May 24, 1938. J. H. MACKAY 2,118,563

AUTOMOBILE HEADLINING

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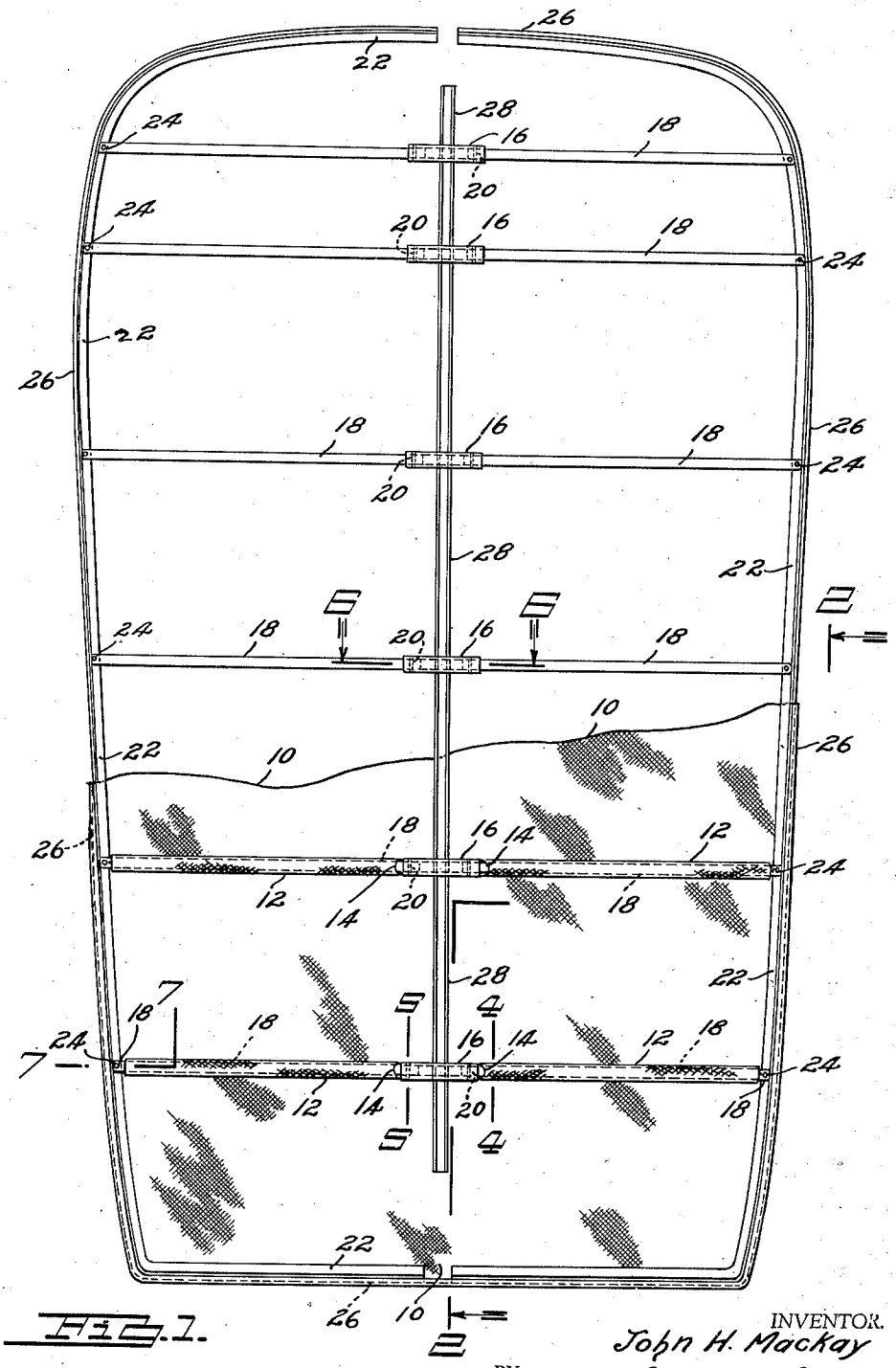


