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R. G. MOORE

1,995,774

HOOD CATCH

Filed March 20, 1933

Fig. 1.

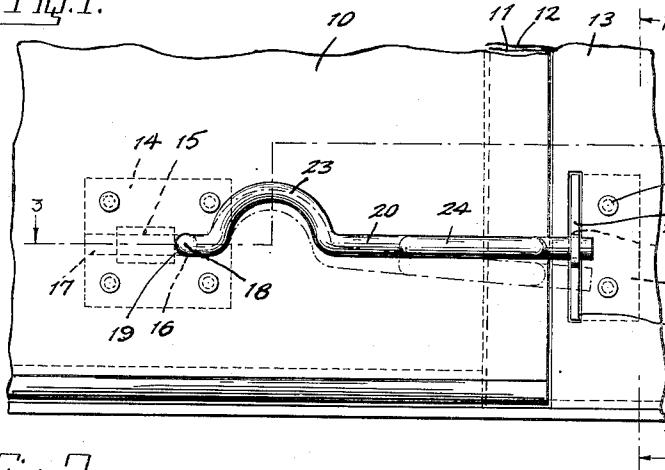


Fig. 2.

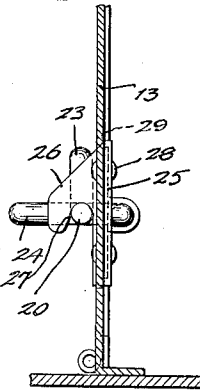


Fig. 3.

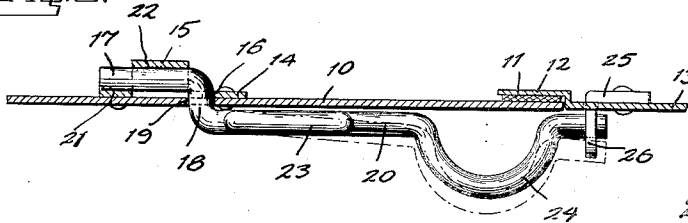


Fig. 5.

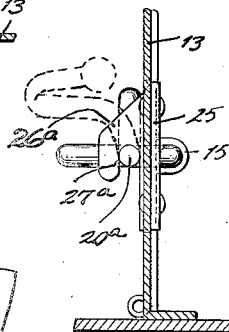


Fig. 4.

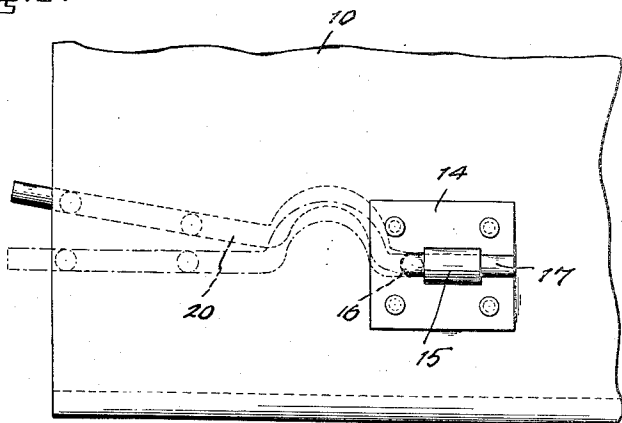
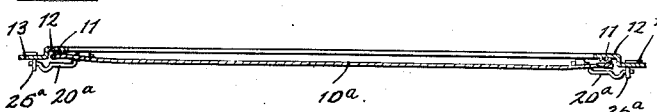


Fig. 6.



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HOOD CATCH

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4 Claims. (Cl. 292—87)

The present invention relates to hood catches for securing the hoods of automobiles, and has for an object to provide a hood catch of extremely simple and inexpensive construction, which may be operated with facility, and will effectually hold the hood downwardly and inwardly against looseness and rattling.

A further object is to provide a hood catch which will be free from loose parts, and in which the resiliency for holding the hood downwardly and inwardly is inherent in the catch proper, as distinguished from other types of catches in which extraneous spring elements are employed. To this end it is proposed to provide a handle and catch bar in the form of a resilient rod fixed at one end to the hood and adapted to have its other end sprung into engagement with a keeper on the cowl or radiator frame.

