Sept. 24, 1929. H. K. FREEMAN 1,729,377

SEAT CUSHION

Filed Aug. 17, 1927

FIG. 1

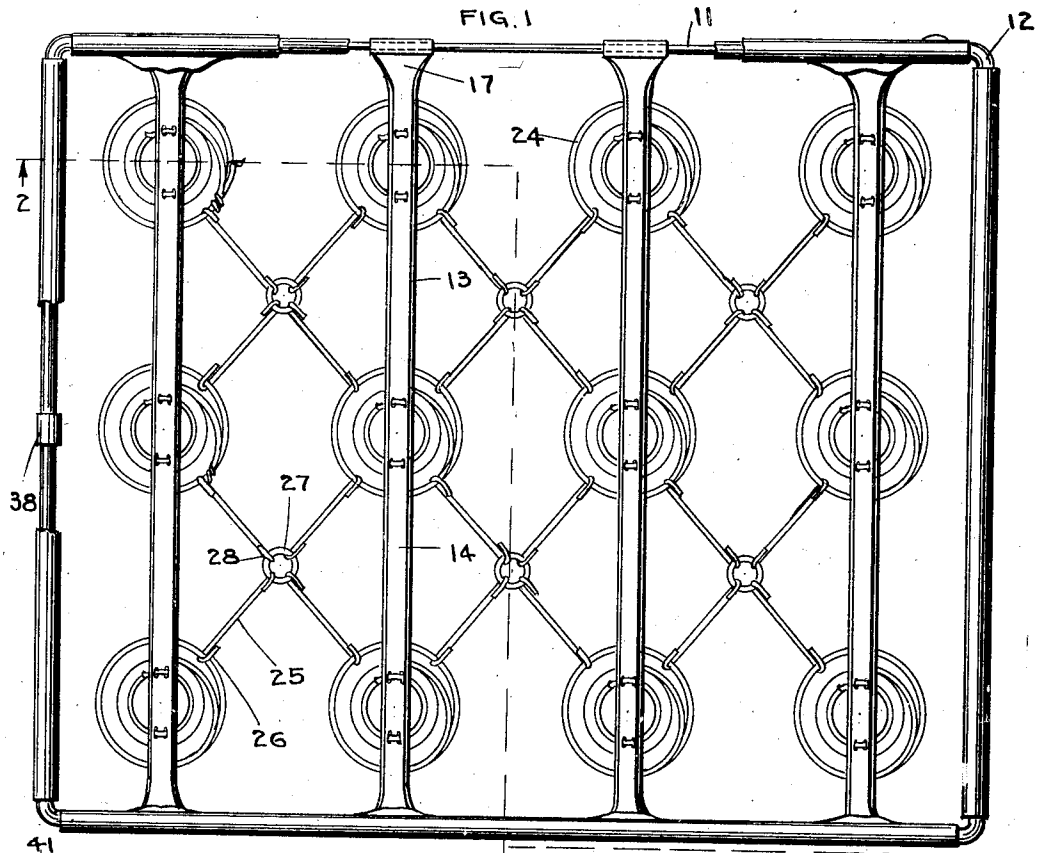


FIG. 2

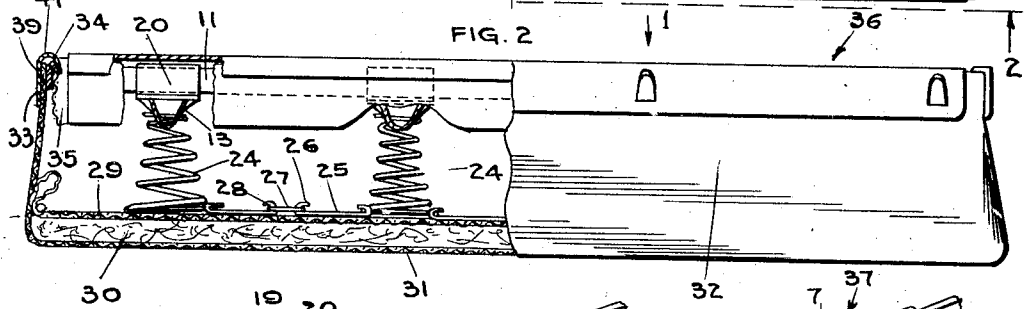


FIG. 3

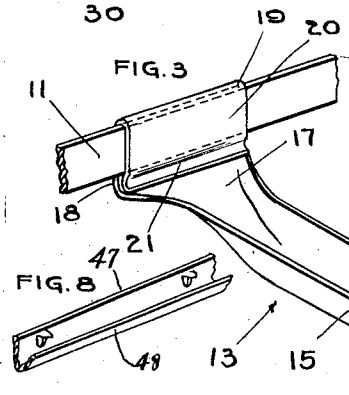


FIG. 4

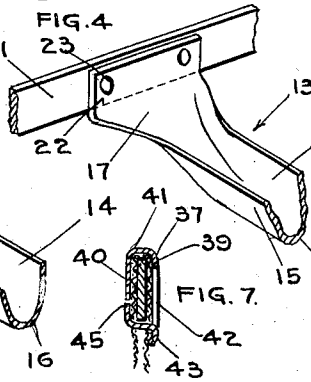


FIG. 5

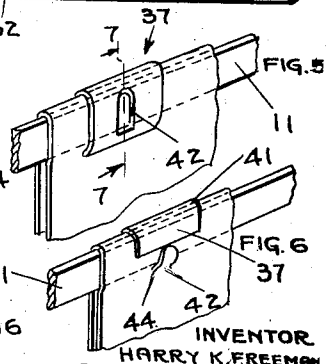


FIG. 6

FIG. 8

FIG. 7

INVENTOR
HARRY K. FREEMAN
BY Hazard and Miller
ATTORNEYS

Patented Sept. 24, 1929 1,729,377

UNITED STATES PATENT OFFICE

HARRY K. FREEMAN, OF LOS ANGELES, CALIFORNIA

SEAT CUSHION

Application filed August 17, 1927. Serial No. 213,548.

My invention is a seat cushion of the type having a metal frame with coiled wire springs supporting the tufting.

An object of my invention is the construction of a seat cushion having a metal frame forming the base with cross base bars rigidly connected to the base frame, one feature of my invention being the manner of securing the cross base bars to the frame. Mounted on the base bars are a series of coiled springs which have connecting links and rings between the upper ends of the different springs; the upper ends of such springs, the links and the rings support the lower side of the tufting. Another feature of my invention involves the type of link and ring connection between the various springs.

The cushion is covered with a fabric, leather or imitation leather covering, or equivalent material, which extends over the tufting or padding material of the cushion and is brought downwardly and around the base frame. Another feature of my invention comprises the manner of attaching the covering to the base frame and forming a protection to prevent wear of the covering where it is secured to such base frame.

In constructing a cushion in accordance with my invention, I form a base frame of the desired shape of the cushion, this being usually formed of strap metal placed on edge. The cross base bars are preferably formed of sheet metal bent into channel shape, the ends being spread to extend along the base frame, and in one form of construction these ends are bent around the frame and crimped inwardly against the wide part of the bars. In another simple construction, the wide part of the bars have a flange which is riveted to the base frame.

