H. A. GRANT.

PLUG OPERATED MEANS FOR WASHBASINS OR THE LIKE.

APPLICATION FILED FEB. 25, 1911.

991,974.

Patented May 9, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

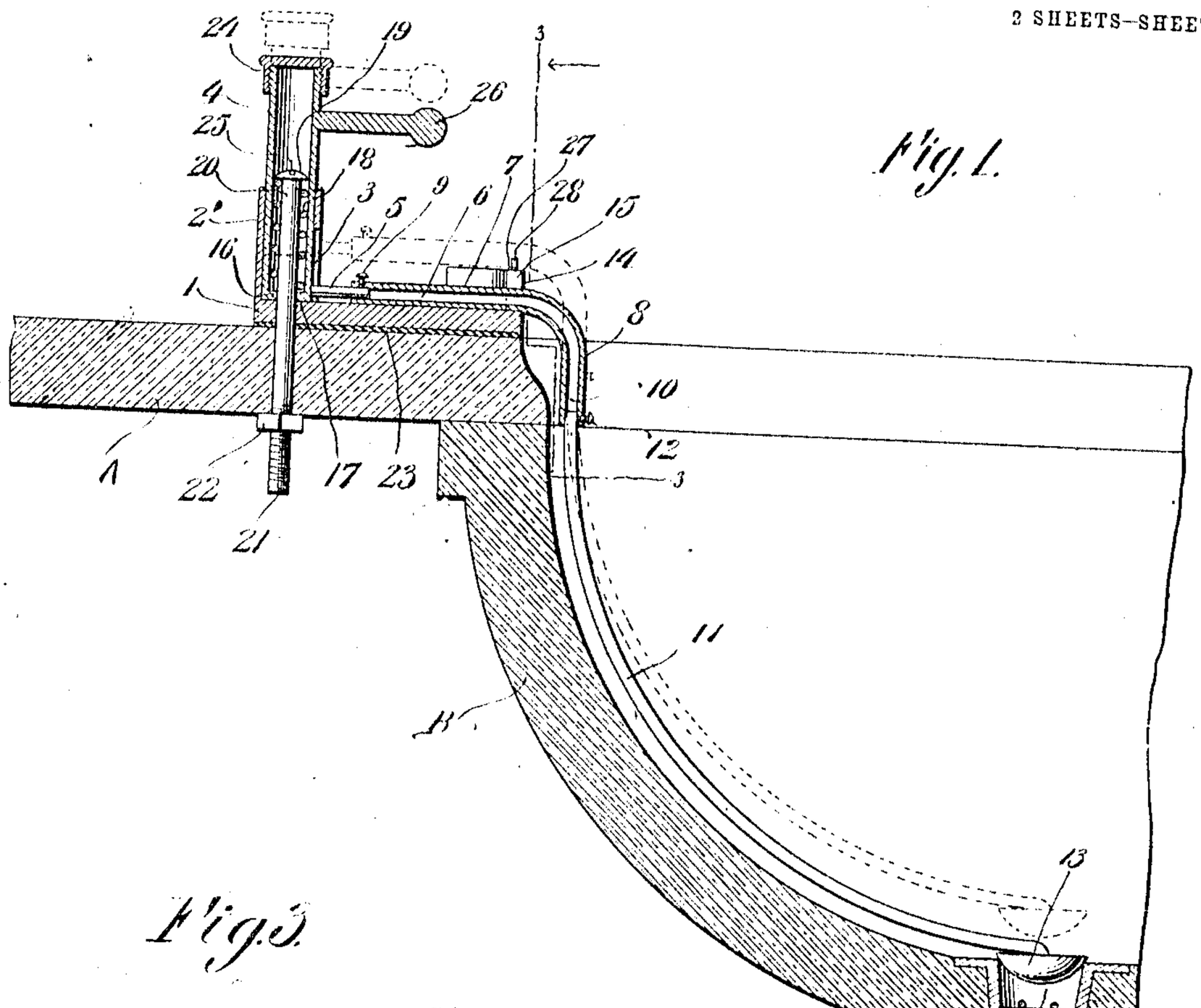
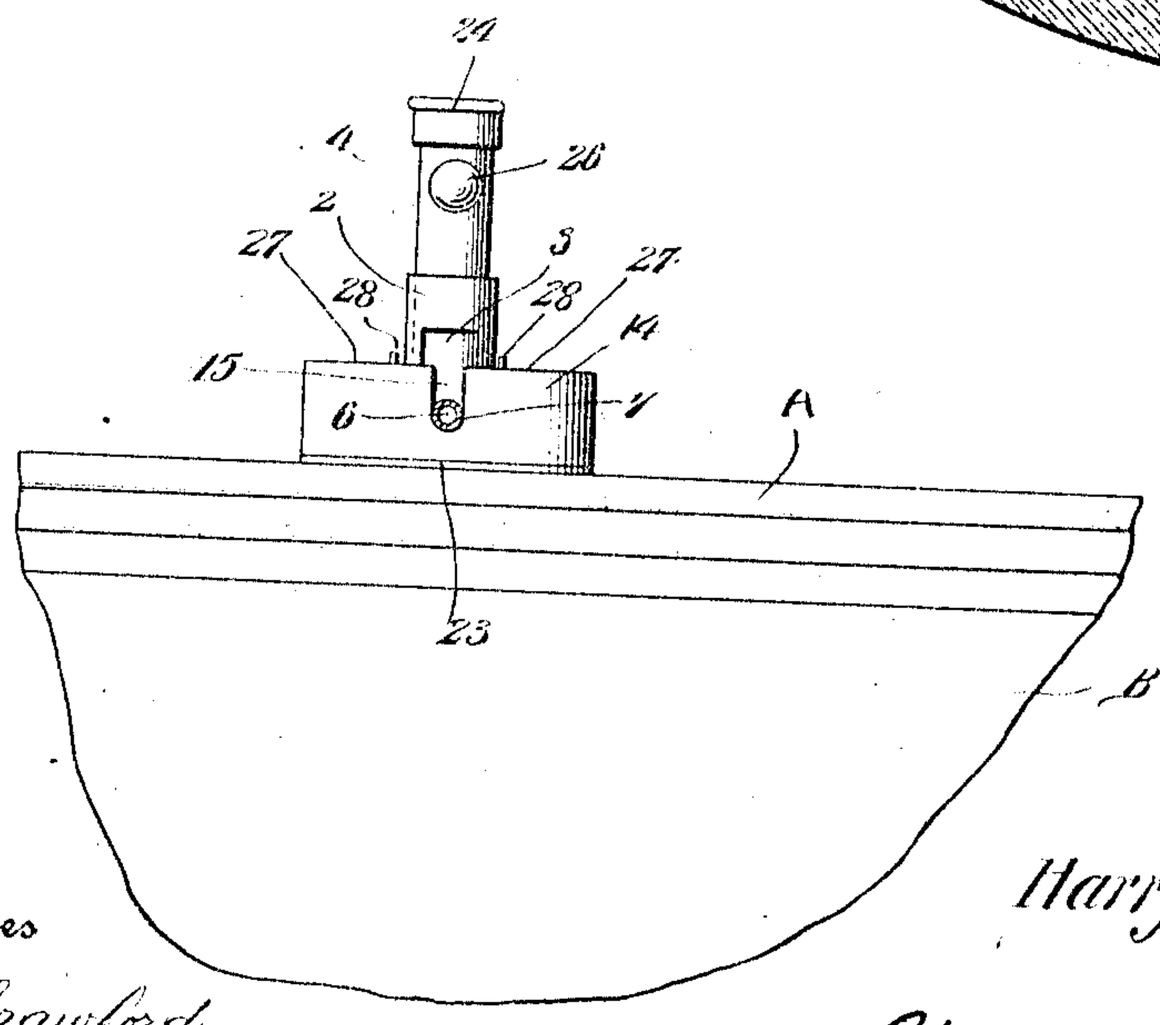


