S. H. HARRIS.

FASTENING DEVICE.

APPLICATION FILED JUNE 25, 1918.

1,302,918.

Patented May 6, 1919.

Fig. 1

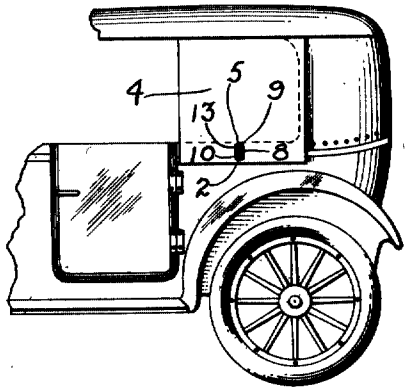


Fig. 2

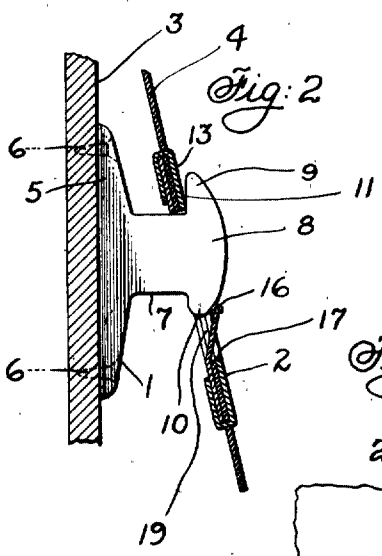


Fig. 3.

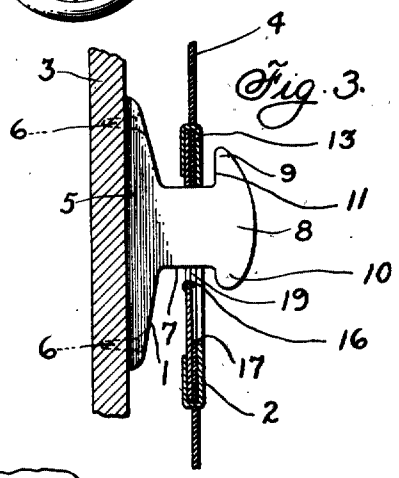
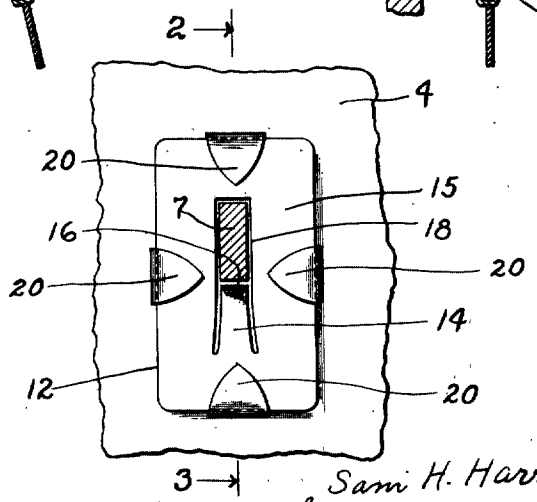


Fig. 4



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UNITED STATES PATENT OFFICE.

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FASTENING DEVICE.

1,302,918. Specification of Letters Patent. Patented May 6, 1919.

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To all whom it may concern:

Be it known that I, SAM H. HARRIS, a citizen of the United States, and a resident of the city, county, and State of New York, have invented an Improvement in Fastening Devices, of which the following is a specification.

My invention relates generally to fastening devices which may be used to detachably hold in light- or rain-excluding position, for example, the curtains of automobiles or the like. While, of course, the devices of my invention are not limited to their use as curtain fasteners, it is to be understood that they find particularly useful application in this connection.

It is one of the objects of the present invention to provide in devices of the general character indicated, such a construction and arrangement of parts as will render the engagement and disengagement of the fasteners easy and convenient. It is also an object of my invention to generally improve the construction of devices of this character so as to render the same more efficient and certain in operation. These and other objects will be in part apparent and in part pointed out hereinafter.

For purposes of illustration I have, in the accompanying drawings, shown a preferred embodiment of my invention, and therein:—

Figure 1 is a plan view showing the fastener embodying my invention and applied to and in place on a curtain for automobiles and the like;

Fig. 2 is a side view of the fastener being applied;

Fig. 3 is a side view showing the fastener applied;

Fig. 4 is a plan view of the rear of the fastener as applied to a curtain, for example.

