G. B. KOHLER.

BACK FOR CAR SEATS.

APPLICATION FILED FEB. 9, 1914.

1,220,644.

Patented Mar. 27, 1917.

3 SHEETS—SHEET 1.

Fig. 1.

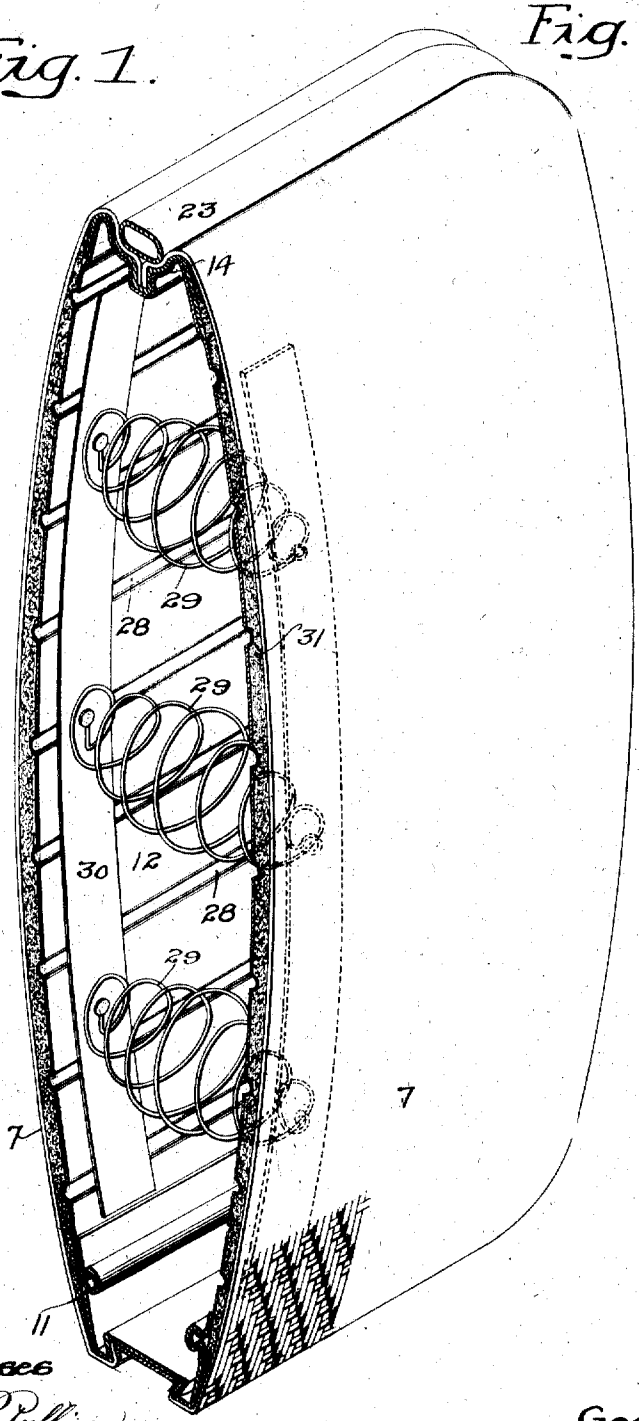
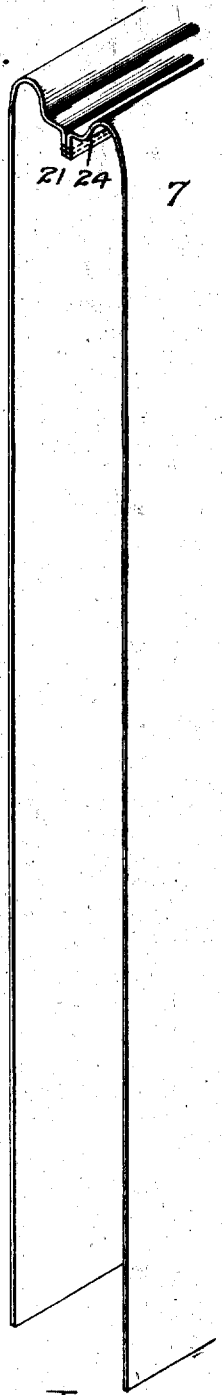


Fig. 8.



Witnesses

Walter P. Pellinger

William F. Mace.

Inventor.

George B. Kohler

by his Attorneys

Howson & Howson

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3 SHEETS—SHEET 2.

Fig. 4.

