May 27, 1941. L. F. KURSCHNER 2,243,601

RADIATOR COVER FOR AUTOMOBILES

Filed April 17, 1940

Fig. 1.

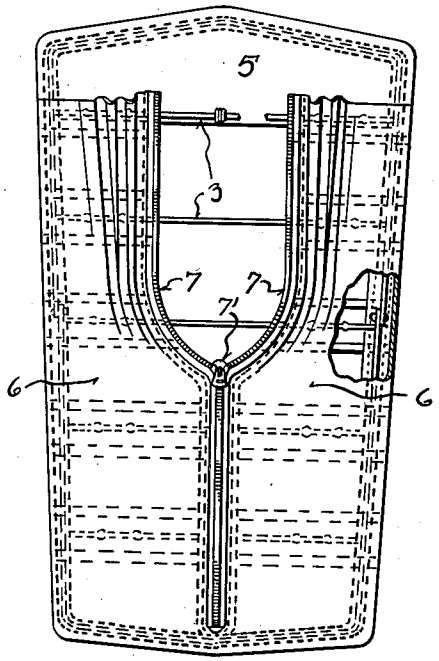


Fig. 2.

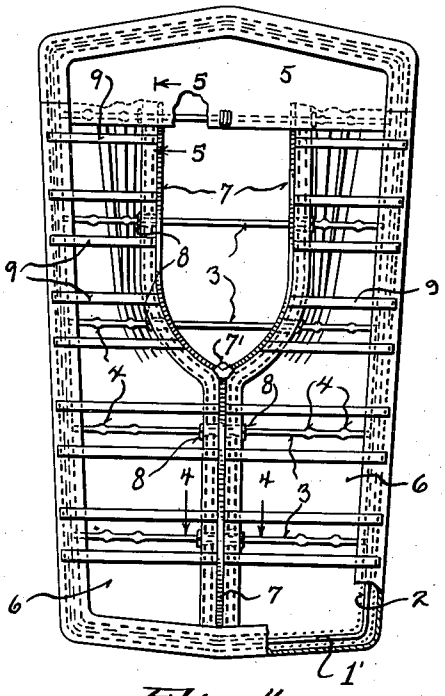


Fig. 3.

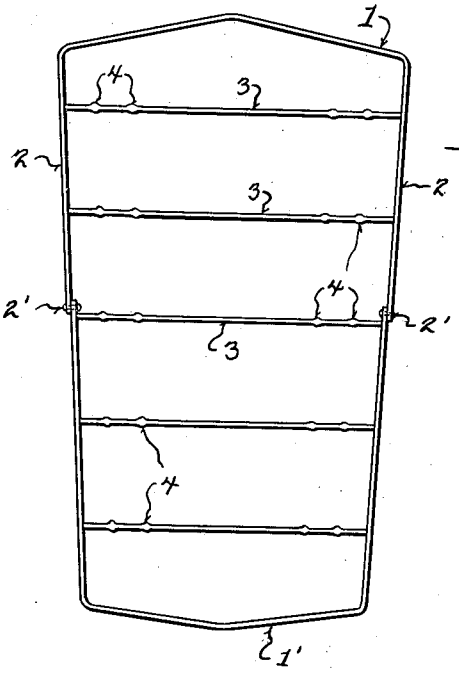


Fig. 4.

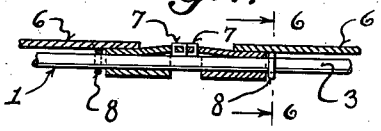


Fig. 5.

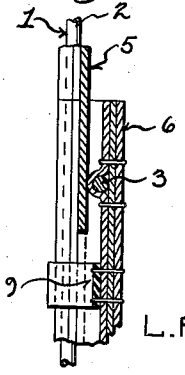
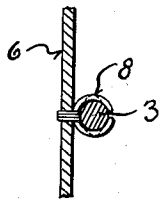


Fig. 6.



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By

Attorneys

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2,243,601

UNITED STATES PATENT OFFICE

2,243,601

RADIATOR COVER FOR AUTOMOBILES

Lloyd F. Kurschner, Eau Claire, Wis.

Application April 17, 1940, Serial No. 329,997

4 Claims. (Cl. 257—132)

My invention refers to radiator covers for automobiles, commonly known to the trade as "winter fronts," and has for its primary object to provide a "winter front" embodying a pair of horizontally adjustable curtains mounted upon a frame, with free vertical edges carrying interlocking lace members, whereby the curtains may be selectively closed or partly closed in opposition to tension runners.

Another object of my invention is to provide a skeleton frame, having transverse rods for mounting and guiding pairs of curtains under the control of tension runners in opposition to interlocking laces.

Another object of my invention is to provide means in opposition to the tension runners for temporarily locking the curtains in predetermined open positions.

With the above and other minor objects in view, the invention consists in certain peculiarities of construction and combination of parts, as will be fully set forth hereinafter with reference to the accompanying drawing and subsequently claimed.

In the drawing:

Figure 1 represents a front view of the radiator cover embodying the features of my invention, showing the cover partly open with certain parts being broken away and in section to more clearly illustrate structural details.

Figure 2 is a similar rear face view of the cover, showing the same partly open and a plurality of transversely positioned tension strips or runners for controlling the open position of the curtains.

