

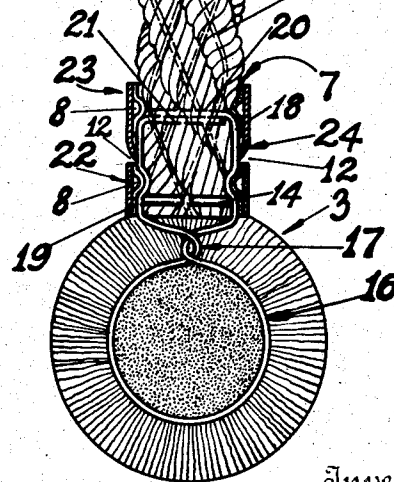
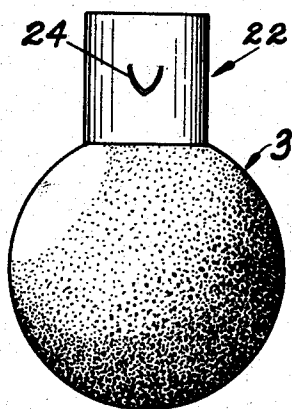
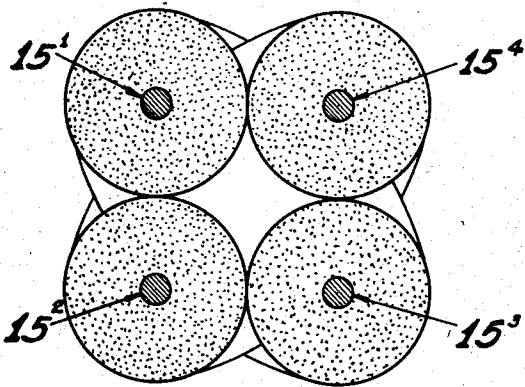
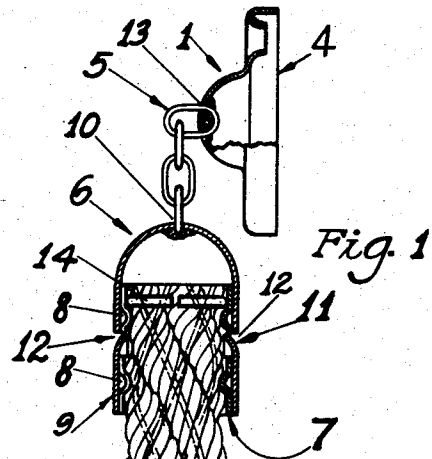
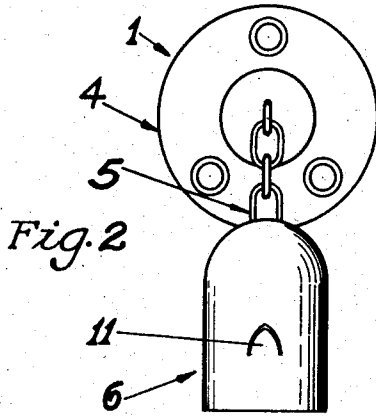
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R. BRODER

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AUTOMOBILE HAND GRIP

Filed July 11, 1929



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UNITED STATES PATENT OFFICE

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AUTOMOBILE HANDGRIP

Application filed July 11, 1929. Serial No. 377,464.

This invention relates to hand grips used in passenger automobiles and particularly for the closed body or sedan types of automobiles, wherein one of these devices is mounted on each interior side of the body so as to be gripped by a person entering or leaving an automobile and thus steady the person's movement to and from a seat.

An object of this invention is to provide a reenforced and resilient hand grip body portion or cord assembly which will retain its elongated linear form indefinitely without any distortion in the fabric cords and which will still provide the necessary flexibility.

Another object of this invention is to provide a hand grip body structure comprising a plurality of twisted fabric cords and a spring wire within each cord and the fabric cords twisted together as is customary in the art and resulting in a plurality of open coil springs positioned concentrically between each other's coils and running in line with each other similar to a multiple screw thread and functioning in unison to provide and maintain an element of resiliency and resistance to longitudinal deformation after repeated use, and to maintain the original shape of the convolutions in the cords and to prevent unwinding of the twisted cords.

Another object of this invention is to provide means for fastening an ornamental grip member or pompon at one end and for fastening a bracket at the other end of the reenforced hand grip body portion or cord assembly, and so arranged that the cord assembly may swivel and readily return to its vertical position after use.

