E. F. DUPART.

BALL LATCH.

APPLICATION FILED APR. 8, 1913.

1,069,932.

Patented Aug. 12, 1913.

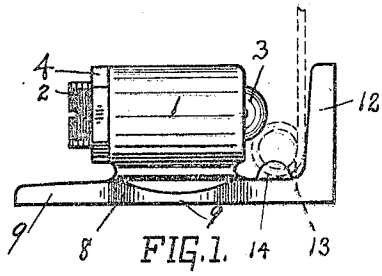


FIG. 1.

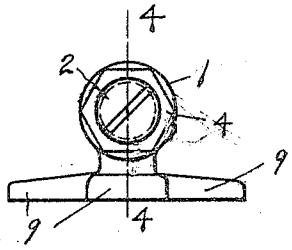


FIG. 2

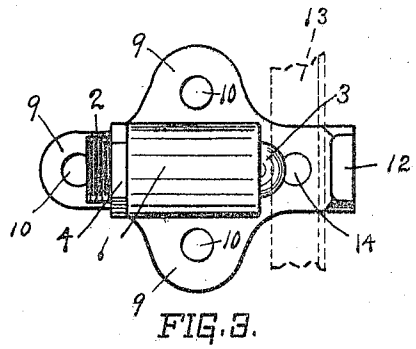


FIG. 3.

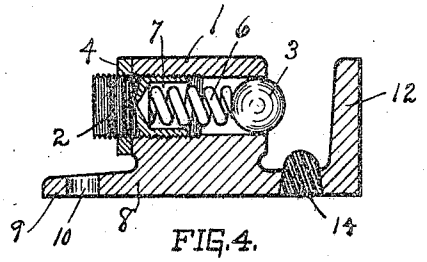


FIG. 4.

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BALL-LATCH.

1,069,932. Specification of Letters Patent. Patented Aug. 12, 1913.

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To all whom it may concern:

Be it known that I, EUGENE F. DUPART, a citizen of the United States, and a resident of Detroit, in the county of Wayne and State of Michigan, have invented a new and Improved Ball-Latch, of which the following is a specification.

This invention relates to means for retaining bars, plates and other devices in predetermined position, in such a manner that they can be released by a sharp pull, and relates especially to means for retaining the lower edges of the sides of automobile hoods in position, and its object is to provide a latch that will hold such edges firmly under ordinary conditions, but which will release them when additional stress is applied, without scratching or marring such edges.

In the accompanying drawing, Figure 1 is a side elevation, Fig. 2 a rear elevation and Fig. 3 a plan of this improved latch. Fig. 4 is a section on the line 4—4 of Fig. 2.

Similar reference characters refer to like parts throughout the several views.

The latch shown in the drawing is formed of a cylindrical sleeve 1, threaded at one end to receive a screw 2 and chambered so that the ball 3 will move freely within its bore until it reaches the open end, where the bore is contracted to prevent the ball from escaping. A jam-nut 4 on the screw is adapted to lock the screw from turning after the desired tension is obtained on the spring 6, which spring engages the ball 3 and is mounted in the sleeve and in the bore 7 of the screw. By forming the screw with this bore 7, a longer spring and screw can be used, a matter of great importance where space is so often restricted as in automobile construction.

The base 8 of the latch may be provided with any desired number of ears 9, having holes 10 through which screws or rivets may extend to hold the latch in position. An arm 12 extends up from the base, and between it and the barrel 1, the articles to be held are introduced.

The latch may be secured to the upper side of a side-bar of the chassis of an automobile by means of rivets, and when it is desired to lock the hood in position, the roll 13 at the lower edge of a side is forced down between the barrel and the arm 12, forcing back the ball 3, which ball is forced out again by the spring over the top of the roll, as indicated in Fig. 1. By having this arm 12 rigidly connected to the base and thereby to the sleeve, the distance between the arm and sleeve and the arm and ball is always the same, a matter of advantage in many cases, as it renders the grip of the ball positive and always the same. The amount of stress necessary to free the side of the hood from the latch will depend upon the tension of the spring 6. Because of the ability of the ball to turn, the article held down will not be scratched when forced to pass the ball, as is so often the case when the latch is rigid.

To prevent the side of the hood or other article 13 held in position by the ball 3 from rattling, I prefer to mount a cushion 14 in the base 8, in such a manner that the part 8 will be held against the cushion by the ball. The size of the cushion will depend upon the article secured, and the material from which it is made may vary, but rubber is preferred.

I claim—

1. In a ball-latch, the combination of a base, an arm at one end of the base, a cylinder mounted on the base in line with said arm, a ball in the bore of said cylinder and normally projecting from the end next adjacent the arm, a spring in the cylinder engaging the ball, and a screw to regulate the tension of the spring.

2. In a ball-latch, the combination of a base having projections whereby the latch may be secured in position, an arm extending upward from one end of the base, a cylindrical sleeve mounted on the base in line with said arm having its outer end internally threaded, a ball within the sleeve whose end next the arm is restricted to prevent the escape of the ball, a hollow screw in the opposite threaded end of the sleeve, a spring extending into said screw and engaging the ball to normally hold it so that it will partially project from the end of the sleeve, and a jam-nut to hold the screw in predetermined position.

3. In a ball-latch, the combination of a base, an arm at one end of the base, a cylinder mounted on the base in line with said arm, a ball in the bore of said cylinder and

normally projecting from the end next adjacent the arm, a spring in the cylinder in engagement with the ball, and a cushion of resilient material mounted on the base between the arm and cylinder to engage the article secured by the arm and ball.

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

EUGENE F. DUPART.

Witnesses:
MARY A. HAWTHORNE,
HUGO W. KREINBRING.