

No. 778,218.

PATENTED DEC. 27, 1904.

E. G. BUDD.
CUSHION FOR CAR SEATS.
APPLICATION FILED APR. 11, 1904.

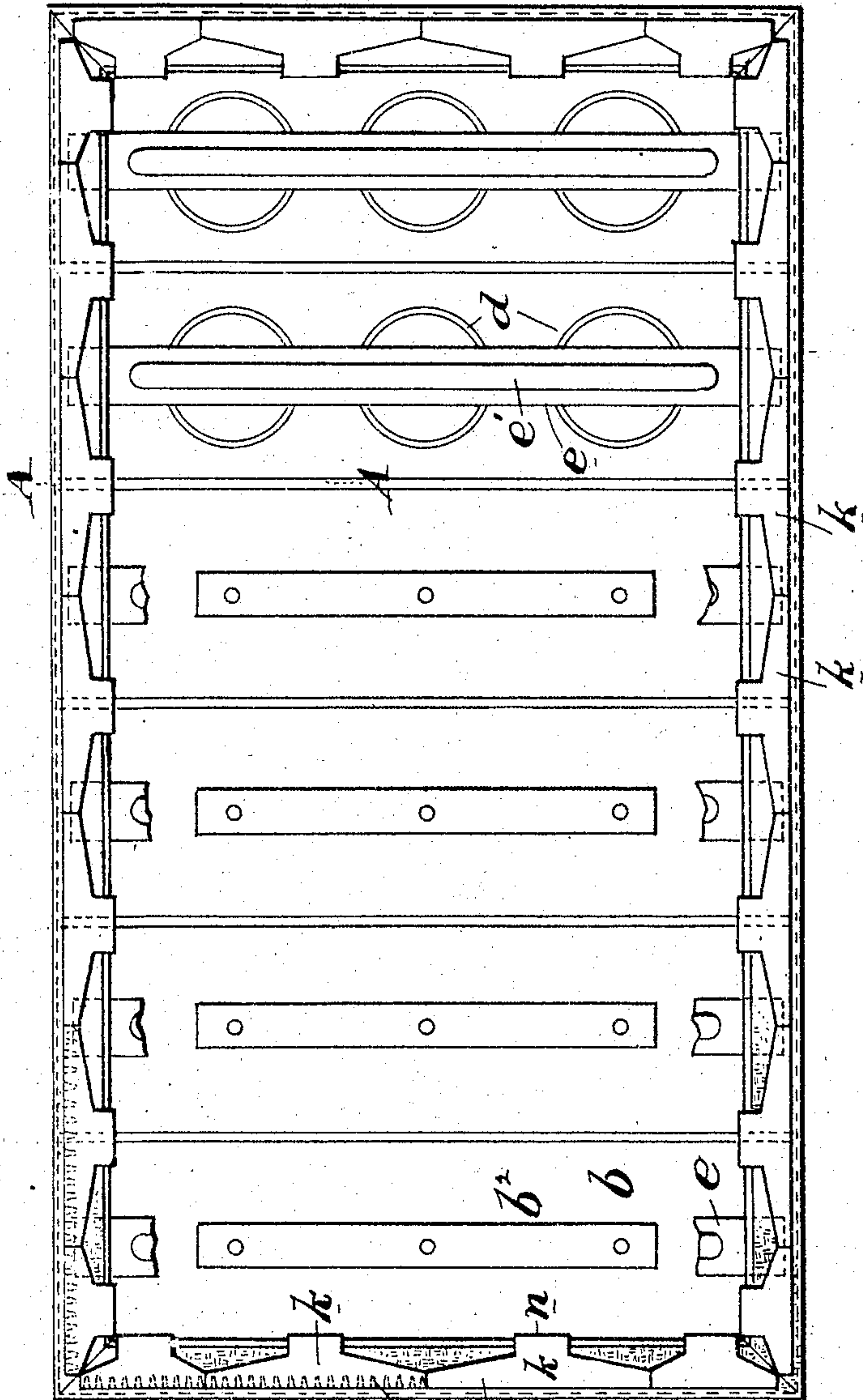


FIG. 1

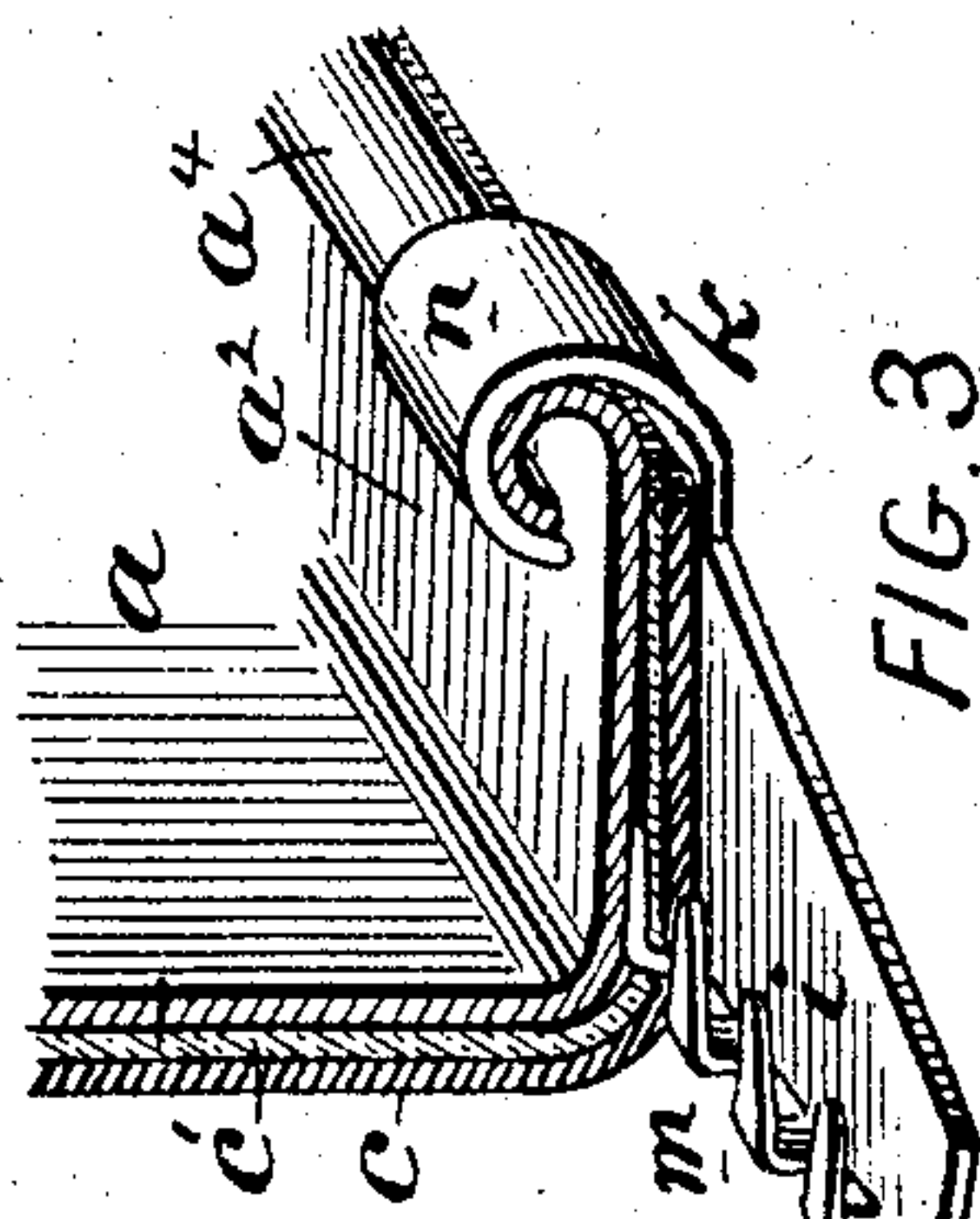


FIG. 3