With the above and other objects in view the invention will be hereinafter more particularly described, and the combination and arrangement of parts will be shown in the accompanying drawings and pointed out in the claims which form part of this specification. It being understood that the embodiment herewith shown is merely illustrative and that various changes in the form, proportion, size and minor details of construction within the scope of the claims, may be

resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Reference will now be had to the drawings; wherein like numerals of reference designate corresponding parts throughout the several views, in which:

Figure 1 is a side elevation of the hand grip partly in section and shows the wire springs within the twisted cords.

Figure 2 is a front view of the attaching end of the hand grip.

Figure 3 is an enlarged section of the body portion or cord assembly.

Figure 4 is a front view of the pompon end of the hand grip.

The illustrated embodiment of the invention comprises an attaching device 1, a body portion or cord assembly 2, and an ornamental grip or pompon 3. The attaching device 1 comprises a bracket 4 having a number of screw holes therein, a swivelling member 5 and a clamping member 6. A split bushing 7 having a plurality of corrugations 8, 8, is pressed in place at the attaching end of the body portion or cord assembly and engages the twisted cords. A cap 9 having a small aperture 10 at the closed end thereof is placed on the split bushing and prevents the bushing from opening up and becoming disengaged from the cord assembly 2. The clamping member 6 thus consists of the bushing 7, and the cap 9. The cap is secured to and interlocks with the split bushing 7, by means of a number of grip members 11, 11, on the cap. These members snap in place in corresponding apertures 12, 12, in the split bushing 7. When the cap 9 is in position, the split bushing 7 is hidden therein. The swivelling member or chain 5 has one end thereof entering the aperture 10 in the cap 9, the other end enters an aperture 13 in the bracket 4, and these ends are secured to the cap and bracket by soldering or any other suitable means. The bracket 4 is thus connected to the clamping member 6 and serves to insure a swivelling connection whereby the hand grip may swing freely and readily return to its vertical position after use.

The body portion or cord assembly 2 com-

prises a plurality of twisted flexible cords. The cords of the body portion are prevented from unravelling by means of a binding member 14 coiled around each end of the cord assembly and thus holding the individual cords in their proper twisted positions. In the usual practice in the art, a number of these twisted cords are twisted together to form a rope-like cord assembly, as best shown in Figure 1, and while such a cord assembly is flexible and allows movement in any direction, it is desirable that an element of resiliency be imparted to the cords so as to insure their return to their normal elongated condition without any distortion in the fabric cords. For this purpose a spring wire has been incorporated within each cord and when the cord assembly is fabricated of four cords in accordance with the usual twisting process, the originally straight spring wires in the cords are coiled up and form four open-coil springs positioned concentrically between each other's coils and running in line with each other similar to a multiple screw thread. Each coil spring flexes in conjunction with all the other springs as a unit and functions in unison to provide an element of resiliency and resistance to longitudinal deformation and to maintain the original elongated straight line form of the cord assembly after repeated use. Each spring wire assumes the exact shape of the cord wherein it is housed and reinforces the cord along every point of its twisted convolutions and serves to maintain the shape of the convolutions. As best shown in Figure 1, these wires are designated respectively 15¹, 15², 15³, 15⁴.

Referring to Figure 3, it will be noted that the spring wires 15¹, 15², 15³, 15⁴, are located some distance away from the centre of the cord assembly and that the spring wire coils are positioned along a circle drawn through the centers of the four cords. The coils maintain this central position and prevent any unwinding of the twisted cords.

As best shown in Figure 1, the pompon 3 is of the usual ball shaped form and has a circular connecting member 16, which circumscribes and grips the pompon. The ends of the connecting member are twisted and drawn up tight at the point 17 on the pompon. The two ends 18, 19 continue longitudinally on opposite sides and parallel to the cord assembly 2. These parallel continuations are bent to form right angular extensions 20, 21, which enter the cord assembly and extend through to the opposite respective sides thereof, and overlap each other. The member 16 may be made out of a wire.

A split bushing 7, having a plurality of corrugations 8, 8, is pressed against the ends 18, 19 of the wire, and clamps them to the cord assembly and a sleeve 22 is placed on the split bushing and is secured thereto by means of a number of grip members 24, 24.

