Oct. 14, 1930. K. E. COPPOCK 1,778,356

AUTOMOBILE BODY

Filed March 30, 1929

Fig. 1

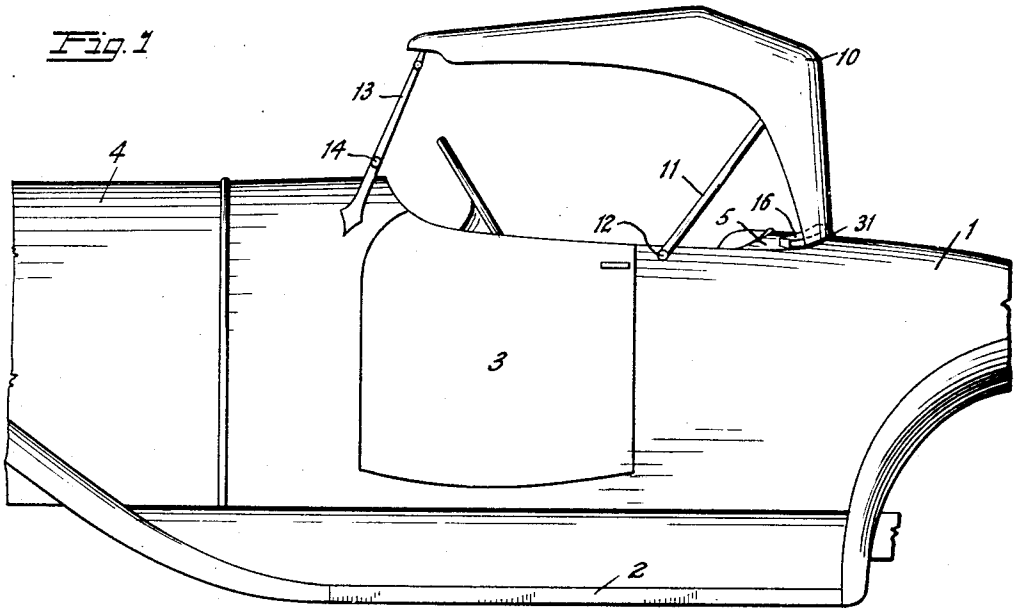


Fig. 3

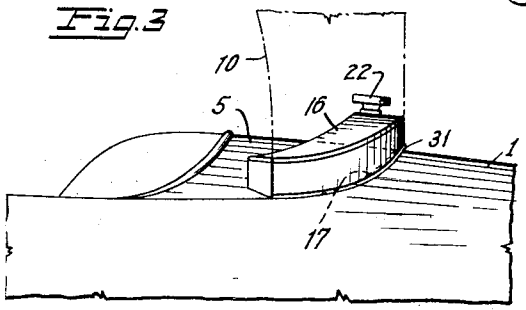
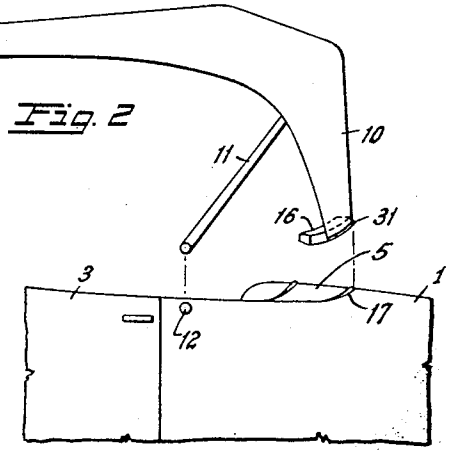


Fig. 2



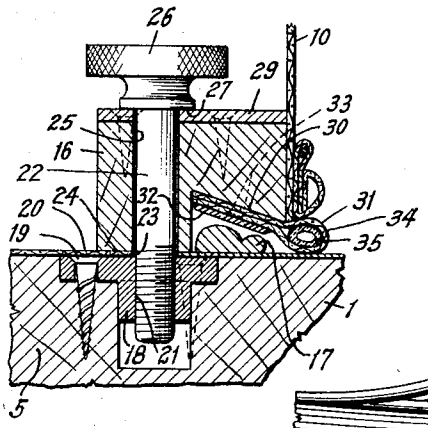


Fig. 5

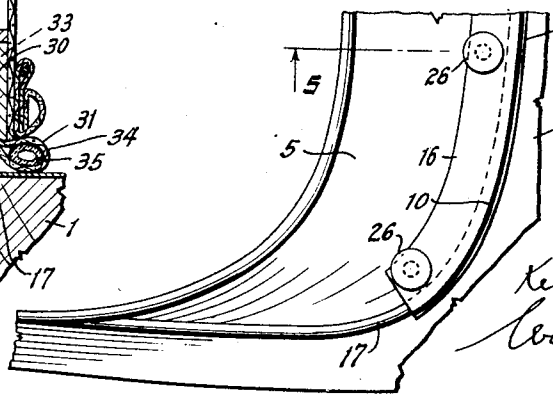


Fig. 4

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UNITED STATES PATENT OFFICE

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AUTOMOBILE BODY

Application filed March 30, 1929. Serial No. 351,239.

This invention relates to automobile bodies. It is an object of this invention to provide a new and improved automobile body which will give a trim and desirable appearance without a top but which will include a detachable top which will conform to the body outlines and provide a firm and water tight connection between the top and body.

A detachable top offers many advantages in automobile construction but it is very undesirable that the top when removed shall give any indication that the top has been removed, as this spoils the appearance and gives the effect of incompleteness.