The link and ring construction connecting the springs underneath the tufting comprise wire links having hooks and with a metal ring connecting a plurality of links together. Usually I use four links connected to the tops of four different springs and each of these links is connected to a central ring. This gives a suitable and equal support for the fabric underneath the tufting.

The covering material for the cushion after being folded over the base frame is secured by channel or U-shaped strips of metal, these strips having sections partially punched inwardly forming prongs, the prongs extending across the upper part of the base frame bars and through the double thickness of the covering material, such prongs being bent or pressed tightly against the inside or outside fold of the covering material; thus securely holding the covering to the base frame bars and also preventing wear of the covering material at the base bars, the cushion being supported on these covering or protecting channels or U-shaped strips.

The various features of my invention are illustrated in the accompanying drawings, in which:

Figure 1 is a bottom view of a cushion taken in the direction of the arrow 1 of Fig. 2.

Figure 2 is a vertical section of Fig. 1 on the line 2—2 in the direction of the arrows, part being shown in section and part in elevation.

Figure 3 is a perspective detail of the feature of securing the cross base bars to the base frame by the manner of crimping.

Figure 4 is a perspective detail of the fastening of the cross base bars to the base frame by riveting.

Figure 5 is a perspective detail showing the manner of attaching the covering material of the cushion to the base frame bars by channel strips or channel-shaped clips.

Figure 6 is a perspective view similar to Fig. 5 showing the opposite side.

Figure 7 is a cross sectional detail on the line 7—7 of Fig. 5 in the direction of the arrows.

Figure 8 is a perspective detail of the covering or protecting strips before attachment to the base of the frame.

