The present invention relates to a structure for a license plate. Specifically, the present invention relates to a device for attaching a license plate to a vehicle. In particular, the present invention relates to a license plate frame for a vehicle which both supports the license plate and has a fin extending therefrom to protect the vehicle.
LICENSE PLATE BUMPER

FIELD OF THE INVENTION

[0001] The present invention generally relates to a structure for a license plate. Specifically, the present invention relates to a device for attaching a license plate to a vehicle. In particular, the present invention relates to a license plate frame for a vehicle which both supports the license plate and protects the vehicle.

DESCRIPTION OF THE RELATED ART

[0002] Typically, license plates are made of metal that can easily bend. Thus, when they are directly attached to car bumpers, and especially when they hang below the bumper itself, they can become malformed and unsightly. Accordingly, license plates have often been attached to bumpers with a support frame, thereby attempting to protect the structural integrity of the license plate. Support frames have had limited success in this endeavor and, additionally, have done nothing to protect the vehicle itself, particularly the grill of the vehicle. There is therefore a great need in the art for a device which can both protect the license plate as well as the vehicle.

[0003] Accordingly, there is now provided with this invention an improved license plate frame for a vehicle that has effectively overcome the aforementioned difficulties and longstanding problems inherent in license plate frames.

SUMMARY OF THE INVENTION

[0004] According to one aspect of the invention, a structure for a license plate is disclosed comprising a rear section having an upper edge, a lower edge, and side edges bridging the upper and lower edges. The rear section has a first set of holes for securing the license plate to a vehicle therethrough. The structure also has a frame extending from the rear section having a upper member attached to the upper edge, a lower member attached to the lower edge, and side members each attached to respective side edges. Each of the side members extend upwardly and outwardly from the respective side edges. The frame further includes a second set of holes for securing the license plate to a vehicle therethrough. The structure further has a fin extending upwardly from the upper edge.

[0005] According to another aspect of the invention, a device for attaching a license plate to a vehicle is disclosed comprising a rear section having holes for securing the license plate to the vehicle therethrough and side arms extending forward of the rear section. The side arms further extend upward from the rear section, downward from the rear section, and outward from the rear section. The device also includes a fin extending upwardly and rearwardly from the rear section.

[0006] According to yet another aspect of the invention, a license plate frame for a vehicle is disclosed comprising a rear section for abutting the vehicle. The rear section has rear lobes extending therefrom, wherein each rear lobe has a hole therethrough. The frame also includes a front section for framing the license plate. The front section has front lobes extending therefrom, wherein each front lobe has a recessed hole therethrough aligned with each hole in each rear lobe. The front section also has a front face that is closer to the rear section at its middle than at its ends. The frame further includes a fin extending upwardly and rearwardly from the rear section.

[0007] As will be appreciated by those persons skilled in the art, a major advantage provided by the present invention that both a license plate and a vehicle can be protected with an aesthetically pleasing structure. Additional objects of the present invention will become apparent from the following description.

DESCRIPTION OF THE DRAWINGS

[0008] The method and apparatus of the present invention will be better understood by reference to the following detailed discussion of specific embodiments and the attached figures which illustrate and exemplify such embodiments.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0009] A specific embodiment of the present invention will be described with reference to the following drawings, wherein:

[0010] FIG. 1 is a rear view of the present invention.
[0011] FIG. 2 is a front view of the present invention.
[0012] FIG. 3 is a side view of the present invention.
[0013] FIG. 4 is a top view of the present invention.
[0014] FIG. 5 is a bottom view of the present invention.
sponding first set of holes 12 in the rear section. As shown generally in the figures, the second set of holes 24 include two holes in the upper cross-member 16 of the frame and two holes in the lower cross-member 18 of the frame. This is because typical license plates are similarly issued with corresponding holes so placed. Of course, if future license plates are issued with differently situated mounting holes, the frame would also have a correspondingly differently situated second set of holes 24 for securing the license plate to a vehicle.

[0020] The license plate fits between the first set of holes 12 and the second set of holes 24 through holes in the license plate, through the first set of holes 12, and into corresponding holes in the vehicle, typically through holes in the bumper of the vehicle.

