

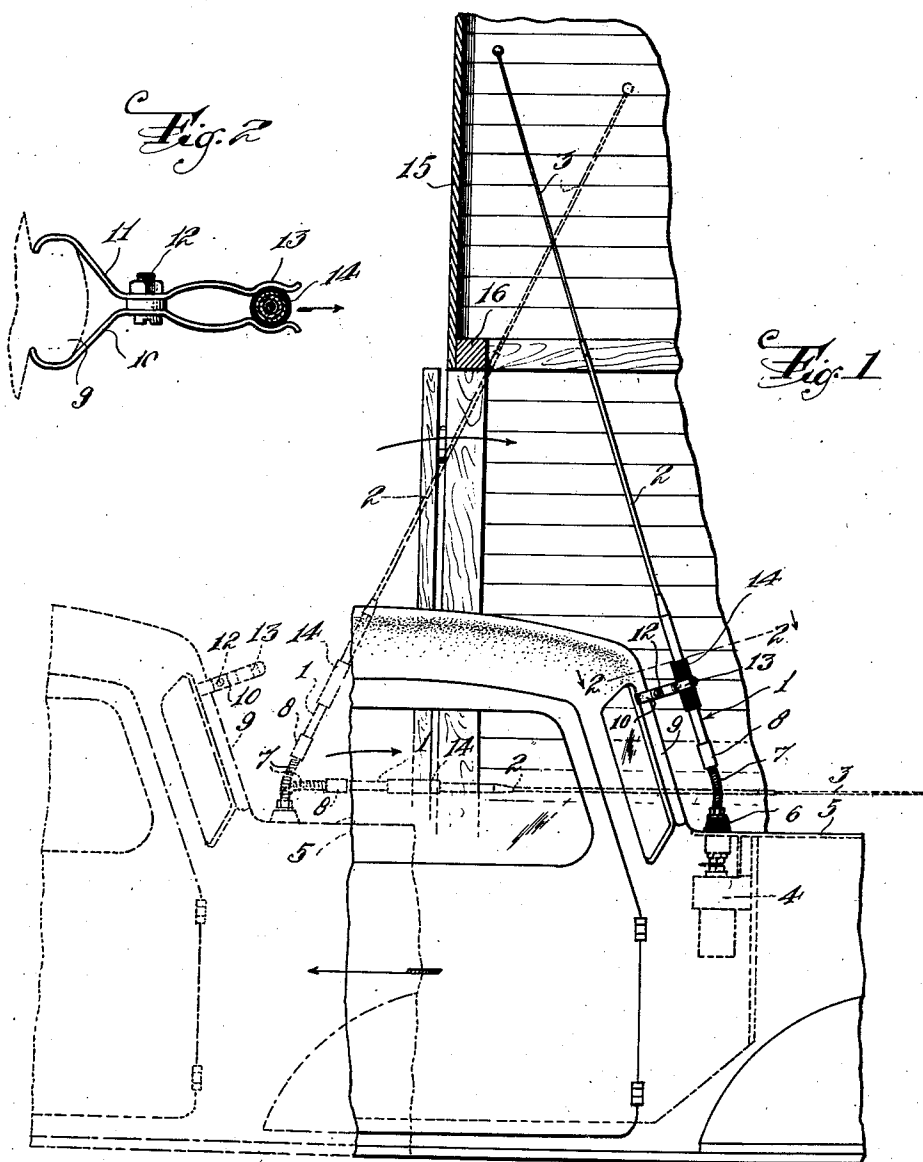
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PROTECTIVE MEANS FOR AN AUTOMOTIVE VEHICLE ANTENNA

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PROTECTIVE MEANS FOR AN AUTOMOTIVE
VEHICLE ANTENNA

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3 Claims. (Cl. 250—33)

This invention relates to a special construction and arrangement of an antenna suitable for use with a radio receiving set on an automotive vehicle.

In my joint application with Alexander Norden, Jr., Serial No. 267,530, filed April 13, 1939, there is shown and described a telescopic, collapsible type of antenna, the sections of which may be extended or contracted by different means. It sometimes happens that the driver may forget to retract the antenna before driving into a garage, and while the vehicle—having an extended antenna mounted at an angle toward the rear of the car or in a plane parallel with the windshield which, on most present-day cars, is positioned at such an angle—may be run into the garage without damage to the antenna or any part of the car, due to the flexibility of the extended sections of the antenna, serious results will probably follow on backing the car out of the garage.

