Sept. 25, 1928. 1,685,152

E. L. DELANY

FLUSH TANK OPERATING LEVER

Filed Jan. 18, 1926

FIG. 1.

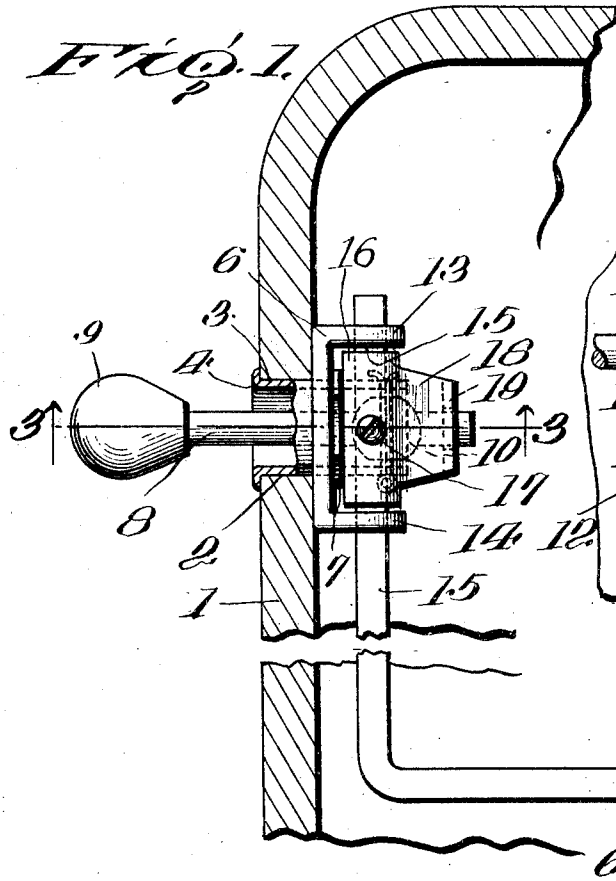


FIG. 2.

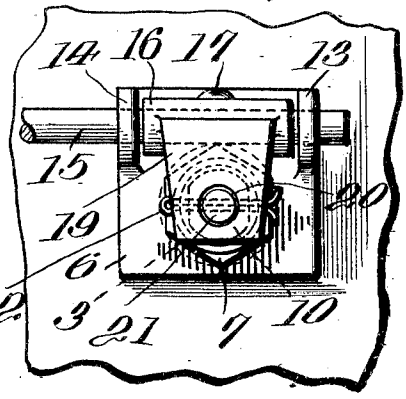
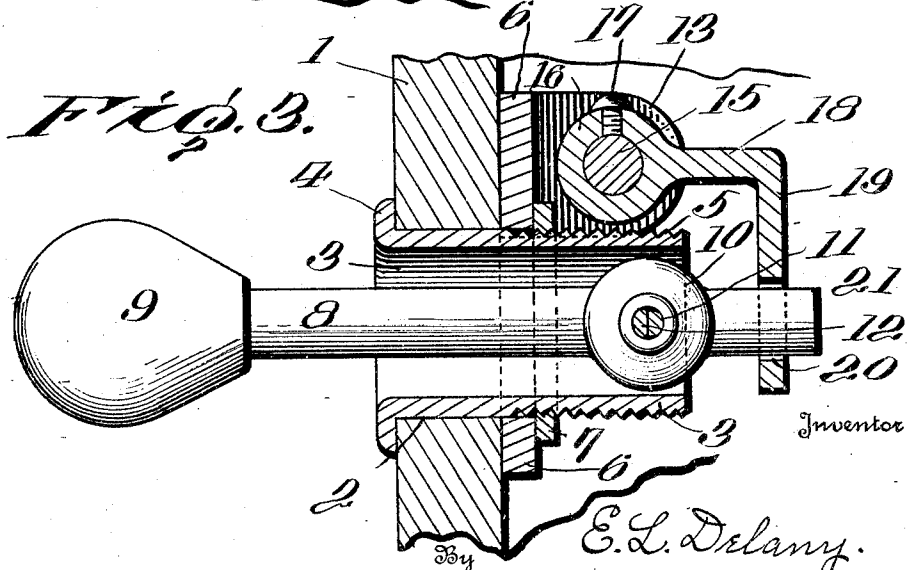


FIG. 3.



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Patented Sept. 25, 1928. 1,685,152

UNITED STATES PATENT OFFICE.

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FLUSH-TANK-OPERATING LEVER.

Application filed January 18, 1926. Serial No. 82,111.

My invention relates to improvements in flush tank operating levers.

The object of my invention is to provide a flush tank operating lever which can be readily attached to the ordinary flush tank and removed therefrom, and at the same time providing a strong and durable fulcrum for the operating handle, and also providing means whereby the several parts are readily assembled or removed for replacing any part that may become broken.

Another object of my invention is to provide a flush tank operating lever of this character in which a flush valve handle can be readily removed and inserted through the supporting tubular member, and at the same time providing a very effective connection between the operating handle and the flush valve operating lever.

A further object of my invention is to provide a simple, cheap and effective flush tank operating lever which is strong and durable and having certain details of structure and combination of parts hereinafter more fully described.

In the accompanying drawings:—

Figure 1 is a top plan view of my improved flush tank operating lever showing the flush tank in section.

Figure 2 is an end view of Figure 1.

