

June 26, 1928.

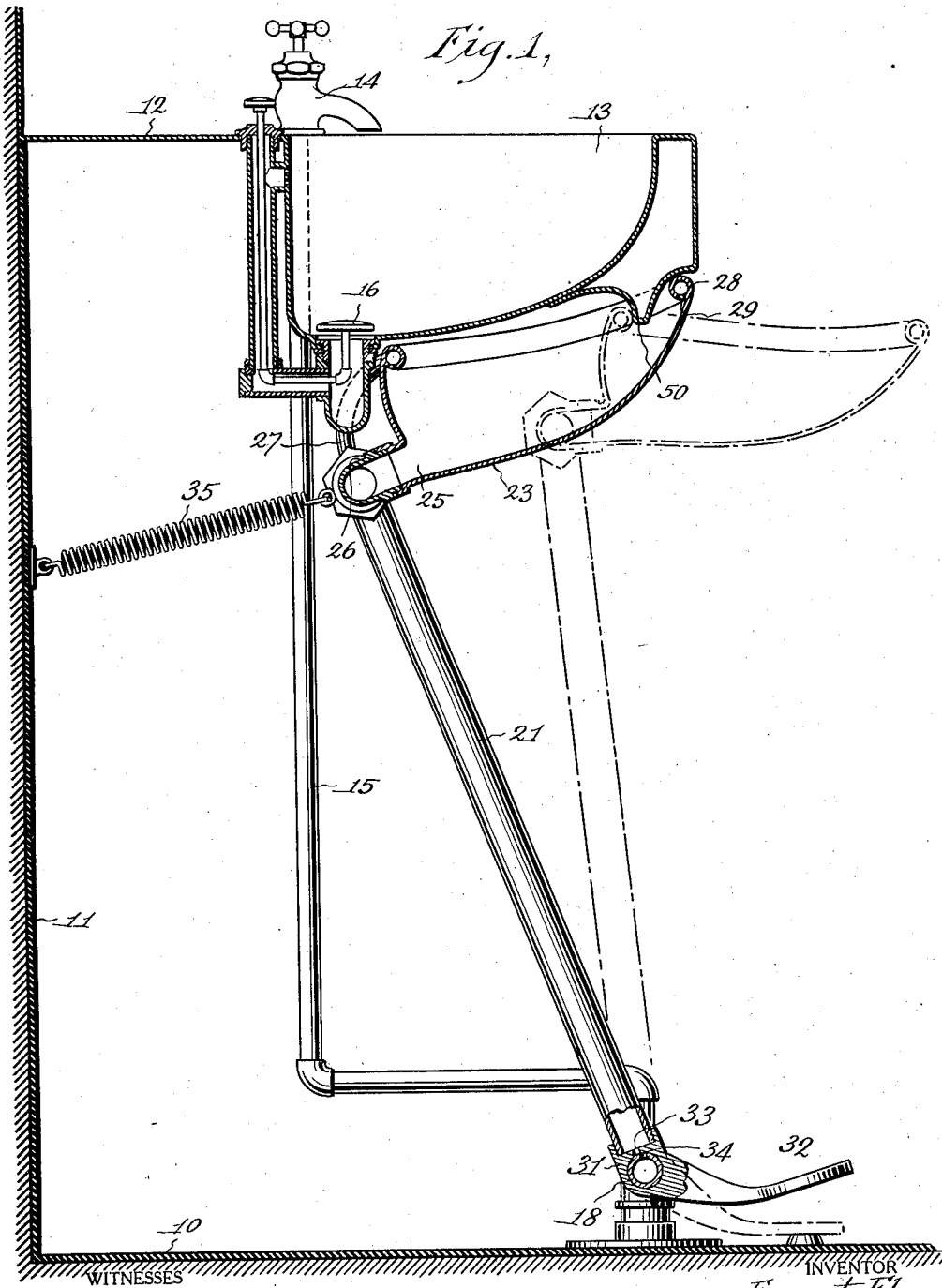
E. FLAGG

1,675,263

URINAL

Filed Dec. 22, 1926

2 Sheets-Sheet 1



WITNESSES

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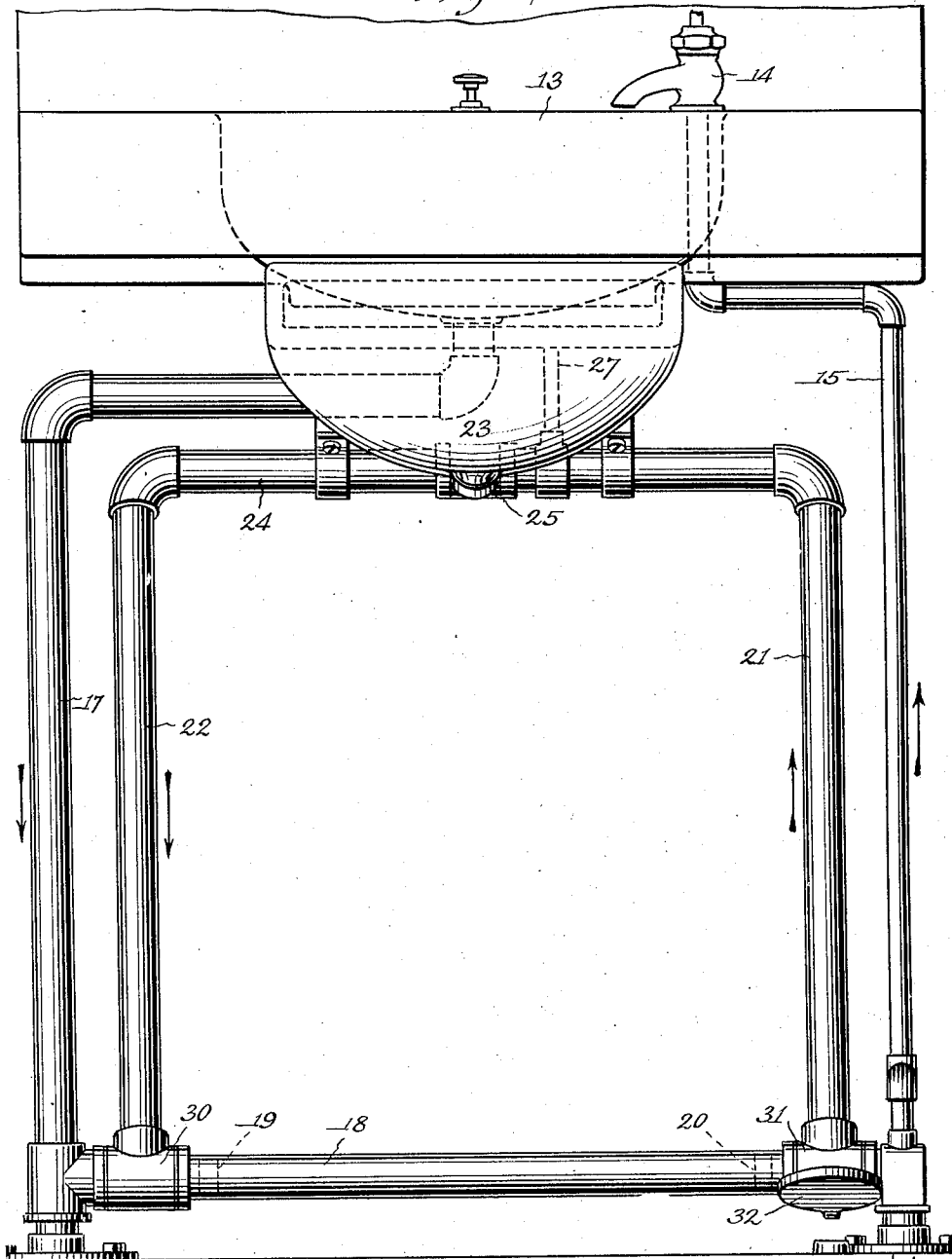
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Fig. 2,



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UNITED STATES PATENT OFFICE.

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URINAL.

Application filed December 22, 1926. Serial No. 156,505.

The present invention is concerned with the provision of a sanitary urinal. The types of upright recessed urinals which are now commonly in use are very objectionable because of the fact that a great deal of water is required to properly flush them, and because the urine in any event does not strike running water. Due to the extremely rapid decay of urine there is a most disagreeable odor associated with the types of urinals now employed which can be eliminated only by the provision of a construction in which a film of running water is maintained over the surface of the urinal when in use.

The present invention overcomes the disadvantages of the old type of urinal by providing a device which is absolutely sanitary, being so arranged that a film of running water always covers the walls of the urinal basin when the latter is in position for use.

Preferably I effect material space economy by mounting the urinal under an ordinary wash basin and by using a treadle to swing the urinal out from under the basin into operative position. This treadle also controls the supply of water to the urinal so that as the urinal is swung to operative position, the water automatically starts to flush. As the device is returned by a spring or other suitable mechanism to inoperative concealed position, the water is automatically cut off.

This treadle arrangement is another material advantage because it is necessary for one desiring to use the urinal to step upon the treadle. He must therefore stand in proper position for use before the urinal is swung from its concealed position, and any danger of spilling on the floor is eliminated.

With the above noted and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter set forth and pointed out in the claims. The invention may be more fully understood from the following description in connection with the accompanying drawings, wherein—

Fig. 1 is a view in vertical section through a wash-bowl and urinal, the dotted lines indicating the position of the latter when shifted to exposed operative position.

Fig. 2 is a view in front elevation of the device.