It is therefore the object of my present invention to provide means for mounting the antenna in such a manner that, if left in extended position, it will be automatically detached from its normal mounting, thereby preventing not only injury to the antenna and its connected mechanism, but to the car body portion which sustains the basic section or one of largest diameter.

My improved construction is depicted in the attached drawing, wherein:

Figure 1 shows a fragmentary forward portion of an automobile having an antenna mounted according to my present invention, and with the sections in extended position just prior to engagement of the antenna with an obstruction, such as that part of the garage above the door. This view also shows, in dotted lines, additional positions which the antenna will take after meeting an obstruction.

Figure 2 is a view on the line 2—2 of Figure 1.

In the type of antenna shown in the drawing, there are three sections; 1, the outside or basic section of largest diameter; 2, a smaller section, and 3, a still smaller section which may be, and preferably is made of flexible steel wire, while the other sections are small tubings. The sections 2 and 3 are collapsible into the basic section 1 by any satisfactory means such as those described in the said Brach-Norden application above referred to, such means being illustrated generally by the numeral 4 situated below the hood or cowl portion 5 of the vehicle, but since my present invention does not concern the means for operating the antenna, no further description appears to be necessary, except to state that where the

section comes through the cowl it is insulated therefrom by an insulator 6, and this end, 7, of the basic section 1 is made of flexible metallic tubing, a collar 8 being utilized to make the connection between the flexible portion 7 and the main portion 1.

Attached to a central window frame member 9, is a spring-clip which may be made of two pieces 10 and 11 held together in clamping relation by a screw-and-nut assembly 12. The outer ends of the members 10 and 11 of the spring clip are provided with formations 13 similar to a fuse clip of the cartridge type, and located within these formations is an insulator 14 which encompasses the section 1 so as to insulate the same from the spring clip.

When the parts are assembled and the antenna extended, they occupy approximately the position shown in full lines in Figure 1. Should the antenna be forgetfully extended before backing the car out of the garage, the outer extremity of the extended portion 3 will encounter some portion 15 of the garage. This of course will start bending the member 3, and it is possible that the section 2 may also engage the cross-bar 16 over the door opening. When a certain amount of pressure toward the front of the car has been applied to the antenna sections, the section 3 will be forced out of the spring clip and will then move to the dotted position shown, or some position far below the top of the doorway, thereby preventing injury to the antenna structure or to the windshield, or part of the car body to which the antenna may be attached. The antenna may be reset into normal operative position by merely moving it back by reason of the flexible joint 7 to the position shown in Figure 1.

Should the antenna be left extended when the car is driven into the garage, the slope is such, as shown in Figure 1, that taken together with the flexibility of the outer sections, particularly the extreme outer section, these will bend and pass through the doorway without injury to the antenna.

While I have described the flexible section 7 as being made of flexible metallic tubing, any other satisfactory flexible material may be used.

What I claim is:

1. An automotive vehicle radio antenna including a plurality of telescopic sections the larger of which is a basic section attached to some part of the vehicle, the basic section of larger diameter being positioned in front of a window sash member and insulatingly supported thereon through the medium of a spring clip from which

the section may be extracted by pressure applied to any of the sections in a direction toward the front of the vehicle, the end of the basic section at its cowl end having a portion of flexible conducting material capable of being bent through a substantial angle as and for the purpose described.

2. An automotive vehicle radio antenna including a plurality of telescopic sections the larger of which is a basic section attached to some part of the vehicle, the basic section of larger diameter having one end insulatively fastened to the cowl of the vehicle, at least a short portion of this section adjacent the exterior of the cowl being of flexible material adapted to be bent through an angle of the order of ninety degrees, a spring clip of the cartridge receiving type attached to a rearwardly slanting part of the top portion of the vehicle, an insulator around the basic section toward its free end and positioned so as to be engaged by the spring clip to hold the basic sec-

tion in normal working position but to release it when undue pressure is applied directly to the section or through any of the other sections when in extended position.

3. In an automotive vehicle radio antenna structure including a plurality of telescopic sections, means for preventing injury to the antenna or vehicle body if the antenna be left in an extended position and be brought against an overhead obstruction on backing up the vehicle, said means comprising a flexible portion in the section of largest diameter where the antenna emerges from a part of the body, the flexible portion being readily yieldable through a substantial angle and means for normally holding this larger section toward its free end, in working position but which will release the said section when pressure is applied thereto in a direction toward the front of the car, and before the pressure can cause any damage to the body or antenna.

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