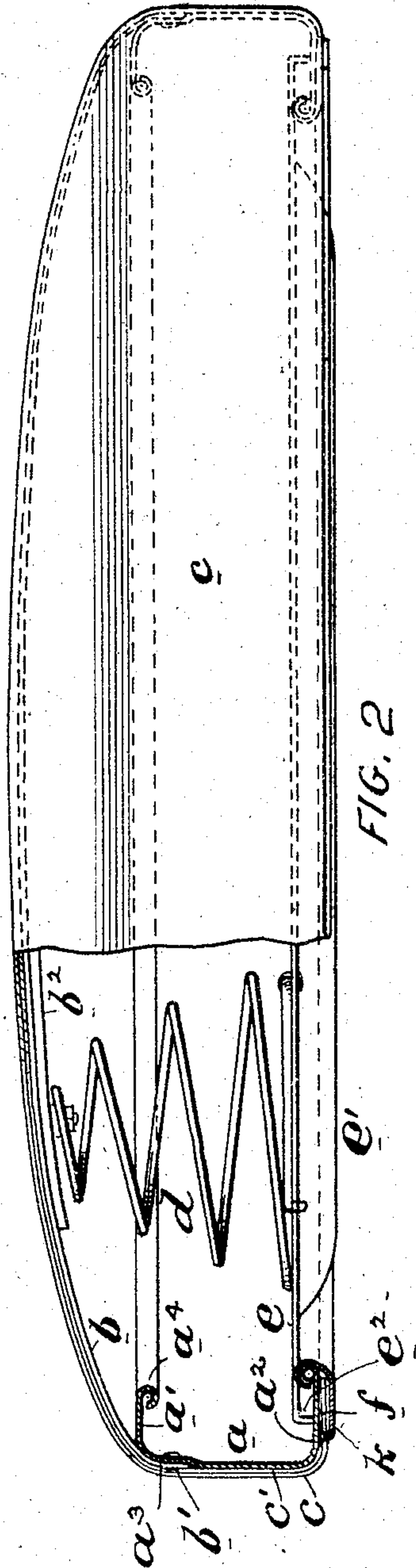


FIG. 2

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EDWARD G. BUDD, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
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CUSHION FOR CAR-SEATS.

