A. C. SCHULZ.

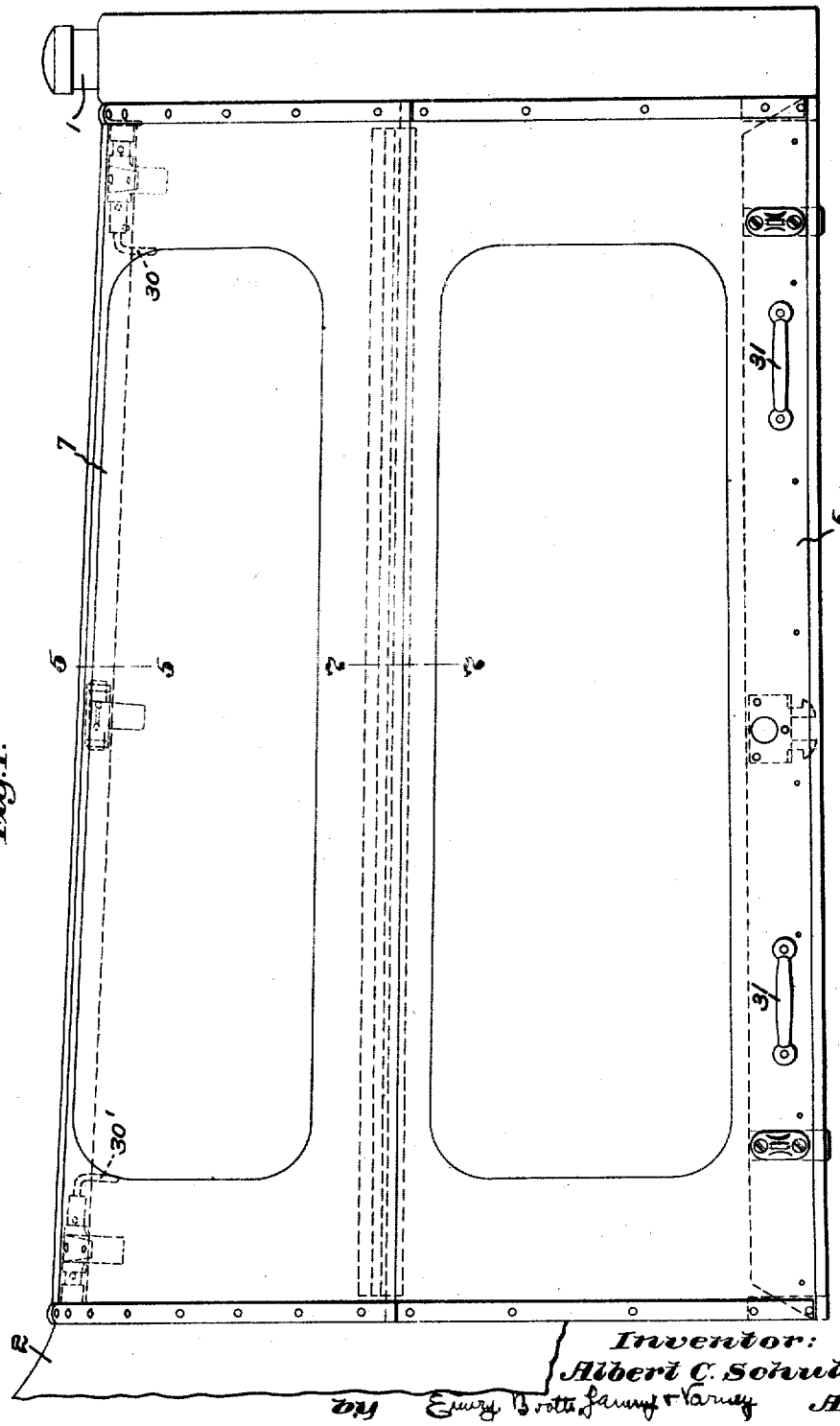
HOOD OR BONNET.

APPLICATION FILED JUNE 13, 1916.

1,300,032.

Patented Apr. 8, 1919.