Figure 3 is a vertical transverse sectional view taken on the line 3—3 of Figure 1, looking in the direction of the arrow.

Referring now to the drawings, 1 represents the flush tank which is provided with an opening 2 in its vertical wall, and in which is placed the tubular member 3 having at its outer end the annular flange 4 adapted to engage the outer face of the tank 1. The inner periphery of the tubular member 3 is threaded as indicated at 5, and loosely fitting on the tubular member 3 is a flush valve lever bracket 6 clamped against the inner face of the tank 1, by means of the lock nut 7 screwed upon the exterior threaded portion 5 of the tubular member. The operating handle 8 is provided with a knob 9 on its outer end, and extends through the tubular member and is provided with an enlarged portion 10 intermediate its ends. The enlarged portion 10 is provided with an opening 11 through which loosely passes the cotter pin 12, which also passes through the sleeve 3 and is rigidly carried thereby. This cotter pin forms a fulcrum for the operating handle 8. The flush valve lever bracket 6 is provided at its upper end with the two outwardly extending arms 13 and 14 in which is loosely mounted the flush valve operating lever 15. The said lever 15 between the arms 13 and 14 has secured thereon a sleeve 16, rigidly held by the set screws 17. This sleeve 16 is provided with the outwardly extending horizontally arranged portion 18 provided at its outer end with a vertical downwardly extending portion 19 provided with an opening 20.

The handle 8, beyond the enlarged portion 10, is provided with a reduced portion 21 adapted to pass loosely within the opening 20 of the member 19. By this structure it will be seen that by rocking the lever 8 on the fulcrum 12 will cause the outer reduced end 21 to move upwardly, forcing the member 19 upwardly, and the same being rigidly held by the set screw on the flush valve operating lever the same will be oscillated in the arms 13 and 14 of the flush valve lever bracket and the outer end of the flush valve lever raised. The flush valve lever bracket 6 could be fastened on the tubular member 3 so that the arms 13 and 14 could extend down, in which event the flush valve operating lever would be mounted below the tubular member 3, and the portion 19 would extend upward opposite the end of the tubular member, and the operation would be the same as that described when the arms 13 and 14 extend upwardly.

Having thus fully described my invention what I claim is:—

1. A flush valve operating mechanism comprising a tubular member, means for fastening the same to the flush tank, a flush valve operating lever pivotally supported by the tubular member, an operating handle passing through the tubular member and pivotally mounted to have an up and down movement therein, and an arm carried by the flush valve operating lever and having an opening therein through which the inner end of the operating handle passes.

2. A flush valve operating mechanism comprising a tubular member, means for securing the same to the flush tank, a flush valve operating lever pivotally supported by the tubular member, an arm carried by the flush valve operating lever and extending opposite the end of the tubular member, and having an opening therein, and an operating handle passing through the tubular member and pivotally mounted to have an up and down

movement therein and having its inner end passing into the opening in the arm.

3. A flush valve operating mechanism comprising a tubular member, means for securing the same to the flush tank, a member carried by the tubular member and having outwardly extending arms, a flush valve operating lever pivotally mounted in said arms, and a sleeve secured on the flush valve operating lever between the arms, and having a laterally extending portion extending across the end of the tubular member, and having an opening therein, and an operating handle passing through the tubular member, and pivotally mounted to have an up and down movement therein, and having its inner end passing through the opening of the lateral extension of the sleeve.

4. A flush valve operating mechanism comprising a tubular member, means for securing the same to the flush tank, a member mounted on the tubular member and secured thereon by the securing means, inwardly extending arms carried by said member, a flush valve operating lever pivotally mounted in said arms, a sleeve rigidly mounted on said flush valve operating lever between the arms, and having a laterally extending portion extending over the end of the tubular member and provided with an opening, and an operating handle passing through the tubular member and pivotally mounted to have an up and down movement therein, and having its inner end passing into the opening carried by the lateral extension.

5. A flush valve operating mechanism comprising a tubular member externally threaded, a plate surrounding the member, a nut screwed on the tubular member and clamping the same and the plate to the flush tank, two outwardly extending spaced arms carried by the plate, a flush valve operating lever pivotally mounted in said arms, a sleeve secured on the flush valve operating lever between the arms, and having a laterally extending portion extending across the end of the tubular member, and having a horizontal opening therein, an operating handle passing through the tubular member and pivotally mounted to have an up and down movement therein, and having its inner end passing through the opening in the laterally extending portion of the sleeve.

6. A flush valve operating mechanism comprising a tubular member, means for fastening the same to the flush tank, a flush valve operating lever supported by the sleeve, and extending at right angles thereto, and adapted to oscillate at right angles to the sleeve, an operating handle passing through the tubular member and pivotally mounted therein to have an up and down movement, and a connection between the inner end of the handle and the flush valve operating lever for positively raising and lowering the said lever.

7. A flush valve operating mechanism comprising a tubular member, means for securing the same to the flush tank, a member carried by the tubular member and having two spaced outwardly and upwardly extending arms, a flush valve operating lever pivotally mounted in said arms, and extending at right angles to the tubular member, an arm rigidly carried by the flush valve operating lever between the arms and having a laterally extending portion extending downwardly across the end of the tubular member, and having an opening therein, and an operating handle pivotally mounted in the tubular member and having its inner end passing through the opening in the laterally extending portion of the arm.

In testimony whereof, I have signed this specification.

EDWARD L. DELANY.