The main structure of the cushion comprises the base frame bar or bars 11 which, as illustrated, is in the form of a flat metal bar placed on edge, this being shaped in accordance with the shape of the cushion considered horizontally and in this particular instance having bent corners 12. The ends of the bars may be welded or otherwise secured together. The cross base bars 13 are

formed preferably of sheet metal which is bent into the form of a channel at the center part, as indicated at 14, this having side walls 15 with a top or curved section 16. The ends of these bars are spread or flattened, as indicated at 17.

The manner of attaching the bars to the base frame 11, as shown in Fig. 3, comprises an outer flange 18 of the flattened section which fits the outside of the base frame bars 11. The end is then folded over the bottom of the bar, as indicated at 19, and has an inner section 20 which fits closely against the inner surface of the bars 11. The upper or end edge 21 is then crimped outwardly, being bent slightly over the top edge of the bar 11; thus securely fastening the cross base bars to the base frame.

In the simplified construction shown in Fig. 4 the flattened end 17 has a flange 22 which fits inside of the base frame 11 and is secured thereto by rivets 23.

Secured to the base frame bars there are a series of coiled springs 24. These may be of any character and are illustrated as of the combined helical and spiral coils. The upper ends of these coils have wire links 25 attached thereto, these links having a hooked end 26. A link is attached to the adjacent sides of four springs and in the center these links are attached to a ring 27 by hooked ends 28. The top of the springs and the combined link and ring construction form a support for the under fabric 29 of the tufting or filling 30 of the cushion.

The cushion cover 31 is drawn over the top of the tufting or filling and has side walls 32 which extend downwardly over the outside of the base frame 11, as indicated at 33. This is then bent over the lower edge of the base frame, as indicated at 34 and a fold 35 is drawn up inwardly of this base frame.

A covering is secured to the base frame, either by longitudinal securing strips, designated generally by the numeral 36, or by clips, designated by the numeral 37, these being particularly shown in Figs. 2, 5, 6 and 7. The general construction is substantially the same except that the clips are short and may be secured in different places on the covering and the base frame, as indicated at 38, whereas the securing strips extend a considerable length of each side of the base frame. Each of these strips or clips is formed channel shaped and may be considered as having a decided wall 39, an inside wall 40 and a wear resisting edge 41 over the bottom of the base frame bars 11, the covering material being between these parts. The prongs 42 are partially cut from one side of the strips 36 or the clips 37, as indicated at 42, and bent as indicated at 43 across the top of the base bars 11.

The prongs puncture the inner fold 35 of the covering material and also the outer walls 32, as indicated at 44, and the free ends 45 of the prongs are pressed tight against the opposite side of the covering material, holding this material firmly against the base strips 11, as clearly illustrated in Figs. 6 and 7. It will, therefore, be seen that the covering material is securely attached to the base frame 11 in a simple manner, and that this material is prevented from being worn or scuffed by the wear-resisting part 41 of the strips 36 or the clips 37.

It will thus be seen that I have developed a simple form of cushion which involves in its construction a novel arrangement for attaching the cross base bars to the base frame and for giving a web like support to the tufting or padding material by interlinking the tops of the springs; and also that I have provided a simple attachment for holding the edges of the covering material for the cushion to the base frame bars, the prongs securely attaching this material and also holding the strips 36 or the clips 37 in position; and that these strips and clips protect the covering material from being worn and hence giving away at the place of attachment to the base frame.

In Fig. 8 I illustrate the securing strips 36 before their attachment to the covering material and the base bar. It will be noted that these strips are preferably formed with the side 47 which has the prongs thereon slightly higher than the opposite side 48. This allows the prongs to be forced through the covering material and to be bent over the top of the base bars engaging and holding the covering material.

Various changes may be made in the principles of my invention without departing from the spirit thereof, as set forth in the description, drawings and claims.

I claim:

1. In a cushion, a base frame in the form of a flattened bar on edge, base bars secured to and extending across said frame, a cushion filling having a covering therefor, the edge of the covering being drawn over the outside and upwardly on the inside of the base frame bar, a securing strip substantially U-shaped in cross section fitted over the covering and the frame bar, said strip having prongs partly cut from one side of the strip, the prongs extending through the covering material from one side to the other and the free ends of the prongs being bent into tight engagement with the covering material, pressing same against the frame bar.

2. In a cushion, a base frame bar, a sheet of covering material extending around an edge thereof, and a protecting and clamping strip comprising a U-shaped strip having a prong partially cut therefrom, the U-shaped

strip extending around said edge of the frame bar with the covering material interposed between the bar and the strip, and the prong extending through the covering material and having its free end bent to press the covering material against the frame bar.

In testimony whereof I have signed my name to this specification.

HARRY K. FREEMAN.