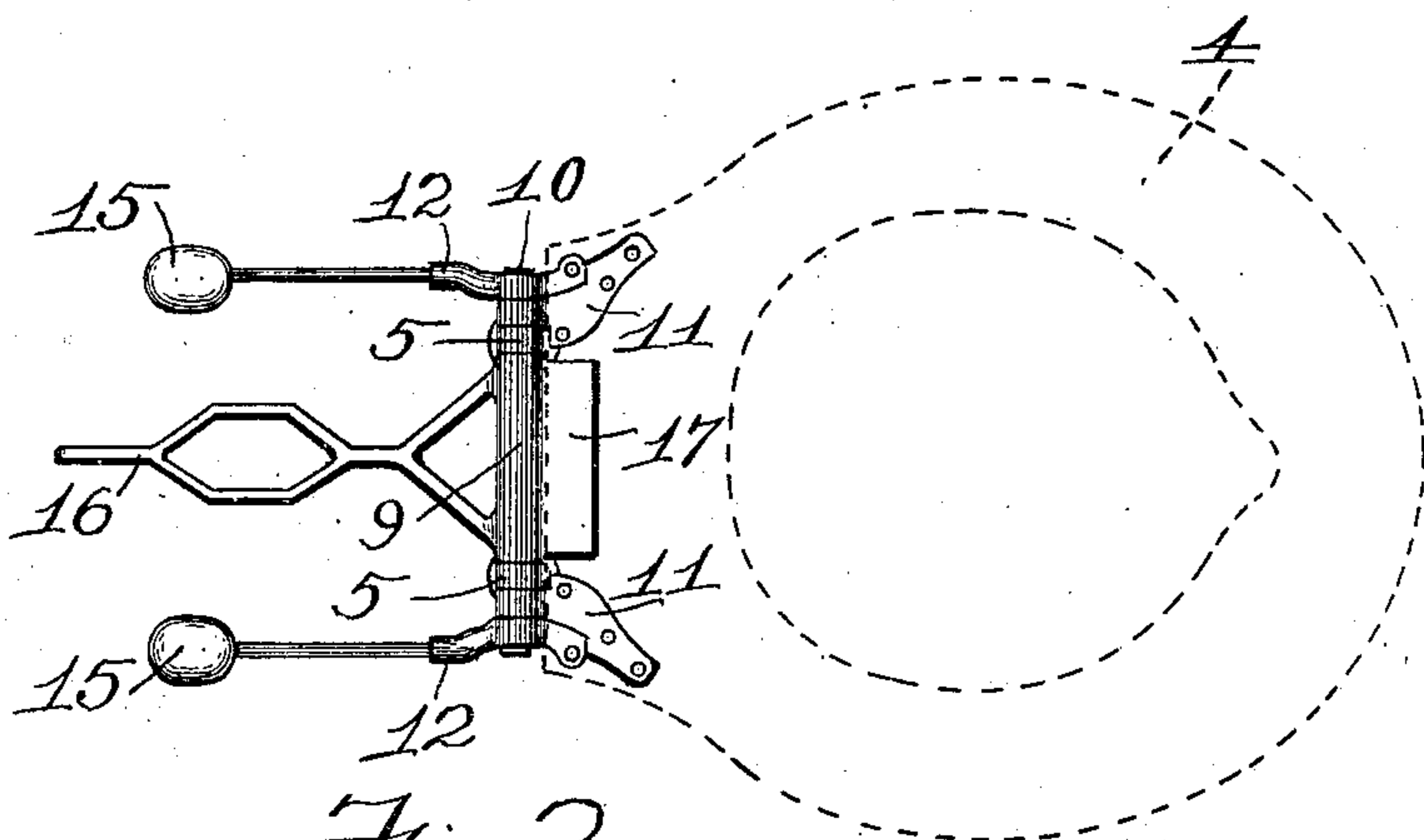


Fig. 2.

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UNITED STATES PATENT OFFICE.

JOHN H. DAVIS, OF HAMILTON, OHIO.

SANITARY CLOSET.

933,830.

Specification of Letters Patent. Patented Sept. 14, 1909.

