To all whom it may concern:

Be it known that I, Chester F. Johnson, 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 Hood for Motor Vehicles, of which the following is a specification.

The louvered or heat escape openings in the walls of the hood for automobile radiators are commonly closed in cold weather by exterior jackets or coverings that surround the entire hood; and it has also been proposed to line the inside of the hood with heat insulating material cemented or riveted in place. The former construction is expensive and unsightly; the latter, if tight enough to retain the heat during cold weather, would not allow sufficient air circulation in the summer.

The present invention possesses the advantages of each of the above constructions and avoids the objectional features thereof.

It consists, in combination with a hood arranged to allow circulation of air during hot weather, of a closure carried in the interior of the hood and adapted to be positioned across the air opening or openings to prevent air circulation at will.

The invention further consists in the details of construction shown, described and particularly pointed out in the subjoined claims.

In the drawings, Figure 1 is a side view of the front end of a motor vehicle, parts being broken away and the engine being omitted to show the construction of the hood. Fig. 2 is a section of the near side of the hood on the line 2—2 of Fig. 1. Fig. 3 is a similar enlarged fragmentary section on the line 3—3 of Fig. 1. Fig. 4 is an enlarged fragmentary section on the line 2—2 of Fig. 1.

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

In the embodiment of my invention shown, the upper sections 1 and 2 of the hood are joined by the longitudinal pivot 3 that allows either section to be swung upwardly about the edge of the other; and to the edges of the upper sections the side sections 4 and 5 are attached by the longitudinal pivot rods 6 and 7, the latter allowing inward swinging movement of the side sections about the edges of the upper sections. The hood may be supported at its front end upon a transverse flange 8 of the proper contour carried by the radiator 9, and at its rear end upon a similar transverse flange 10 carried by the body 11, or in any other desired manner. The general construction thus far described is well known.

The usual longitudinal side bars are indicated at 15. In this instance they are, however, provided with a dust guard 16 that is secured to their upper flanges and projects outwardly therefrom, and with a hood shelf having a horizontal flange 17 and a vertical flange 18 disposed along its inner edge. It will be understood that the opening between the side bars is closed in the usual way (not shown). When the hood is in position, the lower edge is spaced somewhat from the hood shelf, to afford, as best shown on the left side of Fig. 2, a passage 20 through which the heated air may escape in the manner indicated by the arrow. This passage, it will be noted, is supplemental to the usual louver 21. The hood may be clamped down by the spring clamps 22 that engage with bracket hooks 23 in a well-known manner.

The pivots between the side and top sections may be formed in various ways, but a preferred construction will now be described: The lower edges of the top sections are bent back parallel to and spaced from the body portion at 28 to allow the insertion of one end 29 of a hinge clip, the mid-portions of which passes around the corresponding pivot rod 6 or 7, its other end 30 being brought down along the inside of the portion 28. These parts are then secured together by the rivets 31. The side sections 4 and 5 are of single thickness throughout the major portion of their length and may be provided near their ends with reinforcing strips 32 (but one of which is shown). As best indicated in Figs. 3 and 4, the side sections are bent inwardly near their upper edges to form offsets 33 that terminate in the vertical edge portions 34. The latter are embraced at points longitudinally adjacent the clips 29—30 by similar clips 35 that may be secured thereto by the rivets 36 and embrace the pivot rod. At the end portions these rivets may also serve to secure the reinforcing strips 32 in position. It will be seen that water dripping from the upper sections is discharged without coming in contact with the hinge members. Also mounted to swing vertically on the pivot rods 6 and 7 are the closures 38, the edges of
which nearest the hinges are provided at intervals with the hinge portions 39 that inclose the corresponding pivot rod. It is desirable that the number of hinge portions 39 be equal to the number of the hinge clips of each set heretofore described, thus allowing the three hinge elements to be arranged in series, as indicated in Fig. 1. The closures may occupy either the open position indicated at the left side of Fig. 2 or the closed position shown at the right, and when in open position, may be retained by the rivets or bolts 41 and wing nuts 42. In order to clear the parts in the vicinity of the pivot when in closed position, the upper portion of the closures may be offset inwardly at 43, and its lower edge may be flanged at 44 and provided with the longitudinal strip 45 secured thereto by the rivets 46 and spaced therefrom to receive the felt strip 47. The inner edge of this strip is adapted to contact with the flange 18 of the hood shelf to form a seal, and when in open position engages with the lower side of the hood, whereby rattling is avoided.

In warm weather the closures are supported by the bolts 41; when, however, it becomes desirable to prevent the circulation of air, half of the hood is swung upward about the pivot 3 and the nut 42 is unscrewed to release the corresponding closure, after which the latter swings downwardly parallel to the side section. The closure and side section are then lowered outside of the flange 18 and are secured in position by the clamps 22 that hold the felt in tight engagement with the flange. This not only seals the supplementary air passage but also prevents rattling. Since the closure is entirely within the hood, the latter may be given the usual graceful lines and glossy finish, its appearance being the same in winter as in summer, and being unaffected in any manner by the presence of the closure.