A further object is to provide a catch which may be horizontally disposed, out of relation with the sill, so that it may be conveniently reached and will in no way interfere with other parts of the automobile.

A still further object is to provide a hood catch which will utilize the springiness of the metal of the hood side to exert inward holding pressure.

With the above and other objects in view an embodiment of the invention is shown in the accompanying drawing 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 drawing:

Fig. 1 is a front elevation of one corner of an automobile hood and the adjacent cowl and sill structure, and showing the hood catch according to the illustrated exemplary embodiment of the invention attached thereto.

Fig. 2 is a vertical sectional view, taken along the line 2—2 of Fig. 1, and showing the catch in end elevation.

Fig. 3 is a horizontal sectional view taken along the line 3—3 of Fig. 1.

Fig. 4 is a rear elevation of the catch showing the inoperative position, and also showing in dot-and-dash lines the operative keeper engaging position.

Fig. 5 is a fragmentary vertical sectional view showing a modified form of keeper and catch bar.

Fig. 6 is a diagrammatic horizontal sectional view of the hood and the adjacent structure of the radiator and cowl, showing in exaggeration the flexing of the hood in the operative position of the catch according to the modification shown in Fig. 5.

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

Referring to the drawing, the hood 10 is adapted to close in the usual manner against lacings 11—11, provided along the inset marginal edge portions 12—12 of the radiator and cowl structure 13—13, and at each end of the hood, and adapted to cooperate with keepers provided on the radiator frame and cowl structures, hood catches according to the illustrated exemplary embodiment of the invention are mounted.

The hood catch comprises a rectangular mounting plate 14 adapted to be riveted, spot-welded or otherwise suitably secured to the inner side of the hood, preferably adjacent one of the lower corners, although if desired it may be at a substantially higher point than that illustrated.

A strap portion 15 is pressed outwardly from the central portion of plate and at one end of the strap a positioning pocket 16 is provided in the plate. The hood catch proper is in the form of a single bent bar of spring metal the inner end portion 17 being engaged with the plate 14 beneath the strap portion 15, and an outwardly right angularly bent portion 18 being engaged in the position pocket 16 and projecting through an opening 19 in the hood to the outer side of the hood, where it is again bent and extends longitudinally of the hood to provide a spring handle and catch bar portion 20. The connection of the end 17 with the plate 14 is made permanent and rigid, preferably by spot-welding to the plate and strap portion 15, as at 21 and 22.

A semi-circular upwardly extending bend 23 is provided in the portion 20 adjacent the keeper engaging end a semi-circular outwardly extending bend 24 is provided, the bend 23 giving increased resiliency within a relatively short length of rod, and the bend 24 providing a finger grip. In the inoperative disengaged position the bar stands outwardly from the hood at a slightly inclined angle to the hood surface, as shown in dot-and-dash lines in Fig. 3, and also is inclined upwardly from the horizontal operative position as shown in full lines in Fig. 4, and is adapted to flex both vertically and transversely.

The keeper comprises a base plate 25 and a right angularly bent hook flange 26, having a catch engaging recess 27 provided with an angular camming surface. The plate is preferably secured at the inner side of the cowl or radiator frame 13, as by rivets 28, and the flange 55

26 projects to the outer side through a slot opening 29 in the cowl or frame.

In operation, the hood is drawn downwardly by downward pressure on the handle and catch bars 24 at each end, these being sufficiently stiff for the downward pressure to be firmly transmitted to the hood, so that it can be effectually pressed down to its full limit with facility.

During this action the bar is pressed downwardly below the horizontal operative position as shown in dot-and-dash lines in Fig. 1 and is then pressed under the nose of the keeper into the recess 27, where its inherent resiliency springs the catch end upwardly along the inclined surfaces of the recess drawing the hood downwardly and inwardly under the vertical and transverse tension of the bar. To disengage the catch bar is pressed downwardly and pulled outwardly to disengage the catch end, the bar springing to the position indicated in dot-and-dash lines in Figs. 3 and 4.