4 SHEETS—SHEET 1.



Inventor:
Albert C. Schulz,
by Emery, Booth, Farney & Varney Attys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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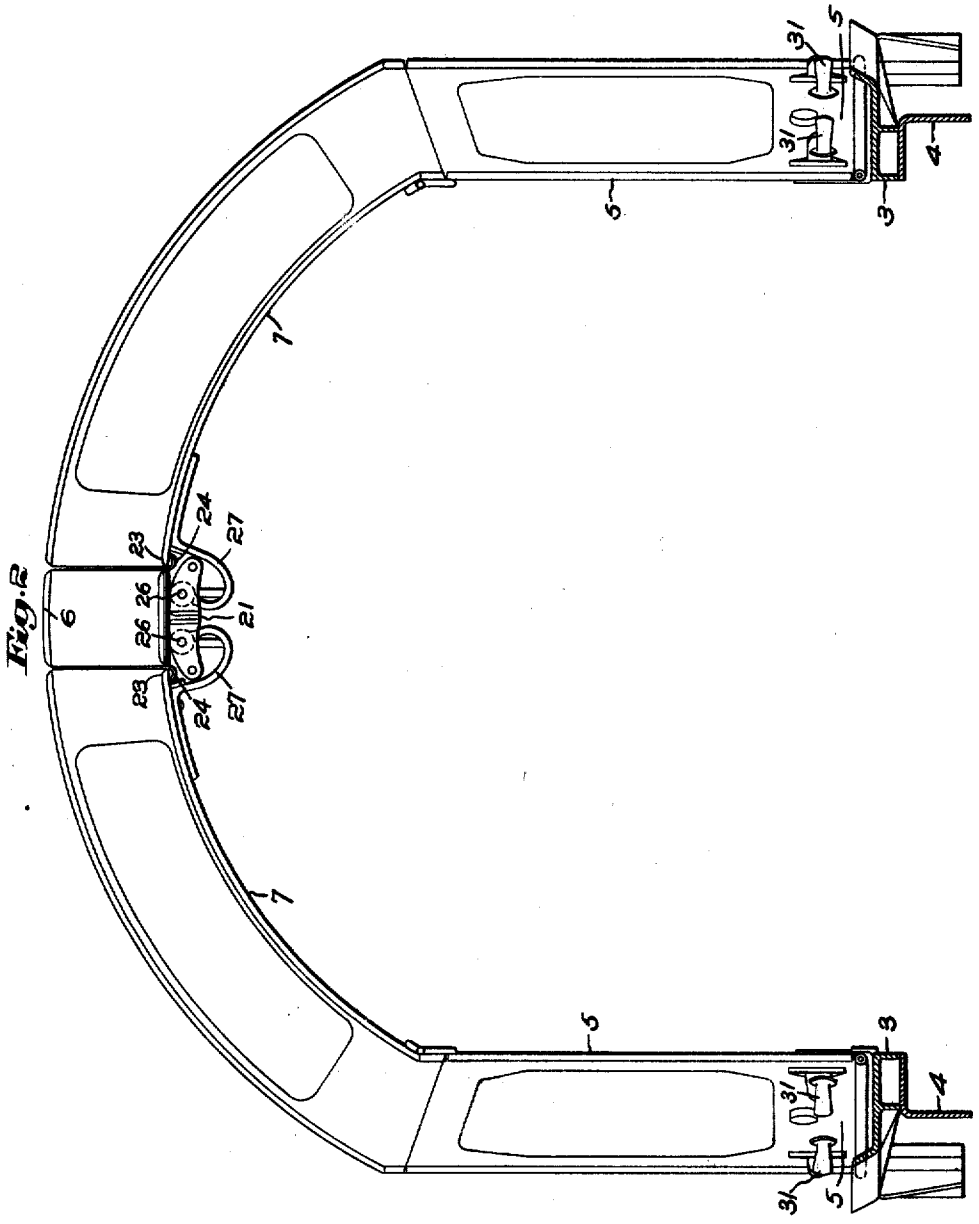
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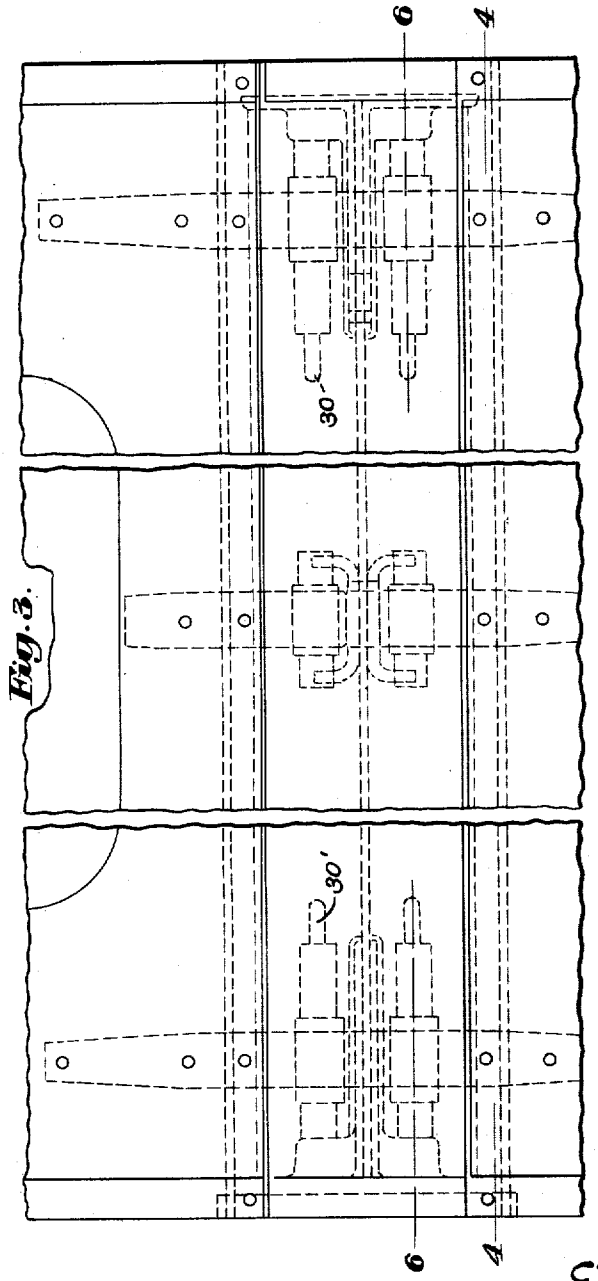


