Feb. 27, 1923. 1,446,814

C. SCOTT

AUTOMOBILE HOOD

Filed May 14, 1921 2 sheets-sheet 1

Fig. 1

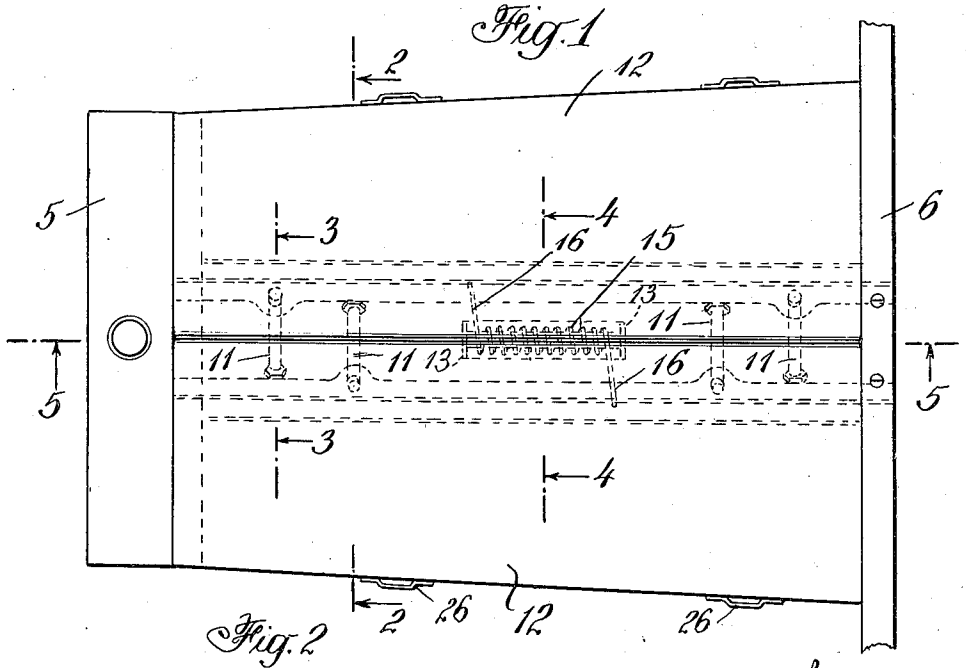


Fig. 2

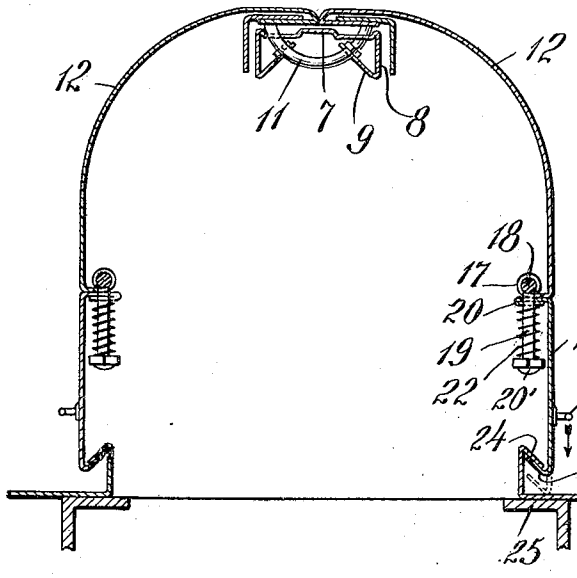


Fig. 3

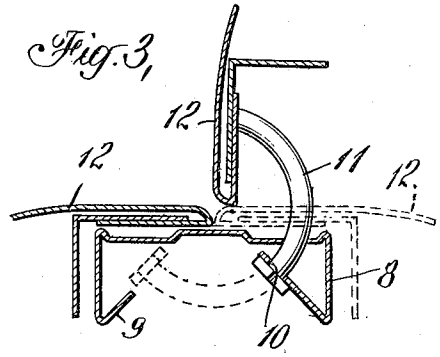
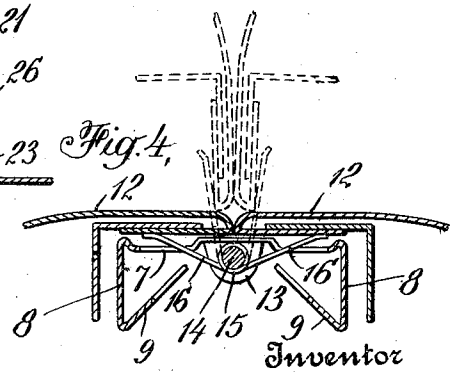


