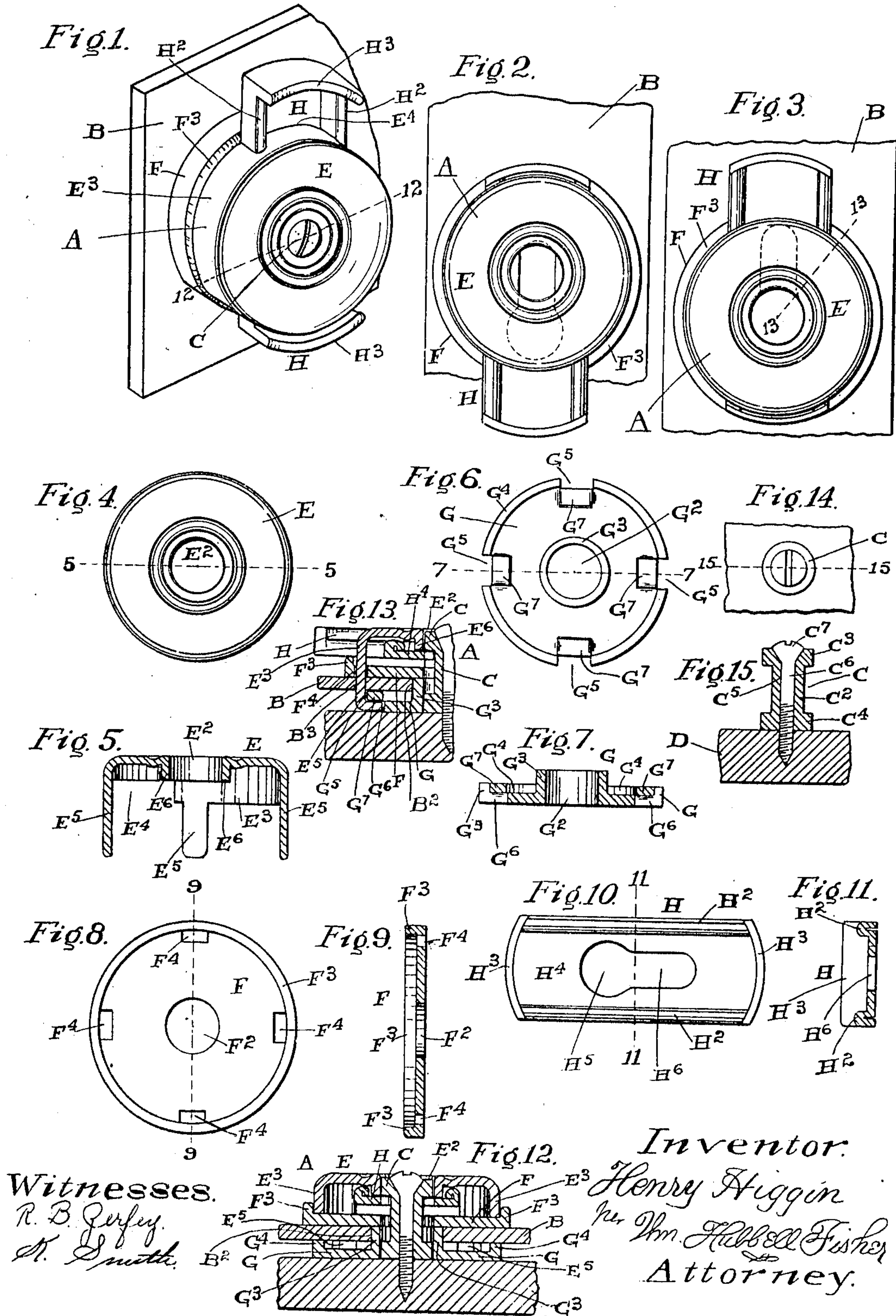


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CURTAIN FASTENER.
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Witnesses.

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CURTAIN-FASTENER.

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To all whom it may concern:

Be it known that I, HENRY HIGGIN, a citizen of the United States, and a resident of the city of Newport, in the county of Campbell and State of Kentucky, have invented certain new and useful Improvements in Curtain-Fasteners, of which the following is a specification.

The several features of my invention and the various advantages resulting from their use conjointly or otherwise will be apparent from the following description and claim.

One of the principal objects of my invention is to provide a curtain fastener for the curtains of various vehicles as travel at a rate of speed, such as automobiles, traction electric motor cars, and the like.

It is particularly valuable to such vehicles as are subject to frequently recurring forcible vertical thrusts and lateral thrusts. These thrusts, and also the great velocity of the currents of air and the intense pressure of the air against the rapidly moving vehicle, are powerful agents to disengage from the vehicle any attachment connected to the vehicle.

