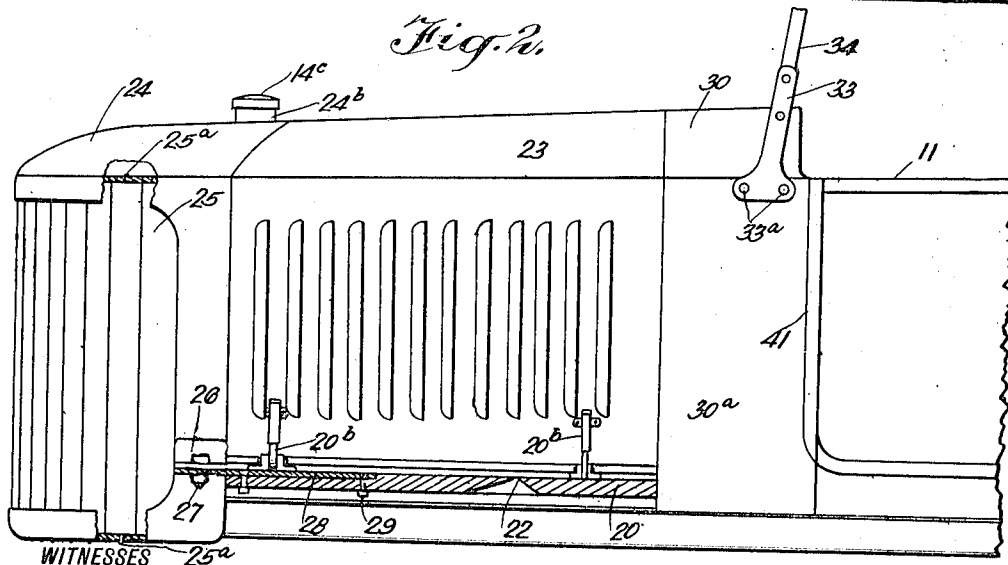
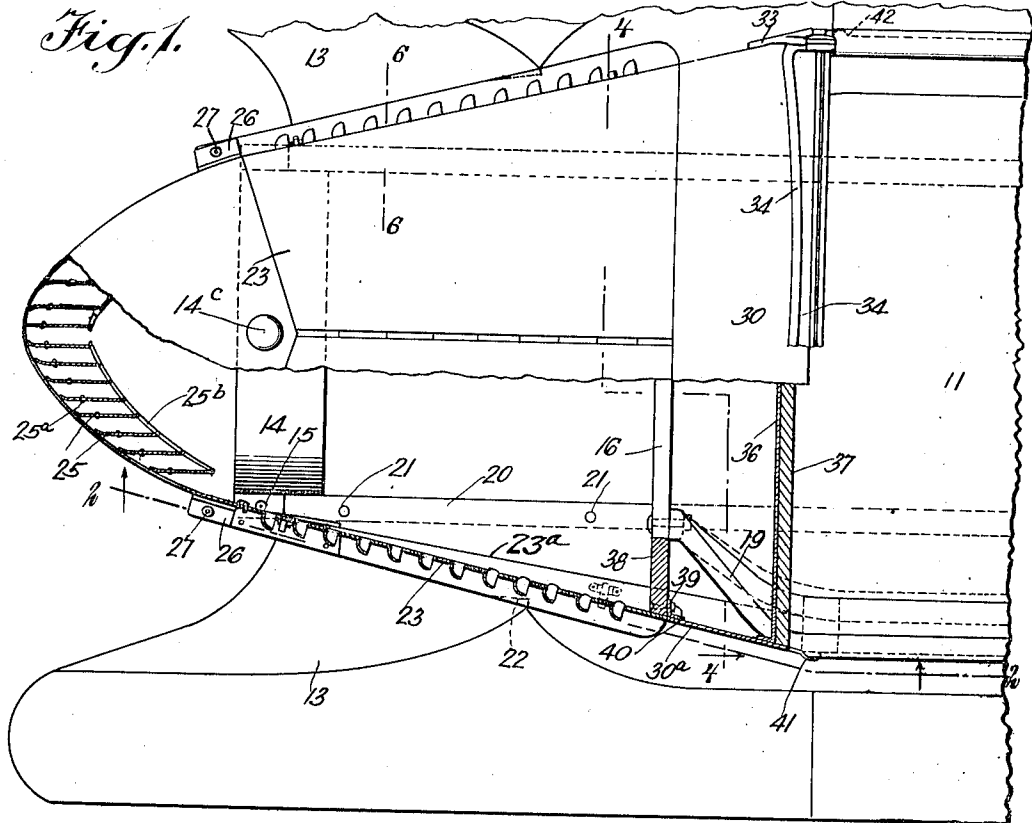