In Figs. 5 and 6 I have shown a modified form of keeper 26^a having a recess 27^a provided with a vertical outer wall. In this case the bar 20^a is rigid transversely but is normally disposed in its inoperative position at an angle to the hood as shown by the dot-and-dash lines, and is pressed inwardly to engage the keeper recess. In this case the bar 20^a may be made of more rigid metal than that employed in the first embodiment, so that transverse pressure thereon will flex the hood rather than the bar, or alternatively the bar 20^a may be of the same metal as the first embodiment and the hood 10^a upon which it is mounted may be relatively more flexible than the hood 10 of the first embodiment. In either case the hood will be relatively flexible and the bar will be relatively stiff transversely. The ends of the hood being supported against the lacings 11, and the bar being rigid transversely the inward pressure of the bar causes the hood to be slightly sprung or warped, as indicated diagrammatically in Fig. 6, and being held in this position by engagement of the catch end in the keeper the inherent springiness of the sheet metal of the hood exerts an inward pressure upon the hood thus pressing it inwardly firmly against the lacings.

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. An automobile hood catch for mounting on the hood to engage a keeper disposed upon a fixed part in relation to the end of the hood and having a downwardly disposed catch engaging surface, the hood in its closed position being limited in its downward movement by engagement with a fixed part, comprising a spring bar disposed in substantially longitudinal direction relatively to the hood adapted to be secured at one end to the hood, its other end including a keeper engaging portion normally disposed above the catch engaging surface of the keeper in the closed position to be sprung downwardly about said secured end as a fulcrum to pull the hood down against said fixed part and to engage said keeper through upward springing of said bar, the sprung bar

adapted to exert a continuous downward pressure on the hood.

2. An automobile hood catch for mounting on the hood to engage a keeper disposed upon a fixed part in relation to the end of the hood and having a downwardly disposed catch engaging surface, the hood in its closed position being limited in its downward movement by engagement with a fixed part, comprising a mounting fixture adapted to be secured interiorly of the hood, and a spring bar disposed in substantially longitudinal direction relatively to the hood rigidly secured at one end to said mounting fixture, bent outwardly from said fixture to the exterior of the hood and extending longitudinally and beyond the end of the hood, said portion extending beyond the end of the hood being normally disposed above the catch engaging surface of the keeper in the closed position of the hood, and adapted in said closed position to be sprung downwardly about said secured end as a fulcrum to pull the hood down against said fixed part and to engage said keeper through upward springing of said bar, the sprung bar adapted to exert a continuous downward pressure on the hood.

3. An automobile hood catch for mounting on the hood to engage a keeper disposed upon a fixed part in relation to the end of the hood and having downwardly and inwardly facing catch engaging surfaces, the hood in its closed position being limited in its downward and inward movement by engagement with a fixed part, comprising a spring bar disposed in substantially longitudinal direction relatively to the hood adapted to be secured at one end to the hood, its other end including a keeper engaging portion normally disposed above, and laterally outwardly of the catch engaging surfaces of the keeper in the closed position of the hood, and adapted in said closed position to be sprung downwardly and inwardly about said secured end as a fulcrum to pull the hood down against said fixed part and to engage said keeper through upward springing of said bar, the sprung bar adapted to exert a continuous downward and inward pressure on the hood.

4. An automobile hood catch for mounting on the hood to engage a keeper disposed upon a fixed part in relation to the end of the hood and having downwardly and inwardly facing catch engaging surfaces, the hood in its closed position being limited in its downward and inward movement by engagement of its end portion with a fixed part, and said hood being inherently resilient, comprising a bar adapted to be secured at one end to the hood, its other end including a keeper engaging portion normally disposed above and laterally outwardly of the catch engaging surfaces of the keeper in the closed position of the hood, said bar being springy in an up and down direction and transversely rigid, said bar adapted in said closed position to be pressed inwardly whereby said hood is warped and to be sprung downwardly about said secured end as a fulcrum to pull the hood down against said fixed part and to engage said keeper through upward springing of said bar, the sprung bar adapted to exert a continuous downward pressure on the hood, and the warped hood exerting a continuous inward pressure thereon.

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