

No. 721,786.

PATENTED MAR. 3, 1903.

J. J. DONOVAN.
WATER CLOSET BOWL.
APPLICATION FILED MAY 28, 1901.

NO MODEL.

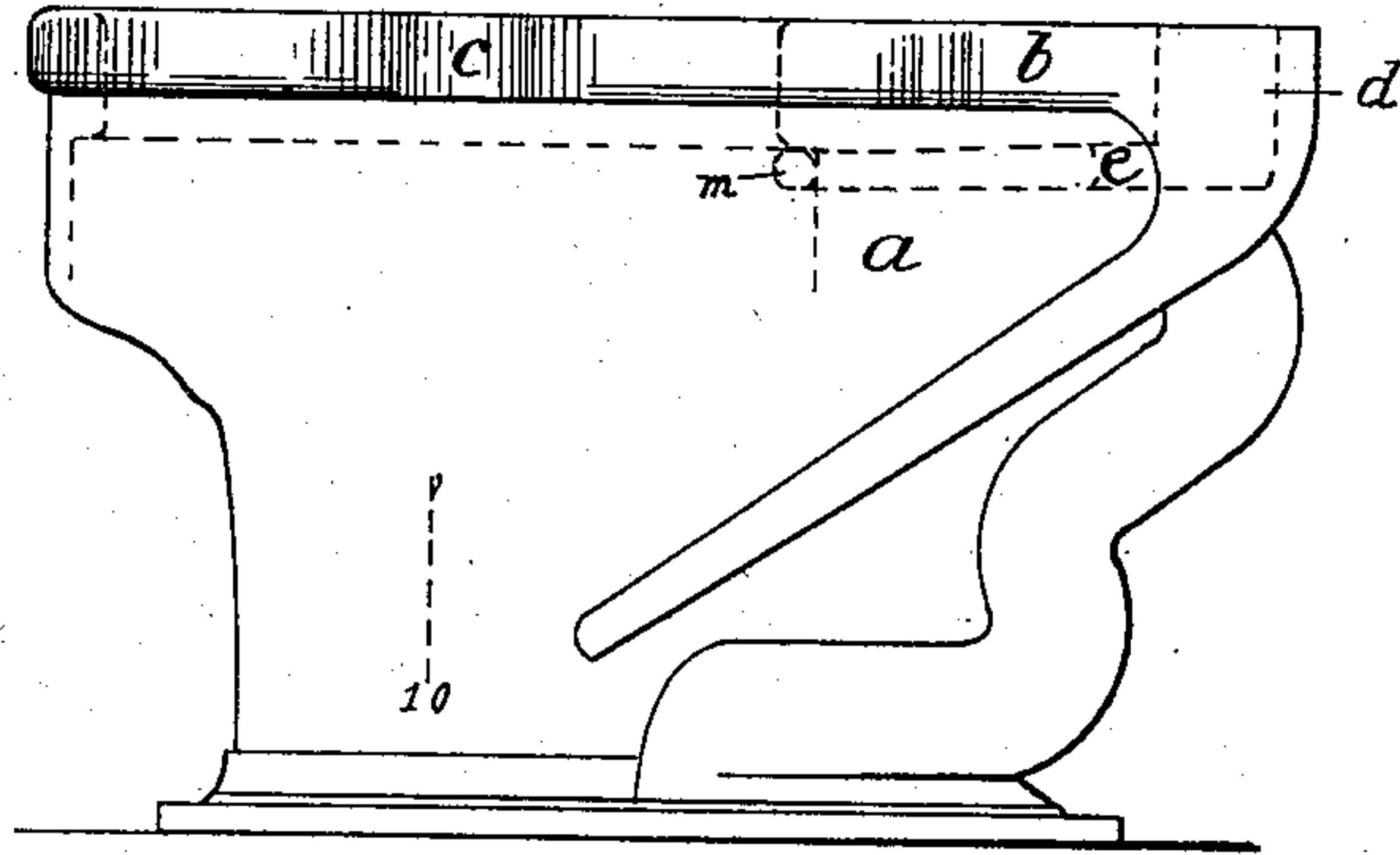


Fig. 1

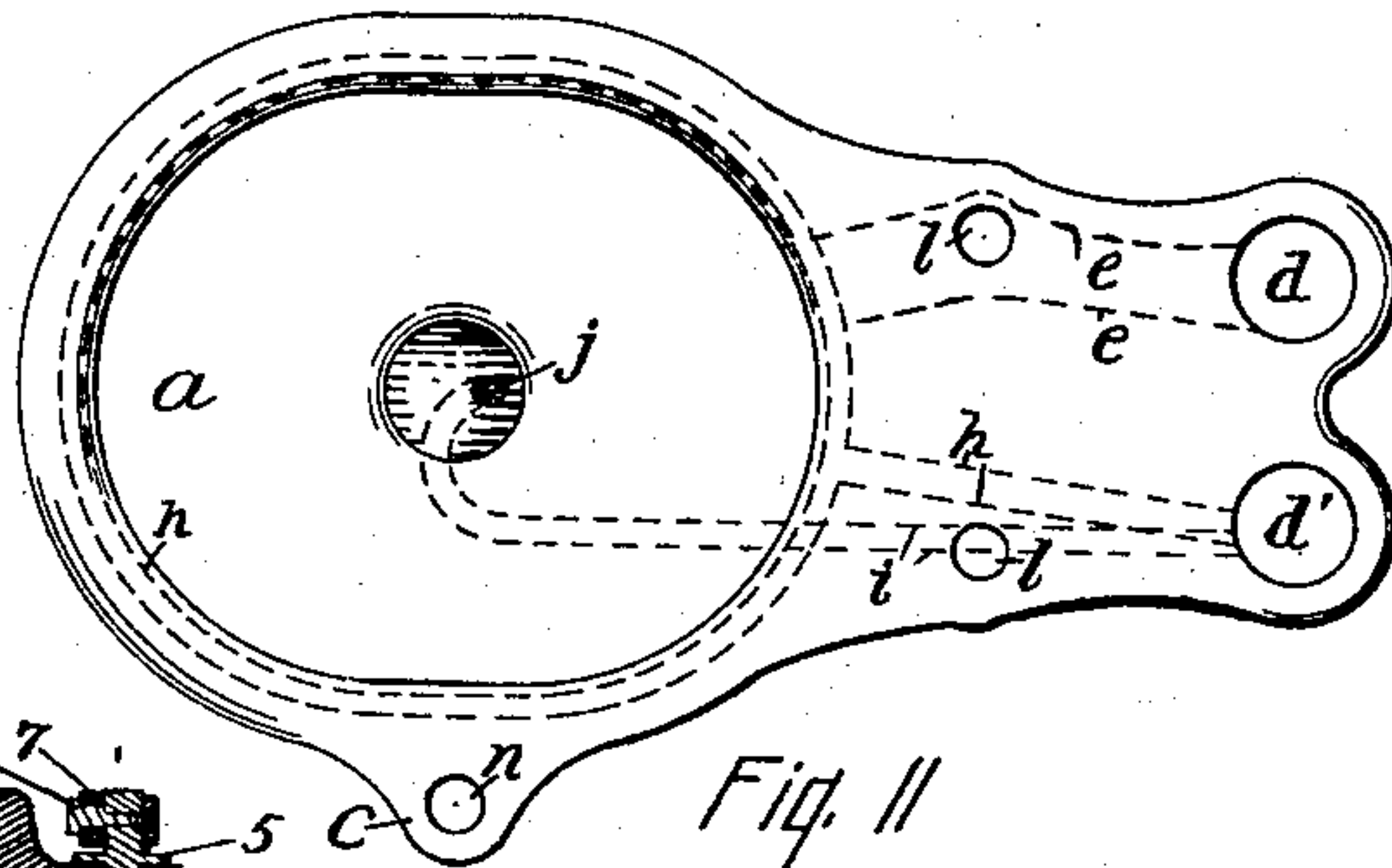


Fig. 2

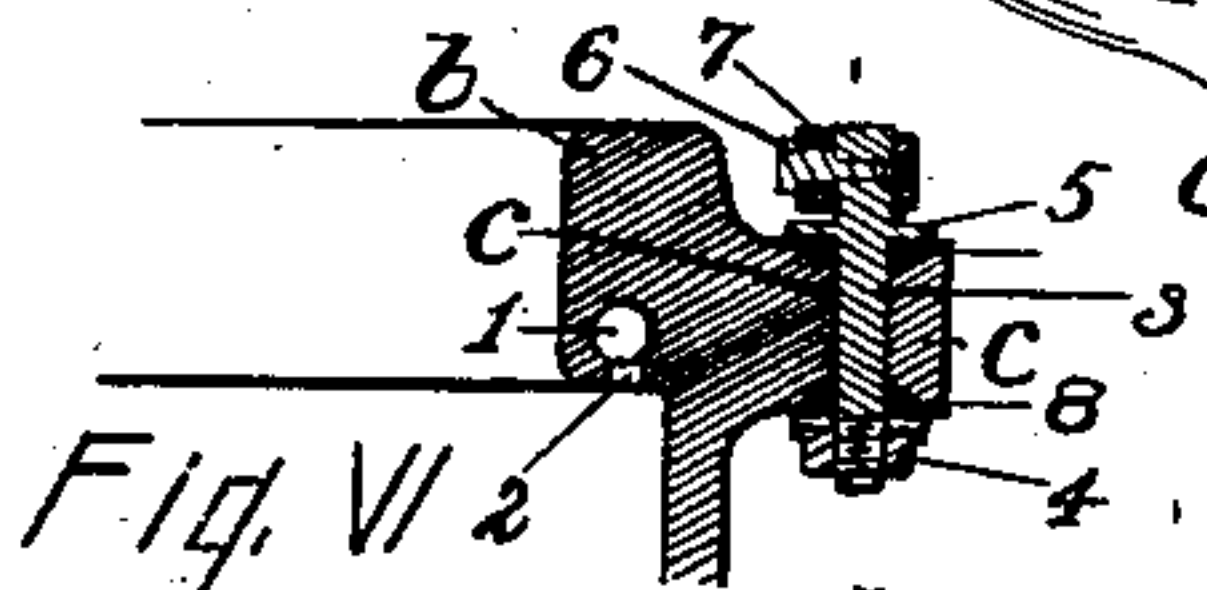


Fig. VI

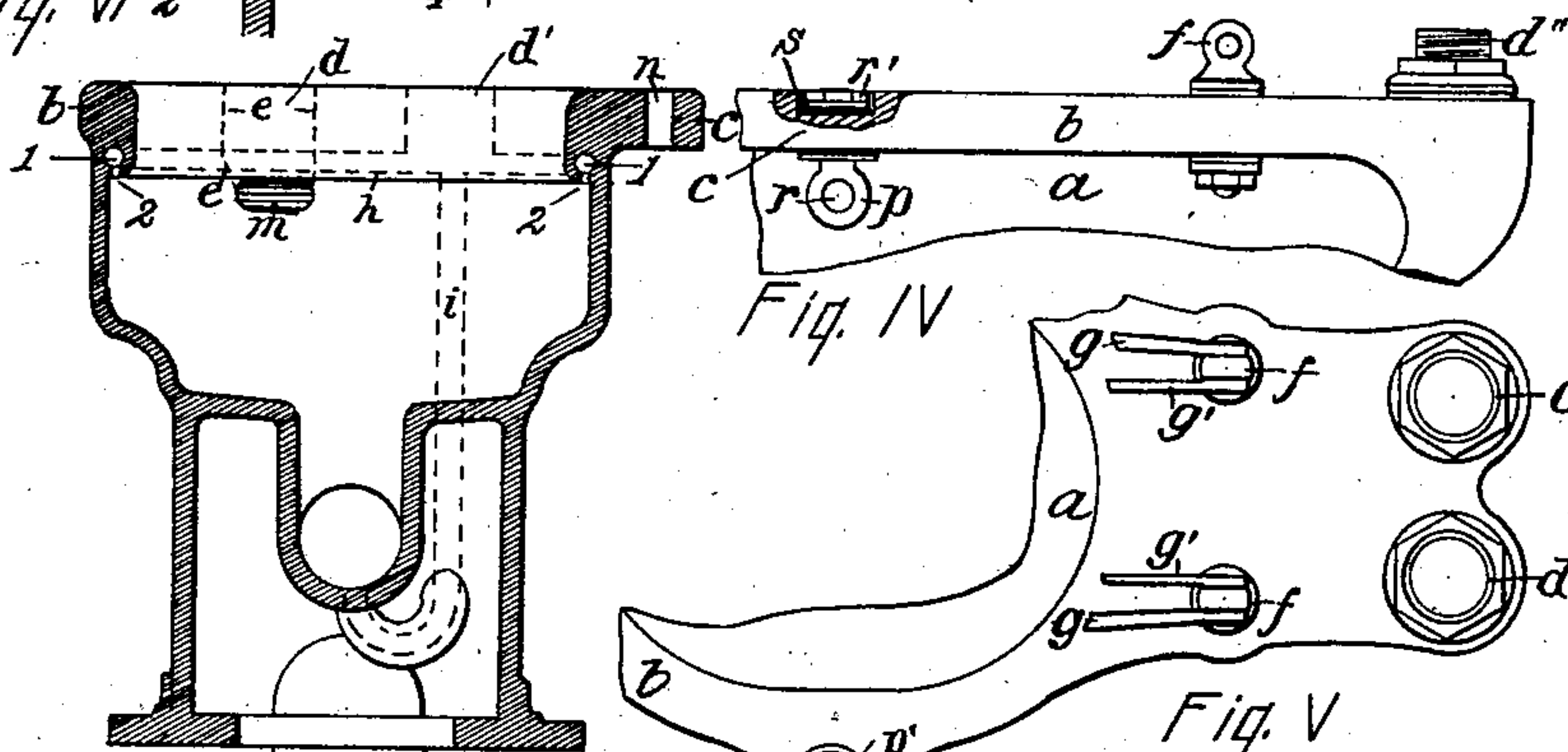


Fig. IV

Fig. III

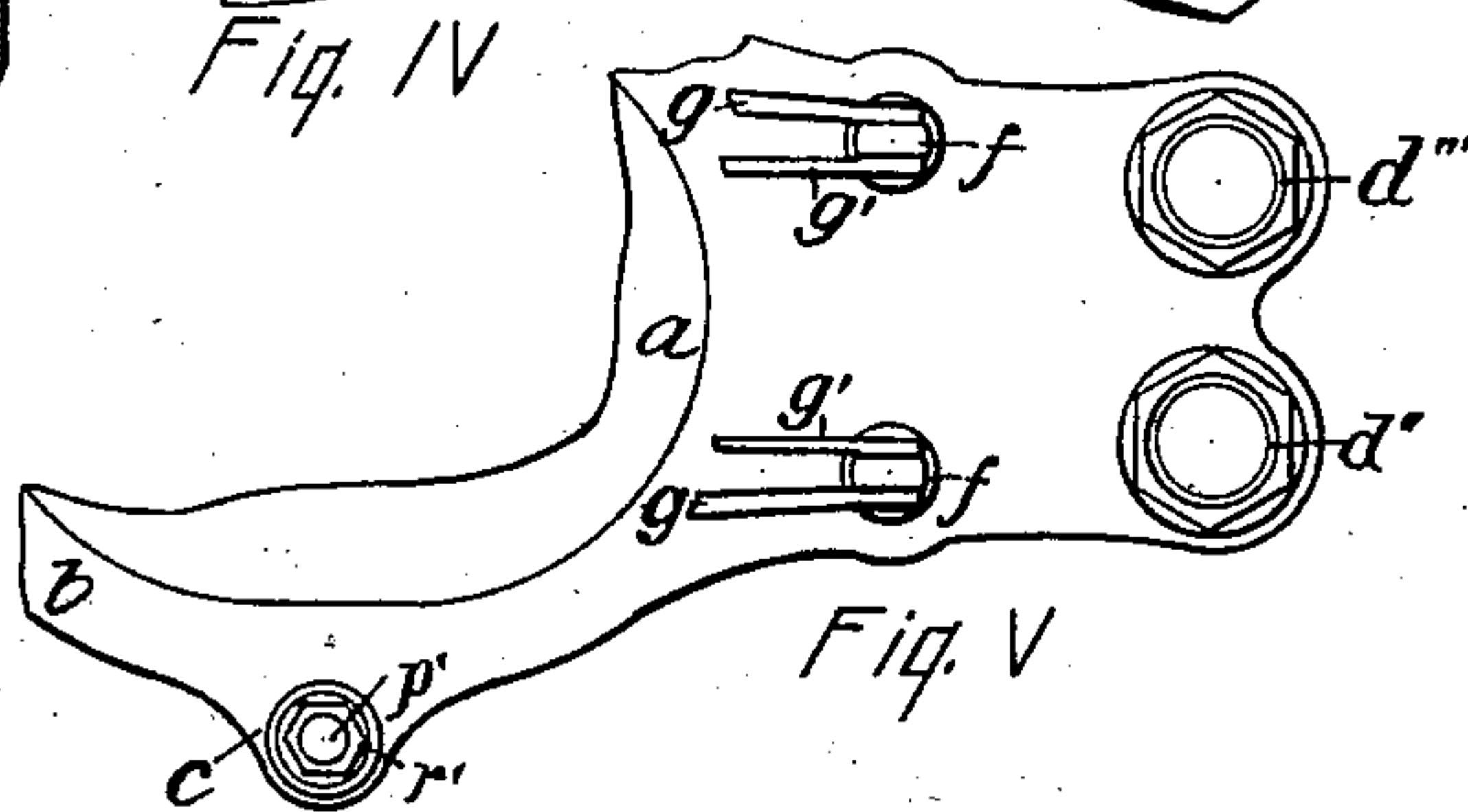


Fig. V

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WATER-CLOSET BOWL.