D McR. LIVINGSTON.
 ATTACHMENT FOR AUTOMOBILES.
 APPLICATION FILED FEB. 9, 1918.

Patented Mar. 25, 1919.

2 SHEETS—SHEET 1.



WITNESSES
John Maylor
J. L. Mulliff

INVENTOR
 D McR. Livingston
 BY *M. M. Co.*
 ATTORNEYS

1,298,523.

D McR. LIVINGSTON.
ATTACHMENT FOR AUTOMOBILES.
APPLICATION FILED FEB. 9, 1918.

Patented Mar. 25, 1919.
2 SHEETS—SHEET 2.

Fig. 3.

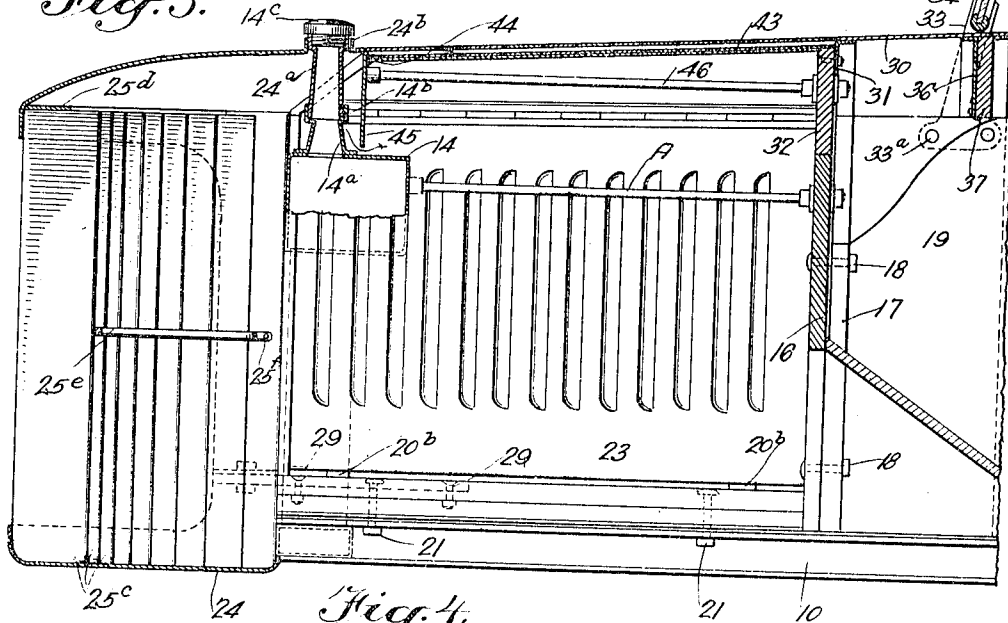


Fig. 4.

