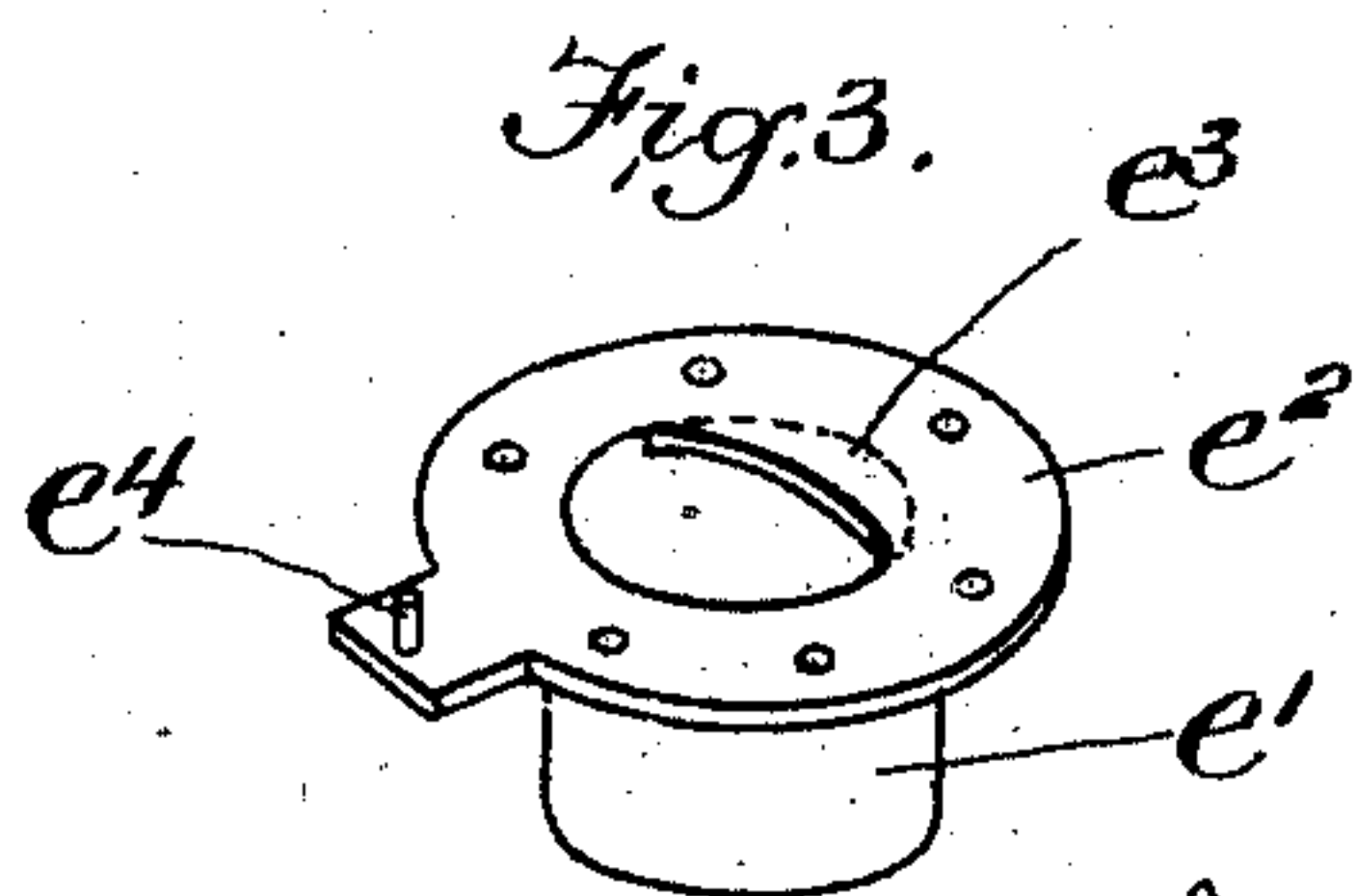
