

(No Model.)

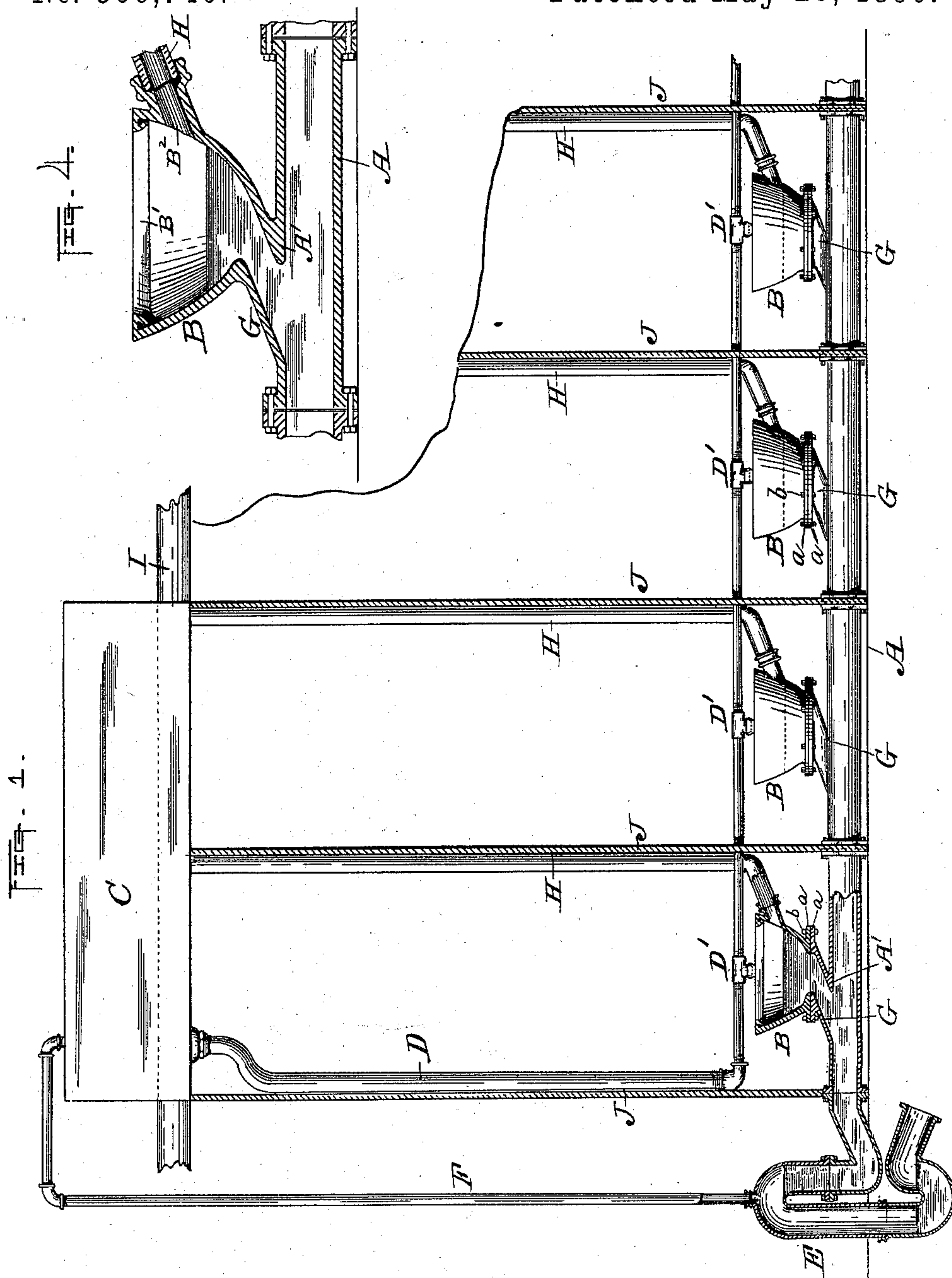
2 Sheets—Sheet 1.

J. F. McCARTNEY.

WASHOUT WATER CLOSET RANGE OR LATRINE.

No. 560,740.

Patented May 26, 1896.



Witnesses;

Walter B. Nourse.

C. Forrest Nason

Inventor;

John F. McCartney.