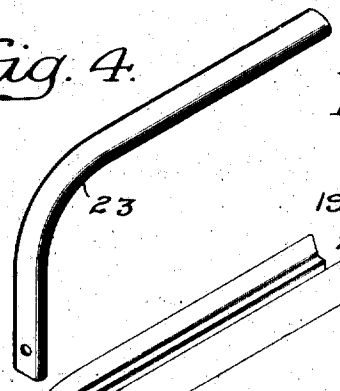
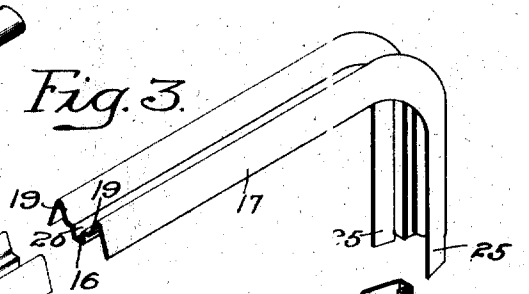


Fig. 3.



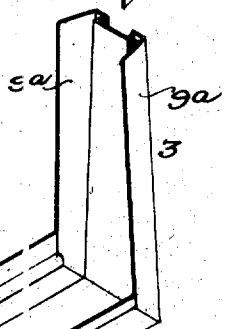


Fig. 2.

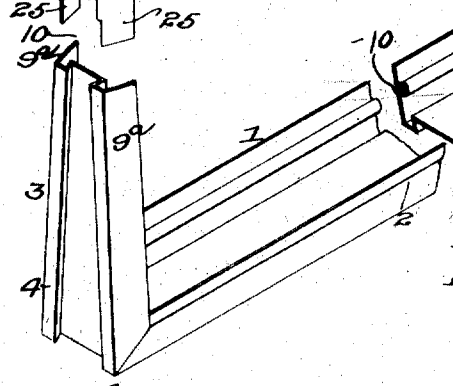


Fig. 7.

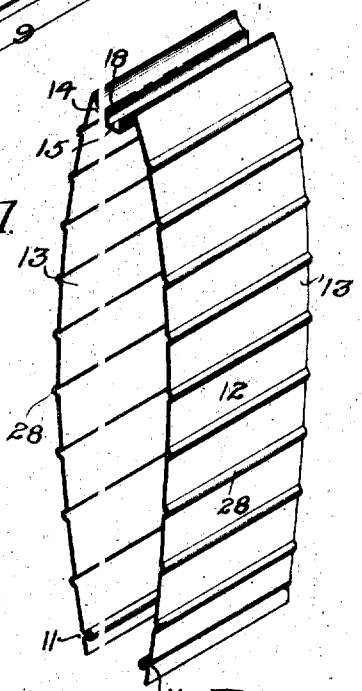




Fig. 6.

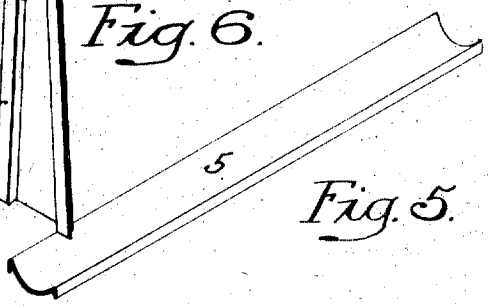


Fig. 5.

Witnesses.—
Walter F. Dillinger
William T. Mack.

Inventor.—
George B. Kohler.
by His Attorneys.—
Kenyon & Kenyon

G. B. KOHLER.

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3 SHEETS—SHEET 3.

Fig. 9.