Fig. 3.

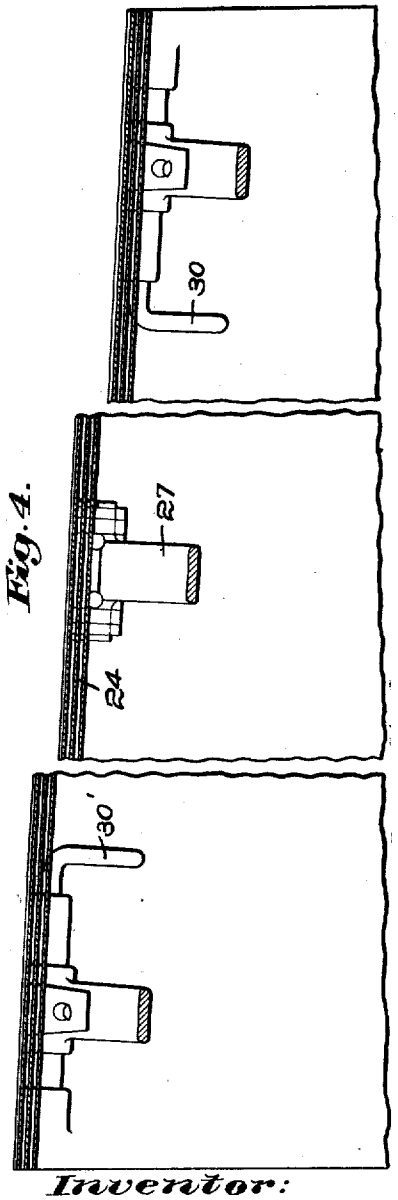


Fig. 4.