By A. A. Barker. Att'y

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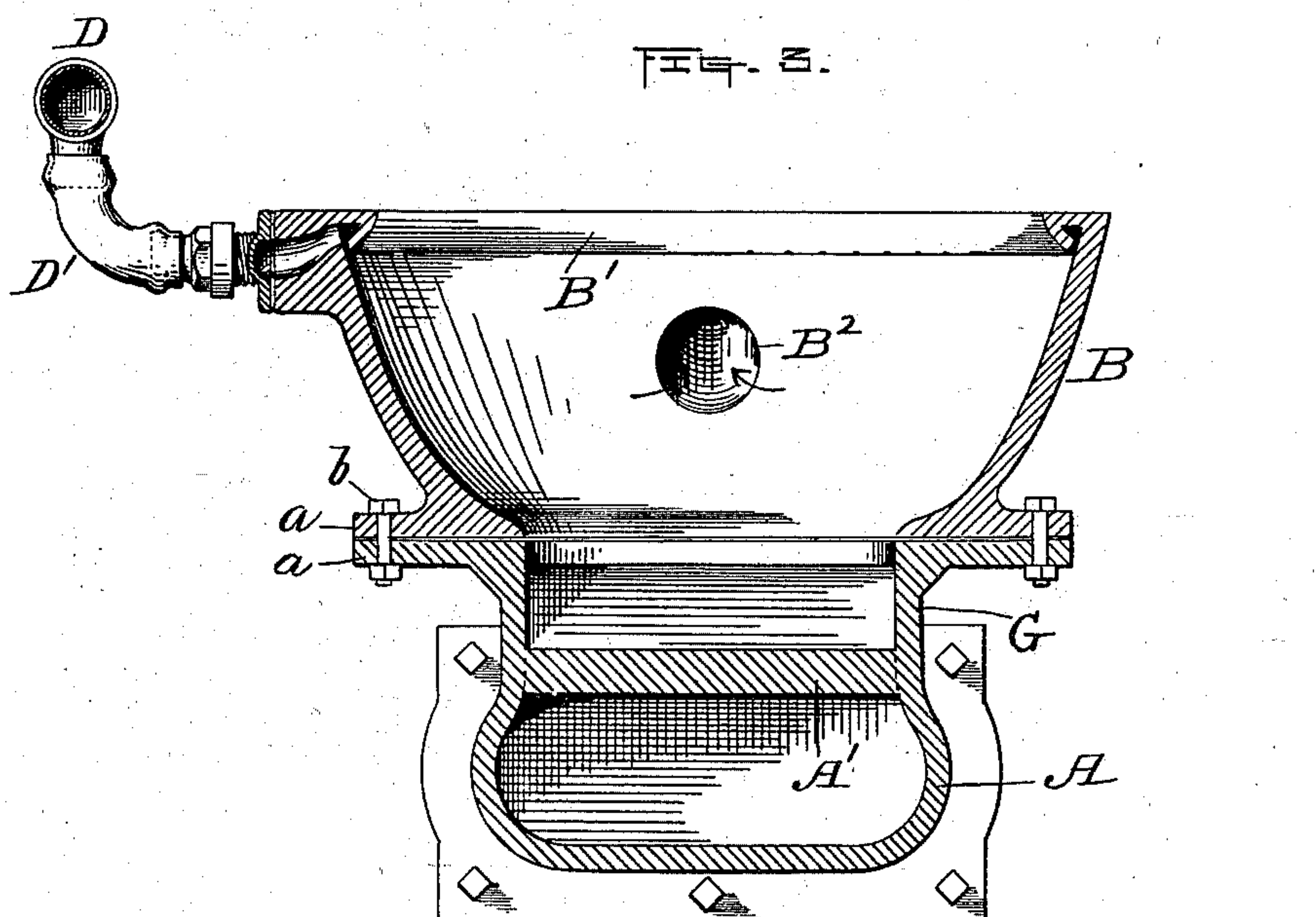