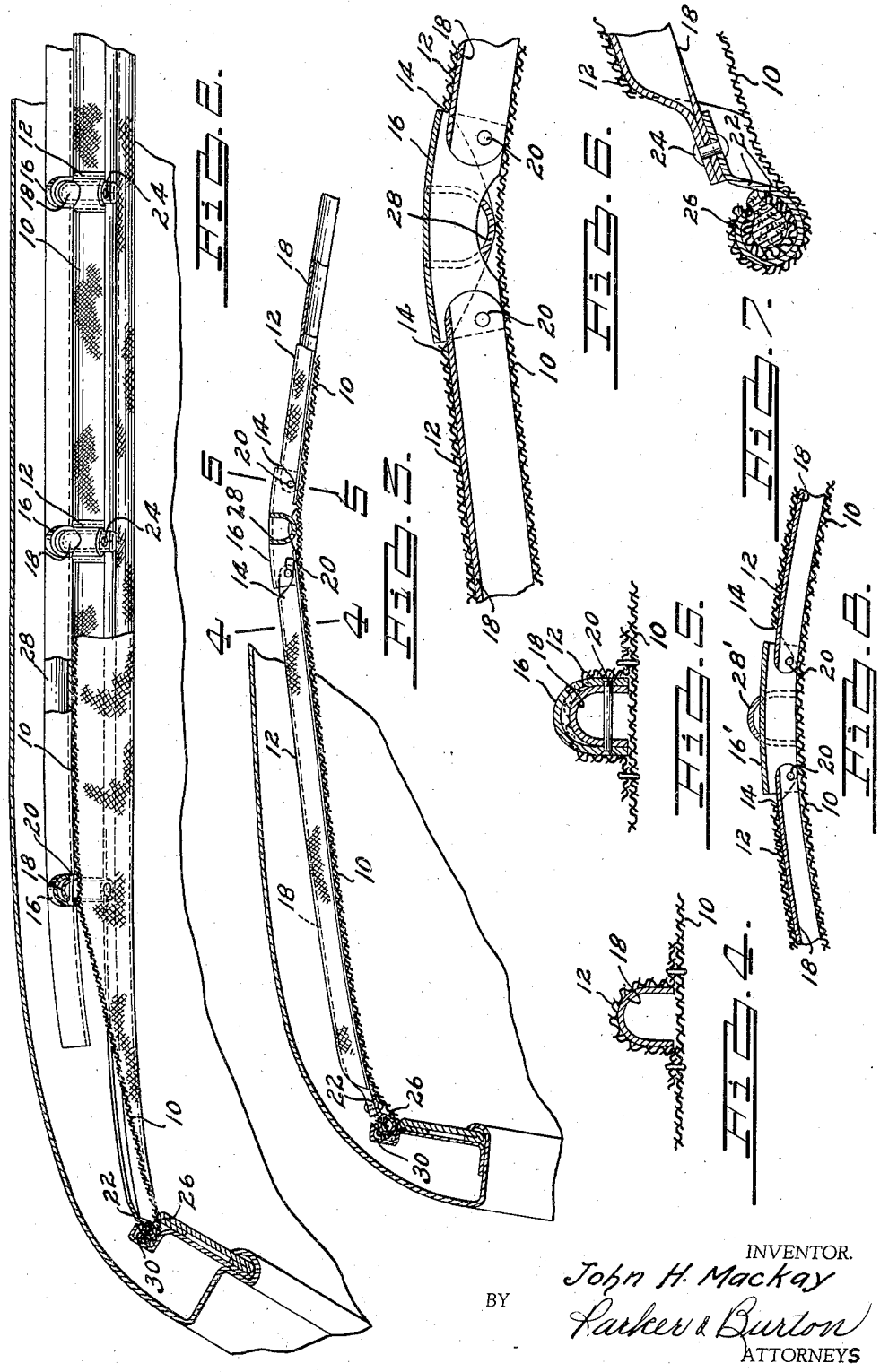
FIG. 1.

INVENTOR.
John H. Mackay
BY
Parker & Burton
ATTORNEYS

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INVENTOR.
John H. Mackay
BY Parker & Burton
ATTORNEYS

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AUTOMOBILE HEADLINING

John H. Mackay, Detroit, Mich.

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9 Claims. (Cl. 296—137)

This invention relates to an improved headlining structure for vehicle bodies.

