

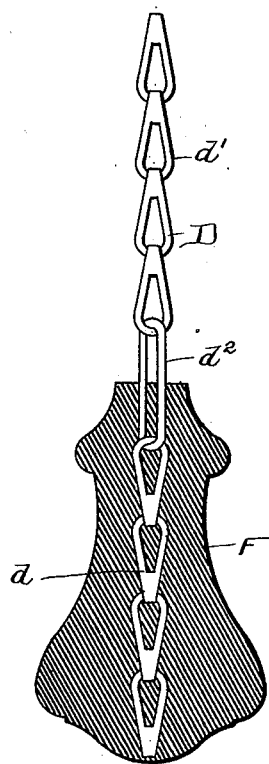
No. 646,823.

Patented Apr. 3, 1900.

J. H. GAVIN.  
PULL OR HANDLE.

(Application filed Dec. 26, 1899.)

(No Model.)



WITNESSES:

*Law. C. Curtis*

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# UNITED STATES PATENT OFFICE.

JOHN H. GAVIN, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE L. WOLFF  
MANUFACTURING COMPANY, OF SAME PLACE.

## PULL OR HANDLE.

SPECIFICATION forming part of Letters Patent No. 646,823, dated April 3, 1900.

Application filed December 26, 1899. Serial No. 741,565. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. GAVIN, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Pulls or Handles, of which the following is a specification.

My invention relates to improvements in pulls or handles for flush-tanks of water-closets and other appliances.

Heretofore these pulls or handles have been attached to the chain, which connects with the valve of the flushing-tank by a split link or other detachable connection, and considerable difficulty and annoyance have been experienced from the pulls or handles coming detached or removed from the chain by accident or design, and thus being lost or stolen, especially in hotels or other public places.

The object of my improvement is to provide a simple, efficient, and durable construction of pull or handle and its connecting-chain, whereby this difficulty and objection may be overcome and all possibility of the pull or handle becoming accidentally or designedly removed from its connecting-chain prevented.

My invention consists in the means I employ to accomplish this result—that is to say, it consists, in combination with the connecting-chain which is attached to the valve of the flushing-tank, of a pull or handle of plastic material molded directly onto and around the connecting-chain. In this way, as the chain has no split or opening outside of the pull or handle itself, there is no possibility of the pull or handle becoming detached from the chain by the opening of a split link or other detachable connection, as heretofore.

The accompanying drawing, forming a part of this specification, is a sectional view of a device embodying my invention, showing a handle or pull surrounding the connecting-chain, about which it is molded.

D is the connecting-chain, extending from the handle or pull F to the lever, by which

the valve of the flushing-tank, for example, or other device is operated. The connecting-chain D may be of any suitable or ordinary construction. The pull or handle F, which is made of rubber, celluloid, or other plastic material, is molded while yet in a plastic state directly around the lower links *d* of the chain, the material of the pull or handle closely surrounding the links and entering integrally the spaces or hollows of the links. The links *d* of the chains, which are thus surrounded by the material of the pull or handle F, are preferably closed links, as contradistinguished from open or split links—that is to say, the same in this respect as the links *d'*, which are outside of the handle or pull; but the links *d* within the handle and which are surrounded by the handle may, if desired, be split or open links, as the material of the handle, which is cast or molded around them, would effectually prevent the spreading or opening of these links, even if they were split or open ones. All the links may be of the same form or shape, if desired; but I ordinarily employ an elongated link *d*<sup>2</sup> for the intermediate link, which is partly within and partly without the handle.

I claim—

1. The combination with the connecting-chain of a pull or handle of plastic material, molded directly on and surrounding the links of the chain itself, substantially as specified.

2. The combination with the connecting-chain, D, having exterior closed links, *d'*, of a pull or handle of plastic material, molded directly upon and surrounding links *d*, of said chain and an intermediate elongated link *d*<sup>2</sup>, connecting the links *d* within the handle or pull and the links *d'* exterior thereto, said links, *d'* and *d*<sup>2</sup>, having no split or opening outside said handle or pull, substantially as specified.

JOHN H. GAVIN.

Witnesses:

EDMUND ADCOCK,  
H. M. MUNDAY.