While I have shown the urinal associated

with a wash-bowl and normally concealed thereunder, it will be evident that the wash-bowl is no essential part of the combination, although material space economy may be effected, for instance in Pullman car wash-rooms or other public lavatories, by the arrangement illustrated. Obviously in many instances the urinal might be mounted under a shelf or under any other appropriate concealing means and shifted to operative position by the mechanism which I have shown.

In the drawings the floor of a compartment has been indicated at 10 and one wall thereof at 11. A shelf 12 extends between the wall and a wash-basin 13 of more or less conventional type. This basin may be supported in any suitable manner, and is provided with a faucet 14 connected to a water supply line 15. The drain outlet from the basin is controlled by a suitable drain valve 16 and the basin drains into a discharge pipe 17. Preferably both the supply pipe 15 and drain pipe 17 are vertically disposed, and connected near their lower ends adjacent the floor by a cross pipe 18 plugged as at 19 and 20 to prevent the passage of water from the supply pipe directly to the drain pipe. Rising from the pipe 18 are supply pipe 21 and drain pipe 22 for the urinal, the latter being in the nature of a trough or basin 23 normally disposed under the wash-basin 13. The upper ends of pipes 21 and 22 are connected by a cross pipe 24 having a plug therein at any suitable point (not shown) to prevent the supply line from discharging directly into the drain pipe.

The urinal is formed with a discharge neck 25 coupled as at 26 directly to the cross pipe 24, and a short riser 27 connects the inlet side of the pipe 24 with a tubular water chamber 28 extending around the top of the urinal and formed with a number of discharge orifices 29. Thus, with the chamber 28 full of water, the orifices 29 will maintain a continuous film of water moving over the surface of the urinal basin and flowing off through the neck 25.

The T-couplings 30 and 31 which connect the pipes 21 and 22 to the pipe 18 are free to rock on the pipe 18 swinging the U-shaped structures 21, 22, 24 about pipe 18 as a center, and thereby permitting the urinal to be carried from the concealed position of Fig. 1 to the dotted line exposed position of Fig. 1, this movement being opposed by a spring 35

anchored to the wall 11 of the compartment. For effecting this swinging movement of the urinal supporting pipes, the coupling 31 is preferably provided with a treadle 32, and the coupling 31 and pipe 18 are formed with ports 33 and 34 respectively aligned as the urinal swings forwardly, and out of alignment when the urinal is in inoperative concealed position. Thus, whenever the urinal swings forwardly, a flow of water occurs from the pipe 20 through the ports 34, 33, up the pipe 31, and from the annular chamber 28, this flow being automatically cut off when the spring is permitted to swing the urinal under the wash-basin.

It will be obvious that any suitable means may be resorted to for limiting the throw of the treadle operated pipe frame 21, 22, 24 which carries the urinal. Such means has been illustrated as a depending flange 50 at the forward portion of the wash basin which extends into the urinal basin and limits swinging movement of the latter in both directions.

The device is primarily sanitary because of the fact that water is always flowing in a film over the basin walls. It is also sanitary because of the fact that a user in order to move the device to operative position must step upon the treadle and in so doing place himself in the proper position for use, so that there is no danger of soiling the floor.

It will be obvious that while I have shown the device associated with a wash basin to effect material space economy in public lavatories of various kinds, particularly Pullman car lavatories, it is by no means essential that the wash bowl or basin form any part of the combination. The urinal for instance might be swung inwardly under a shelf, or might be associated with various other articles of furniture. It is within the scope of the present invention, to mount the urinal in any manner which will conceal it from view, and to provide means for si-

multaneously shifting the urinal to exposed operative position and flushing the same.

Obviously various changes and alterations might be made in the general form and arrangement of the parts described without departing from the invention. Hence I do not wish to limit myself to the details set forth, but shall consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

I claim:

1. The combination with a stationary wash bowl of a swinging frame under the bowl and a urinal basin carried thereby, the frame being normally spring held to retain the urinal basin in concealed position, a treadle for swinging the frame outwardly to expose the urinal basin, the bowl and basin including interengaging parts limiting the movement of the swinging frame in both directions.

2. The combination with a stationary wash bowl, of a urinal basin movably mounted under the bowl and normally spring held in inoperative concealed position, means for swinging the basin outwardly into exposed operative position, interengaging portions at the front of the bowl and the rear of the basin limiting the outward swinging movement of the basin.

3. The combination with a stationary wash bowl, of a urinal basin movably mounted under the bowl and normally spring held in inoperative concealed position, means for swinging the basin outwardly into exposed operative position, the bowl having at its front a depending extension engageable with the rear of the basin to limit its outward swinging movement.

4. A device of the class described in claim 1 wherein the swinging frame for the basin is formed of pipes constituting water supply and waste pipes for the basin.

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