

P. F. MURPHY.  
WASTE CONNECTION.  
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1,025,584.

Patented May 7, 1912.

*Fig. 1.*

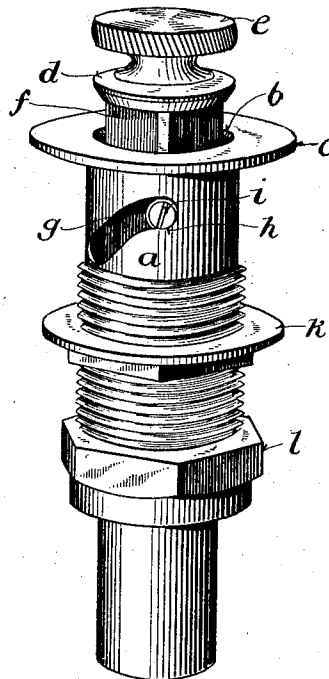
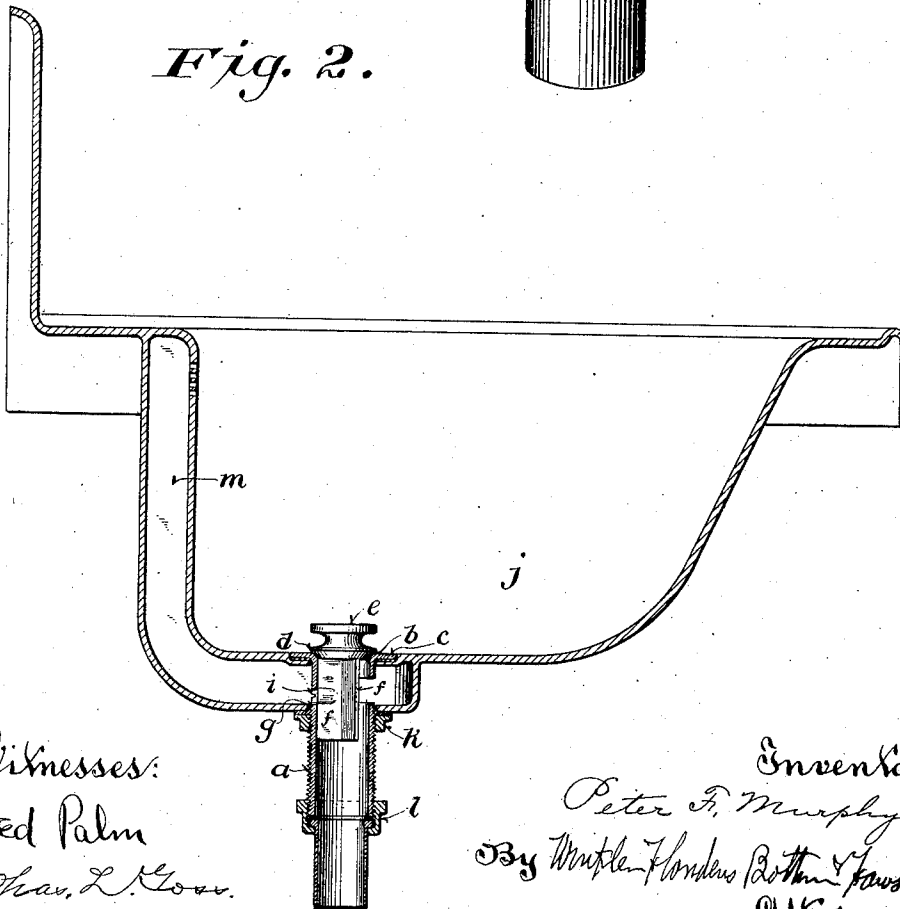


*Fig. 2.*



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# UNITED STATES PATENT OFFICE.

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## WASTE CONNECTION.

1,025,584.

Specification of Letters Patent.

Patented May 7, 1912.

Application filed March 15, 1907. Serial No. 362,464.

To all whom it may concern:

Be it known that I, PETER F. MURPHY, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Waste Connections, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

This invention relates to waste connections for lavatory basins, tubs, sinks and the like.

The main objects of the invention are to produce a waste connection and stop of simple and durable construction and neat appearance which shall be cleanly and sanitary in use, convenient to apply to basins and other fixtures and easy to operate, and generally to improve the construction and operation of devices of this class.

It consists in certain novel features of construction and in the peculiar arrangement and combinations of parts as herein-after particularly described and pointed out in the claims.

In the accompanying drawing like letters designate the same parts in both figures.

Figure 1 is a perspective view of a waste and stop fitting embodying the present invention; and Fig. 2 is an axial section on a reduced scale of the fitting as applied to a lavatory basin, the valve being shown open in Fig. 1 and closed in Fig. 2.

The device consists in general of a cylindrical case or tube *a*, formed with a valve seat *b* and an outwardly projecting flange *c* at its upper end, and of a solid or imperforate disk valve *d* having a ground fit to said seat and formed on the upper side with an operating knob or handle *e*, and on the under side with a winged stem or guide *f* loosely fitting into said tube. The lower part of the tube is externally screw threaded and it is formed in one side with an inclined or oblique guideway *g*, which terminates at its upper end in a horizontal offset *h* to hold the valve open.