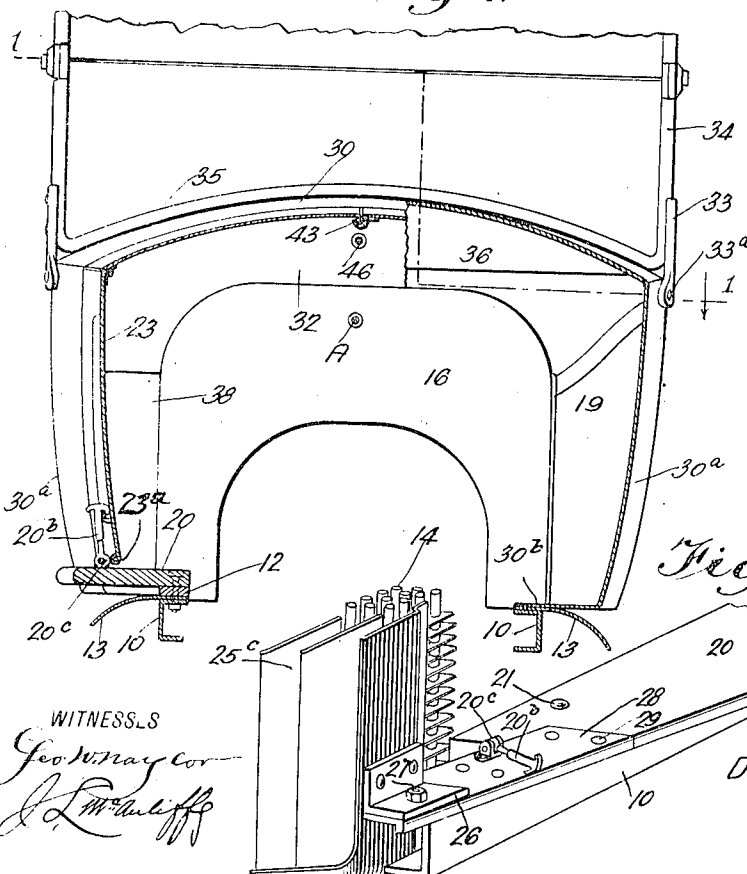


Fig. 6.

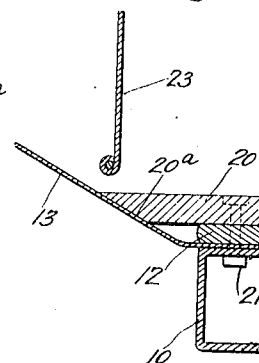


Fig. 5.

WITNESSES

Geo. W. Ray, Cor.
J. L. M. Luff

INVENTOR
D McR. Livingston
BY *M. M. M.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

D McRA LIVINGSTON, OF NEW YORK, N. Y.

ATTACHMENT FOR AUTOMOBILES.

1,298,523.

Specification of Letters Patent.

Patented Mar. 25, 1919.

Application filed February 9, 1918. Serial No. 216,292.

To all whom it may concern:

Be it known that I, D McRA LIVINGSTON, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Attachment for Automobiles, of which the following is a description.

The present invention, while possessing features of wider application, is in large measure intended for embodiment in an automobile attachment having the general character of a mask for undesirable features of automobiles of certain makes, in which respect the invention is in the nature of an improvement on the invention forming the subject matter of United States Letters Patent granted to me October 5th, 1915, Number 1,156,017, Letters Patent granted to me May 15, 1917, Number 1,226,344, and the invention forming the subject of an application filed by me February 23, 1917, Serial Number 150,537.

It is recognized that certain types of automobiles are deficient esthetically, having regard for dimensions and lines compatible with true stream line effects or an equivalent attractive appearance. Attachable structures have been provided in different forms to be applied to the automobiles in question in the effort to cure the aesthetic defects referred to but all efforts in that direction have been hampered by the inherent structural limitations presented by the said automobiles, the limitations being found in the form and dimensions of the frames, hood boards, and bodies of the automobiles and the radiator and its appurtenances, so that in masking the objectionable characteristics of the automobile, the masking structure has itself fallen short of the desirable.

An important object of my invention also is to provide in a mask of the character above referred to a motor hood and a radiator masking element so formed and coordinated as to appreciably increase the apparent length of the automobile without forming the radiator mask or front element of the masking structure of apparent undue size; and coincidentally to form the hood element of the mask of the maximum length at the sides without extending said hood at the top and median line beyond the filling neck of the radiator, as will more clearly appear from the particular description following; and to utilize the hood thus formed

to materially contribute to the obtaining of desirable esthetic effects when the hood is considered in relation to the body and a cowl element thereon as hereinafter more particularly explained.