[0021] As shown in the figures, the structure further includes a fin 26 extending upwardly from the upper edge 4 of the rear section. The fin 26 extends upwardly to protect the vehicle from minor impacts due, for example, from other vehicles backing into the structure. The fin 26 may be made to extend upwardly a small or large distance depending on the vehicle it is designed to protect. The profile of the fin 26 is shown as trapezoidally shaped but may be any of a variety of profiles, for example, rectangularly or pyramidaly shaped.

[0022] As further illustrated in FIG. 2, the second set of holes 24 may each include a recess 28 for a head of the attachment device. Further, the rear section may comprise a first set of lobes 30 through which the first set of holes 12 extend and the frame may comprise a second set of lobes 32 through which the second set of holes 24 extend.

[0023] As shown in the side view of FIG. 3, the top view of FIG. 4, and the bottom view of FIG. 5, the fin 26 may extend rearwardly from the upper edge. As further shown in FIG. 3, the frame may include side arms 33 extending forward of the rear section. The side arms 33 may also extend upward from the rear section. The side arms 33 may further extend downward from the rear section. The side arms may still further extend outward from the rear section. The side arms may also include ribs 34 for providing increased protection and additional structural integrity to the license plate structure.

[0024] As shown in FIGS. 4 and 5, the upper cross-member 16 and the lower cross-member 18 may be tapered at their respective mid-sections toward the rear section. The top view of FIG. 4 further shows the upper cross-member 16 connected to the upper edge 4 of the rear section and bridging the side arms 33. The upper cross-member is typically connected to the rear section along its entire length. The bottom view of FIG. 5 shows the lower cross-member 18 connected to the lower edge 6 of the rear section and bridging the side arms. The lower cross-member is typically connected to the rear section along its entire length.

[0025] Typically, the rear section may be constructed of either an open construction or a closed construction. That is, when viewed from the rear, a closed rear section backs the entirety of the back of the license plate. Correspondingly, an open rear section only supports the periphery of the license plate. In either case, the rear section typically obits the vehicle. Of course, the front face 40 of the frame side will always be open so as to be able to view the license plate indicia. As shown in both FIGS. 4 and 5, the front face 40 of the frame may be made closer to the rear section at its middle than at its ends.

[0026] Although the particular embodiments shown and described above will prove to be useful in many applications in the vehicular art to which the present invention pertains, further modifications of the present invention will occur to persons skilled in the art. All such modifications are deemed to be within the scope and spirit of the present invention as defined by the appended claims.

1. A structure for a license plate, comprising:
   a. a rear section having an upper edge, a lower edge, and side edges bridging the upper and lower edges, wherein the rear section has a first set of holes for securing the license plate to a vehicle therethrough;
   b. a single fin having a substantially planar face extending upwardly from the upper edge, the fin having a bottom edge co-linearly arranged with at least a portion of the upper edge of the rear section;
   wherein the fin has a front face, said front face being substantially flat, and wherein the fin is integrally formed with the upper edge of the rear section in a unitary fin-upper edge structure, and wherein none of the lower or side edges have a fin extending therefrom.

2. The structure for a license plate of claim 1, wherein the fin extends upwardly and angled away from the upper edge such that the top of the fin is positioned in a vertical plane located behind the plane defined by the top edge and bottom edge.

3. The structure for a license plate of claim 2, wherein the fin is angled between 0 degrees and 60 degrees relative to the plane defined by the top edge and bottom edge.

4. A structure for a license plate, comprising:
   a. a rear section having an upper edge, a lower edge, and side edges bridging the upper and lower edges;
   b. mounting means for mounting the license plate to the structure;
   and
   c. a single fin having a substantially planar face extending upwardly from the upper edge, the fin having a bottom edge co-linearly arranged with at least a portion of the upper edge of the rear section;
   wherein the fin has a front face, said front face being substantially flat, and wherein the fin is integrally formed with the upper edge of the rear section in a unitary fin-upper edge structure, and wherein none of the lower or side edges have a fin extending therefrom.

5. The structure for a license plate of claim 4, wherein the fin extends upwardly and angled away from the upper edge such that the top of the fin is positioned in a vertical plane located behind the plane defined by the top edge and bottom edge.

6. The structure for a license plate of claim 5, wherein the fin is angled between 0 degrees and 60 degrees relative to the plane defined by the top edge and bottom edge.

7. The structure for a license plate of claim 5, wherein the fin is angled between 0 degrees and 60 degrees relative to the plane defined by the top edge and bottom edge.