Fig. 4



Inventor

Christopher Scott

By his Attorneys

Pennie Davis Marvin & Edmonds

Feb. 27, 1923. 1,446,814

C. SCOTT

AUTOMOBILE HOOD

Filed May 14, 1921 2 sheets-sheet 2

Fig. 5,

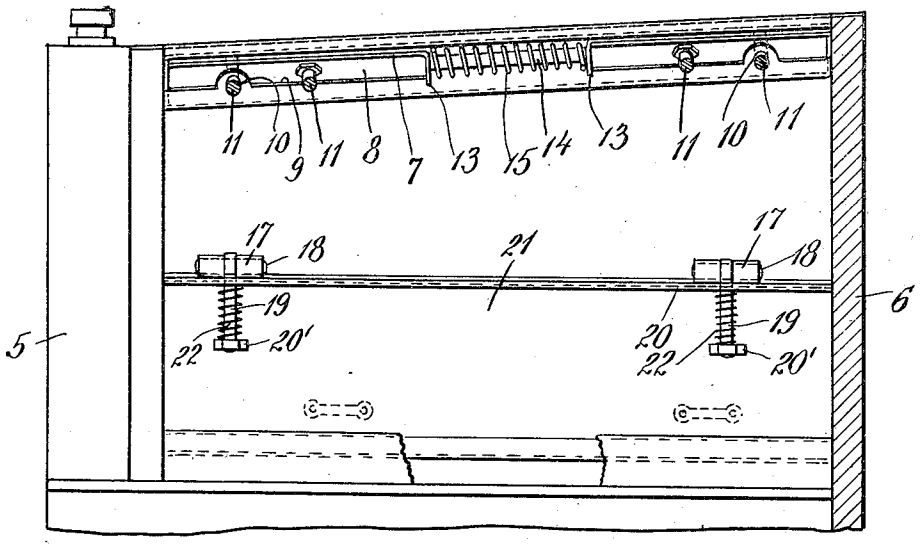


Fig. 6,

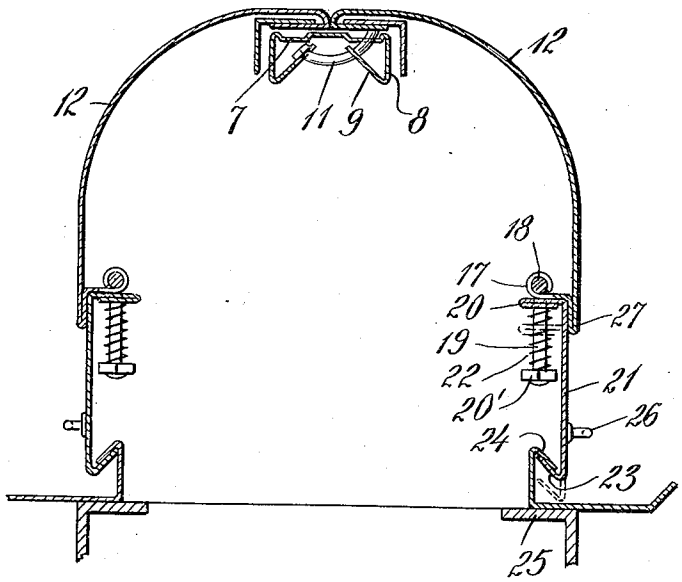
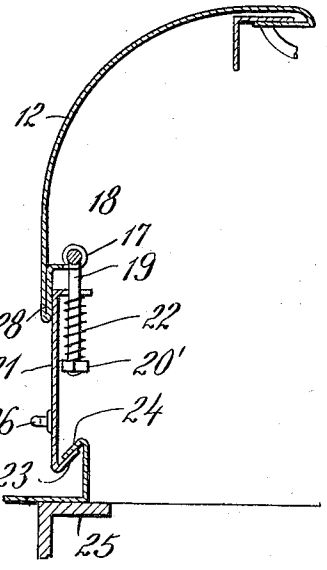


Fig. 7.