It is a further object of the present invention to provide an attachment of the character referred to including a motor hood and a radiator mask, the attachment being self-contained with respect to the supporting and securing means for the said hood and mask and adapted to be readily applied to automobiles of standard make.

Further important objects of the invention are: first, to embody in the attachment a motor hood and supporting means therefor applicable to the usual automobile frames including those frames having hood boards or blocks, whereby the hood will be supported laterally outward from the frame and usual hood boards and thus be adapted to be given lateral and vertical dimensions compatible with accepted ideas as to automobile design; second, to provide a radiator mask complementary to the motor hood, and having supporting means unrestricted by the form or size of the automobile frame and the usual hood boards thereon, and wholly independent of the radiator and its securing means; and, third, to provide a cowl piece and associated elements compatible with the improved motor hood and radiator mask and so formed and arranged as to be properly secured in position and to possess a character to coordinate the attachment with the lines and structural features of the body and other permanent elements of the automobile.

The invention furthermore has for an object to provide a novel assembly comprising a cowl piece, instrument board and dash extension, whereby the placing and securing of the cowl piece serves to position and sustain the dash extension and my distinctive instrument board.

Reference is to be had to the accompanying drawings forming a part of this specification, it being understood that the drawings are merely illustrative of one example of the invention.

Figure 1 is a plan view of my improved attachment, partly in section, as indicated by the irregular line 1—1, Fig. 4;

Fig. 2 is a side elevation with parts in longitudinal vertical section on the line 2—2, Fig. 1;

Fig. 3 is a central longitudinal vertical section, the view showing a modification of the slats in the radiator mask;

Fig. 4 is a transverse vertical section on the line 4—4, Fig. 1;

Fig. 5 is a fragmentary perspective view, showing a portion of one of the auxiliary hood boards, forming part of my attachment, and the means whereby the radiator mask is supported independent of the radiator;

Fig. 6 is a detail in transverse vertical section in a plane approximately corresponding with the line 6—6, Fig. 1.

Certain permanent parts of an automobile are illustrated, the numeral 10 indicating the frame; 11, the body; 12, the usual hood board or hood block; 13, mudguards; 14, the radiator having brackets 15; 16, a known form of dash secured to standards 17 by bolts 18; and 19 indicates side portions of the body at the front as found in a certain type of automobile below the top cowl piece thereof.

In carrying out my invention in accordance with the illustrated example, I provide at each side auxiliary hood boards 20 of suitable material, and said boards being secured in position in any suitable manner above the boards 12, securing bolts 21 being shown. The auxiliary boards 20 are illustrated as formed with cut-outs 22 (Figs. 1 and 2) to conform to a known make of mud guard 13. The said auxiliary boards 20 have a width to overhang laterally at the outside of the frame 10 and hood boards 12, and in the illustrated form they are beveled at the under side along the outer edges as at 20^a (Fig. 6) to accord with the angle of the mud guards. The auxiliary boards 20 are adapted for a motor hood 23 having a desired width and height, since its lateral dimensions are not limited by the width of the frame 10, nor by the fixed location or transverse dimensions of the hood boards 12, so that the hood appropriately may have dimensions materially greater than the usual hood clamped to the boards 12. In my invention the improved motor hood 23 is clamped at the sides by clamps 20^b hereinafter referred to. The hood flares rearwardly as clearly shown in Fig. 1, and the boards 20 in practice have a corresponding gradually increasing width toward the rear end of the hood. The hood 23 when thus supported and having a height above the ordinary hood in cars of the class referred to may be given in addition to its general stream line flare at the sides, a top line or profile as indicated in Fig. 2, and the sides are coördinated with the cowl and harmonized with the laterally curving cowl and body lines as hereinafter particularly explained.

