

UNITED STATES PATENT OFFICE.

JOHN J. O'CONNELL, OF LIMA, NEW YORK.

FASTENING DEVICE.

No. 885,171.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed September 27, 1907. Serial No. 394,809.

To all whom it may concern:

Be it known that I, JOHN J. O'CONNELL, of Lima, Livingston county, New York, have invented certain new and useful Improvements in Fastening Devices, of which the following is a specification.

My invention relates to fastening devices designed particularly for use in connection with the side curtains of vehicles of all kinds, and the object of the invention is to improve the device shown and described in Letters Patent of the United States issued to me April 16, 1907, No. 850,599.

My invention consists generally in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a front view illustrating the application of my invention to the side curtains of a vehicle. Fig. 2 is an edge view of the same. Fig. 3 is a sectional view illustrating the manner of separating the parts of the fastening device. Fig. 4 is a sectional view through the socket portion of the device. Fig. 5 is a similar view with the shank removed from the socket.

In the drawing, 2 represents a portion of the buggy top or quarter, and 3 a portion of one of the side curtains. 4 is a plate secured by screws 5 to the top 2 and having a lug 6 formed thereon and projecting outwardly in a plane substantially at right angles to the plane of the supporting plate 4. This lug 6 has a cup shaped socket 7 formed therein and a slot 8 terminating in a circular hole 9 extending vertically through the bottom of the socket 7. The other member of the fastening device consists of a plate 10 that is secured to the curtain 3 and provided with an upwardly extending shank 11 which is substantially circular in cross section and terminates in a head 12 that is formed to fit within the socket 7 and rest snugly on the bottom thereof. The shank and head are so formed that vertical movement of the shank is permitted in the hole 9 but outward movement in a horizontal plane which would tend to separate the fastening devices, is prevented.

When it is desired to separate one member of the fastening device from the other the plate 10 is swung outwardly, the head 12 forming a pivot therefor and the shank 11 passing freely through the slot 8 until the head is entirely disengaged from the socket. This movement is indicated in Fig. 3. In my

former patent it was necessary to rotate the shank a quarter turn before such movement or rotation could take place. I have found, however, that in many instances the fastening device will be sufficiently secure if the parts are separable merely by swinging the lower section outwardly and upwardly until its shank is withdrawn from the slot 8. Such movement of the parts cannot take place accidentally and the separation can be effected a little more quickly than where it is necessary to partially rotate the shank before disengaging it from its socket.

To prevent the shank from becoming accidentally disengaged from the socket I prefer to provide a groove or recess 13 extending around the inner surface or face of the socket and adapted to receive a spring 14 which has ends 15 fitting within recesses 16 in position to be engaged by the shank and compressed sufficiently to allow the withdrawal of the shank from the socket. Normally, however, the throat or passage between the ends of the spring will be too narrow to allow the passage of the shank until the spring ends are put under compression.

This device is designed for use as a fastener on buggy and automobile tops and the addition of the spring herein described renders the device particularly efficient for use on horse blankets and for other purposes where a fastener that cannot become accidentally unfastened is required.

I claim as my invention:

1. A fastening device comprising a plate having an outwardly projecting lug provided with a socket having its axis parallel with said plate and said socket tapering from one end towards the other end, and said lug having a hole extending through it from said latter end of the socket and its wall having a longitudinal slot extending from end to end thereof, a second plate having a shank terminating in a head that is adapted to enter the larger end of said socket but is too large to pass entirely therethrough, and said shank being adapted to swing outwardly and upwardly through said slot on said head as a pivot to separate one plate from the other, and said shank having a sufficient longitudinal movement in said socket to permit said outward and upward swinging movement.

2. A fastening device comprising a plate having an outwardly projecting lug provided with a vertical socket, said socket having an opening on one side extending through the

wall of said lug, a second plate having a shank that is adapted to enter said opening and fit within said socket and a spring arranged within said socket and having spring ends that project into said passage and into the path of said shank, substantially as described.

3. A fastening device comprising a plate having an outwardly projecting lug provided with a socket having an annular groove in its inner surface and an opening extending through the wall of said lug, and the walls of said lug having recesses on each side of said

opening, a spring adapted to fit within the groove in said socket and having curved ends to enter said recesses, and a second plate having a shank to pass through said opening and engage and compress said spring ends, and said shank having also a head to fit within said socket.

In witness whereof, I have hereunto set my hand this 5th day of September 1907.

JOHN J. O'CONNELL.

Witnesses:

CARROLL A. THOMPSON,
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