

F. S. GARR.
CARRIAGE CURTAIN FASTENER.
APPLICATION FILED MAY 4, 1909.

965,986.

Patented Aug. 2, 1910.

Fig. 1.

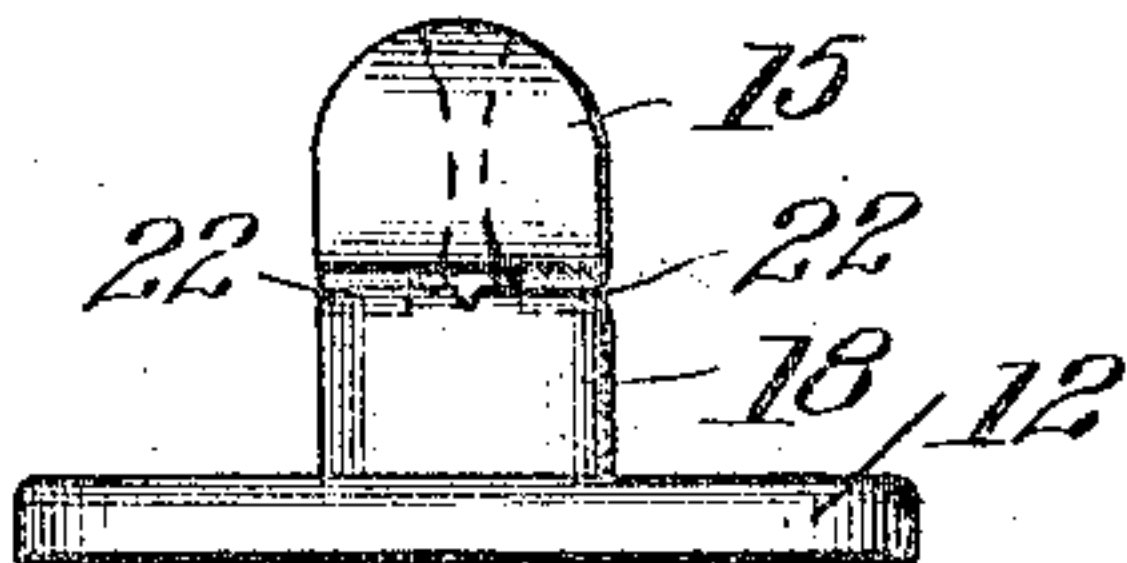


Fig. 2.

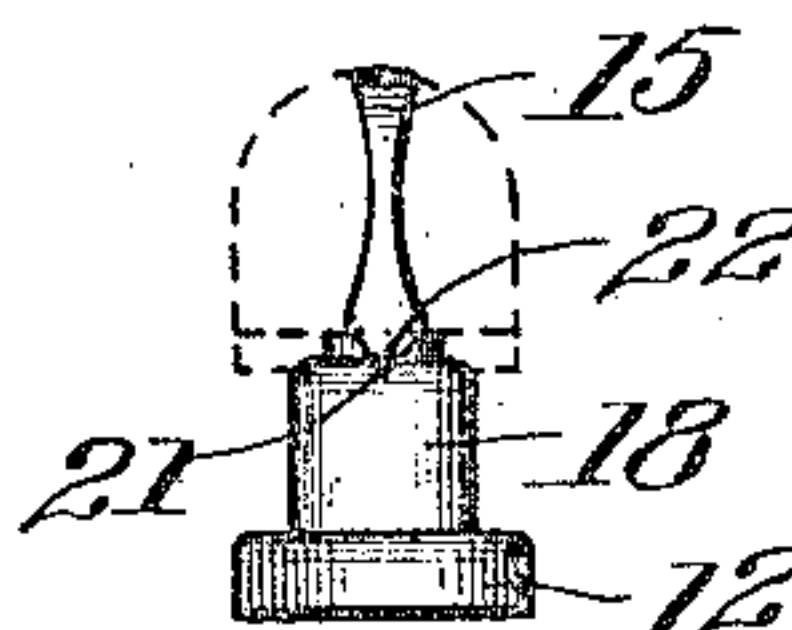


Fig. 3.