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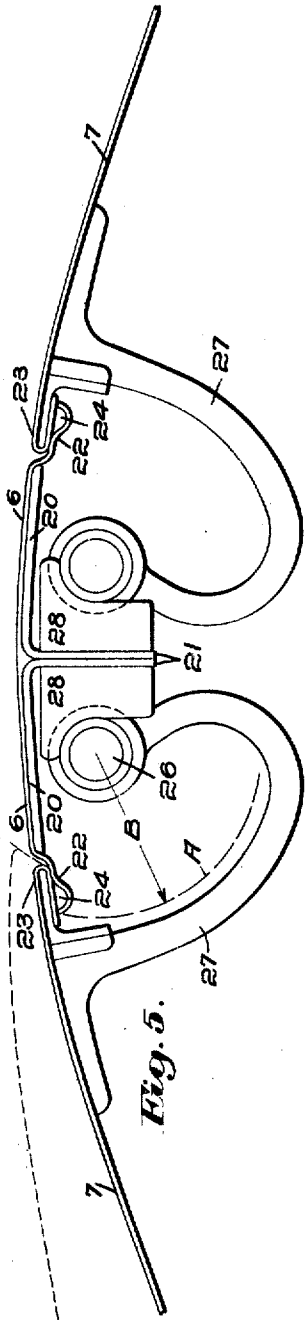


Fig. 5.

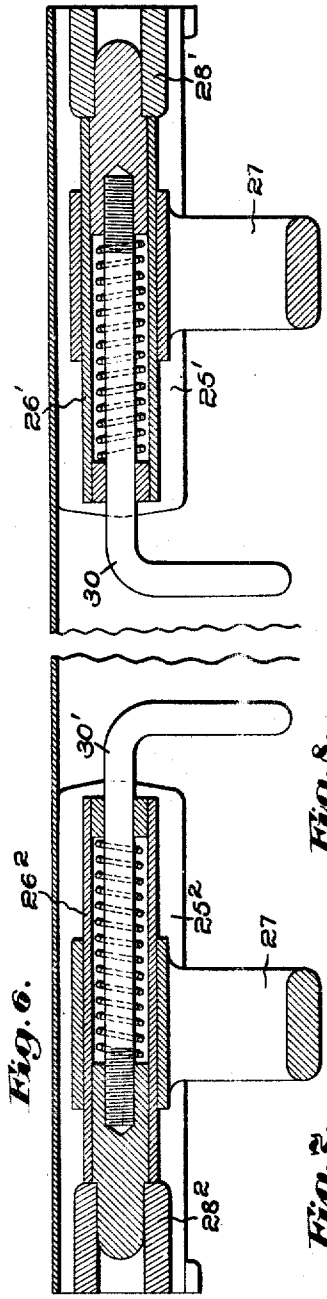


Fig. 6.

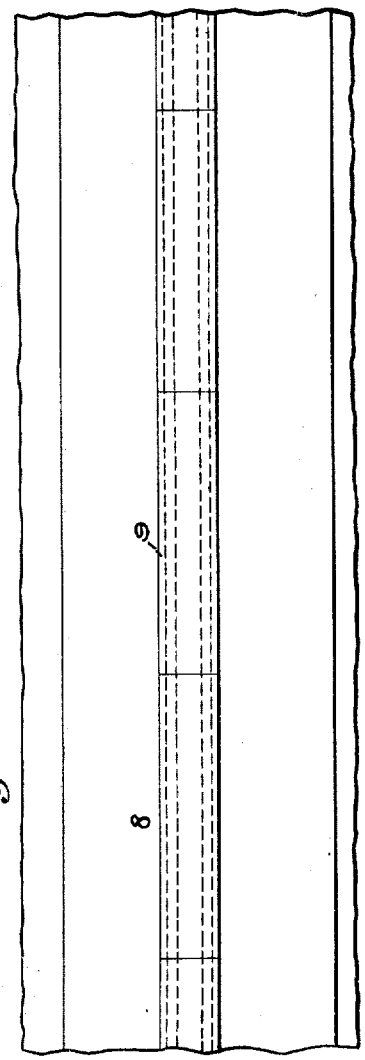


Fig. 8.

