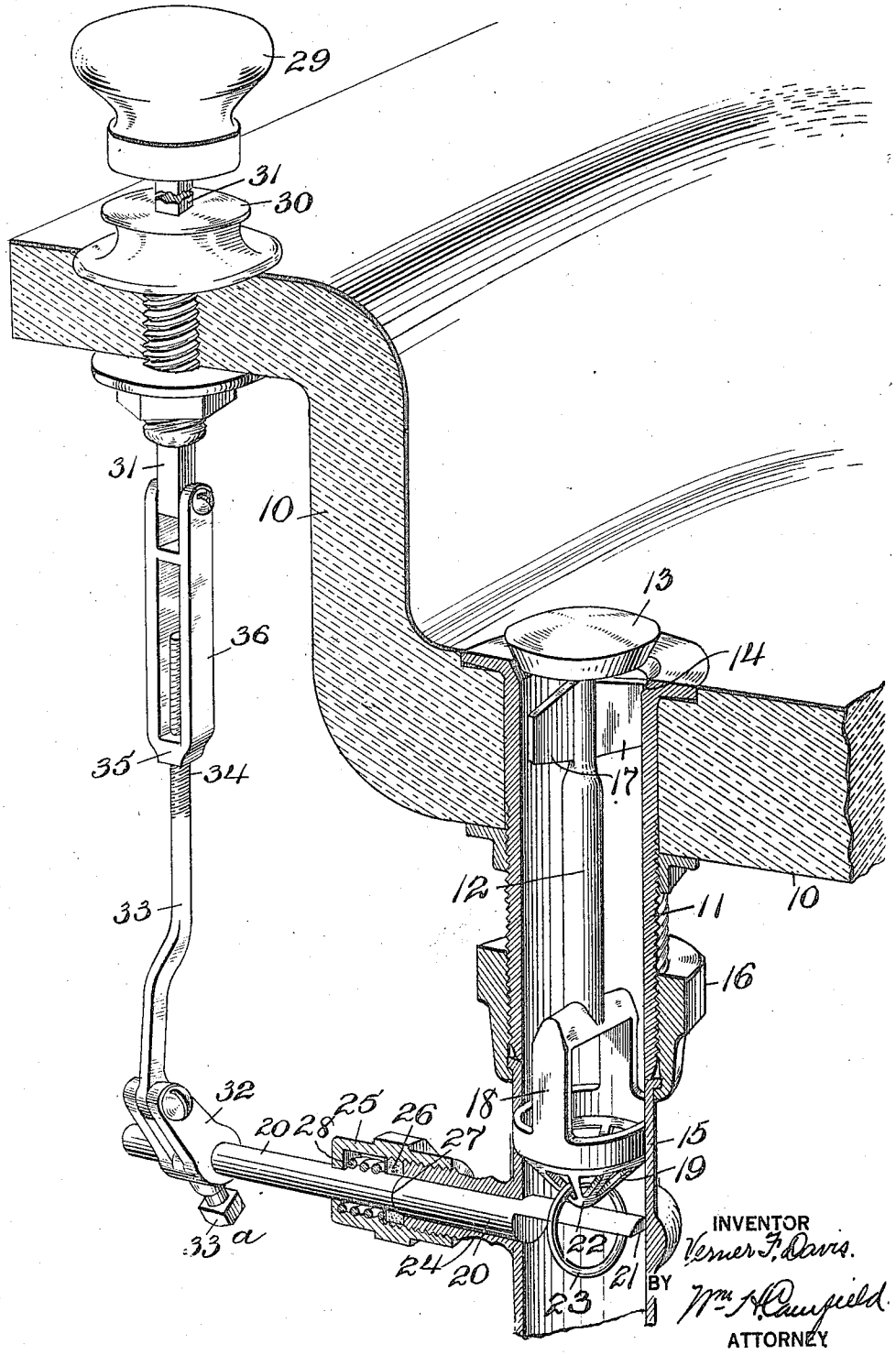
March 4 , 1924. 1,485,669

V. F. DAVIS

LAVATORY WASTE

Filed Nov. 17 , 1922



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UNITED STATES PATENT OFFICE.

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LAVATORY WASTE.

Application filed November 17, 1922. Serial No. 601,452.