The fastener comprises, broadly, a catch member 1 and a coöperating spring member 2. While either the catch member or the spring member may be attached to the body 3 of the automobile or the like, and the remaining member attached to the curtain 4, for example, I prefer, for greater ease of manipulation, to apply the catch member 1 to the car body 3 and the spring member 2 to the curtain 4.

The catch member 1 comprises, preferably, a base portion 5 through which pass the screws or other fastening means 6 which serve to attach the catch member 1 to the car or similar body or support 3. Attached to the base portion 5, preferably by being made integral therewith, is the shank or neck portion 7, of elongated, preferably rectangular, cross section, carrying the head portion 8. The head portion 8 comprises, in a preferred form, a catch portion 9 and a cam portion 10. Preferably the catch portion 9 is comparatively long and is provided with the inner substantially flat edge 11. The cam portion 10, which serves as a combined cam and catch means for the spring member 2, as will hereinafter be set forth, is preferably rounded so as to facilitate its engagement and disengagement with the spring member 2.

It is of course apparent that the portions 9 and 10 may be interchanged with a consequent inversion of the spring member 2, although I prefer to arrange the parts as illustrated.

The spring member 2 comprises, in a preferred form, the spring element 12 and the retainer element 13. The spring element 12 consists, preferably, of a piece of spring metal, preferably in the form of a substantially flat leaf spring 14, which may be associated with the reinforcing frame or member 15 for a purpose subsequently to be described. For increased ease in manufacturing these parts, I prefer to stamp the parts 14 and 15 of a single piece of spring metal. In order to render more convenient the application of the spring member 2 to the catch member 1, I prefer to form a small loop 16 at the end of the spring 14. The retainer element 13 has formed therein a longitudinal slot 17 substantially coinciding with the slot 18 of the spring element 12 and the slot 19 of the curtain or similar device 4. Attached to the element 13, preferably by being made integral therewith, are the ears or lugs 20. The spring element 12 is placed on the inside of the curtain 4 with the spring 14 extending upwardly, and the slots 18 and 19 substantially coinciding. The retainer element, preferably made of easily bendable metal, is now applied to the outside of the curtain 4, the ears 20 being, for this purpose, bent so as to be substan-

tially at right angles to the plane of the retainer element 13, and the slot 17 coinciding with the slots 18 and 19. The ears 20 are now caused to penetrate the material of the curtain 4 and are then bent, as shown, so as to embrace and hold in position the spring element 12.

In use the device may be manipulated as follows: The curtain or other part 4 carrying the spring member 2 is drawn so that the spring member 2 will be substantially in alinement with the catch member 1. The spring member 2 is now manipulated so that the catch portion 9 is made to enter the slot in the spring member 2, after which the spring member 2 is pivoted so that the spring 14 will ride past the cam portion 10. The fastener is removed by reversing the motions just described for the application of the fastener. Due to the elongated, and preferably rectangular cross section of the shank portion 7, and the substantially similar character of the coinciding slots 17, 18 and 19, the spring member 2 cannot be rotated on the catch member 1. Furthermore the head portion 8 is so proportioned that it cannot be withdrawn from the unobstructed portion of the coinciding slots 17, 18 and 19 without being manipulated in the manner heretofore described. Accordingly, the fastener just described, constituting a preferred embodiment of my invention, is efficient and certain in its action.

It is, of course, to be understood that my invention is not to be limited to the particular embodiment shown and described.

What I claim is:

1. In a fastening device, a catch member comprising a shank portion of elongated cross section, and a transverse head portion attached to said shank portion and comprising a catch member and a cam member at the respective ends of said head portion; in combination with a spring member comprising supporting means provided with an elongated slot therein adapted to coöperate with said shank portion and its associated head portion, and a spring located within said slot so as to partially and yieldingly obstruct the same.

2. In a fastening device, a catch member comprising a base portion, a shank portion of elongated cross section attached to said base portion, and a transverse head portion attached to said shank portion and comprising a catch portion and a cam portion at the respective ends of said head portion; in combination with a spring member comprising supporting means provided with an elongated slot therein adapted to coöperate with said shank portion and its associated head portion, and a spring located within said slot so as to partially and yieldingly obstruct the same.

3. In a fastening device, a catch member comprising a shank portion of substantially rectangular cross section, and a transverse head portion attached to said shank portion and comprising a catch member and a cam member at the respective ends of said head portion; in combination with a spring member comprising supporting means provided with an elongated slot therein adapted to coöperate with said shank portion and its associated head portion, and a spring member located within said slot so as to partially and yieldingly obstruct the same.

