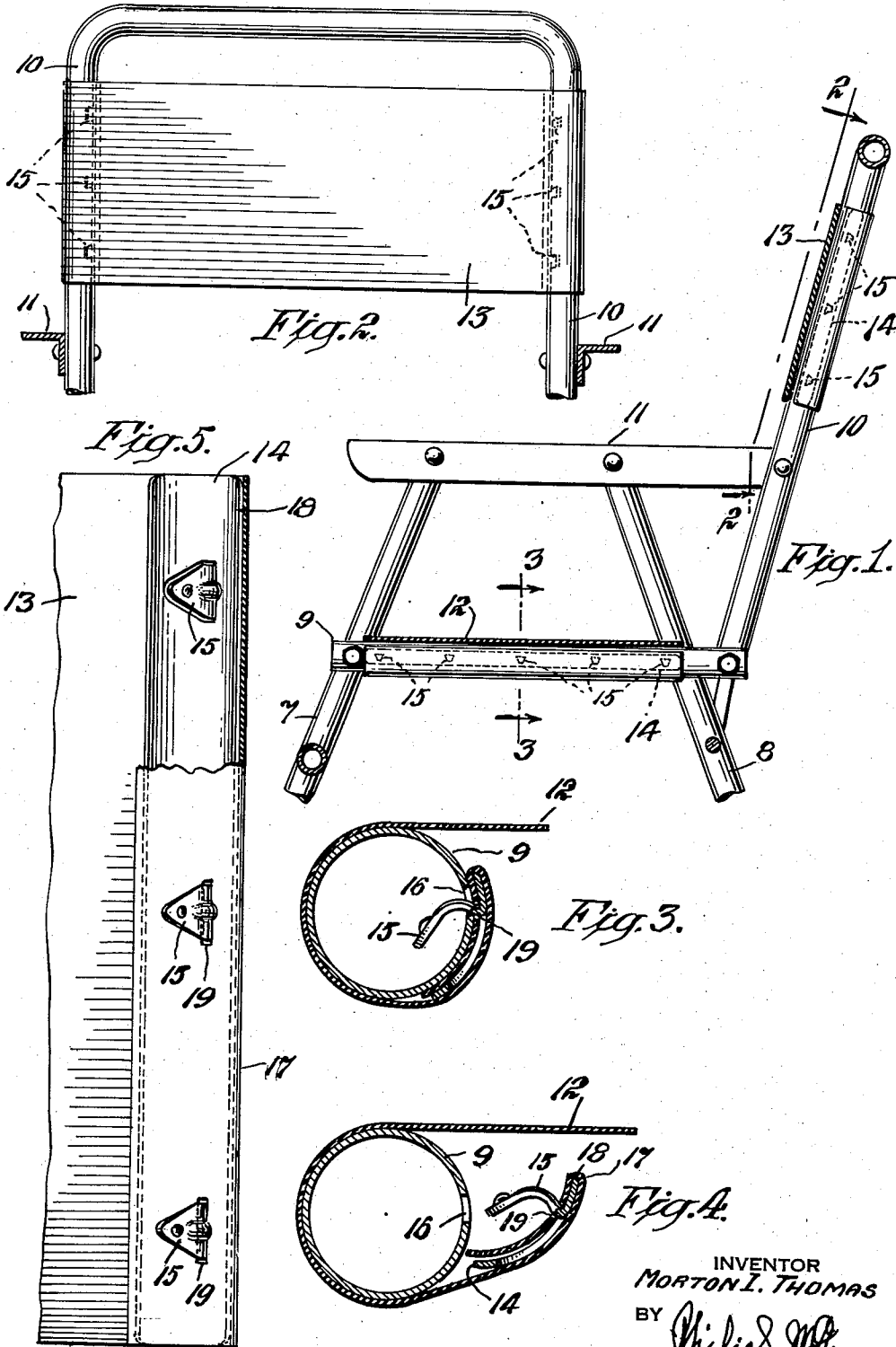


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M. I. THOMAS  
FASTENING OF WIDE FABRIC TO METAL  
CHAIR FRAMES AND THE LIKE  
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INVENTOR  
MORTON I. THOMAS  
BY *Philip S. Moran*  
ATTORNEY

1

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**FASTENING OF WIDE FABRIC TO METAL CHAIR FRAMES AND THE LIKE**

Morton I. Thomas, New York, N. Y.

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1 Claim. (Cl. 155-187)

The invention here disclosed relates to the fastening of fabric chair seats and backs to the tubular metal frames of such articles of furniture.

This invention is related to that of co-pending patent application Serial No. 649,705, filed April 1, 1957, now Patent 2,817,392 of December 24, 1957, involving the securing of strips of webbing to metal chair frames and the like.

In that patent, each piece of webbing is secured to the frame by an individual fastener.

The present invention is concerned with the securing of wider strips of material, which in fact are too wide to be held by a single fastener of the web securing type.

Accordingly, the present invention comprises an elongated securing bar, that is one as long as the fabric material is wide so as to hold the sheet of fabric across the full width and the provision of this bar with a plurality of fastener elements spaced to interlock in correspondingly spaced openings provided in the tubular frame. This bar then serves as a single fastening but as one holding across the full width of the fabric and having a sufficient number of anchoring elements to fully secure it, the full length, to the tubular frame member.