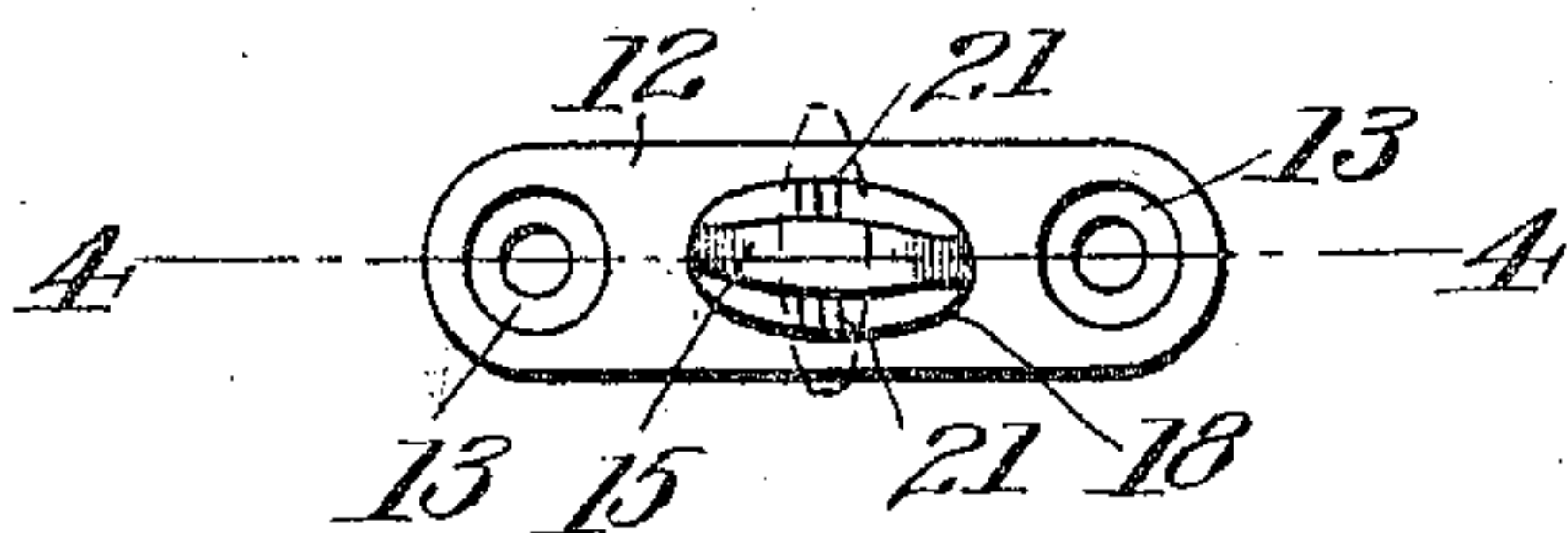


Fig. 4.

