Dec. 15, 1931. R. G. MOORE 1,836,544

HOOD CATCH

Filed Nov. 30, 1928

Fig. 1.

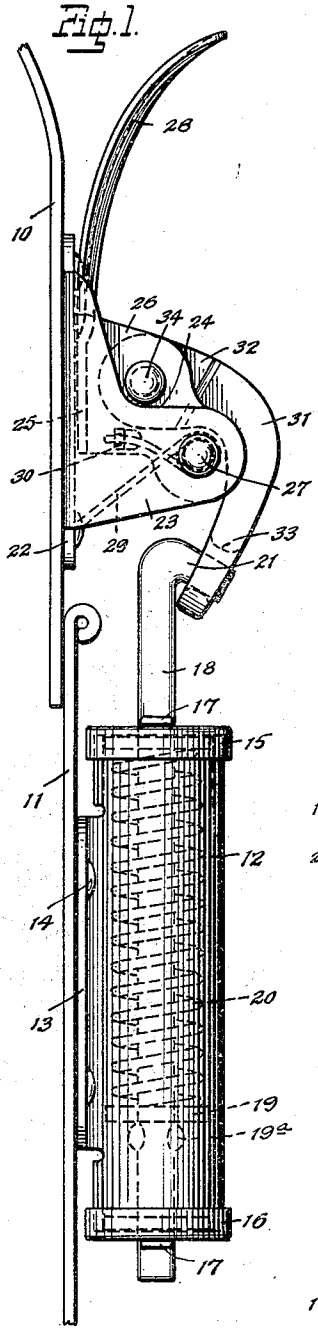


Fig. 2.

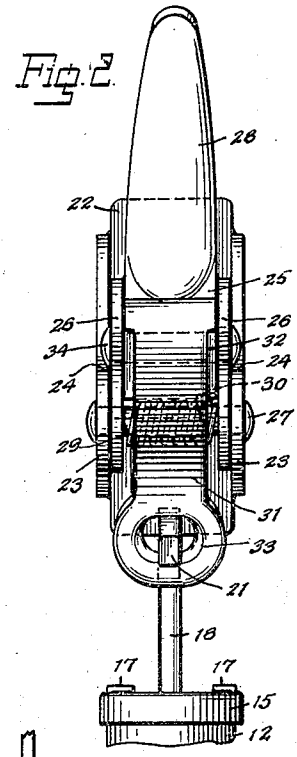


Fig. 3.

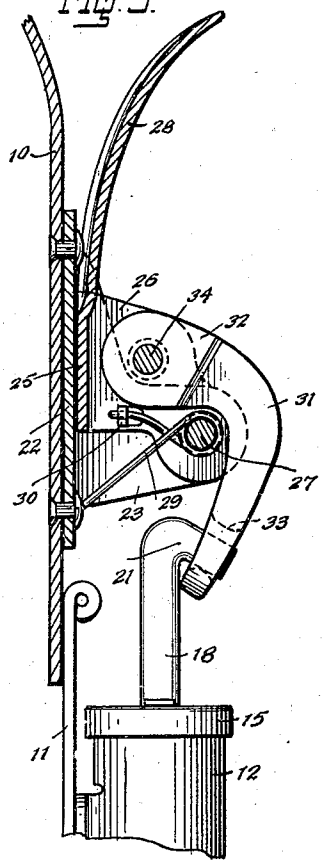
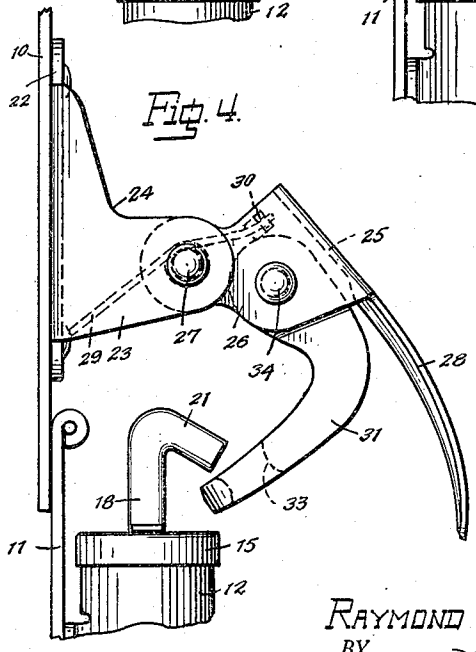


Fig. 4.



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UNITED STATES PATENT OFFICE

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HOOD CATCH

Application filed November 30, 1928. Serial No. 322,653.

The present invention relates to improvements in hood catches, particularly of the type adapted for heavy usage, as upon trucks and busses, an object being to provide a catch having conveniently accessible toggle operating means adapted to be easily operated to connect or disconnect the catch, and which at the same time will retain the hood tightly against excessive vibration and rough usage. It is further proposed to provide a catch in which toggle means is carried upon a normally fixed part of the hood structure independent of the spring plunger carrying barrel which is carried upon the movable hood closure, so that such toogle means is at all times easily accessible and protected from damage through contact with the surrounding structure of the automoble.

With the above and other objects in view, an embodiment of the invention is shown in the accompanying drawings, and this embodiment will be hereinafter more fully described with reference thereto, and the invention will be finally pointed out in the claims.

In the drawings:—

Fig. 1 is a side elevation of a hood catch, according to the present embodiment of the invention, and showing the same in hooked or operative position;

Fig. 2 is a front elevation of the toggle operating means;

Fig. 3 is a vertical sectional view thereof; and

Fig. 4 is a side elevation showing the toggle operating means in its disengaging relation.