SPECIFICATION forming part of Letters Patent No. 721,786, dated March 3, 1903.

Application filed May 28, 1901. Serial No. 62,202. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. DONOVAN, a citizen of the United States, and a resident of Peekskill, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Water-Closet Bowls, of which the following is a specification.

This invention relates to water-closet ventilation, having reference particularly to the attachment of an air-exhaust pipe directly to the closet-bowl. Its object is to afford an efficient means for the connection of the ventilating-pipe and a part of the devices employed for starting the ventilating appliances into action.

The objects are attained by the means set forth in this specification and the accompanying drawings.

Figure I of the drawings shows the closet-bowl in elevation. Fig. II is a top view of the closet-bowl. Fig. III is a vertical cross-section of the bowl through line 10 of Fig. I. Fig. IV represents a section of the bowl, showing the manner of making connections with the bowl. Fig. V is a view of that portion of the top of the bowl to which the devices employed in ventilating it are attached. Fig. VI is an enlarged detail showing a connection with the bowl.

The closet-bowl represented is what is known as a "siphon-jet" closet, upon which the seat is secured by means of hinge parts in the holes *l l*, Fig. II, a top view of the posts and hinges being shown in Fig. V, *ff* representing the posts, *g g* the hinges for the seat, and *g' g'* the hinges for the seat-cover. A post is shown also in Fig. IV, it being held in place by a nut under the flange *b* of the bowl *a*. In Fig. II one of the hinge-posts is shown to be just above a channel *e* through the bowl, and when this structure occurs the nut for the post would be within the said channel.