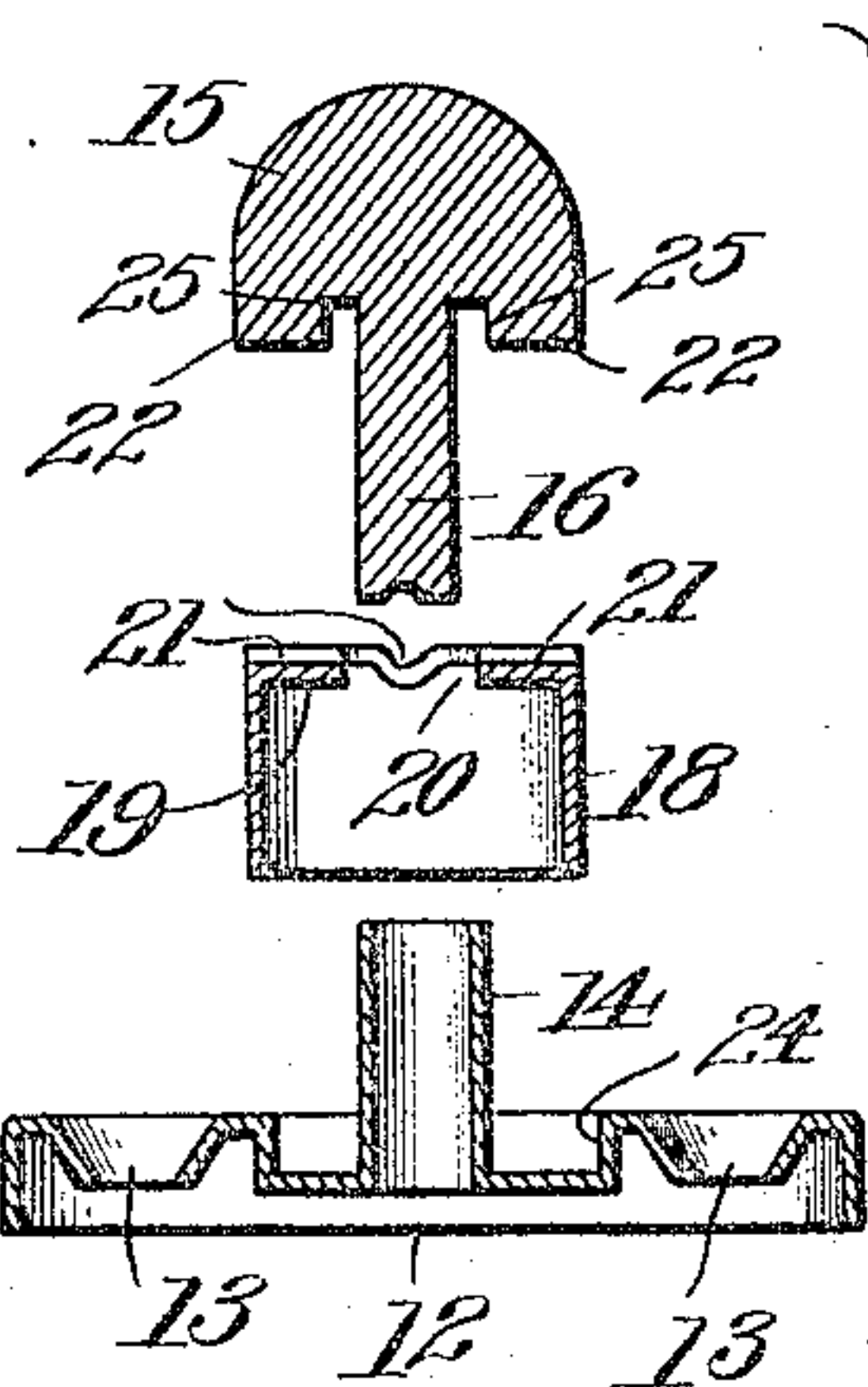
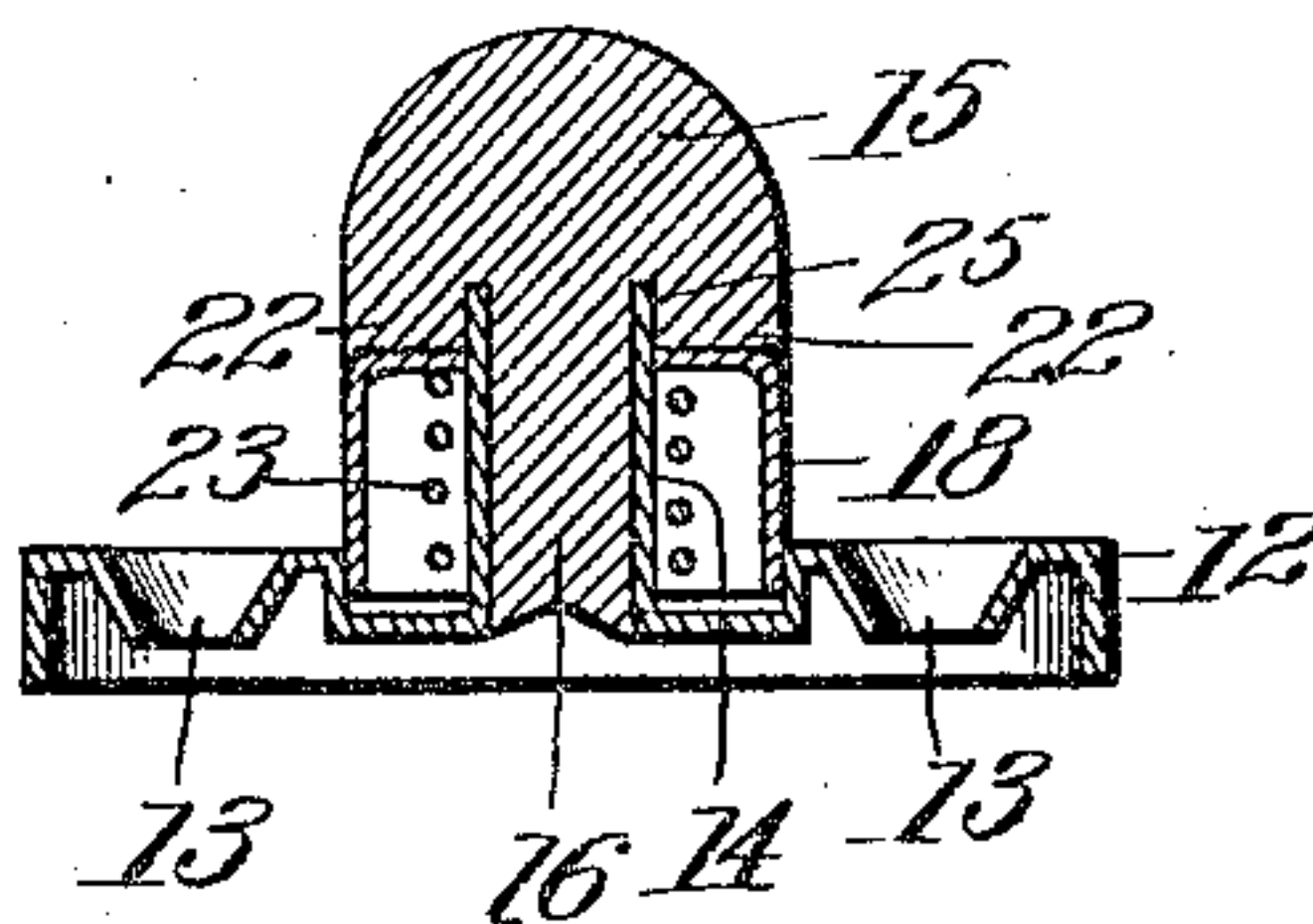