In order to produce a radiator effect com-

patible with the lines of the hood 23, I provide a radiator mask 24, here shown as simulating a radiator of modified V-type. The said mask 24 is in the form of a casing open at the front, the opening extending rearwardly at the sides so that the top and bottom of the casing overhang after the general form of the V-type radiator and in the open front I provide vertical slats 25 or 25^c. The slats 25, in Figs. 1 and 2, are pivoted top and bottom as at 25^a and those slats at each side of the center are linked to connecting bars 25^b that the slats of the series will move in unison. The slats may be held in adjusted position by suitable means as by having the pivots tight enough to prevent accidental movement. In Fig. 3 the vertical slats 25^c are suitably made fast to the casing 24 at top and bottom, the slats at the top being also secured to a flange 25^d on said casing. A brace 25^e is suitably made fast to slats 25^c and secured at its ends 25^f to casing 24. By providing vertical slats or shutters the apparent total length of the mask is increased since the side view gives the effect of a paneled front rather than an open one as will be clear from Figs. 1 and 2.

The mask 24 is of a character to be structurally freed not only from limitations of the shape and size of the radiator 14 but independent of the radiator securing means; to sustain the mask the same is formed with its own independent brackets 26 which are secured by bolts 27 or otherwise to the forward ends of plates 28 secured by bolts 29 to the front ends of the auxiliary hood boards 20 and constituting in effect extensions of the said auxiliary hood boards, laterally outward from and forward of the frame 10, as clearly shown in Figs. 2 and 5. In view of the independence of the mask 24 with respect to the actual radiator 14, frame 10, and the hood boards 12, I am enabled to produce the hood with dimensions and lines compatible with the hood 23.

Since the purpose of the coördinated hood 23 and radiator mask 24 is to increase the apparent size of the car, the effect is produced by the described construction, and since this result is attained irrespective of the location of the actual radiator 14, I provide in a novel manner for obviating the necessity of giving an exaggerated apparent length to the radiator masking element 24, notwithstanding the mechanical limitation of a filler neck rising from the top of the radiator in fixed position. It will be observed from Figs. 1 and 2 that the hood 23 at the sides is carried forwardly beyond the filler neck 14^a notwithstanding that the top median line terminates short of the filler neck in order that the hood may be freely raised without interference by the filler neck. The carrying forward of the sides of the

hood gives me a hood of proper proportionate length and a corresponding decrease in the length of the mask 24 at the sides, notwithstanding that the top of the radiator mask 24 is extended at the center rearwardly beyond the filler neck 14^a. As viewed in plan therefore, the front edge of the hood 23 and the rear edge of the top of the mask 24 are of mating V-shape or equivalent shape due to the more forward position of the side edges with respect to the center, the mask 24 being higher than the radiator so that the top is above neck 14^a. The filler neck 14^a is provided with an auxiliary filler neck 24^a fitting at its lower end in the usual flange 14^b or equivalent formation on the neck 14^a, while the top of said auxiliary neck 24^a extends through an opening 24^b in the mask in register with the filler neck 14^a. At the upper end the neck 24^a is internally threaded to receive the neck cap or closure 14^c which thus is applied to the auxiliary neck instead of to the original neck 14^a. The arrangement, it will be seen, provides for no difference in the mode of filling the radiator.

In order to coördinate the motor hood 23 and mask 24 with the body 11 and body elements 19 as well as to give the elements of the attachment support adjacent to the body, I provide a cowl piece 30 with appurtenances as next described. The said cowl piece is formed at the front end thereof with an angle flange 31 or equivalent face portion. The face portion 31 of the cowl is provided with means to constitute a vertical extension of or top piece for the dash 16; in the preferred form there is provided a facing 32 disposed in the vertical plane of the dash 16. Near the rear end the cowl piece 30 has a flange or like inner member 36 rigid therewith and to said member 36 is secured an instrument board 37, it being understood that in practice various devices now carried by the usual instrument board of the automobiles of the type referred to and not shown in the drawings are secured to or associated with the said instrument board 37. Thus, it will be seen the instrument board in my attachment is elevated above the position occupied by the ordinary board in the automobiles referred to.

It will be understood that the cowl piece 30 may be extended downwardly at the sides to any desired extent. In the illustrated example said cowl piece is continued to the bottom line of the car body 11, that is to say, to or approximately to the frame 10 and the rear edges of the cowl piece at the sides are beaded as at 41, 42 to conform to the sides of the body 11. As seen in Fig. 4 the side portions 30^a of the cowl 30 conform generally to the plane of the hood 23 and also the lower portion of the cowl piece curves laterally inward in general conform-

ity with the curved lines of the body, the bottom edge 30^b being extended laterally to the frame 10.

