July 12, 1938. G. G. WAREING 2,123,389

AUTOMOBILE RADIO ANTENNA

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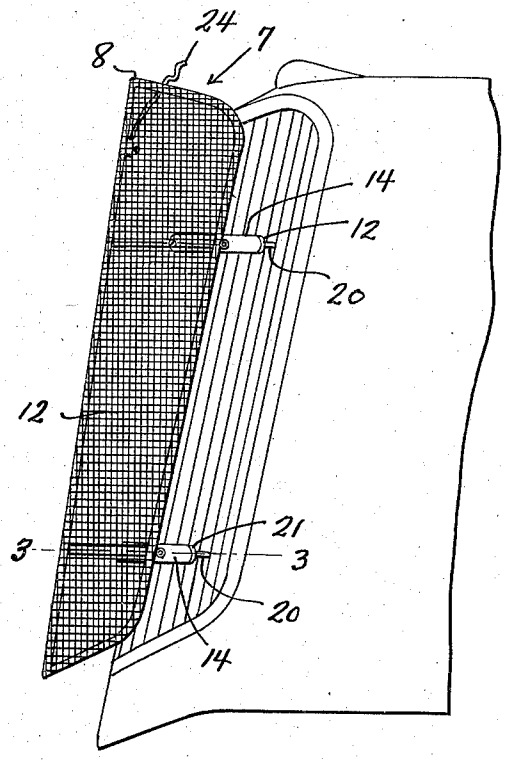
Fig. 1.



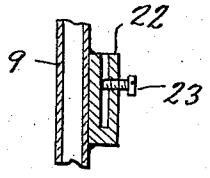


Fig. 5.

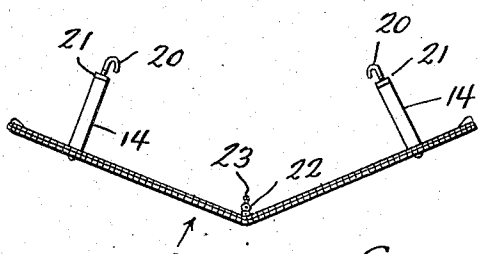


Fig. 4.

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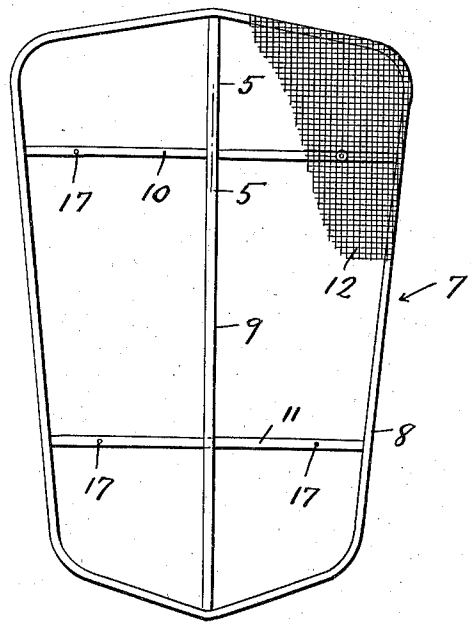
Fig. 2.



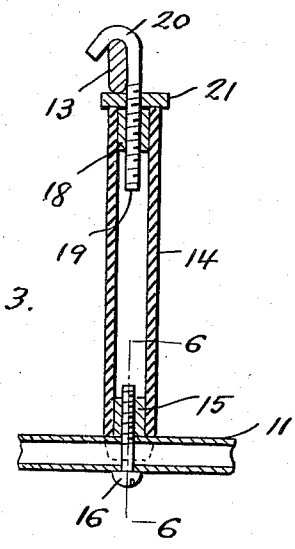


Fig. 3.

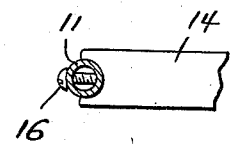


Fig. 6.

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UNITED STATES PATENT OFFICE

2,123,389

AUTOMOBILE RADIO ANTENNA

George G. Wareing, Blackfoot, Idaho

Application August 24, 1936, Serial No. 97,696

2 Claims. (Cl. 250—33)

The invention herein disclosed and hereinafter particularly described has reference to what may be aptly described as an automobile antenna in the nature of an attachment for a radiator having incidental properties enabling it to perform in the capacity of an insect guard or shield.

In reducing the principles of the inventive idea to practice I have found that it is expedient and practicable to construct an attachment applicable to an automobile radiator wherein said attachment serves both as a radio antenna as well as an insect and object deflecting shield or guard to protect the radiator.

Stated otherwise, the invention may be described as an insect screen attachable to the radiator in advance thereof to function as a guard, wherein the screen is constructed to have the additional function of an aerial or antenna for a radio receiving set in the car.

More specifically, the preferred embodiment of the invention comprises a screen proportioned and shaped to correspond somewhat to the particular radiator to which it is attached, said screen having appropriate attaching and retaining fixtures, and being provided with an antenna wire binding post, whereby to function as the aforementioned antenna.