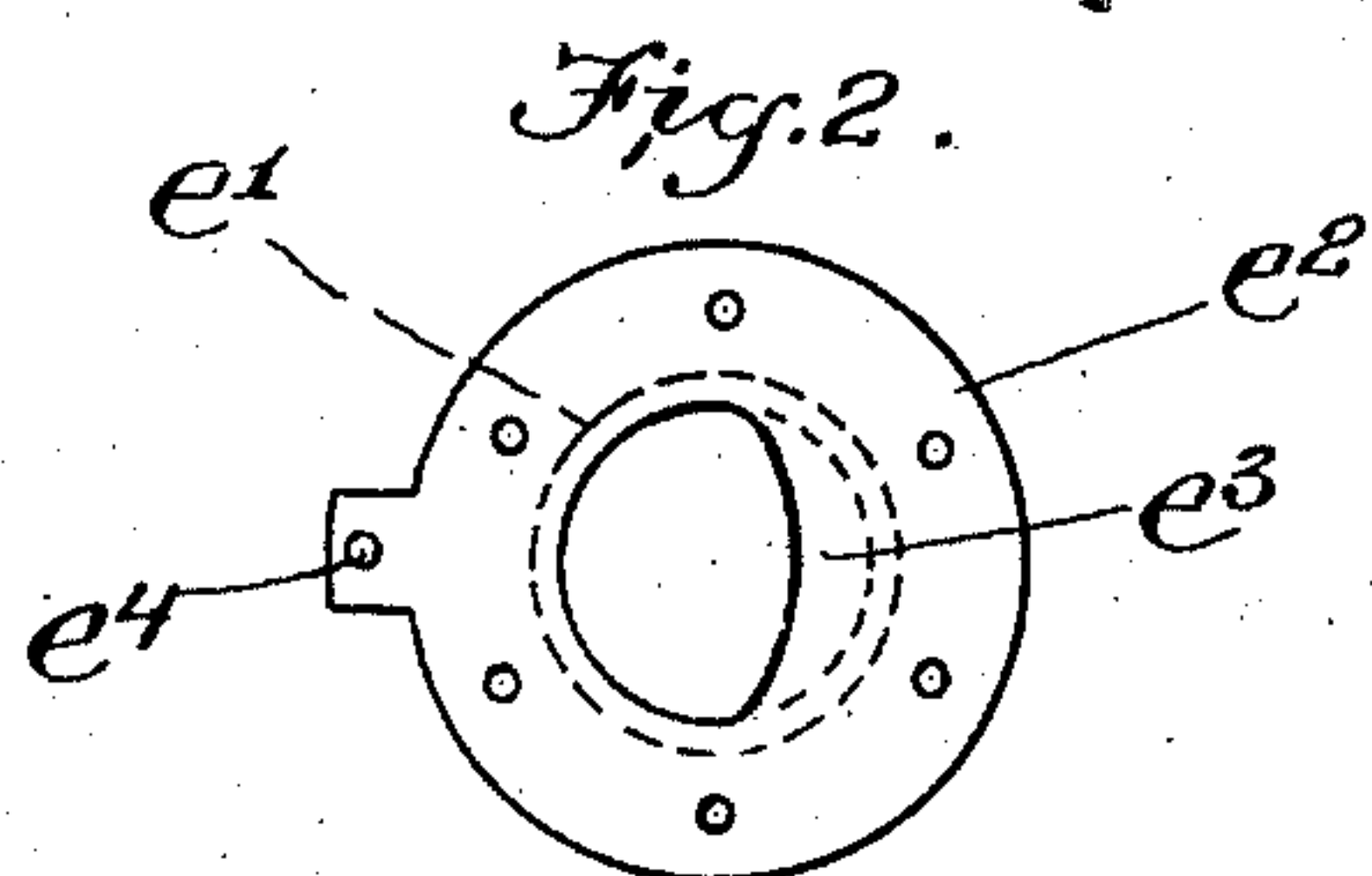
