May 15, 1923. 1,454,890

L. B. HARPE

SNAP FASTENER

Original Filed March 27, 1920

Fig-1-

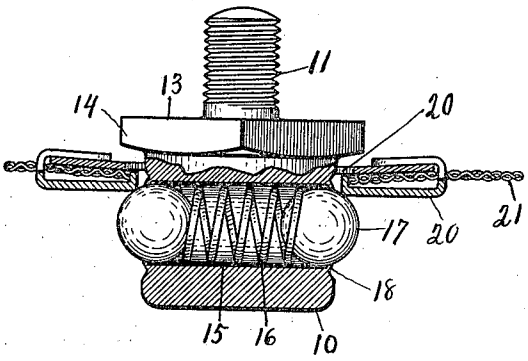


Fig-3-

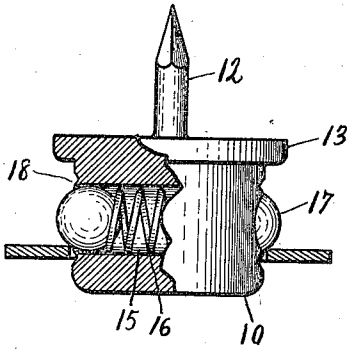


Fig-2-

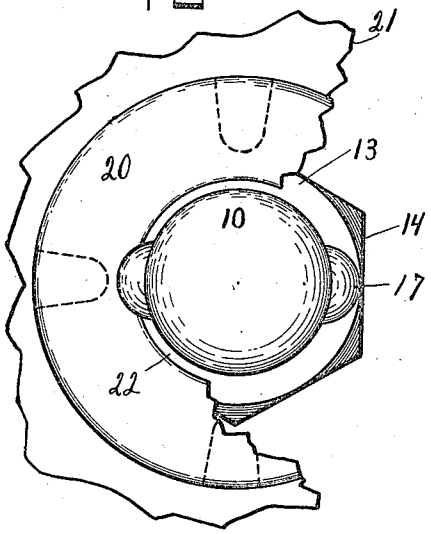


Fig-4-

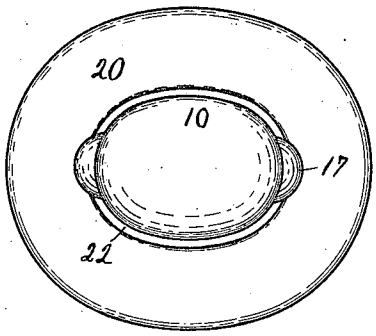
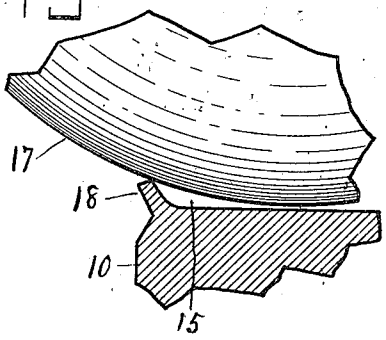


Fig-5-



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UNITED STATES PATENT OFFICE.

LARRABEE B. HARPE, OF LOUISVILLE, KENTUCKY.

SNAP FASTENER.

Application filed March 27, 1920, Serial No. 369,427. Renewed April 2, 1923.

To all whom it may concern:

Be it known that I, LARRABEE B. HARPE, a citizen of the United States, residing at Louisville, county of Jefferson, and State of Kentucky, have invented a new and useful Improvement in Snap Fasteners, of which the following is a specification.

This invention relates to snap fasteners adapted to be used in connection with the curtains of vehicles, although it may be found serviceable in other connections.

An object of this invention is to provide a device which may be easily attached to the body of an automobile, or other vehicle, or other relatively stationary object, to or with which a relatively movable object, such as a curtain or shade may readily be attached or connected and as easily released therefrom.

A further object is the provision of a device as characterized which will be economical in construction, easily installed, facile in operation and durable in service.

With the foregoing and other objects in view, the invention consists of the novel construction and arrangement of parts illustrated in the accompanying drawing, which forms a part of this specification, wherein is set forth an embodiment of the invention, but it is to be understood that such changes and modifications may be resorted to as come within the scope of the appended claims.

In the drawing wherein similar reference characters designate like parts in the several views, Figure 1, is a view of an embodiment of the invention partly in section and partly in elevation with a curtain secured thereon: Fig. 2, a top plan view of Fig. 1, with parts broken away: Fig. 3, a side elevation with parts broken away: Fig. 4 a top plan view of Fig. 3: Fig. 5, a detached detail, partly in section on an enlarged scale.

This invention comprises a stud, or body —10—, which may be circular in cross section as shown in Figs. 1 and 2, or elliptical as shown in Figs. 3 and 4. The body is provided with suitable means of attachment such as an axial projection, or stem —11— screw threaded for attachment to metal, or a pointed stem —12— adapted to be driven into wood. A flange base —13— is disposed about the inner end of the body, this base may be provided with facets —14— to permit of the application of a wrench when the stem is provided with screw threads. The body is provided intermediate its length with a transverse bore —15—. In the elliptic body, the bore would be on the longer axis thereof. Within the bore, a resilient element, such as a coil spring —16— is placed. A ball —17—, preferably of polished steel, is placed in each end of the bore, bearing against the spring. The balls are of such size as to fit snugly within the bore and yet move freely therein. After the balls are in place, a suitable tool is applied to each end of the bore and the edge thereof upset or driven inward forming a lip —18— which projects inward beyond the wall of the bore and serves to restrain the balls, which protrude less than half of their diameter beyond the surface of the stud. In service, a rigid member, such as an eyelet —20— affixed to the fabric of a curtain —21—, and having a hole —22— corresponding to the cross section of the stud, which will freely fit thereover, is placed upon the stud with its inner edge resting against the balls. A sharp push, longitudinally relative to the stud will cause the balls to recede within the bore, and permit the eyelet to pass, the balls immediately springing back and opposing withdrawal of the eyelet.

Having thus described my invention so that those skilled in the art pertaining thereto can make and use the same, I claim:

1. In a device as characterized, a stud having a diametrical bore, extending entirely therethrough a ball in each end of and projecting from said bore, a coil spring in said bore bearing against said balls to force them apart and means to retain said balls within said bore.

2. In a device as characterized, a stud, an attaching element extended longitudinally therefrom, said stud having a transverse bore extending entirely therethrough, a pair of balls in said bore protruding from each end thereof, a coil spring positioned between and exerting pressure on said balls, and lips integral with the stud and projecting inwardly at each end of the bore to limit the protrusion of the balls.

LARRABEE B. HARPE.