Other features and advantages will become more readily apparent from the following description and drawings.

In the drawings wherein like numerals are employed to designate like parts throughout the views:—

Figure 1 is a fragmentary view of the frontal section of an automobile hood and radiator showing the improved combination guard and antenna attached to the grid-like radiator, or the radiator grille as the case may be.

Figure 2 is a front elevational view of the preferred embodiment of the device with certain of the accessories removed for clearness of illustration.

Figure 3 is an enlarged fragmentary horizontal sectional view taken approximately on the plane of the line 3—3 of Figure 1.

Figure 4 is a top edge or plan view of the device shown in Figure 1 removed from the car.

Figure 5 is a detail section on the line 5—5 of Figure 2.

Figure 6 is a detail section on the line 6—6 of Figure 3.

By way of introduction to the detailed description it is to be pointed out that the shape of the antenna will necessarily vary as will the proportions so as to adapt it to different types of automobile radiators, radiator grids and the like. For the most part, however, the principal unit of the structure will be in the nature of a shield-shaped screen or guard. This part is unitarily denoted by the drawings by the numeral 7. As shown in Figure 2 it comprises a marginal frame 8 having the desired configuration, the same being composed of metal tubing bendable into proper shape. Mounted within the limits of the frame are additional complemental tubes or bars one of which may be designated as the central brace bar 9 and the others as the supplementary horizontal bars or tubes 10 and 11. The latter parts are disposed in spaced parallel order, attached at their outer ends to the adjacent members of the frame 8 and having their intermediate portions intersecting and suitably connected with the central vertical brace 9. A suitable mesh copper screen or metallic fabric 12 is attached to the frame and completely covers it. The marginal edges of the screen may be simply rolled around the tubular frame and welded or otherwise secured thereto. As is shown in Figure 4 with this arrangement it is possible to bend the frame structure or unit into general V-shaped form so that it is in effect a deflector guard. It is a guard in the sense that it serves as a protector to prevent the entrance of insects, and other flying objects into the radiator or radiator shell as the case may be. Because of its shape it constitutes a deflector and protector which deflects the insects to avoid them becoming lodged in the automobile radiator.

A plurality of attaching devices are utilized to secure the antenna unit 7 in spaced relation to the radiator in advance thereof and incidentally the term "radiator" covers not only the radiator proper but imitation shells, and fancy grilles such as are frequently used now-a-days in conjunction with radiators. In the drawings, the radiator grille includes a plurality of bars 13 and therefore the attaching devices here shown are adapted to accommodate these. Each device comprises an open ended tube of rigid insulation material 14. A nut 15 is threaded into the outer end thereof to accommodate attaching bolts 16. The bolts extend through openings 17 provided therefor in the horizontal cross members or tubes 10 and 11. (See Figure 2). Threaded into a nut 18 fitted securely in the inner end of the attaching tube 14 is the shank portion 19 of an attaching hook 20 fashioned to securely and properly embrace the corresponding grille bar 13. The numeral 21 merely designates a protector washer which is interposed be-

tween the rod and the sleeve or insulator **14** to avoid marring. Obviously the washer **21** will be of appropriate material to accomplish this result.

It might be stated in connection with Figures 3 and 6 that the outer end portion of the insulator sleeve **14** is notched and the part **10** or **11**, as the case may be fits into the notch and is clamped firmly therein when the bolt **16** is tightened into the complemental nut **15**.

There are four of these insulator and attaching devices and they serve to satisfactorily connect the antenna and shield to the radiator in proper spaced relation and in such a way so as to avoid chattering and unnecessary rattling noises.

In will be observed in Figure 5 that at the upper end of the central brace bar **9** is a socket **22** having a set screw **23** which features perform as a binding post to permit attachment of the lead-in or antenna wire **24** thereto.

It is thought that this combination structure is an innovation in this line of endeavor and it is especially desirable and suitable for the purposes intended. The provision of a screen serves not only as an effective aerial or antenna but has the secondary function and advantage of performing as an insect deflector guard.

It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Minor changes in shape, size, and rearrangement of details coming within the field of invention claimed may be resorted to in actual practice, if desired.

I claim:—

1. The combination of an insect shield and antenna for automobile radiators comprising a perforate antenna structure for disposition in front of an automobile radiator structure, and connecting means of insulation for interposition between the said antenna structure and the radiator to which the same is to be attached, a tube of insulation projecting rearwardly from the antenna structure and having an internally threaded member disposed in the rear end thereof, and a hook member having a threaded shank feedably disposed in the said internally threaded member.

2. The combination of an insect shield and antenna for automobile radiators comprising a perforate antenna structure for disposition in front of an automobile radiator structure, and connecting means of insulation for interposition between the said antenna structure and the radiator to which the same is to be attached, said connecting means consisting of a rearwardly disposed tube on the antenna structure, said tube having an internally threaded member disposed in each end thereof, a screw for disposition through the antenna structure and into the internally threaded member at one end of the tube, and a hook member provided with a threaded shank feedably disposed in the threaded member at the opposite end of the tube.

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