It is an object of this invention to provide a body which when driven without a top will give every appearance of a car designed to be so driven but on which the top may be readily mounted and when so mounted will possess all the advantages and security which a permanently mounted top would have.

It is a further object to provide an automobile of the character described which may be economically manufactured, which will be easy to convert from one type body to another and which will be durable in construction.

The invention accordingly comprises the features of construction, combinations of elements, and arrangement of parts, which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description taken in connection with the accompanying drawing, in which:

Figure 1 is a partial side elevation of a car embodying this invention with the top attached. Figure 2 is a fragmentary view similar to Figure 1 but with the top separated from and spaced above the body. Figure 3 is an enlarged detail. Figure 4 is a fragmentary plan view. Figure 5 is a cross section on the line 5—5 of Figure 4 showing a method of assembling the parts.

In the drawings the numeral 1 designates a car body which is illustrated as of a streamline type, having a running board 2, doors 3 and a hood 4. The upper surface of the body shell as shown more particularly at 5 in Figure 2 is uninterrupted in its contour, so that when the body alone is employed without the top, about to be described, there is no substantial evidence that the body is designed to be used with a top. There is provided, however, a detachable top 10 which in the form illustrated is of a character to convert the body into the roadster type. As illustrated this top is supported by brackets 11 interlocking with the body at 12. The body is also provided with a wind shield 13 which may be supported by a hinge as at 14 and arranged to cooperate with and support the front edge of the top 10 if desired. By reason of the hinge 14 the angle of the wind shield may be altered at will, a feature which is particularly desirable when the car is being driven with the top removed.

The top itself carries a rail 16 which is adapted to conform to the upper surface 5 of the body shell, as will be seen from Figure 2 and this rail is so designed that it may be clamped down on the upper surface to form a firm water tight connection therewith without damaging the surface finish, or it may be removed completely from the body with the top leaving the upper surface of the shell unobstructed by any rail or any attaching means.

The body is preferably provided with an ornamental trim lace 17 which improves the appearance of the car when the top is removed and the rail 16 may be arranged to cover and enclose this trim lace when the top is in place.

In Figure 5 is illustrated a particular desirable construction embodying this invention in accordance with which there is inserted in the body shell a plurality of flanged sockets 18 which are firmly attached to the body frame as by means of screws 19 but which are completely concealed by the covering material 20. Each of these sockets is provided with an opening 21 having a female thread to receive a stud bolt 22 upon the rail 16. The covering 20 completely encloses and masks the socket member being provided

only with an opening 23 in registry with the opening 21 of the socket. If desired means may be provided for closing this opening 23 when the top is not in use. As will be seen the spaces below the opening 21 are not enclosed so that any dirt tending to fall into the opening 21 while it is open will not remain in position to interfere with the thread.

The rail 16 is preferably provided with a front bearing surface 24 adapted to bear throughout the length of the rail upon the upper surface of the covering 20, and extending vertically through the rail 16 within the confines of the surface 24, the rail is provided with openings 25 to receive the stud bolt 22. The head 26 of this stud bolt has a shoulder 27 adapted to bear upon the upper surface of a plate 29 with which the top of the rail is reenforced.

It will be understood that a plurality of such attaching devices are employed throughout the length of the rail. In the embodiment illustrated it is intended that five such stud bolts may be employed, two near each end of the rail and one in the center.

The rail 16 is thus designed to be firmly clamped against the upper surface of the body by means of the bolts 22.

Where, as in the form illustrated, the rail is designed to enclose the trim lace 17, the sockets 18 will be arranged with their orifices 21 immediately adjacent to and preferably in front of the trim lace, and the rail 16 will be undercut as shown at 30 to provide a channel to receive the trim lace. Means are also provided for making a water tight joint between the rail and body and in the form illustrated it is convenient and economical to make the undercut 30 of such a nature that it serves at once to provide a convenient point of attachment for a weather strip 31 and for holding the weather strip in position to engage the body with a weather tight connection. A practical manner of accomplishing this consists in forming the undercut 30 by a surface slanting downwardly from the front toward the rear and to this surface there is attached by means of a clamping plate 32 and screws 33, a flexible strip 34 folded upon itself to enclose a rubber tube 35, the parts being of such shape and dimensions that when the rail 16 is clamped tightly upon the body the tubing 35 may hold the strip 31 in tight engagement with the body.

With the foregoing construction it will be clear that when the top is removed the car will resemble a smart racing car with nothing to indicate that it is arranged for use with the top. As soon, however, as the top is put on, it is so firmly clamped in place and matches so well with the body of the car that it is not evident that it is removable.

Since certain changes may be made in the above construction and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

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

1. In an open automobile having a smooth exterior contour free from projections for attachment of a top, and having a detachable top comprising a frame work supported at the sides of the body and a cover carried by the framework at the roof but unsupported thereby at the back, in combination, a rail shaped to conform to the upper surface of the body to which the rear portions of the cover are permanently attached, attaching means for detachably attaching said rail to said body including a member wholly concealed within the contour of the body and a cooperating member directly connected to the rail and movable parallel to the plane of the back portion of the cover to attach the rail, and thereby the cover, to the body.

2. In an automobile having a smooth exterior contour free from projections for attachment of a top and having a detachable top in combination, a detachable top-attaching rail shaped to conform to the exterior of said body to which the top is permanently attached and detachable means for attaching said rail including a member engaging said rail and a cooperating member wholly contained within the contour of said body, said rail being undercut along one edge and weather stripping attached to the face of said undercut portion.

KENNETH E. COPPOCK.