4. In a fastening device, a catch member comprising a shank portion of substantially rectangular cross section, and a transverse head portion attached to said shank portion and comprising a catch member and a cam member at the respective ends of said head portion; in combination with a spring member comprising supporting means provided with an elongated slot therein attached to coöperate with said shank portion and its associated head portion, and a spring member located within said slot so as to partially and yieldingly obstruct the same.

5. In a fastening device, a catch member comprising a shank portion of elongated cross section, and a transverse head portion attached to said shank portion and comprising a catch member and a cam member at the respective ends of said head portion; in combination with a spring member comprising a reinforcing member provided with an elongated slot therein adapted to coöperate with said shank portion and its associated head portion, a substantially flat spring associated with said reinforcing frame and positioned so as to partially and yieldingly obstruct said slot, and a retainer member associated with said reinforcing member and having an opening therein substantially corresponding to said slot.

6. In a fastening device, a catch member comprising a base portion, a shank portion of elongated cross section attached to said base portion, and a transverse head portion attached to said shank portion and comprising a catch portion and a cam portion at the respective ends of said head portion; in combination with a spring member comprising a reinforcing member provided with an elongated slot therein adapted to coöperate with said shank portion and its associated head portion, a substantially flat spring associated with said reinforcing frame and positioned so as to partially and yieldingly obstruct said slot, and a retaining member associated with said reinforcing member and having an opening therein substantially corresponding to said slot.

7. In a fastening device, a catch member comprising a shank portion of elongated cross section, and a transverse head portion attached to said shank portion and comprising a catch member and a cam member

at the respective ends of said head portion; in combination with a spring member comprising a reinforcing member provided with an elongated slot therein adapted to cooperate with said shank portion and its associated head portion, a substantially flat spring integral with said reinforcing frame and positioned so as to partially and yieldingly obstruct said slot, and a retainer member associated with said reinforcing member provided with a plurality of integral attaching members and having an opening therein substantially corresponding to said slot.

8. In a fastening device, a catch member comprising a base portion, a shank portion of elongated cross section attached to said base portion, and a transverse head portion attached to said shank portion and comprising a catch portion and a cam portion at the respective ends of said head portion; in combination with a spring member comprising a reinforcing member provided with an elongated slot therein adapted to coöperate with said shank portion and its associated head portion, a substantially flat spring integral with said reinforcing frame and positioned so as to partially and yieldingly obstruct said slot, and a retainer member associated with said reinforcing member, said retainer member being provided with attaching means and having a slot therein substantially corresponding to said first-mentioned slot.

9. In a fastening device, a catch member comprising a shank portion of elongated cross section, and a transverse head portion attached to said shank portion and comprising a catch member and a cam member at the respective ends of said head portion; in combination with a spring member comprising a reinforcing member provided with an elongated slot therein adapted to coöperate with said shank portion and its associated head portion, a substantially flat spring associated with said reinforcing frame and positioned so as to partially and yieldingly obstruct said slot, said spring being provided with a looped portion at its free end, and a retainer member associated with said reinforcing member and having an opening therein substantially corresponding to said slot.

10. In a fastening device, a catch member comprising a shank portion of elongated cross section, and a transverse head portion attached to said shank portion and comprising a catch member and a cam member at the respective ends of said head portion; in combination with a spring member comprising a reinforcing member provided with an elongated slot therein adapted to coöperate with said shank portion and its associated head portion, a substantially flat spring integral with said reinforcing frame and positioned so as to partially and yieldingly obstruct said slot, said spring being provided with a looped portion at its end, and a retainer member associated with said reinforcing member, said retainer member being provided with a plurality of integral attaching members and having an opening therein substantially corresponding to said slot.

11. In a fastening device, a catch member comprising a shank portion of elongated cross section, and a transverse head portion attached to said shank portion; in combination with a spring member comprising supporting means provided with an elongated slot therein adapted to coöperate with said shank portion and its associated head portion, and a spring located within said slot so as to partially and yieldingly obstruct the same.

12. In a fastening device, a catch member comprising a shank portion of substantially rectangular cross section, and a transverse head portion attached to said shank portion; in combination with a spring member comprising supporting means provided with an elongated slot therein adapted to coöperate with said shank portion and its associated head portion, and a spring member located within said slot so as to partially and yieldingly obstruct the same.

In testimony whereof, I have signed my name to this specification this 18th day of June, 1918.

SAM H. HARRIS.