Similar reference characters indicate corresponding parts throughout the several figures of the drawings.

Referring to the drawings, the invention is particularly adapted for use with hoods in which each side of the same comprises an upper flap 10 suitably mounted over the engine, and a side closure flap 11, hinged at its lower edge and having its upper edge overlapped and abutting the lower edge of the flap 10 in its raised or closed position. The toggle operating means is mounted upon the upper flap 10, while the barrel carrying the spring actuated plunger rod is mounted upon the lower flap 11.

The cylindrical barrel 12 is provided with outwardly bent ears 13 at each side for securing the same to the flap 11 by rivets 14, apertured and flanged end caps 15 and 16 being secured at its upper and lower ends by lugs 17. The spring actuated plunger rod 18 is preferably of flattened cross-section, to prevent turning, and extends through the correspondingly shaped apertures in the end caps, being provided within the barrel with a washer 19, secured by pinching the rod, as at 19^a, a spring 20 being engaged about the plunger between the washer 19 and the upper cap 15. The upper end of the plunger is provided with a forwardly projecting hook end 21, bent at an acute angle, and with which the toggle operating means is adapted to engage.

The toggle operating means comprises a bracket consisting of a base plate 22 secured by rivets to the face of the upper hood flap 10, and provided at its vertical edges with forwardly bent ears 23—23, the upper edges of which are angularly recessed, as at 24. A toggle lever handle member, comprising a base portion 25 and forwardly bent side portions 26—26, is pivotally mounted within the bracket upon a pin 27, secured between the forward ends of the ears 23—23, and extending through holes in the side portions 26—26, the base portion 25 adapted to bear against the base portion of the bracket and having its lower edge terminating above or in line with the horizontal radial plane of the pivotal axis, so that the lever member may swing outwardly with respect to the bracket, as shown in Fig. 4. The base portion is provided with an upwardly and outwardly curved handle extension 28. The lever member is yieldably maintained in its normal position against the base of the bracket, when disconnected from the hook end of the plunger rod, by means of a spring 29 coiled about the pin 27 having one end bearing against the base 22 of the bracket and the other end engaged with an apertured lug 30 bent from one of the side portions 26 of the lever member.

An angular finger member 31 provided at its upper end with a widened bearing portion 32, and at its lower end with an aperture 33, is pivotally mounted between the side portions 26—26 of the lever member upon a pin 34 secured between said portions, the headed over ends of this pin being accommodated in the angular recesses 24 in the upper edge of the ears 23 in the normal position of the device. The finger member extends in embracing relation over and about the pin 27, and is adapted to have its apertured end 33 engaged with the hooked end 21 of the plunger rod 18, the point of hooking being substantially below the axis of the pin 27, about which the lever handle member swings, while the axis of the pin 34 is inwardly of the vertical plane of the axis of the pin 27, in the normal operative position.

The operation is as follows:—

With the parts in their normal operative position as shown in Fig. 1, the force of the spring 20 exerts a downward pull on the toggle lever handle member to the left of the pin 27, retaining it in position. The point of connection of the finger member 31 with the hook end of the plunger rod 18 being to the right of the vertical plane of the axis of the pin 34 a constant inward pressure is exerted on the closure flap 11 of the hood, so that it is firmly held in closed position.

In order to disengage the catch the handle 28 is pulled outwardly to a point where the axis of the pin 34 passes over the axis of the pin 27, whereupon the parts will move to disconnecting relation under the force of the spring 20. The finger member being disengaged, as shown in Fig. 4, the toggle means returns to its normal position under the action of the spring 29.

The operation of connecting the catch is the reverse, the finger member being engaged with the hook end of the plunger rod through inward movement of the toggle lever, which is then forced upwardly to the point where the axis of the pin 34 passes over the axis of the pin 27, whereupon the parts snap to the operative position as shown in Fig. 1.

I have illustrated and described a preferred and satisfactory embodiment of the invention, but it will be obvious that changes may be made therein within the spirit and scope thereof, as defined in the appended claims.

Having thus described my invention what I claim and desire to secure by Letters Patent is:—

1. In a hood catch, a spring actuated plunger, toggle means comprising a bracket, a lever member pivoted to said bracket at a point longitudinally spaced from said plunger adapted to be swung inwardly toward the hood at the side of the pivot remote from said plunger in one position and inwardly toward said plunger in another position, and a finger member pivoted to said lever at a point inwardly of the pivotal axis of the lever member in said first position and being disposed between said lever and said plunger in said second position, said plunger and finger member having interengaging means adapted to be engaged with each other in said second position through inward movement of said lever member and adapted to extend said plunger member through movement to said first position.

2. In a hood catch, a spring actuated plunger, toggle means comprising a bracket, a lever member pivoted to said bracket at a point longitudinally spaced from said plunger adapted to be swung inwardly toward the hood at the side of the pivot remote from said plunger in one position and inwardly toward said plunger in another position, a finger member pivoted to said lever at a point inwardly of the pivotal axis of the lever member in said first position and being disposed between said lever and said plunger in said second position, and spring means adapted to yieldably retain said lever member in said first position, said plunger and finger member having interengaging means adapted to be engaged with each other in said second position through inward movement of said lever member and adapted to extend said plunger member through movement to said first position.

Signed at Bridgeport, county of Fairfield and State of Connecticut, this 23rd day of November, 1928.

RAYMOND G. MOORE.