Fig. 3.



Witnesses

J. A. Crawford,

James Orome

Inventor

Harry A. Grant

By Victor J. Evans

Attorney

H. A. GRANT.

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2 SHEETS—SHEET 2.

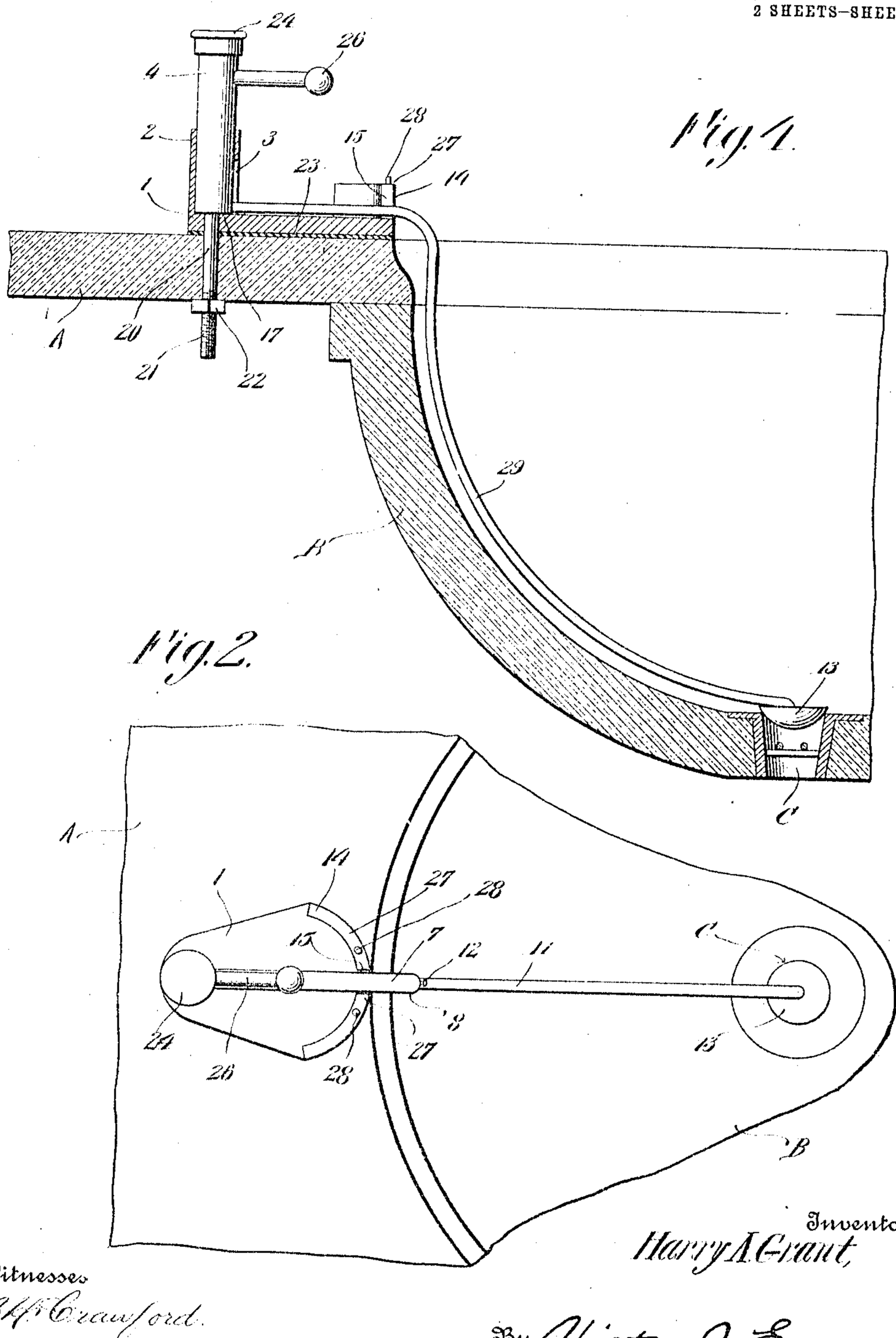

Fig. 1.

Fig. 2.

Witnesses

J. H. Crawford.

James Doherty

Inventor

Harry A. Grant,

By Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

HARRY A. GRANT, OF BOSTON, MASSACHUSETTS.

PLUG-OPERATED MEANS FOR WASHBASINS OR THE LIKE.

991,974. Specification of Letters Patent. Patented May 9, 1911.

Application filed February 25, 1911. Serial No. 610,775.

To all whom it may concern:

Be it known that I, HARRY A. GRANT, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Plug-Operated Means for Washbasins or the Like, of which the following is a specification.

This invention relates to controlling devices for wash basin plugs, and it has for an object to provide an attachment constructed to permit of its being connected with the ordinary well known wash basin to substitute therefor the old well known form of chain-carried plug and to further provide in the attachment a plug-carrier and means to actuate the plug so as to move the same from the waste opening without necessitating placing the hand in the water.

Another object of the invention is to provide a plug-carrier with spring means for holding the plug yieldingly closed in the waste opening and to further provide an attaching screw for holding the device to the basin structure and for confining the spring so that the latter will operate as described above to hold the plug yieldingly in a normally closed position.

In the drawings, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a section through a wash basin showing my attachment applied thereto, the plug being in its closed position in full lines and in an open position in dotted lines. Fig. 2 is a top plan view thereof. Fig. 3 is a section on line 3—3 of Fig. 1. Fig. 4 is a section similar to Fig. 1 showing a slightly modified form of my invention.