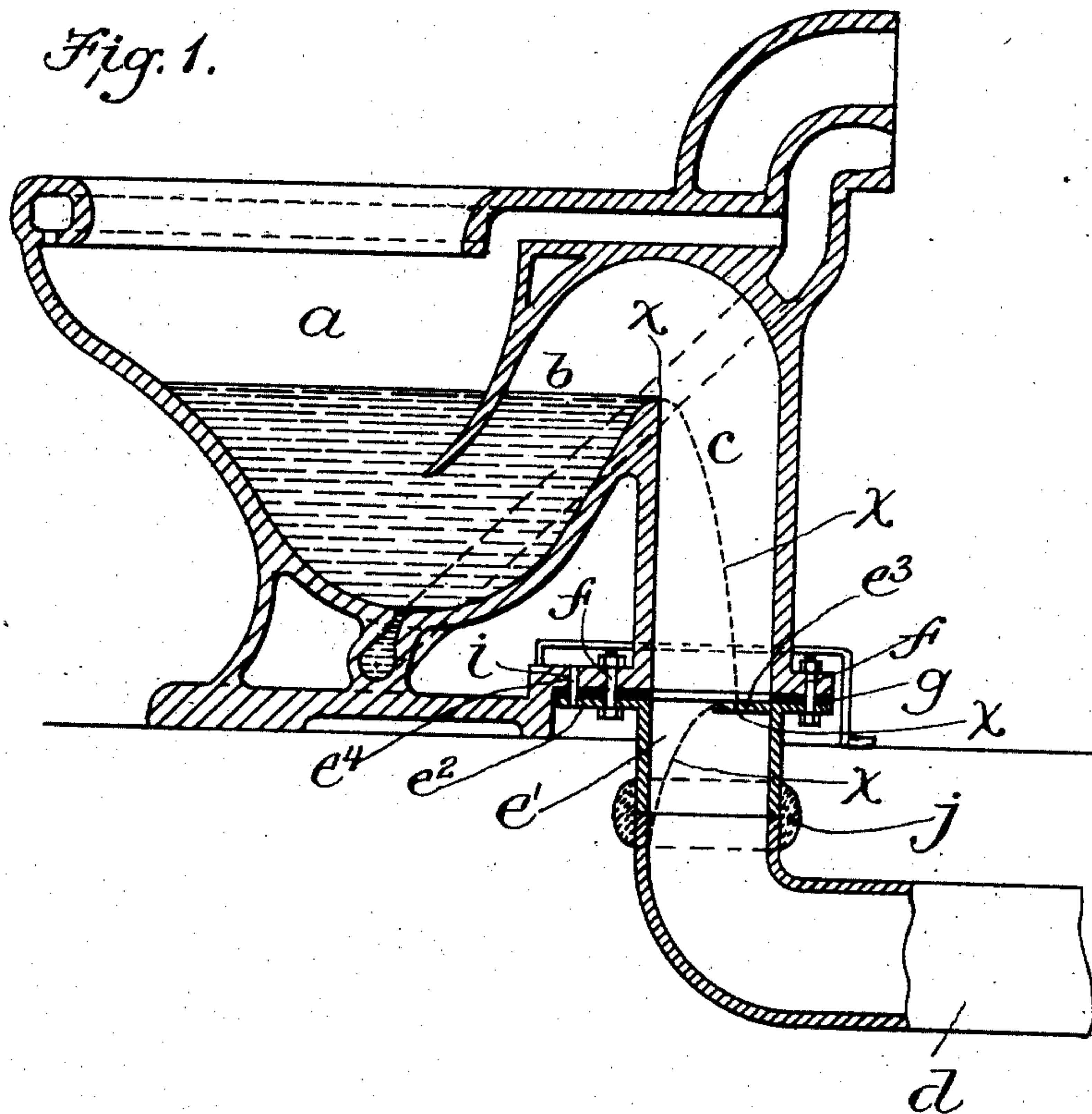