This curtain fastener is quickly and easily fastened. The act of fastening it requires no outlay of strength. The mode of fastening it is very simple and easily understood.

The fastener, when the curtain is fastened by it to the proper part of the vehicle is efficiently locked and can not be unlocked by the flapping or vibration of the curtain from any cause, nor by the vertical or side thrusts or jerks which the vehicle is compelled to make when passing over uneven surfaces, whether of street, road or other place.

The curtain fastener is a latching device, and it is divisible into two main parts, namely: the latch box and the post. The latch box and all the parts that compose it are usually attached to the curtain of the vehicle. The post is usually attached to a side or end of the vehicle. The latch box is adapted to allow the post to enter it and the latch to be slid in a given direction and thereby engage the post. Reversing the said direction in which the latch is slid operates to disengage the latch from the post, and permit the latch box with its curtain to be removed from the post.

I will now describe my invention in detail.

In the accompanying drawings making part of this specification, and in which similar letters of reference indicate corresponding parts,—Figure 1 is a view in perspective of a curtain fastener embodying my invention and showing the curtain and the latch box and the post, the latch box locked to the post. Fig. 2 is a front elevation of the latch box and the curtain of the said curtain fastener when the slidable latch is in the position it occupies when it engages the post. Fig. 3 is another front elevation of the said latch box, the latch being in the position it occupies when the latch does not engage the post, and therefore the fastener is unlocked and is free to be moved away from the vehicle, or to be applied to the post when it is desired to lock the curtain to the vehicle. Fig. 4 is a top view of the top or cap piece of the latch box. Fig. 5 is a vertical central section of this cap piece shown in Fig. 4, and taken in the plane of the dotted line 5, 5, of Fig. 4. Fig. 6 is a top view of the back plate of the latch box. Fig. 7 is a vertical central section of this back plate taken in the plane of the dotted line 7, 7, of Fig. 6. Fig. 8 is a top view of the bottom plate of the latch box. Fig. 9 is a vertical central section of this bottom plate taken in the plane of the dotted line 9, 9, of Fig. 8. Fig. 10 is a top view of the slidable latch. Fig. 11 is a vertical transverse section of this slidable latch, taken in the plane of the dotted line 11, 11, of Fig. 10. Fig. 12 is a vertical central section taken through the line 12, 12 of Fig. 1, of the latch box, and also of a portion of the curtain which carries the latch box, and of the wall or vehicle side to which the fastener is attached, and of the post to which the curtain is fastened, but showing the slidable latch as disengaged from the post. Fig. 13 is a vertical, central sectional view of one half of the parts shown in Fig. 12, this section being taken in the plane of the dotted line 13, 13, of Fig. 3. Fig. 14 is a top view of the post attached to a portion of the body or other part of the vehicle. Fig. 15 is a vertical, central transverse section of this post, taken in the plane of the dotted line 15, 15, of Fig. 14.

A indicates the latch box and the parts it contains.

B indicates the curtain to which the latch box is attached. This curtain may be of any suitable material.

C indicates the post.

5 D indicates a part of the vehicle to which the post is attached, and which supports the post. The latch box A preferably consists of four parts, namely: First:—a cap piece E; secondly:—a bottom piece or plate F; 10 thirdly:—a back piece or plate G; and fourthly:—a slidable latch H. The bottom piece F rests upon and against the curtain B. This bottom piece has a central opening F², which opening aligns with the opening B² 15 of the curtain. It is through this opening that the post C enters a latch box A. This bottom piece has a flange F³, preferably located at its outer edge. It is upon this flange F³ that the latch H slides. In this 20 bottom piece F are openings F⁴, F⁴, F⁴, F⁴. The cap piece E has an inner flange E⁶ forming a central opening E² to admit the post therein. It, this cap E, is provided with a downwardly extending outer vertical 25 flange E³. This flange E³ rests upon the bottom piece F inside of the flange F³ of that bottom piece F. This flange E³ of the cap E has two openings E⁴, E⁴, located at opposite sides of the circle described by said 30 flange. One such opening E⁴ is shown in Fig. 5, but as this figure is a section, the other duplicate opening on the opposite side of the cap is not shown, but as the formation of the parts of this cap are symmetrical, 35 this opening E⁴ may stand for either one of such openings. So also the opening E⁴ of the cap E, see Fig. 1, may be for either of said openings. The slidable latch H is located in these openings E⁴, E⁴, and moves 40 back and forth through them. This cap E is further provided with narrow extensions E⁵, E⁵, E⁵, E⁵, preferably four in number. These extensions E⁵ preferably extend down and respectively pass through the respective 45 openings F⁴ of the bottom piece F. After passing through said openings F⁴, and through openings B³ in the curtain, each extension E⁵ enters an adjacent recess G⁵ of the back piece G, and is then bent inwardly 50 (toward the center of the latch box A), forming a flange which latter enters a recess G⁶ in this back piece G. Each of these recesses G⁶ is overarched with a part G⁷ of the piece G, so that each flange of the cap 55 piece E is held down under its adjacent part G⁷ of the piece G. The back piece G as shown is underneath the curtain B. But this back piece G has a central opening G² to admit the post C. Around this opening 60 G² there is a flange G³ of the back piece G, and this flange G³ extends upward through the opening B² of the curtain and comes up against the bottom piece F. This flange G³ not only supports the bottom piece F, but 65 also forms a wall for a part of the central

