

Jan. 4, 1927.

L. H. STEAD

1,613,251

PLUMBING FIXTURE

Filed July 16, 1925

Fig. 1

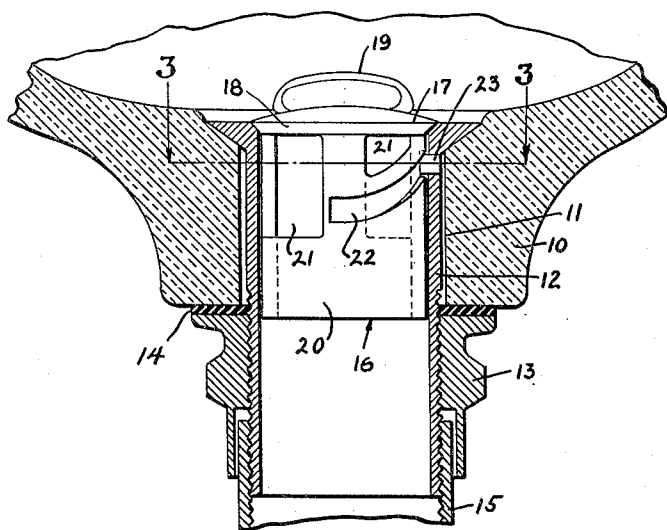


Fig. 2

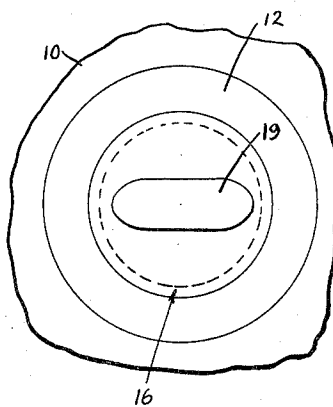


Fig. 3

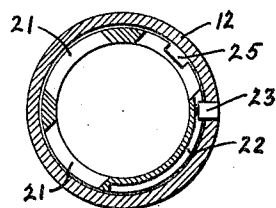


Fig. 5

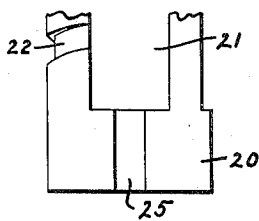


Fig. 4

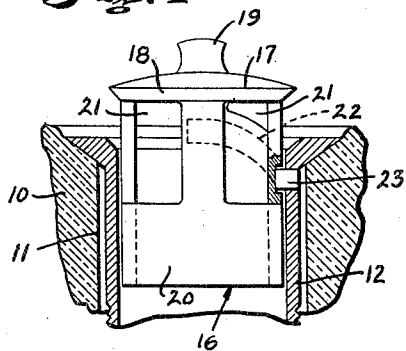


Fig. 7

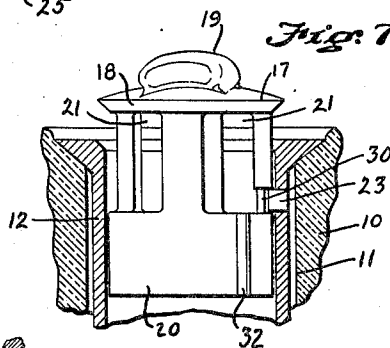


Fig. 6

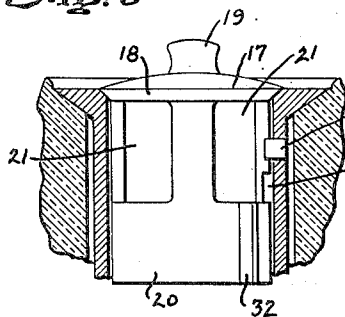
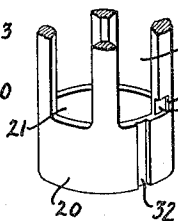


Fig. 8



INVENTOR.
LEWIS H. STEAD

BY

Edmund A. Stead
ATTORNEY.

UNITED STATES PATENT OFFICE.

LEWIS H. STEAD, OF LOS ANGELES, CALIFORNIA.

PLUMBING FIXTURE.

Application filed July 16, 1925. Serial No. 44,041.

This invention has relation more specifically to a metal stopper for wash basins, bath tubs, laundry trays, sinks and the like.

A main object is to provide a metal stopper for water discharge pipes of plumbing fixtures which may be brought into an open or closed position without employing extraneous mechanical operating means.

A further object is to provide a simple manually operated metal stopper construction for controlling the openings to water discharge pipes of plumbing fixtures that may be instantly brought into a discharge or closed position by a simple rotation thereof.

A still further object is to provide a valve closure for water discharge pipes leading from plumbing fixtures, that is of simple construction, not easily disorganized, and that may be manufactured economically.