It is clear that many changes may be made in the details of the construction without departing from the spirit of my invention. I do not, therefore, wish to be limited otherwise than as indicated by the subjoined claims.

I claim:

1. A hood for motor vehicles including a side section having a series of openings for the escape of heated air, and a closure within the hood and arranged to be positioned to close the openings or to leave them free for the escape of air as desired.

2. A hood for motor vehicles comprising a top section and a side section, said side section having a series of louvered openings for the escape of heated air, and a closure carried on the inside of the hood, said closure being arranged to be positioned along the inner side of the side section to close the louvered openings, and being movable to another position in which the openings are unobstructed thereby.

3. In combination, the frame of a motor vehicle and a hood therefor, said hood including a side section having openings for the escape of heated air, and having its lower edge spaced somewhat from the frame to form a supplementary opening for the escape of heated air, movable closure means within the hood arranged to close the first mentioned openings and the supplementary opening when in one position, and leaving all of the openings free for the passage of air when in another position.

4. In combination, the frame of a motor vehicle and a hood therefor, said hood including a side section having its lower edge spaced somewhat from the frame to form a passage for the escape of heated air, movable closure means within the hood arranged to close the passage when in one position, and leaving it free for the passage of air when in another position.

5. In combination, the frame of a motor vehicle and a hood therefor, said hood including a side section having its lower edge spaced somewhat from the frame to form a passage for the escape of heated air, movable closure means within the hood arranged to close the passage when in one position, and leaving it free for the passage of air when in another position, and means for preventing rattling when the closure is in passage closing position.

6. In combination, the frame of a motor vehicle and a hood therefor, said hood including a side section having its lower edge spaced somewhat from the frame to form a passage for the escape of heated air, movable closure means within the hood arranged to close the passage when in one position, and leaving it free for the passage of air when in another position, and means for preventing rattling when the closure is in position to allow air to flow through the passage.

7. A hood for motor vehicles including a top section, and a side section having a series of openings for the escape of heated air, a pivot whereby the sections are connected, a closure within the hood mounted to swing about the pivot from a position in which the openings are unobstructed thereby to a position in which it serves to shut off the circulation of air.

8. In combination, a motor vehicle hood comprising a top section, a side section and a pivot whereby the sections are connected, a hood shelf spaced somewhat from the edge of the side section to form a passage for the escape of heated air, and a closure within the hood mounted to swing about the pivot from a position in which the passage is unobstructed thereby to a position in which it serves to shut off the circulation of air.
9. In combination, a motor vehicle hood comprising a top section, a side section and a pivot whereby the sections are connected, said side section having a series of openings for the escape of heated air, a hood shelf spaced somewhat from the edge of the side section to form a supplementary opening for the circulation of air, and a closure within the hood mounted to swing about the pivot from a position in which all the openings are unobstructed thereby to a position in which it serves to shut off the circulation of air.

10. A hood for motor vehicles including a top section, and a side section having a series of openings for the escape of heated air, a pivot whereby the sections are connected, a closure within the hood mounted to swing about the pivot from a position in which the openings are unobstructed thereby to a position in which it serves to shut off the circulation of air, and means for retaining the closure in the first mentioned position.

11. A hood for motor vehicles including a top section, and a side section having a series of openings for the escape of heated air, a pivot whereby the sections are connected, a closure within the hood mounted to swing about the pivot from a position in which the openings are unobstructed thereby to a position in which it serves to shut off the circulation of air, said closure, including a strip of flexible material that contacts with the inner surface of the hood when in the first mentioned position, and means for retaining the closure in said position whereby rattling is avoided.

12. In combination, a motor vehicle hood comprising a top section, a side section and a pivot whereby the sections are connected, a hood shelf spaced somewhat from the edge of the side section to form a passage for the escape of heated air, and a closure within the hood mounted to swing about the pivot from a position in which the passage is unobstructed thereby to a position in which it serves to shut off the circulation of air, said closure including a strip of flexible material that contacts with the hood shelf when in the last mentioned position, and means for retaining the closure in said position whereby rattling is avoided.

13. In combination, a motor vehicle hood comprising a top section, a side section and a pivot whereby the sections are connected, a hood shelf spaced somewhat from the edge of the side section to form a passage for the escape of heated air, and a closure within the hood mounted to swing about the pivot from a position in which the passage is unobstructed thereby to a position in which it serves to shut off the circulation of air, said closure including a strip of flexible material that contacts with the hood shelf when in the position last mentioned, and means engaging with the side section for retaining the latter against the closure and for holding the flexible strip tightly against the hood shelf, whereby rattling is avoided.

14. In combination, a motor vehicle hood comprising two top sections pivotally connected to swing outwardly on each other, a side section pivoted to swing inwardly about the outer edge of one of the top sections, a hood shelf spaced somewhat from the lower edge of the side section to form a passage for the escape of heated air, and a closure also pivoted to swing inwardly about the outer edge of the top section and arranged to engage with the outer side of the hood shelf to close the passage in one position of its movement.

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

CHESTER F. JOHNSON.

Witnesses:

Edward N. Pagelsen,
Hugo W. Kreinbring.