SPECIFICATION forming part of Letters Patent No. 778,218, dated December 27, 1904.

Application filed April 11, 1904. Serial No. 202,524.

To all whom it may concern:

Be it known that I, EDWARD G. BUDD, of the city and county of Philadelphia, State of Pennsylvania, have invented an Improvement in
5 Cushions for Car-Seats, of which the following is a specification.

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
15 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.

20 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 therewith sheet-metal bands arched over the top
25 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 rivets, and a covering of woven
30 ratan or other upholstery, the free edges of which are folded under the outer frame and held in place by hook-shaped metal clips which are secured to the upholstery and engage the inner edge of the lower flange of the box-
35 shaped frame.

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—

40 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; and Fig. 3 is a perspective view of one of the
45 clips in act of clamping upholstery to the frame, the latter being shown in section.

The box-frame is rectangular and made of 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
50 these flanges may be curved, folded, or beaded, as shown at a^4 , which adds greatly to the strength. The two longest sides of the box-frame have their upper outer surfaces depressed, as a^3 , to receive the ends of the
55 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 up-
60 per 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
65 their under sides with a central strip b^2 of greater strength, and to both of which plates the coil-springs c are bolted. The lower ends of these springs are supported upon trans-
verse bars or slats e , formed of stamped sheet-
70 steel and ribbed, as at e' , for rigidity. These ribs terminate a short distance from each end of the slats, and said ends are bent down to form feet e^2 to rest against the under surface
75 of the flange a'' of the box-frame and secured in place by prongs f on the feet, which extend through holes in the flange a'' and bent
80 over or riveted, as shown in Fig. 2. 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 c' and a covering of woven ratan c
85 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
90 over the box-frame and folded under the bottom flange a'' and held in place by the metal clips k , which are of the shape shown, having wide portions i , provided with teeth or prongs
95 m , which are driven through the upholstery and clenched down, and hooked portions n of less width, which hook over or engage the beaded edge of the lower flange a'' of the box

metal frame. These clips preferably abut, as shown, so as to form a continuous metal covering over the upholstery on the bottom of the seat. In practice I prefer to apply the clips to the upholstery before it is placed on the seat-frame, and to insure easy application I soak the upholstery to cause it to expand, and after being applied in place and the clips hooked to the edge of the flange ^a the drying of the upholstery causes it to shrink and make the covering tight. This is especially the case with an upholstery of canvas and ratan. The clips may be secured to the upholstery in any other suitable manner, if so desired, as, broadly considered, it is immaterial to my invention how the attachment may be made.

From the foregoing description it will be seen that the cushion is essentially fireproof and at the same time both light and strong. It is also easily and quickly assembled, and consequently cheap to manufacture.

Matter shown but not claimed in this application forms subject-matter of another pending application, Serial No. 186,609, filed December 26, 1903.

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 secured to the bottom flange 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 the lower flange of the box-frame, and metal clips secured to the upholstery and hooked over the inner edges of the lower flange of the box-frame for securing the upholstery to the under side of the box-frame.

2. In a seat-cushion, the combination of a box-frame, springs supported by the box-frame, upholstery stretched over the springs and extended down and under upon the lower part of the box-frame, and metal clips secured to the upholstery and hooked to the under side of the box-frame.

3. In a seat-cushion, the combination of a box-frame of sheet metal having bottom flanges, cross-slats carried by 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, and a series of metal clips secured to the upholstery and hooked over the lower flange of the box-frame and substantially abutted to form a substantially continuous metal covering for the upholstery on the bottom of the box-frame.

4. A seat-cushion for cars consisting of a box-frame of sheet metal having a lower flange, upholstery extending over the box-frame and under the lower flange, springs for supporting the upholstery, and means for securing the upholstery to the box-frame consisting of a series of metal clips secured to the upholstery and hooked over the edge of the flange of the box-frame.

5. A seat-cushion for cars consisting of a box-frame of sheet metal having a lower flange, upholstery extending over the box-frame and under the lower flange, springs for supporting the upholstery, and means for securing the upholstery to the box-frame consisting of a series of metal clips having prongs by which they are secured to the upholstery and having hooked portions which are hooked over the edge of the flange of the box-frame.

6. Means for securing the upholstery to a box-frame of a cushion consisting of a sheet-metal clip having one edge made wide and provided with a series of prongs arranged in alinement for attachment to the upholstery and the other edge made narrow and bent into a hook to form an open jaw for attachment to the frame of the cushion.

7. In a seat-cushion, the combination of a box-frame, springs supported thereby, upholstery stretched over the springs and box-frame and having its edges folded under the said box-frame, and a series of metal plates secured to the upholstery near its edge and also attached to the box-frame independently of the upholstery, whereby the upholstery is stretched over and held to the box-frame without being directly fastened thereto.

In testimony of which invention I hereunto set my hand.

EDWARD G. BUDD.

Witnesses:

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R. M. KELLY.