Briefly the invention consists of a cylindrical metal sleeve or nipple having a circular bevelled seat on its upper end, adapted for placement within the water discharge opening of a wash basin, bath tub, sink or a similar plumbing fixture, suitable means being connected thereto for securing the same to the discharge pipe leading from the fixture. The metal stopper is circular in form having a bevelled edge adapted to engage and seat on the sleeve member. Formed integrally with the under face of the stopper is a short cylindrical sleeve open at its lower end and provided in its wall with water discharge openings, and in the peripheral surface of its wall with an inclined groove or cam track adapted to engage a fixed pin secured to and projecting from the inner surface of the cylindrical wall of the sleeve or nipple member, whereby on a rotation of the stopper in either direction the same will be seated or unseated as desired.

This disclosure is to be regarded as descriptive only and not as restrictive or limitative of the invention, of which obviously an embodiment may be constructed including many minor modifications without departing from the general scope herein indicated and hereinafter claimed.

In the drawings attached hereto and forming a part of the following specification;

Fig. 1 is a central vertical section of the device applied to the discharge opening of a wash basin, the stopper being in a seated position.

Fig. 2 is a top plan view of the device. 55

Fig. 3 is a cross section of the device taken on line 3—3 of Fig. 1.

Fig. 4 is a view similar to Fig. 1, showing the stopper in an unseated position.

Fig. 5 is a detail side elevation of a portion of the stopper sleeve showing the vertical groove for permitting the disengagement of the stopper from the seat member. 60

Referring more specifically to the accompanying drawings, 10 designates the lower portion of a porcelain wash basin provided with the usual water discharge orifice 11, the upper end being bevelled to form a seat for the metal nipple 12 that is seated therein. This nipple is exteriorly threaded on its lower end and its diameter is slightly less than the diameter of the basin orifice in which it is mounted, in order to provide for variation of sizes in basin discharge orifices. The nipple 12 is held in fluid tight engagement with the basin by means of a nut 13, a rubber washer 14 being interposed between the nut and the basin. Attached to the lower threaded end of the nipple is the usual water discharge pipe 15 that leads to the sewer fixtures (not shown). 70 75 80

The valve stopper member 16, preferably consists of a circular disk like member 17 having a bevelled edge 18 similar to the bevelled edge to the nipple on which it seats, a thumb piece 19 for rotating the stopper being formed integrally with its upper surface. Formed integral with the under face of the stopper member 16 is a short tubular sleeve 20 that telescopically engages the upper end of the nipple 12. Sleeve 20 is provided in its cylindrical wall with water discharge openings 21 designed to permit the discharge of water from the basin to the discharge pipe therebelow, when the stopper has been rotated to a discharge position. Formed in the outer surface cylindrical wall of sleeve 20 between the water discharge openings is an inclined grooved cam track 22 that extends from a point approximately midway the length of the sleeve and terminates adjacent the stopper member. This cam track is in engagement with a short pin 23 secured to wall of the nipple 12 adjacent its upper end. When the stopper is in a closed position as shown in Fig. 1, a short turn of the same to the left will raise or elevate the stopper from its seated position 85 90 95 100 105

to the position shown in Fig. 4, the openings 21 in the sleeve permitting a discharge of the water in the basin therethrough.

In order that the stopper member may be readily removed from engagement with the nipple 12, the upper end of the grooved cam track opens into one of the discharge openings 21, a vertical groove 25 formed in the exterior surface of the sleeve wall forming a passage for the pin 23 and permitting a withdrawal of the stopper member from its seat.

What I claim is:

1. A waste fitting for lavatories and like structures comprising a tubular nipple having a bevelled seat on its upper end, said nipple adapted to be secured in fluid tight engagement with a lavatory waste opening, a rotatable valve stopper having a depending tubular sleeve formed integral therewith and provided with discharge openings in its wall rotatably mounted in said nipple, the exterior surface of the tubular wall of the nipple sleeve being also provided with an inclined cam groove, one end of said groove opening into one of the discharge openings formed in the stopper sleeve, a pin secured to the nipple and engaging the cam groove formed in the sleeve of the stopper, whereby on a partial rotation of the stopper in one direction the same will be elevated into an unseated position and when rotated in a reverse direction will be seated to close the waste opening, said stopper sleeve having a

vertically disposed groove in its exterior wall extending from its lower edge and terminating in the sleeve discharge opening into which the cam groove opens, whereby the stopper may be disengaged from the nipple for a cleansing operation, and means on the upper end of said stopper for rotating the same to an open or closed position.

2. A waste fitting for lavatories and like structures comprising a tubular nipple having a bevelled seat on its upper end, said nipple adapted to be secured in fluid tight engagement with a lavatory waste opening, a rotatable valve stopper having a depending tubular sleeve formed integral therewith and provided with discharge openings in its wall rotatably mounted in said nipple, the exterior surface of the tubular wall of the nipple sleeve being also provided with a continuously inclined cam groove, one end of said groove opening into one of the discharge openings formed in the stopper sleeve, a pin secured to the nipple and engaging the cam groove formed in the sleeve of the stopper, whereby on a partial rotation of the stopper in one direction the same will be elevated into an unseated position and when rotated in a reverse direction will be seated to close the waste opening.

In witness that I claim the foregoing I have hereunto subscribed my name this 2nd day of July, 1925.

LEWIS H. STEAD.