W. GATES.

FASTENER.

APPLICATION FILED NOV. 6, 1916.

1,233,215. Patented July 10, 1917.

Fig. 1

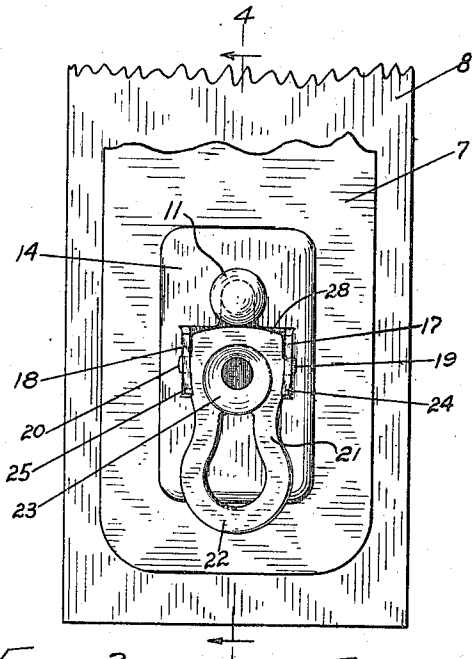


Fig. 2

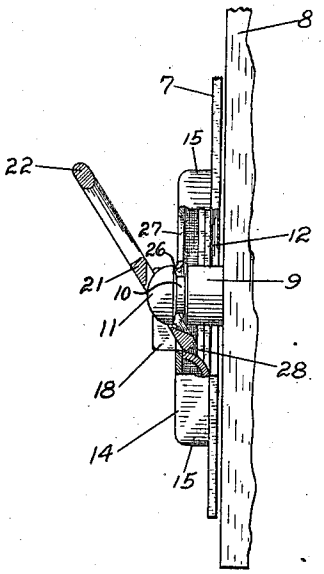


Fig. 3

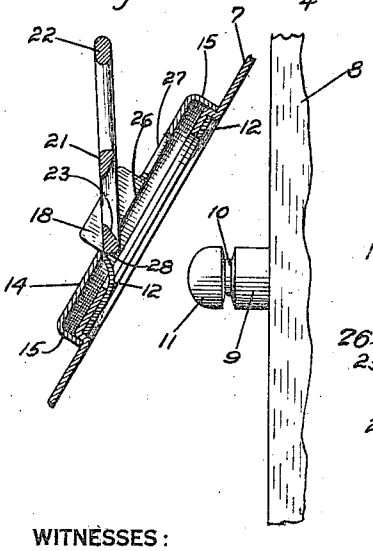


Fig. 4

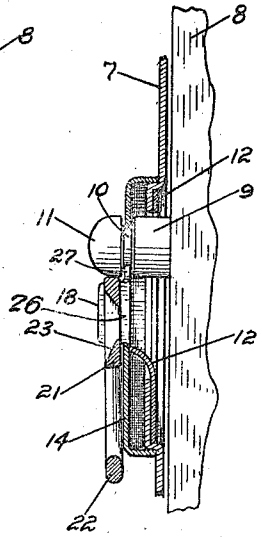
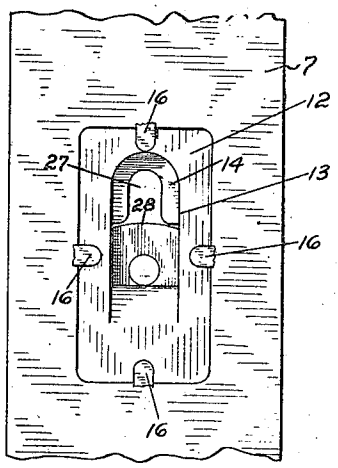


Fig. 5



WITNESSES:

Chester F. Hayden.

INVENTOR

William Gates

BY

Wooster Bowersock

ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM GATES, OF NEW HAVEN, CONNECTICUT, ASSIGNOR OF ONE-HALF TO MARCUS S. BOTTUME, OF MONTOWESE, CONNECTICUT.

FASTENER.

1,233,215. Specification of Letters Patent. Patented July 10, 1917.

Application filed November 6, 1916. Serial No. 129,643.

To all whom it may concern:

Be it known that I, WILLIAM GATES, a citizen of the United States, residing at New Haven, county of New Haven, State of Connecticut, have invented an Improvement in Fasteners, of which the following is a specification.

This invention relates generally to fastening devices, with more particular reference to what are known as "curtain fasteners," adapted to be employed where it is desired to detachably secure the edge of a curtain to a solid body or the edges of two curtains to each other, as, for example, in connection with the "tops" of automobiles and other vehicles.

The object of the present invention is the provision of a fastener which in addition to being easily and quickly manipulated in both the fastening and unfastening operations, as is of course essential, and being simple in construction and comparatively cheap in cost of manufacture, is thoroughly dependable, in that the engaging parts thereof cannot be disengaged by shocks and jars, under ordinary conditions, and which will not produce the objectionable "rattle" when the parts thereof have become more or less worn by use.

My invention will be readily understood by reference to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation of a device embodying my invention, showing the same applied to a curtain designed to be fastened against the face of a solid body;

Fig. 2 is a side or edge view thereof with the locking member in what may be termed an open position;

Fig. 3 is a similar view, with the fastening device proper in vertical cross-section, showing the latter just detached or just prior to being attached to the other coöperating element of the complete device;

Fig. 4 is a view similar to Fig. 3 showing the fastener in attached condition, and

Fig. 5 is a rear view of the fastener and the curtain to which it is secured.