No. 864,196.

PATENTED AUG. 27, 1907.

C. H. ROLLINS.
WATER CLOSET.
APPLICATION FILED OCT. 10, 1906.



Witnesses:
H. Brown
A. L. Folsom.

Inventor.
Charles H. Rollins
Wright & Brewster May
Atty's.

UNITED STATES PATENT OFFICE.

CHARLES H. ROLLINS, OF WATERTOWN, MASSACHUSETTS.

WATER-CLOSET.

No. 864,196.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed October 10, 1906. Serial No. 338,255.

To all whom it may concern:

Be it known that I, CHARLES H. ROLLINS, of Watertown, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Water-Closets, of which the following is a specification.

This invention has relation to water-closets.

It is well known that the contents of a water-closet bowl may be siphonically withdrawn by placing in the discharge limb and in the path of the water flowing from the dam, a deflecting surface for deflecting the water across the bore of the pipe in the form of a water seal, so that the air being thus prevented from flowing upward past the seal, the water flowing from the dam will be able to entangle with it and carry out sufficient air to permit the atmospheric pressure on the water in the bowl to effect its discharge. In actual practice, this deflecting surface has been formed by means of a ledge on the inner surface of the discharge limb opposite the dam, as illustrated in Letters Patent to Frame & Neff #425,416, dated April 15, 1890, by enlarging the bore of the discharge limb so as to provide an annular shoulder as illustrated in Letters Patent to B. O. Tilden #770,027, dated September 13, 1904, or else by forming the discharge limb with a bend so that water flowing from the limb will strike upon an inclined portion of the inner surface of the discharge limb and be deflected across the bore thereof. In each of these cases, there is either a tortuous passage, an obstruction in the bowl structure, or else a comparatively costly construction.

The object of the present invention is to obviate these defects or disadvantages by the provision of a supplemental appliance which is not included in the closet bowl itself but which may be attached thereto in such relation to the discharge limb thereof that the siphonic withdrawal of the contents of the bowl will be effected. Thus I am able to provide a bowl which, though of itself is non-siphonic in character, is rendered siphonic in operation. Preferably the bowl will be formed with a straight downward or discharge leg having the same internal diameter throughout.

The appliance consists of a floor connection, which is ordinarily utilized for securing the closet bowl to the lead bend, forming a part of the house connection or sewerage system, and which according to my invention is provided with a flange, ledge or deflecting projection so located that it will be in the path of water falling from the dam.

Referring to the accompanying drawings,—Figure 1 represents a closet bowl, the floor connection and lead bend, said floor connection having the deflecting projection thereon. Fig. 2 represents the floor connec-

tion or brass flange as it is commercially termed. Fig. 3 represents a perspective view of the same.

Referring to the said drawings, the closet bowl there shown comprises hopper *a*, the ascending limb *b* and the descending limb *c*. The descending limb is arranged vertically and is of the same bore or internal diameter from end to end. *d* indicates the lead bend and *e* represents the floor connection. Said floor connection consists of a pipe section *e'* having at its upper end a circumferential flange *e''* and an internal ledge or projection *e'''*. Said pipe section or floor connection is usually bolted to the base of the closet by bolts or other fastenings, as indicated at *f*, there being placed between the flange *e''* and the under surface of the closet a gasket as at *g*.

In order that the deflecting projection *e'''* may be always located properly with relation to the dam *x* of the closet, the section *e* is provided with a pin *e''''* for the reception of which a hole *i* is formed in the closet base as shown in Fig. 1. A wipe joint *j* is used to connect the lead bend *d* to the pipe section *e*.

The level of the water in the bowl is determined by the height of the dam. When water is introduced into the bowl it flows over the dam and strikes upon the deflecting projection and being dashed or deflected across the base of the pipe section *e*, forms a water seal which prevents the upflow of air past it. The air above the seal is carried out by the down flowing water and the pressure above the seal is thus so reduced that the atmospheric pressure on the water in the bowl effects its immediate discharge.

Having thus explained the nature of the invention, and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the modes of its use, what I claim and desire to secure by Letters Patent is:—

1. The combination of a water-closet comprising a bowl having an ascending limb and a straight descending limb whose internal diameter is substantially the same from end to end, of a floor connection provided with a deflecting projection located to deflect the water flowing from the dam.

2. A floor connection for water closets comprising a pipe section having a lateral flange for connection to the base of a closet, an internal ledge adapted to be located opposite and below the dam of a closet, and means for engagement with the closet to effect the proper location of said ledge with respect to the dam.

In testimony whereof I have affixed my signature, in presence of two witnesses.

CHARLES H. ROLLINS.

Witnesses:

MARCUS B. MAY,
A. L. FOLSOM.