The guideway *g* may be made in the form of an internal groove rib or shoulder, but is preferably made as shown, in the form of an open slot which is utilized when the fitting is applied to a basin or the like having an overflow passage, as shown in Fig. 2, to establish communication between the waste passage in the tube *a* and the over-

flow passage in the basin or the like. The guide *f* of the valve is provided with a lateral projection *i*, which for convenience in assembling the parts of the fitting, may consist of a pin or screw inserted or threaded in one of the wings of said guide so as to extend therefrom into and engage with the guideway *g*.

As shown in Fig. 2, the tube *a* is inserted from above in the waste opening in the bottom of a basin *j* or the like, and is secured therein by a nut or collar *k* threaded on the lower part of the tube and screwed up tightly against a packing ring or washer between it and the bottom of the basin. The lower end of the tube is connected in the usual manner by a coupling *l* with the waste pipe. When the basin, bowl or the like, is provided with an overflow passage *m*, as shown in Fig. 2, the tube *a* passes through the lower end of this passage and communicates therewith through the open slot or guideway *g* in said tube, so that any overflow from the basin or the like, will be discharged into the waste pipe below the valve seat *b*, whether the stop valve *d* is open or closed. The flange *c* at the upper end of the tube fits into a depression around the waste opening in the bottom of the basin or the like, and a tight joint is formed by a washer or suitable packing inserted between the flange and the bottom of the basin in the usual or any suitable manner. The stop valve *d* may be opened by either lifting or turning the head or handle *e*, the inclined or oblique guideway *g* cooperating with the projection *i* to turn the valve when it is lifted and to lift it when it is turned. When the screw or projection *i* is turned into the horizontal offset *h* at the upper end of the guideway it will rest therein, holding the valve open until it is turned backward into the inclined or oblique portion of the guideway, in which it will descend automatically by gravity, permitting the valve to close.

The device constructed as herein shown and described, does away with rubber stoppers and chains, which are perishable, inconvenient and unsanitary, and also avoids the use of standing overflows and so called "pop-up" wastes, which are operated by knobs or connections projecting upwardly through the basin slabs or tops, and are unsanitary, as well as more complicated, and hence more liable to get out of order.

The winged stem or guide *f* of the stop

valve serves as a strainer when the valve is open and avoids the necessity of a strainer in the waste passage below the valve seat, which is objectionable, as it is apt to become clogged with lint and other material where it is not easily accessible. The guideway *g* and the projection *i* engaging therewith, not only afford means for opening and closing the valve when it is turned and for holding it open, but also prevent its being removed and lost or mislaid.

I claim:

1. A waste connection comprising a tube having a valve seat and an unobstructed bore and adapted to be secured in the waste opening of a basin or the like, and a disk valve fitted to said seat and having a handle on the upper side projecting a short distance therefrom and adapted to be grasped by hand, and a winged stem on the under side loosely fitted and guided in said tube, the tube and the valve stem having, one a guide way and the other a projection engaging with said guide way and adapted to hold the valve open, and to prevent its removal from the tube, substantially as described.

2. A waste connection comprising a tube having a valve seat and an unobstructed bore and adapted to be secured in the waste opening of a basin or the like, and a disk valve fitted to said seat and having a handle on the upper side projecting a short distance therefrom and adapted to be grasped and turned by hand, and a stem on the under side loosely fitted and guided in said tube, the tube and valve stem having one, an oblique guide way and the other a projection engaging with said guide way whereby the turning of the handle opens and closes the valve and the valve is held open and is irremovably connected with the tube, substantially as described.

3. The combination with a basin or the like having an overflow passage leading from the upper to the lower part thereof and a waste opening in the bottom, of a tube fitted in said opening and having a valve seat adjacent to its upper end and a lateral opening in communication with said passage, and a disk valve fitted to said seat, and

having a handle on its upper side projecting a short distance therefrom, and a stem on its under side loosely fitted and guided in said tube, the tube and valve stem having, one an oblique guideway and the other a projection engaging with said guideway, whereby the turning of the handle opens and closes the valve, and the valve is irremovably connected with the tube, substantially as described.

4. A waste connection comprising a tube having a valve seat adjacent to its upper end and a guideway in one side oblique to its axis, and a disk valve fitted to said seat and having a handle projecting upwardly a short distance therefrom and a winged stem fitting loosely in said tube in engagement with said guideway whereby the turning of the handle opens and closes the valve, substantially as described.

5. A waste connection comprising an externally threaded tube formed with a valve seat and with an outwardly projecting flange and having an oblique guideway in one side, a nut fitted on said tube and a disk valve fitted to said seat and having a handle projecting a short distance from the upper side thereof and a downwardly extending guide loosely fitting in said tube and engaging with said guideway, substantially as described.

6. The combination with a basin or the like, having an overflow passage leading from the upper to the lower part thereof and a waste opening in the bottom, of a tube fitted in said opening and having a valve seat at the top and an oblique slot communicating with said passage, and a valve fitted to said seat and having a handle on the upper side and a guide on the under side loosely fitting in said tube and provided with a lateral projection engaging said slot and irremovably connecting the valve with the tube, substantially as described.

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

PETER F. MURPHY.

Witnesses:

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ALICE E. GOSS.