Referring now to the drawings in detail, numeral 7 designates a curtain or flap of leather, heavy fabric or the like, designed to be detachably fastened to the face of a solid body 8 although, as suggested, the part 8 may be another curtain or flap. For the purposes of the description, however, it may be considered that the part 8 is a solid body.

Mounted upon or in this body 8 is a pin or post 9 having an annular groove or channel 10 therein and preferably a round or dome-shaped end 11.

The fastener proper comprises a rear plate 12, having a relatively large and substantially central opening 13 therein, and a front plate 14, both plates being preferably stamped from suitable sheet metal, and the front plate in the stamping operation being provided with in-turned edges 15 to form, when the plates are assembled, a narrow chamber therebetween. The two plates are so relatively dimensioned that the plate 12 may be passed between the in-turned edges 15 of the plate 14, carrying therewith the material of the curtain or flap by slightly distorting the same, so that when the lugs or lips 16, provided at the in-turned edges of the plate 14, are forced through the material and bent over to engage the edges of the plate 12, the two plates are firmly clasped together and to the material of the curtain.

Struck up from the front plate 14 are the lugs 17 and 18 in which are journaled the pivots 19 and 20 of what I shall term the locking member or lever 21. This locking lever may be of any convenient and sightly form, preferably the form shown, and the end 22 thereof should project slightly beyond the lower edge of the plate 14 in order to provide purchase for the fingers in releasing the device in the manner hereinafter described. I have also shown this member 21 provided with an opening 23 having tapering side walls and so located that when the member 21 is thrown to what may be termed an open position, as shown in Fig. 2, this concaved opening will receive the rounded end 11 of the post 9 and thus permit of a greater range of movement of the member 21. Furthermore, I have shown the lower corners 24 and 25 of the lugs 17 and 18, respectively, slightly in-turned, so that they have to be sprung apart when the lever 21 is pressed down to locking position, thus frictionally retaining said lever in this position with sufficient force to prevent accidental dislodgment, under ordinary conditions, but not so firmly but that these forces may be readily overcome manually in the unfastening or releasing operation.

The front plate 14 is provided with an orifice or opening which includes a relatively large portion 26 communicating with a relatively narrow slot 27, the former being of such dimensions that it may be readily passed over the end of the post 9 and the latter in width approximating the diameter of the reduced portion of said post at the groove or channel 10, wherefore said post may be passed through the larger opening, and then the combined plates moved longitudinally until the edges of the narrower opening 27 engage the groove 10 in said post, as shown in Fig. 4. Obviously, during this operation the locking member 21 is in its raised position, as shown in Fig. 2, and now, upon turning the same down to closed or locking position, it will be apparent that the end edge 28 thereof will be slightly forced against the rounded end 11 of the post 9 and prevent dislodgment of the plates from the post.

The operation of the device, both in fastening and unfastening the curtain, is thought to have been clearly brought out in the foregoing description. The relative size and arrangement of the various parts, coupled with the inherent resiliency of the metal, renders accidental unfastening a very remote possibility, while the device may be easily and quickly opened and closed when desired and no ordinary amount of wear of the parts will result in an objectionable "rattle".

Many modifications of minor details of my improved fastening device will doubtless readily suggest themselves to those skilled in the art to which it appertains, and I therefore do not desire to limit my invention to the specific construction herein shown and described.

I claim as new and desire to secure by Letters Patent:

1. A fastener comprising a post adapted to be mounted upon one of two articles to be fastened together and a plate adapted to be secured to the other, said post being provided with an annular groove registering with said plate when the articles are in position for fastening and said plate being provided with an orifice having a relatively wide portion whereby the same may be passed over the end of said post and a relatively narrow portion adapted upon the sliding of said plate to be engaged in said groove, a locking lever fulcrumed on said plate, one end thereof being adapted to impinge against the end of said post and retain the same in said slot and the other end constituting a handle for the operation of said lever.

2. A fastener comprising a post adapted to be mounted upon one of two articles to be fastened together and a plate adapted to be secured to the other, said post being provided with an annular groove registering with said plate when the articles are in position for fastening and said plate being provided with an orifice having a relatively wide portion whereby the same may be passed over the end of said post and a relatively narrow portion adapted upon the sliding of said plate to be engaged in said groove, a locking lever fulcrumed in said plate, one end thereof being adapted to impinge against the end of said post and retain the same in said slot and the other end constituting a handle for the operation of said lever, and means for yieldingly retaining said lever in its locking position.

3. A fastener comprising a post adapted to be mounted upon one of two articles to be fastened together and a pair of plates adapted to be secured to the other by clamping the latter therebetween, said post being provided with an annular groove registering with the outer plate when the articles are in position for fastening and said plates being orificed for the reception of said post, the orifice in said outer plate having a relatively wide portion whereby the same may be passed over said post and a relatively narrow portion adapted upon the sliding of said plate to be engaged in said groove, and a locking lever fulcrumed in said plate, one end thereof being adapted to impinge against the end of said post and retain the same in said slot and the other end constituting a handle for the operation of said lever.

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

WILLIAM GATES.

Witnesses:
MARCUS S. BOTTUME,
RICHARD F. MURRAY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."