My invention has reference to cushions for car-seats; and it consists of certain improvements which are fully set forth in the following specification and shown in the accompanying drawings, which form a part thereof.

The object of my invention is to provide a construction for cushion-frame adapted to both seat and back which shall be composed largely of metal and be substantially fireproof.

My invention is especially adapted for use in the railway-car seats, where the danger to loss of life from fire is very great in case of collision.

In carrying out my invention I employ an outer or box-frame of metal, preferably \( \square \) shaped in cross-section and bent into the requisite rectangular form, and combine therein with sheet-metal bands arched over the top from side to side, coil-springs under said steel bands, transverse metallic slats or cross-bars supporting said springs and united at their ends to the side portions of the outer frame by bolts, and a covering of woven rattan or other upholstery the free edges of which are folded under the outer frame and united thereto by eyelets and preferably shielded by metallic strips which impart both protection and finish and through which the eyelets extend.

My improvements also comprehend details of construction, which, together with the above-mentioned structures, will be better understood by reference to the drawings, in which—

Figure 1 is an inverted plan view of my improved seat with a portion of the slats and springs broken away to show the interior.

Fig. 2 is a cross-section of same on line A A.

Fig. 3 is a cross-section of same on line B B, and Fig. 4 is an inverted plan view showing the employment of protecting-strips over the upholstery.

The box-frame is rectangular and made of rolled sheet metal of substantially \( \square \) shape in cross-section, the outer wall \( a \) having the top flange \( a' \) and bottom flange \( a'' \). The free edges of these flanges may be curved, folded, or beaded, as shown at \( a' \), which adds greatly to the strength. The two longest sides of the box-frame have their upper outer surfaces depressed, as \( a'' \), to receive the ends of the springs \( b \) and rivets \( b' \). I prefer to make the box-frame of one continuous strip of sheet metal, with the parts \( a' \) and \( a'' \) cut so as to form miter-joints at the corners.

\( b \) represents flat springs arched over the upper or outer surface of the box-frame and are seated at their ends upon the opposite side rails and riveted at \( b' \), as before stated. These spring-plates are preferably provided upon their under sides with a central strip \( b' \) of greater strength and to both of which plates the coil-springs \( d \) are bolted. The lower ends of these springs are supported upon transverse bars or slats \( e \), formed of stamped sheet-steel and ribbed, as at \( a'' \), for rigidity. These ribs do not extend to the ends of the slats, but instead terminate a short distance from each end, and said ends are fitted against the under surface of the flange \( a'' \) of the box-frame and secured in place by bolts \( k \). In practice, I prefer to have the spring-plates \( b \) come close together, so as to form only a small space between them to insure the structure being more fireproof.

Above the spring-plates \( b \) is placed the upholstery, and ordinarily this consists of a sheet of canvas \( e' \) and a covering of woven rattan \( e \) or other outer material. This upholstery may be of any other construction preferred and may be made fireproof in any of the well-known ways. The upholstery is pulled down over the box-frame and folded under the bottom flange \( a'' \) and held in place by the screws \( k \) and eyelets or rivets \( i \). If desired, before the eyelets are applied protecting-strips \( h \) are placed over the upholstery ends and preferably under the slats \( e \), and said strips, the upholstery, and the flange \( a'' \) are further fastened together by the eyelets \( i \), as shown in
Fig. 4, the eyelets passing through holes in the several parts. The eyelet-holes in the flange $a'$ are shown at $t$ in Fig. 3.

From the foregoing description it will be seen that the cushion is essentially fireproof and at the same time both light and strong.

Matter shown but not claimed in this application forms subject-matter of another pending application, Serial No. 186,600, and filed December 28, 1908.

While I prefer the construction herein shown and described, I do not confine myself to the details, as these may be modified without departing from the spirit of the invention.

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

1. In a seat-cushion, the combination of a box-frame of sheet metal having bottom flanges, cross-slats of metal having their ends resting against the bottom face of the bottom flanges of the box-frame, coil-springs resting upon the slats, sheet-metal springs resting upon the coiled springs and having their ends secured to the sides of the box-frame, upholstery stretched over the sheet-metal springs and extended down and under upon the lower flange of the box-frame, means passing through the ends of the cross-slats upholstery and flange of the box-frame to hold them together, and means for securing the upholstery to the flange of the box-frame intermediate of the slats.

2. In a seat-cushion, the combination of a box-frame of sheet metal having bottom flanges, cross-slats of metal having their ends resting against the bottom face of the bottom flanges of the box-frame, coil-springs resting upon the slats, sheet-metal springs resting upon the coiled springs and having their ends secured to the sides of the box-frame, upholstery stretched over the sheet-metal springs and extended down and under upon the lower flange of the box-frame, means passing through the ends of the cross-slats upholstery and flange of the box-frame to hold them together, and means consisting of eyelets for securing the upholstery to the flange of the box-frame intermediate of the slats.

3. In a seat-cushion, the combination of a box-frame of sheet metal having bottom flanges, cross-slats of metal having their ends resting against the bottom face of the bottom flanges of the box-frame, coil-springs resting upon the slats, sheet-metal springs resting upon the coiled springs and having their ends secured to the sides of the box-frame, upholstery stretched over the sheet-metal springs and extended down and under upon the lower flange of the box-frame, means passing through the ends of the cross-slats upholstery and flange of the box-frame to hold them together, and means for riveting the upholstery to the lower flange of the box-frame intermediate of the slats, and protecting-stands of metal over the upholstery and also secured in place by the riveting means.

In testimony of which invention I hereunto set my hand.

EDWARD G. BUIJDI.

Witnesses:

R. M. HUNTER,
R. M. KELLY.