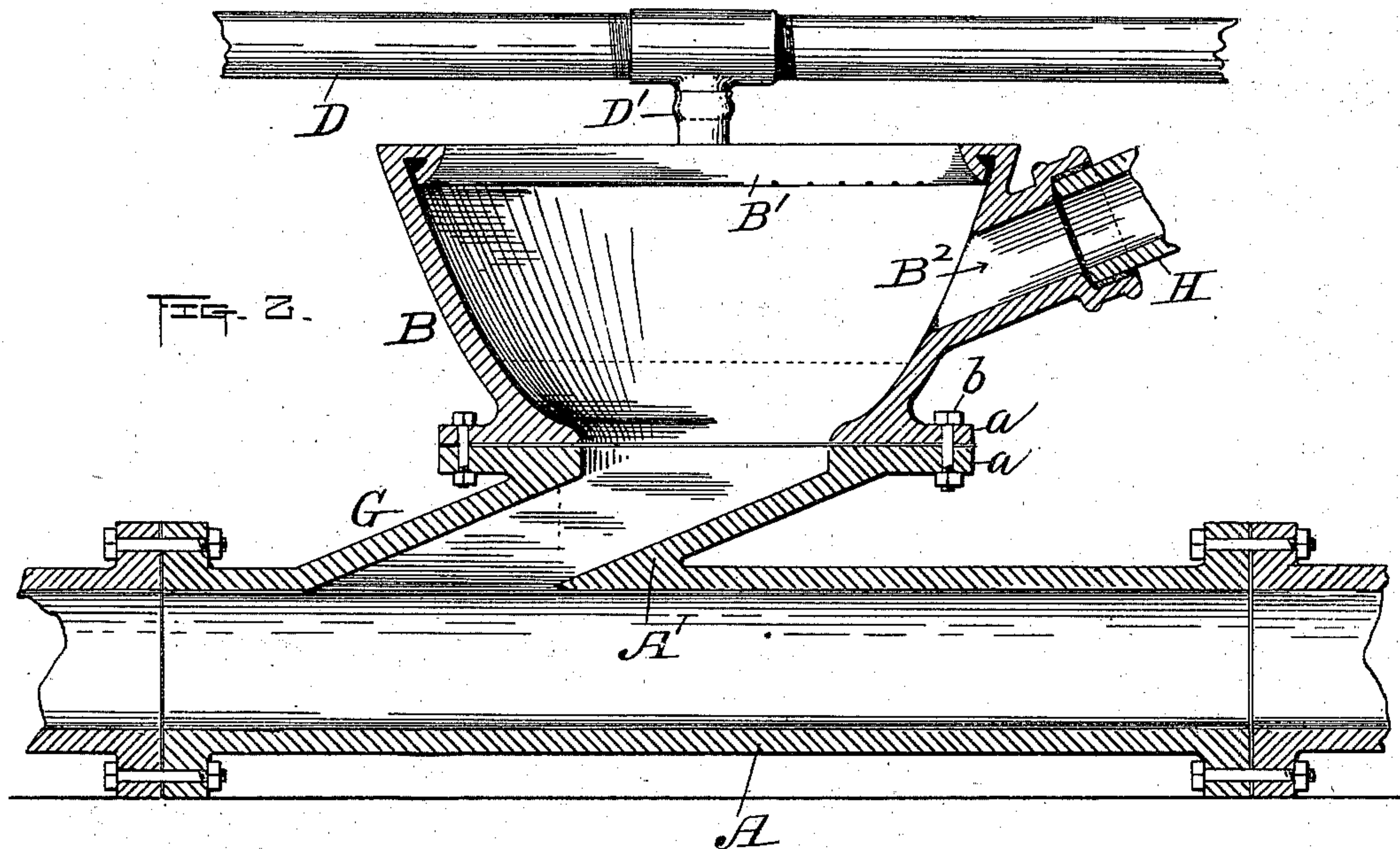
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Inventor;

