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E. D. BARTON
ROPE AND STRAP FASTENER

Filed May 26, 1924

Fig. 1.

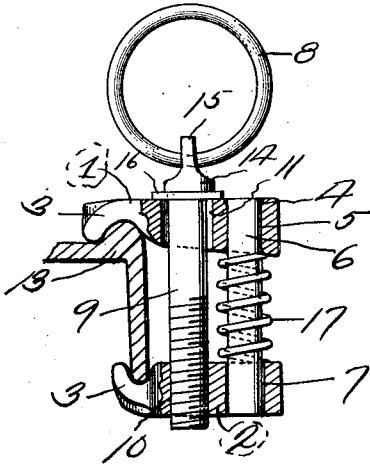


Fig. 2.

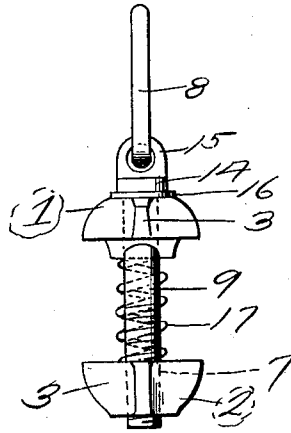


Fig. 3.

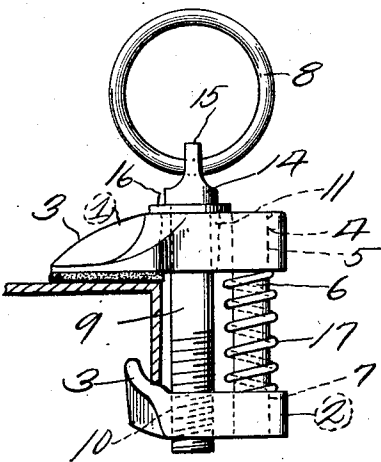
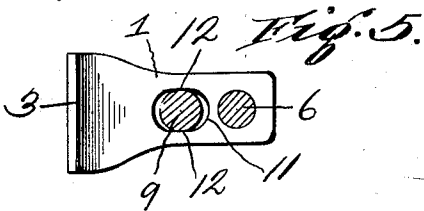
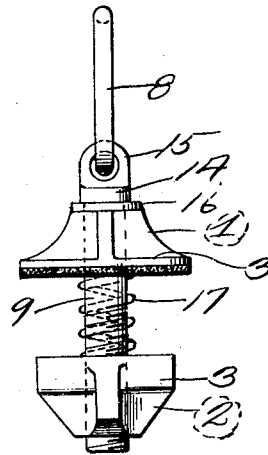


Fig. 4.



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UNITED STATES PATENT OFFICE.

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ROPE AND STRAP FASTENER.

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To all whom it may concern:

Be it known that I, EDWARD D. BARTON, a citizen of the United States, residing at Canon City, in the county of Fremont, State of Colorado, have invented a new and useful Rope and Strap Fastener; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to rope and strap fasteners, and has for its object to provide a device of this character comprising a clamp adapted to be secured to a running board or other portion of an automobile, and to which a rope or strap may be attached for securing packages and the like on the automobile. Clamps or fasteners of this character as at present constructed comprise jaws movable towards each other by means of a bolt extending through an aperture 1 of the jaws and threaded in the other jaw, however it has been found that where side strain is applied to the clamp, all the strain comes on the bolt in a manner whereby the bolt is bent or the threads injured, and to obviate this difficulty the clamp has one of its jaws provided with a relatively hard steel pin, which pin is slidably mounted in an aperture of the other jaws and receives the strain, incident to the clamping operation, and the strain on the clamp as a whole.

A further object is to provide an expansible spring around the hard steel guide pin, and interposed between the jaws and forming means for forcing the jaws apart when the clamping screw is unscrewed, thereby allowing the device to be easily handled and applied or removed.

A further object is to provide an elongated aperture in one of the jaws and through which aperture the bolt extends, said elongated aperture allows the upper end of the bolt to work forwardly during the tightening operation when the clamp is applied to a running board, fender or the like.

With the above and other objects in view the invention resides in the combination and arrangement of parts as hereinafter set forth, shown in the drawing, described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawing:—

Figure 1 is a vertical longitudinal sectional view through the plant showing the same applied to a portion of a running board.

Figure 2 is a front elevation of the clamp. Figure 3 is a side elevation of a clamp showing a modified form of jaw for attaching to a fender.

Figure 4 is a front elevation of the clamp shown in Figure 3.

Figure 5 is a bottom plan view of the upper clamping jaw shown in Figure 3.