Each side 30^a of the cowl 30 at the forward edge thereof is formed or provided at the interior with an angle piece or equivalent element presenting a flange 39, to which are secured by bolts 40 or the like facing members 38 which are thus positioned at the sides of the dash 16 and constitute in effect lateral extensions of the said dash. The rear end of the hood 23 overlaps or is received on the upper edge of the facing 32 and on the side edges of the dash extension 38. Thus, the dash is built up by the elements 32, 38 to conform to the increased dimensions of the hood relatively to the dash 16.

The wind shield 34 is sustained by the cowl piece 30, the shield brackets 33 being secured thereto as at 33^a by bolts, rivets, or the like. The transverse curvature of the cowl piece 30 conforms generally to or harmonizes with a transversely curved bottom cross bar 35 of a wind shield as will be understood from Figs. 2, 3 and 6. The hood 23 at the sides is made to harmonize with the flare and curvature of the sides 30^a of the cowl piece. In the illustrated example the lateral warp or skew of the hood at the bottom is not permanent but the hood is warped into form when clamping it in position; the clamps 20^b, as clearly seen in Fig. 4 at the left, have a cam formation 20^c at the base thereof and are pivoted as at 20^d, the cam being at the inside and adapted when the hood is pressed inwardly and the clamps are swung upward and engaged with the keepers 23^a on the hood, to engage the beaded lower edge of the hood, thereby completing the warping of the lower portion of the hood into a shape to conform to the flare and curvature of the cowl 30 at its sides 30^a.

The described attachment it will be seen from Figs. 1 and 2, when applied to an automobile, results in a seeming substantial enlargement of the automobile and it permits of giving to the automobile the stream line effects so much desired, and the stated ends are accomplished by providing supporting and attaching means unrestricted by the width and length of the frame 10 or by the position of the radiator and its neck and other features of the permanent structure. In attempts heretofore made to produce stream line effects in an automobile in which the body where it joins the cowl portion curves laterally inward, so that it is narrower at the bottom than at the top, the attempts have largely failed of their purpose for the following reason: Heretofore, motor hoods have been made with flat sides or essentially so, usually flared from front to rear, the flat sides being modified only slightly, as for example to the extent of

producing local depressions, or the like, and the difference in width between the top and bottom of the automobile body at the cowl portion has been taken care of (in the effort to obtain stream lines), only to the extent of an inward curve of said cowl portion considered as extended down to the bottom lines of the body. The result necessarily is that the longitudinal lines from the radiator to the body through the hood at the sides thereof and through the cowl portion of the automobile body failed in presenting continuous stream lines, the failure being due to a deviation at said cowl portion. In my hood, 23, at the top edges or where the sides of the hood and the top of the hood join, the hood presents longitudinal straight lines which are in effect continuations of the corresponding straight lines of the cowl 30 where the sides and the top of the latter join, and these longitudinal straight lines of the cowl and hood are in effect a forward projection or extension of the straight lines of the body at the top, see Fig. 2, the result being that the upper stream lines of the automobile body carry straight through the cowl and hood at the top. Also, in my hood, it is to be noted that the bottom lines, the top lines and all intermediate longitudinal lines carry forward the side lines of the body through the cowl and hood to the radiator without deviation at any portion of the structure. I produce this result by giving a skewed or warped formation to the side of the hood. It will be observed from Figs. 1 and 4 that with my warped sides the bottom longitudinal edges of the hood are in different vertical planes from the top edges of the sides, the respective top and bottom edges lying in planes at angles to each other, the respective planes converging from the rear ends of the hood forwardly. The bottom edge line of the hood is indicated by the reference character 23^a, Figs. 1 and 4. It will be observed that with my invention the lower edge of the hood is elevated irrespective of the vertical dimensions of the hood, the support at the higher elevation being provided by the dash extensions and elevated radiator mask, and my auxiliary hood boards being disposed over the ordinary hood boards are afforded accommodation for their increased width because of the increased distance between the splash members of the mud guards in a horizontal plane coincident with the auxiliary hood boards.