As already stated, this invention relates to particular methods of ventilating water-closets—such, for instance, as the employment of a fan to be driven by the water that fills the flushing-tank for washing out the closet, the fan having a connection from its intake or its branches with the interior of the bowl, or of any method of ventilating that includes

such direct connection with the bowl. The closet-bowl herein illustrated is not claimed as in any manner new, except as to the means herein described for adapting it to the said manner of ventilating it. The means are shown in plan in Fig. II. The hole *d'* represents the usual opening for the flushing-pipe connection, the connection being shown in elevation in Fig. IV and in plan in Fig. V. At *d*, Fig. II, a like opening is shown for a ventilating-pipe connection, which is similar in size and construction to the flushing connection as shown in plan in Fig. V. The flushing-opening *d'* has two channels leading from it to the interior of the bowl, one (represented by the broken lines *h*) that leads to a perforated channel 1, Fig. III, around the inside of the rim of the bowl, said channel and perforations 2, Fig. III, being shown in cross-section in Fig. III. The other channel (represented by broken lines *i*) leads to the jet-openings *j* at the entrance to the bowl-trap, as in Figs. II and III. The opening *d* has a channel connection with the interior of the bowl, as shown by the broken lines *e e*, the outlet within the bowl having an area corresponding with the ventilating-pipe to be used and entering the bowl below the flushing-rim, as shown at *m*, Fig. III. The course of this channel is also shown in Fig. I by broken lines *e*. When the ventilating-fan is in motion, there will be a movement of air into the bowl through its top and out of the bowl through the inlet *m*.

When used with a ventilating system that is operated by water caused to flow by the depressing of the seat on the bowl, ball mechanism is required to transmit the movement of the seat to the valve that affords the water-supply. To facilitate the attachment of this lever, a lug *c* is added to the side of the closet-bowl, as shown in plan in Figs. II and V and in cross-section in Figs. III and VI. The lug is provided with a hole *n* for the insertion of a stud for supporting a lever, as shown in Figs. IV and VI. In Figs. II, III, and V this lug is shown to have its top flush with the surface of the bowl. In Fig. IV the top of the hole is shown to be recessed, as at *s*. In Fig. VI the lug is set below the surface of the bowl. Fig. IV represents a stud *p* for the attachment of a lever suspended from the

lug, the securing-nut r' having its top flush with the top surface of the lug. The same stud applied to the lug shown in Fig. III would cause the nut r' to be above the top surface of the lug. The stud, however, may be reversed in each of these figures, so that the eye r would be above the lug c instead of hanging below it. As shown in Fig. VI, the stud may be applied with the eye above the lug, and the top of the lug and the lever would be flush with the surface of the bowl or may be made to be below the surface of the bowl. In this figure the hole n is shown to be recessed on each side to receive cushioning-washers 8 8. The stud 3 has a shoulder 5 on top of the upper washer and a washer and a nut 4 below the under washer. The lever 7 swings on the stud 6.

Having described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

The combination in a sanitary closet-bowl

having the trap and siphon passage rearward of the bowl, a flush top for the whole extended rearwardly in length and width to cover the top and siphon parts and affording an outside connection for one of the seat-hinges, the other seat-hinge being fastened within the ventilating-duct, a hole in the extension for connecting the flushing-pipe, a ventilating-duct from within the bowl to a hole in the extended top that is contiguous to the flushing connection, the flushing and vent holes being equally distant from the center of the bowl, and a lug on one side of the bowl for valve-operating mechanism, substantially as herein shown and described.

Signed at Peekskill, in the county of Westchester and State of New York, this 1st day of May, A. D. 1901.

JAMES J. DONOVAN.

Witnesses:

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EUGENE M. CHAPMAN.