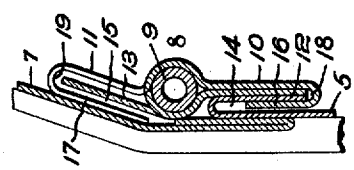


Fig. 2.

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UNITED STATES PATENT OFFICE.

ALBERT C. SCHULZ, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE LOCOMOBILE COMPANY OF AMERICA, OF NEW YORK, N. Y., A CORPORATION OF WEST VIRGINIA.

HOOD OR BONNET.

1,300,032. Specification of Letters Patent. Patented Apr. 8, 1919.

Application filed June 13, 1916. Serial No. 103,554.

To all whom it may concern:

Be it known that I, ALBERT C. SCHULZ, a citizen of the United States, and a resident of Bridgeport, county of Fairfield, State of Connecticut, have invented an Improvement in Hoods or Bonnets, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to a housing, and is more particularly concerned with a so-called hood or bonnet for housing machinery, such as the motors and accessories of motor cars, motor bodies, aeroplanes, and other apparatus requiring shelter from the elements, and protection from dust and dirt.

My invention will be best understood by reference to the following description, when taken in connection with the accompanying drawings of one specific embodiment thereof, while its scope will be more particularly pointed out in the appended claims.

In the drawings:

Figure 1 is a side elevation of a hood or bonnet embodying my invention, the same being shown combined with a radiator and a portion of a cowl, both constituting in effect portions of the housing;

Fig. 2 is a front elevation of the hood or bonnet with the radiator omitted, and showing in addition to the bonnet the sills and frame members which support the same;

Fig. 3 is a plan of portions of the bonnet on an enlarged scale;

Fig. 4 is a sectional view on line 4—4 of Fig. 3;

Fig. 5 is a detail sectional view on an enlarged scale on line 5—5 of Fig. 1;

Fig. 6 is a detail sectional view on line 6—6 of Fig. 3;

Fig. 7 is a detail sectional view on an enlarged scale on line 7—7 of Fig. 1, illustrating one of the side hinges; and

Fig. 8 is a detail elevation, viewed from the interior of the bonnet, and also illustrating the hinge shown in Fig. 7.

Referring to the drawings, and to the embodiment of my invention which I have selected for illustration, I have there shown a housing of the class commonly called a hood or bonnet, and in the specific example, have shown one particularly adapted for use as a housing for a motor, and some of the accessories of a motor car.

As herein shown, the bonnet (see Fig. 1) is interposed between a radiator 1 and a cowl 2 which constitute in effect portions of the housing. As is usual, the bonnet overlaps the radiator and cowl to form closed joints therewith. In Fig. 2, the bonnet is shown supported on a pair of usual bonnet sills 3, the latter, as is customary, resting upon side members 4 of the motor car frame.

The bonnet proper, as herein shown, comprises a pair of side walls 5, a central roof section 6, and a pair of intermediate sections 7. Each of the side walls 5 is hinged to the adjacent section or wall 7 by a suitable hinge 8, preferably of the type known as a concealed hinge entirely within the bonnet. This hinge herein comprises a pintle 9 and a pair of hinged members 10 and 11, suitably secured to the wall sections 5 and 7. Preferably, the marginal portions 12 and 13 of the wall sections 5 and 7 (see Fig. 7) are folded to form channels 14 and 15, respectively, to receive portions of the hinged members 10 and 11, respectively. Preferably, also, the latter in like manner have marginal portions 16 and 17 folded to form channels 18 and 19, respectively, to receive the marginal portions of the wall sections 5 and 7. By this construction, each hinge member has what may be termed a clench joint with its respective wall section, thus enabling the hinge to be made as a separate unit and applied to the wall sections in a neat and durable manner, without the use of rivets. By this method of construction, the wall sections are simply plain sheets with their adjacent marginal portions folded back upon themselves to receive the hinge sections. The latter are of the type sometimes called piano hinges, and can be made separately from, and later attached to, the wall sections much more conveniently than they could be made integral therewith. It must be evident, moreover, that this construction lends strength to the joint owing to the use of several plies of material folded as shown.

