J. GRIFFITHS.

Tanks for Water-Closets.

No. 149,746. Patented April 14, 1874.

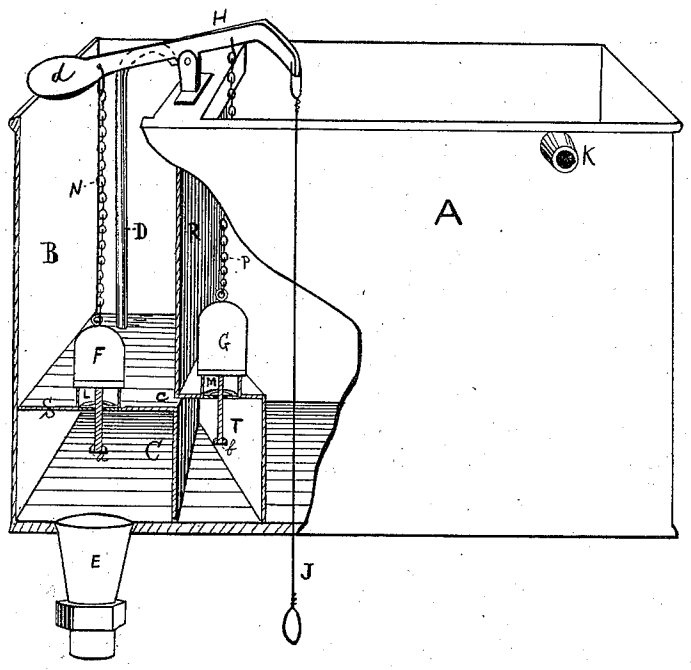

Fig. 1.

WITNESSES.
H. E. Metcalf,
Cyrus Wilard.

INVENTOR.
James Griffiths.
By C. A. Shaw.
Atty.

UNITED STATES PATENT OFFICE.

JAMES GRIFFITHS, OF DEPTFORD, ENGLAND.

IMPROVEMENT IN TANKS FOR WATER-CLOSETS.

Specification forming part of Letters Patent No. **149,746**, dated April 14, 1874; application filed March 11, 1874.

To all whom it may concern:

Be it known that I, JAMES GRIFFITHS, of Deptford, in the county of Kent, England, have invented a certain new and useful Improvement in Water-Tanks, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is an elevation of my improved tank with the side broken out to show the arrangement of the compartments and valves.

My invention relates more especially to that class of water-tanks which are used for supplying water-closets and sinks; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more effective and economical apparatus is produced than is now in common use.

The extreme simplicity of my invention renders an elaborate description unnecessary.

In the drawing, A is the main tank, which is divided transversely by the wall R to form the small tank B, having the sub-tank C formed by the false bottom S. Within the main tank A there is also a compartment, T, opening into the tank B by means of the aperture *c*. The tank A is provided with an ordinary cap-valve mechanism, G M, opening into the chamber T, and connected by the chain P with one end of the valve-lever H. The chamber B is also provided with a cap-valve mechanism, F L *a*, but of greater capacity, opening into the chamber C, and connected by the chain N with the opposite end of the lever H. The tube D is for supplying air to the chamber or sub-tank C, and the pipe K for carrying off the surplus water or overflow of the tank A. The lever H is connected with the pull of the water-closet or sink by the wire J, the tank being properly elevated above the sink or closet which it supplies.

From the foregoing the nature and operation of my invention will be readily understood by all conversant with such matters.

In tanks of the ordinary construction, a great waste of water frequently occurs by accidentally or purposely leaving the pull on or the valve open.

There is also no provision for flooding or washing the basin of the closet after the pull is released, difficulties which are entirely obviated by my invention.

The lever H is provided with a weighted or gravitating end, *d*, which causes that end of the lever to fall when the wire J is released, thus closing the valve F L *a*, and opening the valve G M *b*. The last-named valve being open, water from the tank A will pass into the compartment T, and thence through the aperture *c*, and fill the tank B. If, now, the wire J is pulled downwardly, the valve G M *b* will be closed, shutting off the water from the compartment T and tank B, opening the valve F L *a*, and filling the chamber or sub-tank C.

It will be seen that, when the wire J is pulled and the valve F L *a* opened, the water filling the tank C will be discharged through the pipe E, air passing into the tank through the tube D to supply the vacuum thus caused. The valve F L *a* is of greater capacity than the discharge-pipe E, so that when the valve is open water will be passed from the tank B to the sub-tank C faster than it is discharged from the sub-tank by the pipe E. Thus, when the valve F L *a* is closed, by releasing the pull attached to the wire J the water in the tank C will be entirely discharged to wash the basin after water has ceased to pass from the tank B into the tank C.

It is important, usually, that water should be supplied to water-closets and sinks very rapidly, and in quite large quantities. It is also equally important that it should not be wasted. For these reasons, I provide the tank B with the sub-tank C, having the large air-pipe D. When the wire J is pulled, the contents of the sub-tank C will be very rapidly discharged; but, if the wire is not released, or the pull is accidentally left on, the valve G M *b* being closed, no more water can be wasted than what is in the tanks B C at the time, as will be readily obvious, thus preserving the contents of the main tank A.

Hence it will be seen that by my improvement the proper quantity of water is measured out from the tank B, thus preventing all waste,

and at the same time furnishing a means of rapidly supplying water to the sink or closet, as desired, and also of washing the basin of the closet by a discharge of water after the pull is released.

Having thus described my invention, what I claim is—

The water-tank described, provided with the compartments T B C, valve G M *b*, lever H, pipe D, and valve F L *a*, combined to operate substantially as and for the purpose set forth and specified.

JAMES GRIFFITHS.

Witnesses:
H. E. METCALF,
C. A. SHAW.