opening through which the post C extends into the latch box A. The arched portions G⁷ respectively support the curtain B at the places where they occur, and while the flange G⁴ of the back piece G duly supports the 70 curtain B elsewhere. The curtain B is thereby securely held between the bottom piece F above and the back piece G below.

The slidable latch H has vertical side flanges H², H², preferably located at its re- 75 spective edges. It has also the end flanges H³, H³. The latter limit the extent of its backward and forward movement. As before mentioned, this latch rests upon the flange F³ of the bottom piece F and slides 80 thereon. The latch H is held down by the flange E⁶ of the cap piece E, which flange E⁶ extends down to the latch plate and is between and at its opposite sides close to the side flanges H², H² of the slide H. This 85 flange E⁶ is preferably located at the edge of the opening E² of said cap piece E. This flange E⁶ also is a guide which serves to keep the slide H in position. In this man- 90 ner the cap piece E holds all of the several parts of the latch box A together in position, and also holds the curtain in place in the latch box.

The post C is suitably connected to the body or other proper part of the vehicle, 95 and this part is generally indicated by the character D. The post has a head C³, which is of larger diameter or width than the shank C². The base C⁴ of the post is preferably enlarged to be a firmer support for 100 the post. The post might be provided with a screw shank in one piece with it, for connecting it to the piece D. Such shank being a common and well known means, is not shown, but the preferred mode of connecting 105 the post to the part D is as follows: I provide a passage C⁵ through the post C, and the top part of this passage is countersunk. In this passage C⁵, I place a screw C⁶ having a countersunk head, and screw the same 110 down into the part D as shown.

In the latch there is an elongated opening consisting of two dimensions. There is a large part H⁵ which is slightly larger than 115 the size of the head C³ of the post. There is a narrow part H⁶ smaller than the head C³ of the post but just large enough to admit the shank C² of the post.

The mode in which my invention operates is as follows: The latch box A being at- 120 tached in place on the curtain B, as shown, and it is desired to connect the curtain to the post, the latch H is slid to the position shown in Fig. 3. The latch box A is then 125 placed over and upon the post C, and the latter enters the central opening in the latch box A and passes through the opening H⁵ of the latch. The head C³ of the post C is now beyond or above the latch H. The latch H is now slid back, and the shank of 130

the post C enters the narrow portion H⁶ of the opening in the latch. Thus the latch box and the curtain are securely fastened to the vehicle.

5 To unlock the curtain fastener, one simply draws the latch back in the opposite direction from that in which he moved it when he locked the fastener.

10 It will be noted that the friction on the latch of those parts of the latch box which are adjacent to the latch is such that the latch will not slip from the position it is put in by the operator.

15 In addition to the important advantages already mentioned, I desire to note the following, viz.: the construction is one very economical of manufacture. It is very simple in construction; the several parts are readily assembled and quickly applied to the
20 curtain. I have also had in view the most convenient and cheapest material bringing the best resultants in manufacture, namely: sheet metal, and the construction is such that every portion of the box can be made out of
25 sheet metal, and by that efficient process known as stamping. Such process gives quite an advantage in obtaining a smooth finish, and saves labor. It enables the latch box to be made lighter in weight. It will

be borne in mind that castings are rough as 30 compared with sheet metal stamped, and would have to be milled to equal the face of stamped sheet brass. This milling process is very expensive, and for the manufacture of the article which I here present the extra 35 cost of it would be prohibitive of the successful introduction of my invention to the public, however useful my invention is in itself.

What I claim as new and of my invention 40 and desire to secure by Letters Patent, is:—

In a curtain fastener, a slidable latch having vertical side and end flanges to brace and stiffen the latch plate, a bottom plate upon which the latch slides, and a cap to fit over 45 and hold secure the latch, with notches in the cap and tongues between the notches to fit down over the flanges of the latch, with the tongues and side edges of the notches bearing on the latch to hold same with frictional contact whereby the latch will be held 50 in its adjusted position without the use of springs.

HENRY HIGGIN.

Attest:

HENRY A. FABER,
HORACE C. DRAKE.