Application filed January 16, 1909. Serial No. 472,604.

To all whom it may concern:

Be it known that I, JOHN H. DAVIS, a citizen of the United States, residing at Hamilton, Butler county, Ohio, have invented certain new and useful Improvements in Sanitary Closets, of which the following is a specification.

My present improvement in sanitary closets will be readily understood from the following description taken in connection with the accompanying drawings in which:—

Figure 1 is a perspective view of a closet exemplifying my invention: Fig. 2 a plan of the hinge-mechanism; and Fig. 3 a perspective view of the hinge-mechanism shown dissected.

In the drawings:—1, indicates a closet bowl, of ordinary construction: 2, the flush tank, illustrated as of the low-down type: 3, the flush pipe leading from the tank to the bowl: 4, the seat having hinged connection with the bowl: 5, hinge-eyes bolted to the bowl: 6, the shanks of the hinge-eyes, to pass downward through rearward portions of the bowl and receive clamping nuts, as usual: 7, a tie-bar lying on top of the bowl and extending from one hinge-eye to the other: 8, perforations in the tie-bar, the shanks of the hinge-eyes passing through these perforations, whereby the tie-bar becomes firmly clamped to the bowl, and at the same time the tie-bar serves in positioning the hinge-eyes relative to each other, regardless of the closeness of the fit of the shanks of the hinge-eyes in the receiving perforations of the bowl: 9, the hinge-pivot, in the form of a bar extending from one hinge-eye to the other: 10, the pivot journals on the ends of the hinge-pivot, these journals passing through the hinge-eyes and outwardly some distance beyond them: 11, the seat-hinge-eyes, rigidly secured at the rear edge of the seat and having eyes engaging the journals 10, preferably exterior to the fixed hinge-eyes 5: 12, seat-lifting levers rigidly secured at the rear edge of the seat and having eyes engaging the journals 10 exterior to the seat-hinge eyes 11: 13, stiff studs projecting outwardly from the opposite ends of tie-bar 7 in the planes of oscillation of the seat-lifting levers 12, which levers occupy a position to the rear of these studs when the seat is in elevated position: 14, buffer sleeves, as of rubber, secured upon the studs 13: 15, weights upon the free ends of seat-lifting levers 12 and serving to ex-

emplify means by which the seat is automatically turned to upward position: 16, a valve-operating lever projecting rigidly rearward from hinge-pivot 9, its rear end being adapted for connection with the flush-valve of the apparatus in any usual or suitable manner: and 17, a toe projecting forwardly from the valve-operating lever in position to be depressed when the seat is brought down upon the bowl.

The seat is normally held in elevated position by the weights 15, in case automatic lifting means be employed for the seat and if weights be employed as such means. When the seat is depressed, then its rear under portion comes in contact with toe 17 and elevates the free end of the valve-operated lever, and when the seat is released and returns to vertical position, the valve operating lever drops and operates the flush valve. When the seat is elevated to vertical position, by the automatic lifting mechanism, or by hand in case there is no such mechanism, the levers 12 come in contact with the buffers 14, thus cushioning the motion of the seat and arresting it in proper upright position without the necessity for any buffer or arresting stop to make contact with the upper face of the seat. The hinge-pivot 9 is a solid integral structure extending from end to end of the hinge and, in conjunction with the tie-bar 7 makes the hinge a very substantial structure well able to withstand the lever-like strains brought upon it by the seat.

It will be apprehended that the levers 12, rocking on the same axis with the seat need not be rigidly secured to the seat, though such securing is preferable, and it is also preferable that these levers be formed separate from the hinge-eyes 11, as distinguished from being formed integrally with them. The illustration shows them as being separately formed.