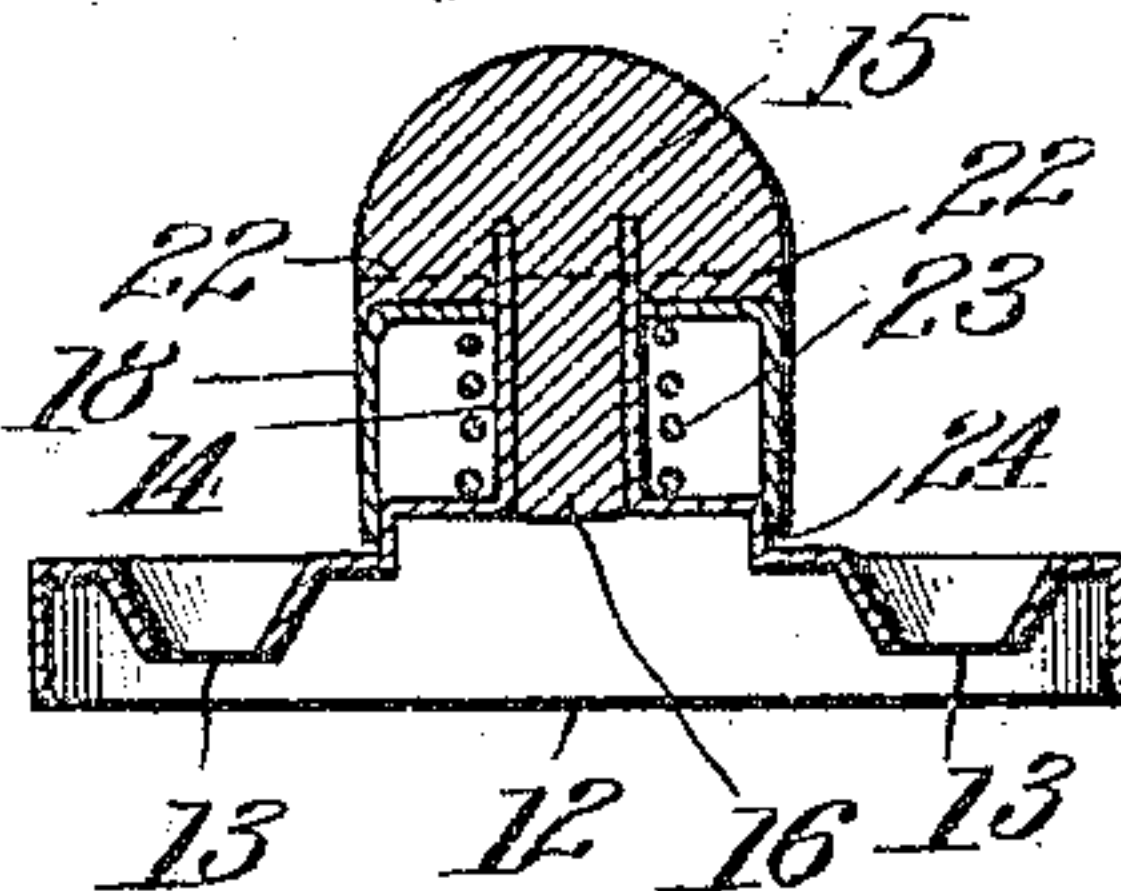