My improved attachment preferably comprises a base member 1 which is mounted upon the top slab A of the basin B. The base member is provided with a vertically disposed guide tube 2 which is open at its upper end and which is formed in its vertical wall with an elongated vertically disposed slot 3.

A plug-carrier embodying preferably a hollow tube 4 is slidable in the guide 2, and as illustrated, the said carrier is provided at its lower end with a stem 5 which extends through the slot 3 and adjustably fitted into the socket 6 on the upper section 7 of an arm 8. A set screw 9 or equivalent fastening device on the socket portion 6 is preferably employed to bear against the stem 5 so as to hold the section 7 in its adjusted position. The inner end of the section 7 is curved downwardly into the basin and is formed to provide a socket 10 in which the upper end of the lower section 11 is fitted, the said socket 10 being provided with a set screw 12 to bear against the section 11 to hold the same in its adjusted position. The section 11 of the arm 8 is curved downwardly toward the center of the bowl so as to conform with the vertical curvature of the bowl, and as illustrated, the section 11 has secured thereto at its lower end a plug 13 of substantially semi-cylindrical form, the said plug being designed to close the waste opening C at the bottom of the basin, as is obvious.

With a view of holding the arm 8 against horizontal movement in the basin and thereby eliminate displacement of the plug from the waste opening, I provide the base plate 1 with a curved upwardly extending wall 14. This wall is formed with a vertical slot 15 through which the section 7 of the arm 8 extends. The plug-carrier 4 is provided at its lower end with a head 16 which normally bears against the bottom 17 of the guide 2 under the tension of the coil extensile spring 18. The extensile spring is located in the carrier 4 and confined between the head 16 of the carrier and the shoulder or head 19 of the attaching element 20. The attaching element 20 is in the form of a relatively long bolt, the lower end of the bolt being extended through the head 16 and through the base 1 and top slab A respectively. The bolt is threaded, as at 21, and it has adjustably mounted thereon a clamping nut 22 which may be brought to bear against the underside of the top slab A so as to hold the base member or plate 1 securely in its applied position.

To prevent the accumulation of water beneath the base member or plate 1, I preferably interpose an elastic washer 23 between the slab A and the underside of the said member 1. This elastic gasket, while primarily being intended as means for preventing the entrance of water beneath the member 1 also presents to the member an elastic friction face which operates when the gasket is compressed on adjustment of the attaching device 20 to prevent accidental rotation of the member 1 on the slab. The upper open end of the plug-carrier 4

is preferably closed by a cap 24 which may be removed so as to facilitate adjustment of the attaching device. The shoulder or head 19 of the attaching device is provided with a kerf 25 into which the end of a screw-driver or the like may be inserted when it is desired to obtain greater tension on the spring 18. The plug-carrier 4 is provided with a manipulating knob 26 which may be operated when it is desired to elevate the carrier with a view of removing the plug 13 from the waste opening of the bowl. The flange 14 of the base member 1 presents a pair of spaced shoulders 27 which are spaced sufficiently from the base member 1 so as to permit of the engagement therewith of the upper section 7 of the arm 8 when it is desired to hold the same against the tension of the spring 18, or in other words, when it is desired to hold the plug in an open position.

To prevent displacement of the section 7 of the arm from the flange 14 and to limit the rotary adjustment of the arm, I provide the said flange with stops 28 which are disposed immediately adjacent the shoulders 27 so as to be disposed in the path of movement of the section 7.

In the modified form of my invention illustrated in Fig. 4 of the drawings, the attachment is identical with that described in the preferred form of my invention with the exception of the plug-carrying arm 29. In this instance the arm is constructed as an integral part, being suitably secured at its upper end to the plug-carrier 4 and being suitably secured at its lower end to the plug. By providing an arm of the construction described in the preferred form of my invention the attachment can be readily adjusted to basins of different sizes.

I claim:—

1. Plug controlling means for wash basins or the like comprising a member mounted on the basin and provided with a vertically disposed guide member, a hollow vertically adjustable plug-carrier extending into the guide member, an attaching member extending through the plug-carrier and through the basin and provided within the plug-carrier with a shoulder, the lower end of the carrier being formed to provide a head, a spring confined between the head and shoulder respectively, and a plug supported by the said carrier.

2. Plug controlling means for wash basins or the like comprising a member secured to the basin and provided with a vertical guide slot, supporting surfaces formed on the member at the sides of the slot, stops located adjacent to the said surfaces, and a vertically and horizontally adjustable plug-carrier carried by the said member and provided with a plug supporting arm having a portion normally extended through the said guide slot.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY A. GRANT.

Witnesses:

MARGARET A. BELMONT,

A. L. STINSON.