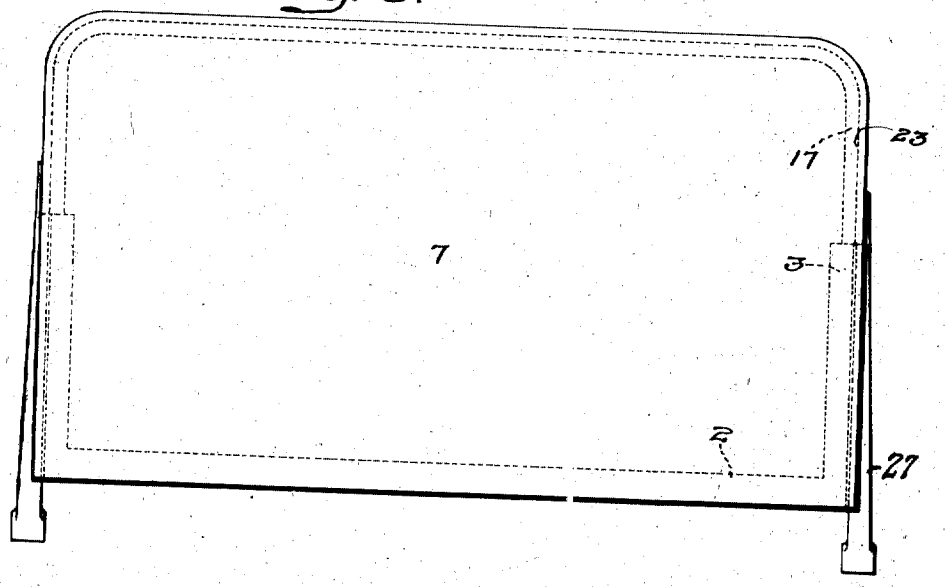
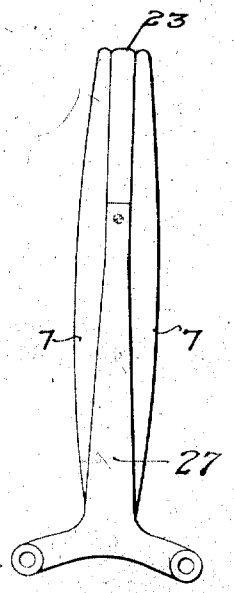


Fig. 10.



Witnesses.—

Walter D. Dullinger

William T. Mack.

Inventor—

George B. Kohler.

by his Attorneys—

Howson & Howson

UNITED STATES PATENT OFFICE.

GEORGE B. KOHLER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE J. G. BRILL COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

BACK FOR CAR-SEATS.

1,220,644. Specification of Letters Patent. Patented Mar. 27, 1917.

Application filed February 9, 1914. Serial No. 817,696.

To all whom it may concern:

Be it known that I, GEORGE B. KOHLER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Backs for Car-Seats, of which the following is a specification.

One object of my invention is to make a metal frame for the back of a car seat and to couple the cushion supporting plates to the frame so that they will be rigidly connected thereto, but free to yield under pressure.

A further object of the invention is to provide means for detachably securing the back to the supporting arms, and further to make the covering in the form of a bag closed at the top.

In the accompanying drawings:—

Figure 1, is a sectional perspective view of the back of a car seat illustrating my invention;

Fig. 2, is a perspective view of the lower half of the frame broken away;

Fig. 3, is a perspective view of the upper half of the frame broken away;

Fig. 4, is a perspective view of a portion of the clamping bar of the upper frame;

Fig. 5, is a perspective view of the lower clamping bar;

Fig. 6, is a perspective view of one of the side clamping bars;

Fig. 7, is a detached perspective view of the cushion supporting plate;

Fig. 8, is a detached perspective view showing the two sections of the cover connected prior to being placed over the frame;

Fig. 9, is a side view of the completed seat back; and

Fig. 10, is an end view.

The main frame is made in two sections, the end of one frame fitting into the end of the other and these two frames may be secured together by brazing, welding, or other suitable means. The lower frame 1 has a longitudinal member 2 and vertical end members 3 and is made in cross section as shown, having an undercut groove 4 at the bottom and at each side to receive the clamping bars 5 and 6, which confine the ends of the cover 7 to the frame; the ends occupying the undercut space in the main frame. The lower clamping bar 5 is curved in cross section, Fig. 5, and when it is adjusted in the undercut space it is flattened, as in Fig. 1, firmly securing the edge of the covering to the frame.

Each side flange 9 of the bottom of the lower frame 1 is bent to form an undercut groove 10 to receive the shaped end portions 11 of the cushion supporting plates 12, clearly shown in Fig. 7. The cushion supporting plates are U-shaped in form and the two side members 13 are curved to the desired shape of the cushion portion of the back. The connecting member 14 is bent to form a longitudinal groove 15 into which extends the longitudinal rib 16 of the upper main frame 17 and is rounded at 18 to fit the rounded portion 19 of said frame. The rib is hollow and forms a groove 20 for the reception of the ends 21 of the cover 7 which, in the present instance, is made of ratan.

The frame is rounded at the upper edge so that the cover will have a smooth bearing upon the frame, as clearly illustrated in Fig. 1. The cover is held to the upper main frame by a U-shaped hollow bar 23 extending down on each side thereof and retaining the portion 21 of the cover in the groove 20. The cover is made in two pieces and the upper ends are joined together face to face by a line of stitching 24. It is this portion of the cover which extends into the groove 20.