John F. McCartney.  
By A. A. Barker. Atty.



# UNITED STATES PATENT OFFICE.

JOHN F. McCARTNEY, OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO GEORGE W. KNAPP, OF SAME PLACE.

## WASHOUT WATER-CLOSET RANGE OR LATRINE.

SPECIFICATION forming part of Letters Patent No. 560,740, dated May 26, 1896.

Application filed December 29, 1894. Serial No. 533,286. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN F. McCARTNEY, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a certain new and useful Improvement in Water-Closet Ranges or Latrines, of which the following is a specification.

My invention relates to that class of water-closet ranges or latrines which are adapted to receive the discharge from a plurality of water-closet bowls; and the object of my invention is to provide a strong, simple, and inexpensive construction which is so arranged that the discharge from each of the water-closet bowls will be so directed as to assist the flow through the main conduit or discharge-passage, and so that a view of the main conduit or discharge-passage will be cut off from each of the water-closet bowls.

To these ends my invention consists of the parts and combinations of parts, as hereinafter described, and more particularly pointed out in the claim at the end of this specification.

In the accompanying two sheets of drawings, Figure 1 is a side view, partly in section, of a water-closet range or latrine constructed according to my invention. Fig. 2 is an enlarged sectional view of the main conduit or discharge-passage and one of the water-closet bowls carried thereby. Fig. 3 is a sectional view taken at right angles to Fig. 2, and Fig. 4 is a sectional view illustrating a modified form of construction.

A water-closet range or latrine constructed according to my invention comprises a main conduit or discharge-pipe and branch passages which connect the water-closet bowls with the main conduit, said branch passages being arranged at an incline with the direction of the flow in the main conduit or discharge-passage.

Referring to the drawings and in detail, A designates the main conduit or discharge-pipe, which may be made in sections attached together and with which the water-closet bowls B are connected. An automatic flushing-tank C is connected with the entire series of closets or bowls by means of a flush-pipe D, having branches D' leading to each bowl. A siphon-trap E is arranged at one end of the

range or series of closets and is connected with an automatic flushing-tank C by a pneumatic pipe F.

The construction and operation of the flushing apparatus may be substantially the same as employed in ordinary pneumatic closets and need not be herein described at length.

An essential feature of novelty in a water-closet range or latrine constructed according to my invention resides in the fact that the branch passages G are arranged at such an angle with the conduit A that no part of the opening of the bowl will be directly over any part of the opening into the conduit A.

The water-closet bowls B may be connected to or secured upon the branch passages G in any desired way.

As illustrated in the first three figures of the drawings, the water-closet bowls may be made separate from the conduit and may be attached thereto by means of flanges *a a* and bolts *b*, or they may be formed integrally therewith, a water-closet bowl being connected to and forming part of each section of the main conduit, as illustrated in Fig. 4.

The bowls B may be provided with the ordinary flush-rim B' and may have a vent B<sup>2</sup>, leading into a vent-pipe H, each of said vent-pipes H being in turn connected with a main ventilating-pipe I.

In the drawings I have shown a series of closets or a range including four closets separated by partitions J; but it will be understood that more or less than this number may be used in practice, as desired.

The flushing devices may be actuated in any of the well-known manners, so that the closets will be simultaneously flushed at suitable intervals by means of suitable automatic siphon-flushing apparatus.

Where a water-closet arranged or constructed according to my invention is employed for school-houses or similar locations, the flushing apparatus may be timed to flush the closets every five or ten minutes during recess and at intervals of about half an hour during other portions of the day.

When the mechanism in the flushing-tank C operates and allows the water to discharge through the flushing-pipe D, an air-suction will be simultaneously produced in the pipe



F, thus starting the siphon-trap E in operation and causing the water to be quickly discharged from the entire series of closets, the water from the flushing-tank continuing to flow until the bowls are again filled to about the level shown in the drawings, or to any desired level, which may be regulated by locating the trap E so as to maintain the water at the desired level. In practice I prefer to keep the water at about the level indicated by dotted lines in the drawings, so that the discharge-passage is normally kept full of water, which forms a water-seal between the water-closet bowls. During the flushing operation it is to be noted that the discharge from each of the water-closet bowls enters a conduit or discharge-passage at an angle or substantially at a tangent with the direction of the flow through the main conduit, and by means of this construction the discharge from each of the water-closet bowls will assist and accelerate the discharge from the main conduit, and I consider this an important point in practice, as the time required to flush and discharge the entire closet range or latrine will be considerably shortened and the water passing through the main discharge-passage will have sufficient momentum imparted thereto to insure a thorough cleansing and scouring of the entire passage. It is also to be noted that the opening from the water-closet bowl into the branch passage is so far offset or located out of line with the opening

from the discharge-passage into the main conduit that a view of the main conduit will be cut off from the water-closet bowl and the sewage from one closet can never be seen from another. 35

I am aware that changes may be made by those who are skilled in the art in the construction of my water-closet range or latrine without departing from the scope of my invention as expressed in the claim. I do not wish, therefore, to be limited to the construction which I have shown and described; but 40 45

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

In a water-closet range or latrine, the combination of a main conduit or discharge-passage, a plurality of water-closet bowls, pipes or passages connecting the main conduit and said bowls, said passages being arranged at an incline to the main conduit so that the discharge from the bowls will accelerate the flow in the main conduit, and so that a view of the main conduit will be cut off from the individual water-closet bowls, a flushing apparatus for supplying water to the bowls, and a trap arranged to keep the main conduit normally full of water to form water-seals between the closet-bowls, substantially as described. 50 55 60

JOHN F. McCARTNEY.

Witnesses:

A. A. BARKER,  
C. F. WESSON.