The hinge rod 43 of the motor hood 23 at the top of the latter is accommodated at the rear end on the dash extension 32; to provide support for the hood and its hinge rod on the mask, the latter has a supporting block or bracket 44 on an interior flange 45 and to give stability to my attachment, I provide a tie rod 46 extending between the

auxiliary dash 32 and the said flange 45 above the radiator 14, which tie rod 46 is not to be confounded with the usual tie rod A between the radiator and dash. Also, said tie rod 46, indirectly ties the mask 24 and cowl 30.

The flange 45 has the important purpose of preventing too free a passage of air over the top of the radiator 14, said flange forming a restricted outlet for the air therebeneath, as indicated by the arrow appearing below said flange in Fig. 3. Thus, air entering the radiator mask between the slats 25 may pass to a limited extent over the radiator tank, but by reason of the air being afforded only a choked or restricted outlet beneath the flange 45, it will be forced through the radiator section with proper pressure, whereas a too free passage for the air over the radiator tank beneath the radiator mask would be liable to result in a reduction of the air pressure and cooling action in the radiator section below what is required for highest efficiency.

I would state in conclusion that although the illustrated example constitutes a practical embodiment of my invention, I do not limit myself strictly to the mechanical details herein illustrated, since manifestly the same can be considerably varied without departure from the spirit of the invention as defined in the appended claims.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent:

1. An automobile attachment of the character described, including auxiliary hood boards, means to secure the same to an automobile over the usual hood boards, to present overhanging hood-receiving portions laterally outward from the frame of the automobile, forwardly extending members on the said auxiliary hood boards at the front ends thereof adapted to extend at the sides of the automobile radiator, a radiator mask, brackets on said mask, means to secure said brackets to said forwardly extending members of the auxiliary hood boards, independently of the radiator, a rearwardly flaring motor hood alining with said mask and disposed on the laterally overhanging portions of the auxiliary boards, and means to coordinate said auxiliary hood boards, motor hood and mask with an automobile body, said last-mentioned means comprising an attachable cowl piece in the rear of said hood and having side members extending downward outside of the permanent side portions of the automobile body at the front.

2. The combination with an automobile frame and its hood boards, of an attachment including a radiator mask, a motor hood, and auxiliary hood boards on both of the first-mentioned hood boards and overhanging at the outside of the latter, said auxil-

5 iary hood boards having means at the front ends thereof forward of and laterally outward from the automobile frame to support said radiator mask, the auxiliary hood boards accommodating said hood in a position coördinated with said radiator mask.

10 3. In an attachment of the class described, elongated hood boards having means whereby they may be secured on an automobile, and clamp means on said hood boards to secure a motor hood, said hood boards having members at the front ends thereof and positioned to lie beyond the front ends of the frame bars of the automobile and laterally outward therefrom, said members adapted to receive a bracketed structure.

20 4. The combination with an automobile frame, of hood boards overhanging laterally beyond the outer sides of the frame, and means on said hood boards to clamp a motor hood, said boards being provided at the front ends with members laterally outward from said frame and forward of the hood-clamping means, to constitute supporting means for a radiator mask.

25 5. The combination with an automobile, of hood boards secured thereto above the frame of the automobile and overhanging beyond said frame at the outside thereof, a hood positioned on said overhanging portions, means on said overhanging portions to clamp the hood thereon, members on the hood boards at the front ends and constituting extensions thereof beyond the front ends of the frame bars, and a bracketed structure supported on said members.

30 6. In an automobile attachment of the class described, auxiliary hood boards adapted to be secured to an automobile frame, said hood boards being of a width to overhang at the outside of the frame bars of the automobile, and being of gradually decreasing width in a forward direction, and means on said hood boards to clamp a hood, the forward ends of the hood boards having extensions constituting means to support a bracketed structure in front of the hood receiving portions of the hood boards.