An object is to provide a headlining which may be rapidly and cheaply fabricated upon a buck in the shop and then collapsed for insertion within the vehicle body adapted to receive the same and expanded when in the body for attachment thereto. The construction here disclosed represents an improvement upon the structure described in my Patent No. 2,083,030, dated June 8, 1937.

The construction is of such a character that it lends itself to rapid commercial manufacture. The headlining proper which is a fabric or other suitable material is provided with a plurality of listings adapted to receive the ribs of the headlining supporting frame work. These listings extend transversely across the headlining. They are spaced apart longitudinally thereof. They are cut out along the longitudinal centerline of the headlining.

The ribs are made up in pivoted sections. Each rib is receivable through a listing. Side frame members are secured to the outer end of the rib and a central frame member is inserted between central portions of the ribs and the headlining and attached to the ribs in position.

Upon this assembly being complete the structure is collapsed to be received within the body. When it is received within the body it is expanded to be secured to the provided support therefor which the body walls are fitted so that the headlining assumes its proper place in the body.

Various other desirable objects and advantageous features of this improved structure will more fully appear from the following description, appended claims and accompanying drawings, wherein:

Fig. 1 is a plan of a headlining structure embodying my invention showing the headlining partly broken away from the frame,

Fig. 2 is a longitudinal sectional view taken on the line 2—2 of Fig. 1,

Fig. 3 is a fragmentary transverse sectional view showing one of the side frame members secured to the body wall and down through the top in proportion to the side wall of the body.

Fig. 4 is a cross sectional view taken on 4—4 of Fig. 1,

Fig. 5 is a cross sectional view taken on 5—5 of Fig. 1,

Fig. 6 is a cross sectional view taken on 6—6 of Fig. 1,

Fig. 7 is a cross sectional view taken on 7—7 of Fig. 1, and

Fig. 8 is a cross sectional view illustrating a modified form of construction.

The headlining structure comprises a headlining of suitable fabric or other trim material such as is commonly used in trimming automobile bodies. This fabric headlining is indicated at 10. The headlining is provided at spaced apart intervals longitudinally thereof with listings 12 which extend transversely of the lining. These listings are cut away along the longitudinal centerline of the headlining at 14 as shown in Fig. 6.

The headlining structure comprises a frame work. The frame work is made up of a plurality of ribs. Each of these ribs is adapted to be received through one of the listings.

Each rib comprises a stationary central portion 16 and a pair of corresponding end portions 18. The center portion is U-shaped in cross section being in the form of an inverted U. As shown particularly in Fig. 5, each end portion 18 is likewise U-shaped in cross section being in the form of inverted U of smaller dimension in the central section 16 and telescoped thereinto and hinged to the end thereof from a horizontal pivot 20 as shown particularly in Figs. 3, 5 and 6. To the outer end of each swinging rib section 18 is secured a side frame member 22. As shown particularly in Fig. 7 this side frame member 22 may be secured to the rib by a rivet 24 as shown in Fig. 7 or in any other suitable manner. The side frame member is folded over upon itself as shown in such figure to secure the headlining in place as hereinafter described.

In the assembly of the device upon a buck in the shop the rib elements are inserted through the listings so that the central portions 16 of these rib elements are disposed within the cut out portions of the listings along the longitudinal centerline of the headlining. The side frame members are secured to the outer ends of the ribs. The headlining is molded over the edge of the side frame members and they are clamped down against a filler bead or cord 26 as shown particularly in Fig. 7.

The framework comprises in addition a longitudinal central frame member 28. This frame member is U-shaped in cross section being in the form of an upright U as shown particularly in Figs. 3 and 6. This central frame member is inserted along the longitudinal centerline of the headlining between the headlining and the ribs. It is provided with transverse slots or recesses at intervals spaced lengthwise therealong and adapted to receive the side walls of the stationary rib section 16 as shown in Fig. 6. This

positions the rib sections lengthwise along the central frame member.