Fig. 5.

Fig. 6.



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Witnesses

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UNITED STATES PATENT OFFICE.

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CARRIAGE-CURTAIN FASTENER.

965,986.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRED S. CARR, of Brookline, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Carriage-Curtain Fasteners, of which the following is a specification.

This invention relates to a carriage curtain fastener comprising a base adapted to be attached to the frame-work of a carriage top, a shank projecting outwardly from the base, and adapted to enter a socket or eye in a carriage curtain, and a button which is pivotally connected to the shank and base, and is adapted to be turned to different positions relatively to the shank, the form of the shank and button being such that when the button is in one position, its ends are flush with the ends of the shank, so that the button does not overhang the shank, and when the button is turned to another position, it extends crosswise of the shank, its ends overhanging the sides of the shank and the curtain socket through which the shank passes, the head being therefore adapted, when in the last named position, to prevent the removal of the curtain from the shank.

The invention has for its object to provide a fastener of the character stated, the button of which is capable of only a rotary movement, is rigidly supported against any other movement relatively to the base and shank, and is adapted to be yieldingly secured in its operative position by the shank, the construction being such that the base may have a minimum width, and therefore adapted for application to a narrow supporting member.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figures 1, 2, and 3 represent different elevations of a carriage curtain fastener embodying my invention. Fig. 4 represents a section on line 4—4 of Fig. 3. Fig. 5 represents in section the base, the shank, and the button detached from each other. Fig. 6 represents a sectional view of a modification.

The same reference characters indicate the same parts in all the figures.

In the drawings,—12 represents the base of my improved carriage curtain fastener, the same being provided with openings 13

for the reception of the screws which attach the device to the frame-work of a carriage top.

14 represents a tubular stud which is rigidly mounted on the base and projects outwardly therefrom, the stud being preferably integral with the base, both the base and stud, as here shown, being formed from sheet metal by suitable dies.

15 represents the button which is provided with a stem 16 formed to closely fit the interior of the stud 14, and to rotate freely therein, the stem and button being confined against outward movement relatively to the base in any suitable way, preferably by spreading or upsetting the inner end of the stem to form a bur or head 17, engaging the inner side of the base, as indicated in Figs. 4 and 6. The button has a rotative bearing at 25 on the outer end of the stud as will be hereinafter described, so that the stem and button are confined by the stud against inward movement relatively to the base. The button therefore has only a rotary movement relatively to the base and is rigidly confined against movement in any other direction.

18 represents the shank which occupies a socket in a carriage curtain when the device is in use, said shank being interposed between the base and the button, and having an oblong, and preferably an elliptical form in cross section, so that it is adapted to fit a correspondingly shaped socket in the carriage curtain. The shank is provided at its outer end with a head 19 containing an aperture 20 having a close sliding fit on the tubular stud 14. The shank 18 and its head are preferably made from a single piece of sheet metal formed by suitable dies, the shank and the button being provided with interlocking members, which are preferably grooves 21 formed in the outer surface of the head 19, and tongues 22 formed on the inner edge of the button and adapted to enter the grooves 21, there being two pairs of grooves, those of one pair extending lengthwise of the shank, while those of the other pair extend crosswise of the shank, so that when the shank is in the position shown by full lines in Figs. 1, 2, and 3, its tongues engage one pair of grooves which hold the button in the position shown by full lines, the ends of the button being practically flush with the ends of the shank. When the but-

ton is turned to the position shown in dotted lines, its tongues engage the grooves of the other pair, and are held thereby with the ends of the button overhanging the sides of the shank, so that the button prevents the removal of the curtain socket from the shank.