Figure 3 is a skeleton view of the wire frame upon which the curtains are mounted.

Figure 4 is a magnified, detailed, cross sectional view of the curtain lacing and guiding means, the section being indicated by line 4—4 of Figure 2.

Figure 5 is a fragmentary, magnified, sectional view of the curtain and frame elements; and

Figure 6 is a detailed, sectional view through the curtain and guide rod mechanism.

Referring by characters to the drawing, as best shown in Figure 3 of the drawing, the numeral 1 indicates a wire frame comprising vertically positioned side bars 2—2, the same preferably being formed with two legs secured together by pivot hinges 2' as shown in Figure 3, whereby said frame with its associated cover elements may be compactly folded for shipment.

The frame side bars are connected by a plurality of transversely disposed brace rods 3—3, which rods are formed with a plurality of spaced lugs or knobs 4.

As best shown in Figures 1 and 2, the upper portion of the frame has stitched, or otherwise secured thereto, an apron 5, and the side bars 2—2 and the bottom bar 1' of said frame have stitched, or otherwise secured thereto, the outer edges of a pair of flexible curtains 6—6; it being understood that the same may be formed from any suitable material, preferably waterproof.

The inner free vertical edges of the curtains have secured thereto flexible, interlocking laces 7—7, which laces are commonly known to the trade as "zippers," the same having a sliding actuating clip 7'.

The curtains 6 are secured to and guided upon the transverse frame rods 3, by spring clips 8 carried by the curtain, as best shown in Figure 6 of the drawing.

It will be noted that the outer edges of the curtains are preferably lapped over the frame members and conveniently stitched for securement, and, obviously, they may be otherwise fixed or secured to the frame members 2.

As clearly indicated in Figure 2 of the drawing, each of the curtains have their fixed and movable edges connected by resilient elements 9, which elements may be in the form of rubber strips, coil springs, or the like, whereby the curtains are drawn apart or opened incidental to horizontal movement of the free edges of the curtain, which are controlled by the zipper 7—7.

Hence, when the zipper or lacing strips are opened by downward movement, either partially or fully, the curtains are opened a corresponding distance by the gangs of resilient means, which successively pull the curtains apart when the same are freed by the zipper to thus open a vent to the radiator, either partially or fully.

As illustrated, under certain weather conditions when it is desired to partially ventilate the radiator, the zipper clip 7' may be shifted downwardly to partially open the curtains, which are drawn apart by the tension strips or runners 9. Obviously, in the event that full opening is required, the clip 7' is moved downwardly to the base of the frame, whereby a full opening of the curtains will result. Should further opening of the curtins be desired, the operator may push the free edges of the curtains backward a selected distance upon the guide rods, and the spring clips will be caused to ride over an associated set of the knobs 4, whereby the curtains are locked in this position, without reference to slackened spring tension of the strips 9.

From the foregoing description, it will be noted that an extremely simple and effective "winter front" for automobiles may be produced and sold to the trade at a minimum cost. It is understood that any suitable means may be employed for attaching the "winter cover" to the front face of an automobile radiator, whereby the same can be quickly fitted to, or removed from, the same.

While I have illustrated the "winter front" as designed to open and close the curtains vertically, it is obvious that the curtains or cover may be arranged to open horizontally, in which case there would be two sets of curtains working toward a centrally disposed, vertical wire backbone.

It is also understood that said cover may be manufactured to meet the demand of various shaped radiators. Furthermore, it is understood that I may vary the structural features within the scope of the claims, without departing from the spirit of my invention.

I claim:

1. A radiator cover comprising, a wire frame conforming to the contour of the face of a radiator and adapted to be fitted to the front thereof, a pair of curtains secured to the opposite bars of the frame, interlocking flexible lacing strips secured to the free meeting edges of said curtains, and spaced companion gangs of resilient elements associated with the outer fixed edges of said curtain and the free edges thereof, to exert an opening force upon the curtains upon release of the lacing strips to a predetermined position.

2. An automobile front cover comprising, a wire frame, transverse guide rods connecting the side bars of said frame, a pair of curtains secured to said frame side bars, means for slidably securing the curtains to the guide bars, interlocking flexible lacing strips secured to the free meeting edges of the curtains, and transversely positioned spaced resilient elements associated with the fixed and free edges of said curtains whereby the same may be held fully or partially open.

3. An automobile front cover comprising, a wire frame, transverse guide rods connecting the side bars of said frame, a pair of curtains secured to said frame side bars, means for slidably securing the curtains to the guide bars, interlocking flexible lacing strips secured to the free meeting edges of the curtains, transversely positioned spaced companion sets of resilient elements associated with the fixed and free edges of said curtains whereby the same may be held open, and spring clips carried by the curtains and sliable upon the guide rods for locking said curtains in predetermined position.

4. A radiator cover comprising, a wire frame conforming to the contour of the face of a radiator, transverse bars carried by the frame having pairs of knobs at intervals throughout their lengths, spring clips mounted upon the rods for locking engagement between the knobs, vertically positioned pairs of curtains having edges fixed to the frame and free edges secured to the clips, and series of companion resilient elements connecting the free edges of said curtain and wire frame, for drawing the curtains open to engage pairs of the knobs.

LLOYD F. KURSCHNER.