Referring now to Figs. 2 and 5, I have there shown a central roof section 6 mounted upon a suitable support, herein composed of a pair of members 20 generally L-shaped in cross section, and having the webs 21 placed face to face to form a rigid reinforcement which constitutes a species of ridgepole, as it were, for the roof structure.

As a means for excluding as much water as possible, the sections 6 and 7 have over-

lapping marginal portions 22 and 23, respectively, forming a joint between them. It must be evident, however, that some water is bound to enter said joint, and I have therefore provided the latter with drainage means, herein consisting of a gutter or channel 24 to receive and drain away the water which leaks through the joint. This channel or gutter is preferably formed by simply bending the inner overlapping margin 22 of the roof section 6 into trough-like form, as clearly shown in Fig. 5. This channel or gutter, as shown in Fig. 4, is preferably inclined toward one end of the bonnet, in the present instance toward the radiator 1, so that any water which enters at the joint is conducted by the channel or trough to a point adjacent the radiator, where it may be disposed of in such manner as to avoid its reaching the usual machinery which is disposed within the bonnet. Each of the sections 7 is herein hinged to the section 6 by one or more, herein a plurality of, hinges of novel form.

Taking one of the hinges as an example (see Fig. 5), said hinge comprises a pivot 26 which connects the parts 6 and 7 to each other within the hood. Now, in order to permit the latter to be opened by swinging the part 7 in an upward and inward direction, as indicated by dotted lines in Fig. 5, the axis of the pivot 26 is disposed lengthwise of the joint and at the side of the latter toward which the outer overlapping margin 23 swings when opening. In the specific example, the part 7 swings toward the center of the hood, and hence the pivotal axis is disposed intermediate the joint and the center of the hood.

In order to permit the hinged section 7 to be swung open as far as possible, it is connected to the pivot 26 by an arm 27 whose form is such as to permit a swinging movement through a considerable angular distance, without interference of the arm with the edge of the inner overlapping margin 22. To this end, the arm 27 is herein disposed, in part at least, outside of an arc A, whose center is in the axis of the pivot 26, and whose radius B is the distance from said axis to the edge of the inner overlapping margin 22. As long as a considerable portion of the arm from a point where it is secured to the part 7 is disposed outside of the arc referred to, it may be any desired shape; but, as herein shown, it is substantially concentric with said arm. Since such concentric portion need be only of such length as to permit the hinged section to be opened to the desired extent, the remainder of the arm is of course suitably shaped to form the necessary connection with the pivot.

The intermediate hinge, which has just been described, is provided with a fixed block 28, to which the pivot is detachably attached, and this block is shown in Fig. 5 as mounted on the web 21. By reference to Fig. 6, it will be observed that the front and rear hinges, which for convenience are designated 25′ and 25², are provided with socketed supporting blocks 28′ and 28², and that the pivots 26′ and 26² are provided with spring-pressed bolts 30 and 30′, normally seated in the sockets of said blocks, but capable of being withdrawn therefrom. When these bolts are thus withdrawn, the section 7 is detached from the section 6, and may be entirely removed. This spring-bolt construction, however, constitutes no part of my present invention, but forms the subject matter of application by other parties.

Each of the side walls or sections 5 may be provided with one or more usual handles 31, which may be grasped to lift such section for the purpose of opening the bonnet. In doing this, it is customary to simply lift the side section 5, thus imparting an upward and inward swinging motion to the section 7, the latter finally bringing up in an inverted, or partially inverted, position with the section 5 folded down against its inner surface in a manner too well known to require further description.

While I have herein shown and described one specific form or embodiment of my invention for illustrative purposes, and have disclosed and discussed in detail the construction and arrangement incidental to one specific application thereof, it is to be understood that the invention is limited neither to the mere details or relative arrangement of parts, nor to its specific embodiment herein shown, but that extensive deviations from the illustrated form or embodiment of the invention may be made, without departing from the principles thereof.

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

1. In a hood or bonnet, the combination of a roof and walls inclosing an interior space and comprising two sections jointed together, and drainage means disposed adjacent the joint of said sections to receive and drain away water leaking through such joint from the exterior of said hood or bonnet.