35 7. The combination with an automobile frame, body and radiator, a cowl removably secured to the said body, over the permanent front parts of the body, a motor hood coördinated with said cowl, the sides of said hood being in planes outside of the said frame, hood boards having support on the automobile above the side members of the said frame and extending laterally at the outside thereof to accommodate said motor hood in line with the cowl, a radiator mask, and coacting means on the mask and the hood boards beyond the frame members to secure and support said mask independently of the radiator and its securing means.

60 8. In an attachment of the class described, a cowl adapted to be secured on an auto-

mobile, means on the front end of the cowl to support said front end elevated above the fixed parts of the automobile at said front end, a motor hood supported at its rear end on said cowl, a radiator mask affording support for the front end of the hood above the radiator of the automobile, auxiliary hood boards adapted to be secured to the automobile over the usual hood boards and of a width to overhang at the outside and overlap the mud guards of the automobile, and clamp means on the auxiliary hood boards to engage said hood.

9. In an automobile attachment, a cowl, means whereby it may be removably positioned on an automobile and having a member carried thereby at the rear end thereof, and an instrument board carried by said member to be removable with the cowl.

10. In an automobile attachment, a cowl having means whereby it may be positioned on an automobile, a dash extension secured to said cowl to be disposed in the vertical plane of the usual dash, and an instrument board carried by said cowl at the rear end thereof to be positionable with the positioning of the cowl.

11. In an automobile attachment including a cowl having means whereby it may be secured in position; an instrument board carried by said cowl at the rear end thereof whereby the instrument board will be positioned by the positioning and securing of the cowl.

12. In an attachment of the class described, a radiator mask, means to support the same elevated above a radiator, said mask having a vertical opening therethrough at its rear end, and an auxiliary filler neck adapted at its lower end to be secured to the upper end of the usual filler neck, of an automobile radiator, the upper end of the auxiliary neck being accommodated in the opening of the mask and having means to close the auxiliary neck.

13. An attachment of the class described including a radiator mask, a cowl adapted to be secured on an automobile to mask the features of the automobile body at the front, a motor hood between the radiator mask and cowl and having support on both, a depending member on the cowl at the interior of its top portion, a depending member on the radiator mask at the interior, and a tie rod connecting the depending member of the cowl with the depending member on the mask.

14. In an attachment of the class described, a motor hood, a radiator mask, the sides of the said motor hood extending forwardly beyond the central portion of the top thereof and the rear end of the said radiator mask being correspondingly formed to present a central top portion extending rearwardly beyond the sides of the mask,

there being an opening in the said rearwardly extending portion of the mask to accommodate the filler neck of a radiator.

15. In an attachment of the class described, a cowl the sides of which are curved laterally inward so that the bottom longitudinal lines of the sides lie laterally inward from the lines at the top of the sides, said cowl having means whereby to secure the same to an automobile to mask the body features at the front, and a motor hood having its sides warped relatively to the vertical lines of its front portion and presenting varying longitudinal lines at the upper and lower edges and intermediate said edges in conformity with the longitudinal lines of the said cowl.

16. A motor hood having sides presenting at the top thereof rearwardly flaring longitudinal lines, said sides being skewed with respect to the upright front edges of the hood and to said flaring top lines so that the bottom edges of said sides and the intermediate longitudinal lines presented by said sides are within the vertical planes of the

said top lines and lie in vertical planes at angles to the vertical planes in which the top lines lie, the respective vertical planes of the side lines converging approximately at the transverse plane of the front edges of the hood.

17. The combination with a radiator of a motor-driven vehicle, of a structure covering said radiator, and spaced from the top of the radiator tank to form an air passage through said structure over the radiator, and means at the interior of said structure between the same and the radiator, transversely of the air passage forming a restricted outlet from said air passage.

18. In an attachment for motor-driven vehicles, a mask adapted to be placed over the radiator of the vehicle to form an air passage over the radiator within said mask, and means on said mask at the interior and transverse to said passage, adjacent to the rear end thereof, to restrict the outflow of air from the mask.

D McRA LIVINGSTON.