Inventor

Christopher Scott.

By his Attorneys

Prince Davis Mason & Edmunds

Patented Feb. 27, 1923. 1,446,814

UNITED STATES PATENT OFFICE.

CHRISTOPHER SCOTT, OF BROOKLYN, NEW YORK.

AUTOMOBILE HOOD.

Application filed May 14, 1921. Serial No. 469,595.

To all whom it may concern:

Be it known that I, CHRISTOPHER SCOTT, a citizen of the United States, residing at Brooklyn, in the county of Kings, State of New York, have invented certain new and useful Improvements in Automobile Hoods; 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.

This invention relates to automobile hoods, and particularly to articulating and locking means for the panels thereof, whereby the latter may be firmly secured and held in position and readily disengaged therefrom when it becomes necessary to obtain access to the mechanism beneath the hood.

Numerous forms of articulating and locking devices have been heretofore proposed and used in connection with the hoods of automobiles. These devices have been more or less satisfactory, but all present defects of one kind or another which suggest the desirability of improved devices of this character. Many of the devices heretofore in use have been relatively expensive, involving a large number of small and intricate parts. Some permit rattling of the hood, owing to failure of the devices to properly function and many serve to disfigure the vehicle because they appear externally.

It is the primary object of the present invention to overcome the disadvantages of devices heretofore employed for a similar purpose and to provide articulating and fastening means for the hood panels, whereby the latter may be secured without the usual latches or similar devices and permitting movement of the panels to open position with the application of the minimum of effort, the structure being so designed as to present a pleasing appearance.

A further object of the invention is the provision of means permitting the drainage of water which may enter the hood, thus preventing water from reaching the engine or other mechanism which is protected by the hood.

Further objects and advantages of the invention will be apparent as it is better understood by reference to the following specification and accompanying drawings, in which—

Fig. 1 is a plan view of the hood.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a detail in section on the line 3—3 of Fig. 1 illustrating the hinge.

Fig. 4 is a detail in section on the line 4—4 of Fig. 1 illustrating the device for balancing the weight of the hood panels.

Fig. 5 is a longitudinal section through the hood on the line 5—5 of Fig. 1.

Fig. 6 is a transverse section through the hood illustrating a slightly different form of the invention, and

Fig. 7 is a similar view illustrating another form of the invention.

The present invention embodies a substitute for the usual tie-rod which connects the radiator to the dash-board of most automobiles, the novel tie-rod forming a part of the hinge whereby the hood panels are articulated, and being provided with means to insure drainage of water which may enter between the panels. The invention embodies, further, an arrangement of the connection between the panels of the hood, whereby the latter are articulated in relatively movable relation. The lower panels are provided with flanges engaging corresponding flanges on the front fender hood sill or corresponding part of the automobile structure, so that the hood panels are firmly locked to insure the proper position. The two panels forming each side of the hood are resiliently connected so that the flanges hereinbefore referred to may be readily disengaged. Preferably, springs are supported in the tie-rod and bear upon the underside of the hood panels to assist in holding the latter firmly, and particularly to hold the panels in raised position when access to the mechanism is desired.

Referring to the drawing, 5 and 6 represent the radiator and dash-board respectively of a typical automobile, it being understood that the details of the construction of these elements form no part of the present invention, which may be applied to automobiles of widely varying design. In place of the usual tie-rod, a hood-rest 7 is provided which may be constructed of sheet metal bent to provide depending legs 8 and inwardly and upwardly directed flanges 9, as clearly indicated in the drawing. The hood rest is bolted or otherwise secured to the radiator and dash-board of the vehicle. Openings 10 are provided in the hood-rest 7 and