2. In a hood or bonnet, the combination of a roof and walls inclosing an interior space and comprising sections arranged to form a joint, and a channel disposed within said space to receive water admitted through said joint.

3. In a hood or bonnet, the combination of a roof and walls inclosing an interior space and comprising sections arranged to form a joint, and a downwardly inclined channel disposed within said space to receive water admitted through said joint.

4. In a hood or bonnet, the combination

of a roof and walls inclosing an interior space and comprising sections arranged to form a joint, and a trough-like member disposed within said space and beneath said joint.

5. In a hood or bonnet, the combination of a roof and walls inclosing an interior space and comprising sections arranged to form a joint in said roof, and a trough-like member supported on the inside of said roof beneath said joint, said roof and said member being inclined downwardly.

6. In a hood or bonnet, the combination of two jointed parts having overlapping marginal portions forming a joint, and a pivot connecting one of said parts to the other within the hood, the axis of said pivot being disposed lengthwise of said joint and at the side of the latter toward which the outer overlapping margin swings when opening.

7. In a hood or bonnet, the combination of two jointed parts having overlapping marginal portions forming a joint, a pivot connecting one of said parts to the other within the hood, the axis of said pivot being disposed lengthwise of the joint and at the side of the latter toward which the outer overlapping margin swings when opening, and means connecting said pivot to the part which has the outer overlapping margin, said means being in part, at least, disposed outside of an arc whose center is in said axis and whose radius is the distance from said axis to the edge of the inner overlapping margin.

8. In a hood or bonnet, the combination of two jointed parts having marginal portions forming a joint, and a pivot connecting one of said parts to the other within the hood, the axis of said pivot being disposed lengthwise of said joint and at the side of the latter toward which the outer margin swings when opening.

9. In a hood or bonnet, the combination of a roof and walls inclosing an interior space and comprising sections 6 and 7 jointed together, and drainage means 24 adjacent the joint of said sections.

10. In a hood or bonnet, the combination of two jointed parts having overlapping marginal portions 22 and 23 forming a joint, and a pivot 26 connecting one of said parts to the other within the hood, the axis of said pivot being disposed substantially parallel with said joint.

11. An automobile hood hinge comprising hood sections having hinge pintles, a pair of brackets for the hood sections, each bracket having a pair of hinge bearings spaced apart thereon and adapted to receive the hinge pintles of the hood sections, and a tie strip connected at opposite ends with said brackets and underlapping said hood sections.

12. In a hood for automobiles, a pair of hinge brackets for the hood sections, each having a pair of tubular hinge bearings spaced apart thereon, hood sections having hinge pintles for pivotal engagement with said bearings and a T-shaped weather strip connected with said brackets and interposed between said sections in underlapping relation therewith.

13. In a hood for automobiles, a pair of hood sections disposed in opposed adjacent relation and hinged at opposite ends, respectively, to the dash and radiator of the vehicle, and a weather strip secured at opposite ends, respectively, to said dash and radiator and underlapping the adjacent edges of said hood sections.

14. An automobile hood, comprising two parts one of which swings outwardly relatively to the other, and a hinge connecting said two parts and located on the inner side of the joint between them.

15. An automobile hood, comprising more than two parts, and hinges connecting such part and all located on the inner side of the hood, some of the joints provided by such hinges folding inwardly and some outwardly.

16. An automobile hood, comprising more than two parts, and hinges connecting such parts and all located on the inner side of the hood.

17. In a hood for automobiles, a pair of hood sections disposed in opposed relationship and carried by pivotal means inside the hood, said hood sections being separated, a normally fixed hood section interposed in the space between said pair of hood sections and provided with troughs underlying the inner edges of said pair of hood sections and providing for drainage of water entering said hood in the joints between said pair of hood sections and said normally fixed hood section.

18. In a hood for automobiles, a pair of hood sections, a tie strip forming part of the hood between said hood sections, hinge means for said hood sections located inside the hood, the edges of said hood sections and the edges of said tie strip being in lapped relationship.

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

ALBERT C. SCHULZ.

Witnesses:
R. E. LOCKWOOD,
B. J. CONNOLLY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."