In the closet illustrated the seat action is automatic and the cushioning and arresting of the seat is independent of any buffer except that furnished at the hinge. If the weights 15 and their stems be removed from arms 12 then the seat will not be automatically lifted to full vertical position or to any extent except as effected by the toe 17 acted upon by the valve-operating lever, but still the levers 12 and buffers 14 will serve as a cushion and arrest for the seat when it is turned up by hand, and this consideration

will apply even if the seat operating lever and its toe be absent; in short, the buffer and arrest for the seat is at the hinge. If, however, the arms 12 be entirely removed
 5 then the cushioning and arresting quality of the hinge is lost and a buffer and arrest must be provided in some usual manner, as at the face of the tank, if of low down type, or on the flush pipe or wall if a high tank
 10 be employed. But, regardless of whether automatic seat lifting mechanism be employed, and regardless of whether the buffing features of the hinge be employed, the peculiarly substantial self-bracing qualities of
 15 the hinge remain and insure the proper relationship of the hinge parts to each other.

I claim:—

1. A sanitary closet comprising, a hinge axis a tie-plate to rest on the closet bowl underneath said axis, hinge-eyes projecting upward from the tie-plate and rigidly secured to the bowl, an integral hinge-pivot extending through said hinge-eyes and outwardly beyond the same, and seat-hinge-eyes
 20 mounted on the outwardly projecting portions of said hinge-pivot, combined substantially as set forth.

2. A sanitary closet comprising, a hinge axis a tie-plate to rest on the closet bowl underneath said axis, hinge-eyes projecting upward from the tie-plate and rigidly secured to the bowl, an integral hinge-pivot extending through said hinge-eyes and outwardly beyond the same, seat-hinge-eyes mounted
 30 on the outwardly projecting portions of said hinge-pivot, a valve-operating lever mounted for oscillation on the axis of said hinge-pivot, and a toe projecting forwardly from said valve-operating lever and adapted to be
 35 depressed by the rear portion of the seat when the seat is pressed down, combined substantially as set forth.

3. A sanitary closet comprising, a hinge axis a tie-plate to rest on the closet-bowl underneath said axis, hinge-eyes projecting upward from the tie-plate and rigidly secured to the bowl, an integral hinge-pivot extending through said hinge-eyes and outwardly beyond the same, seat-hinge-eyes mounted
 45 on the outwardly projecting portions of said hinge-pivot, studs projecting outwardly from said tie-plate, buffers carried by said studs, and levers pivoted on the outer ends of said hinge-pivot and having rigid connection
 50 with the seat and adapted to engage

forwardly against said buffers when the seat is in upright position, combined substantially as set forth.

4. A sanitary closet comprising, a hinge axis a tie-plate to rest on the closet-bowl underneath said axis, hinge-eyes projecting upward from the tie-plate and rigidly secured to the bowl, an integral hinge-pivot extending through said hinge-eyes and outwardly beyond the same, seat-hinge-eyes mounted
 60 on the outwardly projecting portions of said hinge-pivot, studs projecting outwardly from said tie-plate, buffers carried by said studs, levers pivoted on the outer ends of said hinge-pivot and having rigid connection with the seat and adapted to engage
 65 forwardly against said buffers when the seat is in upright position, and seat-lifting devices connected with said levers and adapted to lift the seat to upright position, combined substantially as set forth. 70 75

5. A sanitary closet comprising, hinge-members supported by the bowl, a tie-bar, buffers having rigid connection with said tie-bar, seat-hinge-eyes pivoted to said
 80 hinge-members, and levers having rigid connection with said seat-hinge-eyes and adapted to engage said buffers when the seat is in upright position, combined substantially as set forth. 85 90 95

6. A sanitary closet comprising, a bowl, a seat, a pair of hinge-eyes rigidly secured to the bowl, a pair of hinge-eyes rigidly secured to the seat, a hinge pivot bar extending through all of the hinge-eyes, and a valve-operating lever projecting rigidly rearward from said hinge pivot bar and having a toe projecting rigidly forward from said hinge pivot bar, and adapted to be acted on by engagement with the rearward portion of the
 90 seat bottom, combined substantially as set forth. 95

7. A sanitary closet comprising a tie-bar, hinge members supported by the bowl and spaced by the tie-bar, buffers having rigid connection with said tie-bar, seat-hinge-eyes pivoted to said hinge-members, and levers having rigid connection with said seat-hinge-eyes and adapted to engage said buffers when the seat is in upright position, combined substantially as set forth. 100 105

JOHN H. DAVIS.

Witnesses:

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 ELMER R. SHIPLEY.