The headlining when thus assembled upon the frame is adapted for collapsing as a structure by swinging the two opposite sides thereof downwardly toward each other. The ribs swing on the pivots **20**. When thus collapsed it may be received within the body. It may then be expanded and seated within the recess **30** formed along the side walls and the front and rear walls of the body. The side frame members **22** are received within these recesses and the body trim is built up so as to hold the structure in place. The ribs are slightly flexible as is the entire frame work so as to permit it to be thus sprung into position. To further secure it in place it might be tacked at front and rear or otherwise securely fastened.

In Fig. 8 a modified embodiment of the invention is illustrated. The longitudinal central frame member is reversed to that shown in the previous embodiment of the invention. As shown in Fig. 8, the central frame member **28'** is U-shaped and opens downwardly with the closed end of its U-shaped formation projecting above the top surface of the stationary rib sections **16'** corresponding to the elements **16** in the previously described embodiment of the invention.

What I claim:

1. Vehicle body headlining structure comprising, in combination, framework having a center frame member provided at spaced apart points lengthwise therealong with stationary rib portions fixed thereto and extending transversely thereacross, a pair of ribs hinged to each stationary rib portion, one to each end thereof to swing downwardly toward each other or to be elevated to the outspread position, side frame members secured to the outer end of said ribs and a headlining secured to the underside of said frame work.

2. The invention as defined in claim 1 characterized in that the stationary rib portions are in the shape of an inverted U in cross section and the hinged ribs are pivoted within said stationary inverted U-shaped rib portions upon horizontal pivots.

3. A vehicle body headlining structure comprising, in combination, a headlining having a plurality of longitudinally spaced apart transversely extending listings cut away along the longitudinal centerline of the headlining, a plurality of rib structures one for each listing and extending therethrough, each rib structure comprising a stationary central portion disposed within the cut out portion of the listings and swinging end portions disposed within the opposite ends of the listing, side frame members carried by the swinging rib portions and secured to the headlining, a central frame member extending along the longitudinal centerline of the headlining through the cut out portion of the listing and coupled with the stationary central portions with the rib structures.

4. The invention as defined in claim 3 characterized in that the central frame member extends along the longitudinal center of the line of the headlining between the headlining and the stationary central portions of the rib structures and is adapted at spaced apart intervals to detachably engage said stationary rib portions.

5. A vehicle body headlining structure comprising, in combination, a headlining having a plurality of longitudinally spaced apart transversely extending listings, said listings being cut away along the longitudinal center-line of the headlining, a plurality of rib structures one for each listing, each rib structure comprising a short central portion and corresponding relatively long end portions hinged to opposite ends of said central portion, each rib structure received through a listing with the short central rib portion positioned within the cut away portion of the listing, said short central portions having an inverted U shape in cross section and an upright central U-shaped frame member extending along the longitudinal line of the headlining between the headlining and the stationary central rib portions detachably interlocked with said rib portions positioning the same at intervals along said central frame member.

6. A vehicle body headlining structure comprising, in combination, a frame work having a central frame member provided at spaced apart points lengthwise therealong with oppositely extending corresponding ribs hinged thereto upon pivots extending parallel to the frame member whereby the ribs may swing downwardly toward each other or be elevated into the outspread position, and a headlining secured to said ribs.

7. A vehicle body headlining structure comprising, in combination, a frame work having a central frame member provided in spaced apart points lengthwise therealong with oppositely extending corresponding ribs hinged thereto upon pivots extending parallel to the frame member whereby the ribs may swing downwardly toward each other or be elevated into the outspread position, side frame members secured to the outer ends of said ribs and a headlining secured to said rib members and said side frame members.

8. A vehicle body headlining structure comprising, in combination, a frame work made up of a plurality of ribs, each rib consisting of three sections being a short intermediate section and corresponding swinging end sections pivoted to the ends of the intermediate section, side frame members secured to the outer ends of the end sections of the ribs, a central frame member provided at spaced apart intervals lengthwise thereof with recesses adapted to detachably receive the intermediate rib sections to position said ribs longitudinally therealong, and a headlining secured to the side frame members and the swinging rib sections.

9. A vehicle body headlining structure comprising, in combination, a frame work including a central longitudinally extending element provided at spaced apart points therealong with oppositely extending supporting elements hinged to the central support about pivots extending substantially parallel thereto whereby the elements may be swung toward and away from each other in arcuate paths about the central support as an axis, and a headlining secured to said elements.

JOHN H. MACKAY.