These members snap in place in corresponding apertures 12, 12, in the split bushing 7.

When the sleeve 22 is in position, the split bushing is hidden therein.

It will thus be noted that the clamping member 23 for the pompon has the same appearance and operates in substantially the same manner as the clamping member 6 for the attaching device.

In the illustrations, the body portion or cord assembly is shown as made up of four cords. When more cords are used, it may be desirable in order to prevent unnecessary stiffness of the cord assembly, to place the reinforcing spring wires in only four of the cords of an eight cord assembly, etc., and I claim such a modification as within the scope of the present invention.

When a non-reinforced hand grip is in actual use there is a tendency to distort the cord assembly and to destroy its original straight line form. In hand grips of my design, the re-enforcing springs return when flexed and return the cord assembly to its original elongated form indefinitely.

It is thus readily seen that my re-enforced hand grips are resilient and serve: First, to maintain the original elongated straight line form; second, to maintain the shape of the convolutions; and third, to prevent unwinding of the twisted cords.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A body portion or cord assembly for a vehicle hand grip, comprising a plurality of twisted cords having a spring wire within each cord and the said plurality of cords and wires twisted together in a rope-like assembly, each spring wire formed of the same convolutions as its respective cord and forming a coil spring to maintain the shape of the respective convolutions and to impart resiliency to said hand grip.

2. A body portion or cord assembly for a vehicle hand grip, comprising a plurality of twisted cords, some of the cords having reinforcing spring wires therein, and the wires twisted together with the cords to form coil springs in the cord assembly for imparting resiliency to said assembly.

3. A hand grip for vehicles comprising a body portion or cord assembly containing a plurality of twisted fabric cords, a resilient spring means within each cord, a bracket secured at one end and an ornament or pompon secured at the other end of said cord assembly.

4. A hand grip for vehicles comprising a body portion of twisted fabric cords, resilient reinforcing spring means within each cord and of the same convolutions as the body portion, binding means at each end of said body portion to prevent unravelling of the twisted materials, a bracket secured in swiveling junction.

tion with one end and an ornament or pompon secured at the other end of said body portion.

5. A hand grip for vehicles comprising a body portion of a plurality of coiled fabric cords, a resilient coil spring within each cord, binding means to prevent unravelling of the cords and springs, corrugated clamping members to grip said body portion at each end respectively, a swivelling attaching device secured at one end and an ornament or pompon secured to the corrugated clamping member at the opposite end of said body portion.

6. An attaching device for a vehicle hand grip, comprising a clamping member, a cord assembly, and a bracket secured in swivelling junction with the said clamping member on said cord assembly, said clamping member consisting of engaging means for said cord assembly and an interlocking enclosure for said engaging means.

7. In combination, an attaching device for a vehicle hand grip, a cord assembly therefor, a binding member at each end of said cord assembly, a clamping member comprising a corrugated split bushing to grip the said cord assembly and an interlocking cap on the split bushing, a bracket and a swivelling member connecting the bracket and clamping member on said cord assembly.

8. In combination, a pompon, a cord assembly therefor, a connecting member circumscribing said pompon, the ends of said connecting member being twisted at the pompon and continued parallel to the cord assembly and entered into the cord assembly on opposite sides thereof, and means for clamping the said parallel continuations to the cord assembly.

9. In combination, a pompon or grip member, a cord assembly therefor, a binding member at the pompon end of the cord assembly, a connecting member circumscribing and gripping said pompon, the ends of said connecting member being twisted at the pompon and continued on opposite sides and parallel to the cord assembly and entered into the cord assembly in right angular relation thereto, a split bushing for clamping the parallel continuations of the connecting member to said cord assembly and a sleeve on said split bushing.

10. In combination, a pompon, a reenforced twisted cord assembly therefor, a circular connecting member circumscribing and gripping said pompon, the ends of the connecting member being twisted at the pompon and continued longitudinally on opposite sides of the cord assembly and entered into the cord assembly in right angular relation thereto, the said right angular end portions of the connecting member overlapping each other and extending through to the opposite respective sides of the cord assembly, a corrugated split bushing to clamp the said longitudinal continua-

tions to the cord assembly and an interlocking sleeve on the split bushing.

Signed at New York in the county of Bronx and State of New York, this 6th day of July, A. D. 1929.

REUBEN BRODER.

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