Referring to the drawing, the numeral 1 designates the upper jaw of the clamp, and 2 the lower jaw. The jaws 1 and 2 may have their gripping ends 3 of any shape to conform to various types of running boards, fenders or other parts of automobiles, and applicant does not limit himself to the specific form of the jaw at its gripping end for this purpose. The jaw 1 has secured by welding or swaging at 4 in an aperture 5 at its outer end, a relatively hard steel guide pin 6, which is disposed at a right angle to the jaw 1, and has its lower end slidably mounted in an aperture 7 of the lower jaw 2. The guide pin 6 not only serves as guiding means for guiding the jaws 1 and 2 towards and away from each other, but also serves to receive the strain when a rope or strap is attached to the ring 8 carried by the clamping bolt 9, and to relieve the strain on said clamping bolt, and prevent bending of the bolt 9. Clamping bolt 9 is threaded at 10 to the lower jaw 2 and its upper end extends through an elongated aperture 11 in the upper jaw.

The opposite sides of the bolt 9 engage the opposite sides of the aperture 11 at 12 as clearly shown in Figure 5, therefore it will be seen that when the clamp is disposed on a running board as shown at 13 in Figure 1, the bolt is braced and held when side strain is applied thereto, at which time the guide pin 6 receives the strain in combination with the jaw ends 3. The upper end of the bolt 9 is provided with a head 14 in an apertured ear 15 of which the ring 8 is disposed, however interposed between the head 14 and the upper side of the jaw 1 is a washer 16, and on which washer the head 14 rotates during the tightening operation. It has been found during the tightening operation when the bolt 9 is rotated, the head 14 will ride slightly towards the end 3 of the jaw 1 incident to a slight

looseness in the aperture 7 of the jaw 2, through which the hard steel guide pin 6 extends, therefore during the clamping operation there is no side strain transversely or longitudinally on the bolt 9. Interposed between the outer ends of the jaws 1 and 2 and surrounding the guide pin 6 is a coiled spring 17, which spring is an expansible one, and consequently when the bolt 9 is unscrewed the jaws 1 and 2 are forced apart, and when said bolt is tightened, said spring is compressed, consequently when the clamp is being removed from the running board, fender, or other support, the jaws of the clamp will be forced apart thereby facilitating a removal operation.

From the above it will be seen that a rope or strap fastener is provided for automobiles, which fastener is simple in construction, may be easily and quickly applied to a running board or the like, and one wherein strain, incident to the clamping operation, is disposed on the hard steel guide pin and relieved from the bolt, as far as side strains are concerned. It will also be seen that the jaws will be positively forced apart by the coiled springs surrounding the guide pin, and will insure an accurate guiding of the pin and maintain the jaws in parallel relation during a clamping or unclamping operation.

The invention having been set forth what is claimed as new and useful is:—

1. A device of the character described comprising a jaw, a guide pin rigidly secured to the outer end of said jaw and disposed at substantially a right angle thereto, a second jaw cooperating with the first mentioned jaw, said guide pin being slidably mounted in an aperture at the outer end of the second jaw, a bolt threaded in the second mentioned jaw and in parallel relation to the guide pin, said bolt extending through a longitudinally elongated aperture in the first mentioned jaw, a head carried by said

bolt and cooperating with the outer side of the first mentioned jaw and a spring surrounding the guide pin and interposed between said jaws.

2. The combination with a clamping member of the character described and comprising cooperating jaws in parallel relation, a bolt threaded through one of said jaws and extending through a longitudinally elongated aperture in the other jaw, means carried by said bolt for receiving a stay, of a guide pin carried by one of the jaws rigidly and on which the other jaw is slidably mounted and an expansible coiled spring surrounding the guide pin and interposed between the jaws.

3. The combination with a clamp of the character described and comprising cooperating parallel jaws, a bolt threaded through one of the jaws and extending through a longitudinally elongated aperture in the other jaw, of means carried by the jaws and cooperating whereby side strain will be relieved from the bolt when in use and the bolt at one of its ends will ride inwardly on the outer side of one of the jaws when the bolt is tightened.

4. The combination with a clamp comprising cooperating parallel jaws, a bolt extending through one of said jaws and threaded through the other jaw and forming means for forcing said jaws towards each other, of guiding and strain receiving means, said means comprising a relatively strong guide pin rigidly mounted on one of the jaws in parallel relation to the bolt, and an expansible spring surrounding the guide pin and interposed between the jaws.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD D. BARTON.

Witnesses:

J. H. PUTNEY,
GEO. BLIESENICK.