flanges 9 thereof to receive quadrants 11 which may be of any suitable cross-sectional shape, the openings being correspondingly formed. The quadrants are secured to the upper panels 12 of the hood and form in connection with the hood-rest 7 a hinge whereby the panels 12 may be swung upwardly to permit access to the mechanism. Depending lugs 13 on the under-side of the hood-rest 7 support a pin 14 about which a spring 15 is coiled, the ends 16 of the spring being disposed in engagement with the under-sides of the upper panels 12. When the panels are in closed position, the spring is tensioned and thus has a tendency to force the panels upwardly. When the panels are released as herein after described, the spring balances the weight thereof so that the panels may be readily lifted and the spring will hold the panels in their open position until the panels are moved against the tension of the spring to closed position.

At their lower edges, the upper panels 12 are provided with inturned portions 17 forming supports for pins 18 carrying depending bolts 19. The latter pass through suitable openings in flanges 20 formed by bending the upper edges of the lower panels 21 inwardly, and springs 22 surround the bolts 19 between the flanges 20 and the heads 20′ of the bolts so that the springs tend to lift the lower panels. At their lower edges the lower panels are provided with upwardly and inwardly turned flanges 23 adapted to engage the outwardly and downwardly turned flanges 24 on the front fender hood sill 25 or other corresponding part of the automobile structure. The latter flanges may be replaced by suitable slots cut, for example, in the radiator hood ledge. As will be observed, the flanges 23 are held in close engagement with the flanges 24 under tension of the springs 22. The spring 15 also assists in maintaining the flanges 23 and 24 in close engagement and the springs may be so proportioned that the hood panels are firmly held and prevented from rattling under the shocks incident to the travel of the vehicle.

The lower panels 21 are provided with handles 26, for example, which the operator may grasp when it is desired to swing the panels to their upper position. By pressing down upon the handles 26 the flanges 23 and 24 may be disengaged and may then be lifted with the assistance of the spring 15. As the panels are lifted, the quadrants 11 slide in the openings 10 in the hood support as indicated in Fig. 3, and permit the panels to move to a position enabling the operator to obtain access to the mechanism.

While the butt-joint between the upper and lower panels of the hood, as indicated in Fig. 2, is to be preferred in most cases, since it presents the most pleasing appearance, the invention may be readily adapted to a construction permitting a lap-joint between the hood panels as indicated in Fig. 6. The only distinctive features of this structure is the bending of the upper hood panel upon itself at 27, whereby a depending flange is provided which overlaps the joint between the upper and lower panels.

As will be observed by reference to Fig. 7, the bending of the upper hood panel upon itself may be such as to form a somewhat deeper flange 28, so that the lower panel does not engage the upper panel except as the latter overlaps the former. The mode of bendng the lower panel to form the flanges may also be varied as indicated in the drawing.

The structure as hereinbefore described entirely obviates the necessity for hinges of the usual type and for complicated catches which frequently do not serve their intended purpose, and often mar the appearance of the car when disposed externally of the hood. The four panels of the hood can be constructed separately in accordance with the invention herein described and assembled on the car in a minimum of time, thus facilitating and correspondingly reducing the cost of manufacturting automobiles embodying the invention. Any water leaking into the hood is caught between the legs 8 and flanges 9 of the hood support and travels in the troughs thus formed to the lower end of the hood support where the water is discharged without contact with the mechanism beneath the hood.

These and other advantages of the structure may be accomplished through employment of means substantially conforming to the structure herein described. It is to be understood, therefore, that various changes may be made in the form and arrangement of the parts without departing from the invention or sacrificing any of the advantages thereof.

I claim:

1. A hood for automobiles, comprising in combination upper and lower panels, means for hingedly supporting the upper panels, stationary means adapted to interlock with the free edges of the lower panels, and articulating means connecting the upper and lower panels and permitting movement of the lower panels in their respective planes relatively to the upper panels.

2. A hood for automobiles, comprising in combination upper and lower panels, means for hingedly supporting the upper panels, stationary means adapted to interlock with the free edges of the lower panels, and articulating means resiliently connecting the upper and lower panels and permitting movement of the lower panels in their respective planes relatively to the upper panels.