To all whom it may concern:

Be it known that I, VERNER F. DAVIS, a citizen of the United States, and a resident of Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Lavatory Wastes, of which the following is a specification.

This invention relates to an improved lavatory waste, and is adapted for use with various fixtures, but is particularly adapted for wash basins, and to make the invention clear I have illustrated it in connection with a wash basin.

The waste is one in which a stopper is placed in the waste pipe and is raised so that its valve portion leaves its seat by the rotation of a stem extending laterally into the waste pipe, thus making it possible to avoid the necessity of any material enlargement of the pipe.

The invention is further designed to provide a waste which is easily operable, is economical to manufacture and which also can prevent the withdrawal of the stopper surreptitiously.

The invention is illustrated in the accompanying drawing, in which the view illustrates part of a basin in section, and the waste pipe in section, and the remainder of the apparatus in perspective.

In said drawing 10 indicates any usual form of basin provided with a waste pipe 11. In the waste pipe is a stopper 12 which is operable longitudinally in the waste pipe so that as it is raised or lowered the valve portion 13 is raised or lowered from the valve seat 14 in the top of the waste pipe and the waste pipe is thus opened and closed. The upper part of the waste pipe is usually, in practice, connected with the lower part 15 of the waste pipe by a suitable union 16, and in my invention this lower portion need not be any greater in diameter than the upper portion of the waste pipe.

The stopper is kept from tilting in the waste pipe usually by wings 17 at the top and a broadened portion 18 at the lower part, the bottom being usually perforated, as at 19, so as to catch foreign matter which might be calculated to stop up the pipe, which can be taken out by withdrawing the stopper, which can be done with very slight trouble with this construction.

Extending transversely into the waste pipe is a stem 20, which extends outside of the waste pipe also to provide means for attachment of an operating mechanism. The part within the waste pipe is adapted to lift the stopper to support it in such open position when the stem 20 is turned to a certain point, and to permit the stopper to drop when the stem is turned to occupy another position. This is usually done by providing a cut away portion at the part of the stem under the stopper, and in the drawing such cut away portion is shown at 21, so that the flat face permits the stopper to drop when this flat part is uppermost, but when the stem is turned to bring the rounded part of this end of the stem in contact with the stopper, it lifts the stopper, as shown in the drawing, and to provide for a smooth raising of such stopper I prefer to make the bottom conical, as at 22.

To prevent a surreptitious removal of the stopper I arrange a hook, eye or other element to catch over the stem, and in the drawing I illustrate a ring 23 which can be passed through the perforated bottom of the stopper, and by encircling the stem the ring limits the vertical movement of the stopper and it can not be withdrawn.

To prevent leakage the stem is passed through a lateral boss 24 on which is mounted the stuffing box 25, this stuffing box having suitable packing 26 in it, which packing rests against the shoulder 27 of the stem and is held in place by the spring 28, which spring, by pressing against the packing, bears on the shoulder 27 and holds the stem against longitudinal withdrawal.

The form of apparatus illustrated for manipulating the waste comprises a suitable handle 29 sliding in a fixture or bearing 30 and being provided with a bar 31, usually made square and sliding through a square opening through the fixture 30 so as to prevent its turning.

On the stem is a suitable arm 32 which is secured to the stem by a means such as the lock screw 33^a, and I place a connection between the arm and the bar, in the form shown this comprising a rod 33 which has a screw-threaded part 34 which screws into the bottom 35 of the link 36. This screw-threaded part provides for adjustment in the length of the connection between the bar 31 and the arm 32.

I claim:

1. A lavatory waste comprising a waste pipe, a stopper operable longitudinally in the waste pipe, and a stem extending lat-

erally into the waste pipe and rotatable therein and having the part under the stopper provided with a rounded face and a flat face, the parts being disposed so that the rounded face when engaging the stopper, supports it.

2. A lavatory waste comprising a waste pipe, a stopper operable longitudinally in the waste pipe, and a stem extending laterally into the waste pipe and rotatable therein and having the part under the stopper provided with a rounded face and a flat face, the parts being disposed so that the rounded face when engaging the stopper, supports it, the stopper having a slitted bottom portion, and a ring extending through the bottom portion and embracing the stem.

In testimony that I claim the foregoing, I have hereto set my hand this 17th day of October, 1922.

VERNER F. DAVIS.