The shank has a limited endwise movement relatively to the base and button, and is pressed outwardly by a spring 23 interposed between the base and the head of the shank, the grooves of the shank being thus held yieldingly in engagement with the tongues of the button. When the button is turned, the inclined sides of its tongues acting on the inclined sides of the grooves 21, force the shank inwardly against the stress of the spring 23 until the movement of the button brings the tongues into alinement with the other pair of grooves in the shank, the spring then pressing the shank outwardly and causing the grooves to lock or retain the button against accidental rotary movement.

The shank is guided in its movements partly by the tubular stud 14 and partly by a shoulder 24 formed on the base, said shoulder surrounding the base of the tubular stud 14.

In the embodiment of the invention shown in Figs. 1 to 5, inclusive, the shoulder 24 is below the outer surface of the base, and bears on the external surface of the shank, while in the construction shown in Fig. 6, the said shoulder projects outwardly from the outer surface of the base, and bears on the internal surface of the shank. In either case, the outer end portion of the shank is guided by the tubular stud 14, and the inner end portion by the shoulder on the base, so that the shank cannot tip in any direction, although free to have a limited endwise movement.

The inner edge of the button is provided with recesses 25 which receive the outer end of the tubular stud, the latter projecting outwardly beyond the head of the shank 18, and bearing on the button.

In my improved fastener, there is no movement whatever of the button relatively to the base, excepting a rotary movement, the button being rigidly supported by the tubular stud and base against inward and outward movements, and against lateral movement in any direction, hence the button cannot yield to or be displaced by ordinary outward or sidewise pressures exerted upon it by or through the curtain.

It will be seen that by making the socket-engaging shank of the carriage curtain fastener movable endwise to lock and release the button, I am enabled to locate the spring which causes the locking engagement between the button and the shank wholly out

of contact with the button and its stem, and to so dispose said spring that its lateral projection from the center of the rotary movement of the button is reduced to the minimum, so that the base may be made much narrower than would be possible if the spring were attached directly to the stem and projected laterally therefrom, as is the case in all prior fasteners of this character, in which the button is confined against inward and outward movement relatively to the base. In such prior fasteners, the spring has been in the form of a resilient tongue projecting laterally from the stem of the button and engaging a detent on the base, the necessary length of the tongue and the distance between the detent and stem being such as to require a relatively wide base. A narrow base is desirable when the fastener is to be applied to a narrow support.

By making the base and shank of sheet metal, as here shown, I reduce to the minimum the cost of material, and at the same time produce a curtain fastener which has suitable strength and durability, and is composed of parts which are adapted to be conveniently assembled with the minimum expenditure of time and labor.

I claim:

1. A curtain fastener comprising a base formed of a single piece of metal provided with a rigid tubular stud, said stud being centrally located and integral with said base, a button having a stem rotatably mounted within said stud, means being provided to prevent relative longitudinal movement of said stem and said stud, a hollow shank surrounding said stud, a spring acting against said shank, means for preventing rotation of said shank with relation to said base, and coöperating interlocking devices carried by said shank and said button.

2. A curtain fastener comprising a base formed of a single piece of metal provided with a rigid tubular stud, said stud being centrally located and integral with said base, a button having a stem rotatably mounted within said stud, means being provided to prevent relative longitudinal movement of said stem and said stud, a hollow shank surrounding said stud, and provided with an annular recess to receive the free end of said stud, a spring acting against said shank, means for preventing rotation of said shank with relation to said base, and coöperating interlocking devices carried by said shank and said button.

In testimony whereof I have affixed my signature, in presence of two witnesses.

FRED S. CARR.

Witnesses:

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P. W. PEZZETTI.