The upper main frame 17 has tongues 25 at the lower ends of the side members and these tongues pass into the lower main frame 1 back of the flanges 9ª and can be secured thereto by brazing or welding.

The end members 3 of the lower frame 1 are tapered and the groove 4 is also tapered to receive the tapered side bars 6 which are made from sheet metal bent into shape, as shown. Each end bar has an undercut groove 26 therein, and the tapered arms 27, which support the back section, fit these grooves and extend over the ends of the U-shaped bars 23 of the upper section, making a neat fit and allowing for the removal of the back section from the supporting arms when necessary. These supporting arms are so connected to the seat mechanism that the back can be shifted from one side to the other and the back section, being double, need not be turned.

The cushion supporting plates, shown in Figs. 1 and 7, have a series of transverse ribs 28 for the purpose of making the plates

more flexible than if made flat, and located between the two members 13 are the springs 29, which are attached to plates 30 by rivets, or other fastenings. Between the cushion supporting plates and the cover material 7 is a lining 31 of hair, or other suitable material, preferably backed with burlap or other fabric.

From the above description it will be seen that I am enabled to make a light and substantial frame for the back of a car seat, the same being made of sheet metal bent into shape; the cover for the seat being secured to the lower portion of the frame by undercut plates which firmly fasten the material to the frame, the upper portion being secured by a U-shaped hollow bar which is attached to the frame by two or more screws, or other suitable fastenings.

By making the frame in the manner shown, I am enabled to attach the two portions of the cover by a row of stitching in order to form a bag which is placed over the frame, the seam entering the groove in the top frame, as hereinbefore described and being covered by the tubular bar 23.

By making the clamping bars 6 of sheet metal, I not only provide a retaining rib for the material, but also form an undercut socket for the arms which support the back.

While I have described my invention particularly as a back for a car seat, it will be understood that the invention may be used in any place where a double back is desired, or where a back is upholstered on both sides.

I claim:

1. The combination in a car seat back, of a main frame, the upper portion of the frame having a central groove therein and the lower portion of the frame having an undercut groove; a fabric covering adapted to the frame; a U-shaped bar adapted to clamp the fabric covering to the upper portion of the frame; and separate side and bottom plates adapted to clamp the fabric in the grooves in the lower portion of the frame.

2. The combination in a back structure, of a frame; the upper part of said frame having a recess and having a central groove therein; a bar fitting the recess but not extending into the groove; and a covering made in two sections secured together, the ends of the two sections which are secured together extending into the groove in the frame, said bar retaining the covering in the groove and forming a finish for the upper portion of the back.

3. The combination in the back of a car seat structure, of a frame; cover material; means for attaching the cover material to the exterior of the frame; a U-shaped cushion supporting plate having two side members and an integral connecting member, said connecting member being shaped to conform to the inner side of the upper portion of the frame and being held in position by said frame, the ends of the side members of the supporting plate being shaped to form an interlock, the lower portion of the main frame being also shaped to receive the interlocking portions of the supporting plate.

4. The combination in a car seat back, of a metallic frame having tapered undercut grooves at each side near the lower end and an undercut groove at the bottom; side clamping plates having undercut ribs adapted to the tapered side grooves of the frame; a separate clamping plate adapted to the bottom groove; a cover confined to the frame by said plates; and means for securing the upper section of the cover to the frame.

5. The combination in the back of a car seat, of a quadrangular frame, the upper portion of the frame having a groove therein; a U-shaped clamping bar covering the groove and extending on each side of the frame, the lower portion of the frame having undercut grooves; clamping bars arranged to enter said grooves; a two-part cover having a seam at the upper edge, one part being stitched to the other part face to face and forming an internally extending rib which enters the groove in the upper portion of the frame, the U-shaped bar covering the seam and the free ends of the covering extending into the grooves in the lower portion of the frame and held therein by the above mentioned clamping bars.

6. The combination in the back of a car seat, of a metallic frame having tapered grooves at the side near the lower portion of the back; sheet metal clamping bars shaped to form a rib to enter the grooves to confine the material of the cover of the seat in the grooves, said bars also forming a tapered groove; and supporting arms each having a portion arranged to enter the tapered grooves in the said bars.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

GEORGE B. KOHLER.

Witnesses:
WM. R. MARTIN,
EDWIN T. DEAL.