3. A hood for automobiles, comprising in combination, upper and lower panels, means for supporting the upper panels, stationary means, interlocking means on the lower panels adapted to cooperate with the stationary means, and resilient hinge connections between the upper and lower panels permitting movement of the lower panels in their respective planes relatively to the upper panels.

4. A hood for automobiles, comprising in combination upper and lower panels, means for hingedly supporting the upper panels, stationary means, interlocking means on the lower panels adapted to cooperate with the stationary means, and resilient connections interposed between the upper and lower panels whereby the interlocking means are held in engagement with the stationary means.

5. A hood for automobiles, comprising in combination upper and lower panels, articulating means therefor permitting movement of the lower panels in their respective planes relatively to the upper panels, means for supporting the panels, stationary means and interlocking means on the lower panels adapted to cooperate with the stationary means whereby the panels are held in closed position.

6. A hood for automobiles, comprising in combination upper and lower panels, articulating means therefor including flanges on the panels, bolts pivotally connected to the flanges on the upper panels and extending through openings in the flanges on the lower panels, springs surrounding the bolts and engaging the flanges on the lower panels, stationary means and interlocking means on the lower panels adapted to cooperate with the stationary means, and held in engagement therewith by the springs.

7. A hood for automobiles, comprising in combination resiliently articulated upper and lower panels, means for supporting the panels, stationary means, interlocking means on the lower panels adapted to cooperate with the stationary means to hold the panels in closed position, and means to balance the weight of the panels when the interlocking means is released.

8. A hood for automobiles, comprising in combination resiliently articulated upper and lower panels, means for supporting the panels, stationary means, interlocking means on the lower panels adapted to cooperate with the stationary means to hold the panels in closed position, and resilient means mounted on the supporting means for the panels and engaging therewith to balance the weight thereof when the interlocking means is released.

9. A hood for automobiles, comprising in combination resiliently articulated upper and lower panels, means for supporting the panels having depending legs and inwardly and upwardly directed flanges forming troughs for drainage of water entering the hood, the supporting means having aligned openings, means secured to the upper panels and cooperating with the openings to permit movement of the panels relatively to the support, and means cooperating with the lower panels to hold the panels in closed position.

10. A hood for automobiles, comprising in combination articulated upper and lower panels, means for supporting the panels having depending legs and inwardly and upwardly directed flanges forming troughs for drainage of water entering the hood, the supporting means having aligned openings, means secured to the upper panels and cooperating with the openings to permit movement of the panels relatively to the support, and means cooperating with the lower panels to hold the panels in closed position.

11. A hood for automobiles, comprising in combination upper and lower panels, means for supporting the panels having spaced members provided with openings and quadrants secured to the upper panels disposed in the openings whereby the panels are articulated with the support, articulating means connecting the upper and lower panels and permitting movement of the lower panels in their respective planes relatively to the upper panels and interlocking means for holding the lower panels in closed position.

12. A hood for automobiles, comprising in combination articulated upper and lower panels, means for supporting the panels consisting of sheet metal bent to form depending legs and upwardly and inwardly directed flanges, the supporting means having openings therein, and means secured to the upper panels and cooperating with the openings to permit movement of the panels relatively to the support.

13. A hood for automobiles, comprising in combination articulated upper and lower panels, means for supporting the panels having spaced members provided with openings, means secured to the upper panels and cooperating with the openings to permit movement of the panels relatively to the support, and means on the support and engaging the upper panels to resiliently support the panels.

14. A hood for automobiles, comprising in combination articulated upper and lower panels, means for supporting the panels having spaced members provided with openings, means secured to the upper panels and cooperating with the openings to permit movement of the panels relatively to the support, means on the support and engaging the upper panels to resiliently support the panels, and means interlocking with the lower panels to hold the panels in closed position.

15. A hood for automobiles, comprising in combination resiliently articulated upper and lower panels, means for supporting the panels having spaced members provided with openings, means secured to the upper panels and cooperating with the openings to permit movement of the panels relatively to the support, means on the support and engaging the upper panels to resiliently support the panels, and means interlocking with the lower panels to hold the panels in closed position.

In testimony whereof I affix my signature.

CHRISTOPHER SCOTT.