The objects of the invention are to provide a satisfactory elongated fastener of the character indicated and one which may be readily connected across the full width of the fabric, and which may be quickly and easily applied to or be removed from the furniture frame.

The foregoing and other desirable objects are attained by the novel features of construction, combinations and relations of parts, all as more particularly pointed out hereinafter and fully covered in the claims.

The drawing accompanying and forming part of this specification is illustrative of a present practical embodiment of the invention. Structure, however, may be modified and changed within the true intent and scope of the invention as hereinafter defined and claimed.

Fig. 1 in the drawing is a broken, part sectional and part side elevation view of a chair having the invention incorporated therein.

Fig. 2 is a broken front elevation of the back portion of the chair as appearing on substantially the plane of line 2-2, Fig. 1.

Fig. 3 is an enlarged broken sectional view across one of the seat supporting members on substantially the plane of line 3-3 of Fig. 1.

Fig. 4 is a similar view showing the fastener unhooked from the frame member, as in the step of connecting the fastener bar and seat forming fabric to the frame.

Fig. 5 is a broken part sectional view of the back forming fabric with the compound fastener bar wrapped in the end of the same ready to be snapped into engagement over the back frame bar of the chair.

The chair shown is of the folding metal frame type comprising tubular uprights 7 and 8 supporting tubular seat carrying bars 9, arched back carrying side bars 10 and arm rests 11.

The material for the seat is a single wide strip of fabric

2

12 and similarly, the material for the back is a single, wide, length of fabric 13.

These two pieces of "wide goods" may be of plastic, woven fabric or like material, strong and flexible enough for such purposes. A single fastener supports and secures the full width of the fabric at each end.

This fastener consists in each instance of a single bar of sheet metal designated 14, of a length substantially equal to the full width of the fabric, said bar being concavo-convex in cross section in approximation of the curvature of the tubular frame and having substantially equally spaced inwardly projecting prongs 15 on the inner concave side of the same for entry through correspondingly spaced slots or openings 16 in the frame.

The fastening strip is made fast to the full width of the fabric by wrapping the end portion of the fabric in a loop 17 over the continuous elongated forward or snubbing edge 18 of the strip and by passing the prongs through similarly spaced slots or openings 19 in the inner fold of the fabric overlying the inner concave face of the bar. By thus looping the entire width of the stock over the elongated edge of the bar and passing a plurality of the prongs through spaced portions of the fabric, the material is held properly stretched, ready to be firmly clamped to the frame member.

With the material thus attached to the bar, it is then only necessary to locate the bar with the prongs lined up with the slots in the frame as in Fig. 4 and to then press the bar inwardly toward the frame member so as to force the prongs fully through the slots as in Fig. 3, in which position the bar will clamp the inner fold of the material against the wall of the frame member and the loop 17 of material at the leading edge will be snubbed about the elongated forward edge of the bar. In this relation, the pull on the fabric locks the bar and the material looped about the same all the more firmly as the load is increased. By extending the inner edge of the folded material past the inner edge of the bar as in Fig. 4, this part of the material will be pinched by the edge of the bar against the tubular supporting member as indicated at Fig. 3, this pinching and holding action increasing with the load on the material.

The concavo-convex cross sectional shape stiffens the bar enabling use of relatively light sheet metal and this bar, when applied to the material, stiffens the full width of the material and provides the effect of a handle by which the connected bar and full width material may be secured to the tubular frame member.

The invention provides a simple, practical and inexpensive way for securing material so wide as to require more than a single fastening element. The bar carrying a plurality of fastening or anchorage elements spaces these elements to match the receiving slots in the tubular frame and forms a bridge entirely across such slots and provides a supporting edge extending entirely across the width of the fabric and across all the spaced intermediate anchorage points. This continuous full width securing also is accomplished by a single extensive step-by-step movement of forcing the prongs of the bar either all together or in succession, one after the other, into the slots in the companion tubular frame member.

In addition to advantages noted or apparent from the foregoing, the mounting and securing of the wide stock is accomplished with complete concealment of the fastening means, Figs. 1, 2, 3 in particular illustrating this characteristic. This hiding of the securing bars in the folds in the ends of the wide stock, aside from the esthetic value is of advantage in protecting the securing bars against weather or other possibly deteriorating effects.

In addition to securing and supporting the wide stock, the longitudinally extended fastening bars serve to main-

3

tain this wide material properly stretched and to prevent sagging or stretching of the same.

The fastening prongs 15, as shown particularly in Fig. 5, are substantially triangular in shape providing pointed ends to facilitate quick, easy entry into the slots in the frame and wide base ends where they are connected with the bar and with these wider base portions lined up longitudinally of the bar to match the longitudinally aligned slots in the frame. With the fastener prongs connected together in this way they cannot shift out of alignment and these all cooperate more or less equally to maintain the elongated snubbing edge in the web supporting position on the frame. Because of this cooperative relation the bar may be of relatively light, thin, strip metal, sufficiently flexible to bend, if necessary, in applying or removing the fastener.

What is claimed is:

In metal furniture of the tubular frame type in which fabric wide enough to require fastening at a plurality of points across the width of the same is applied to the frame, a fastener of a length approximating the width of the fabric for securing said fabric continuously across the full width of the same comprising a strip of sheet metal of concavo-convex cross section, having a continuous snubbing edge substantially equal in length to the full

4

width of the fabric, the end portion of said fabric being looped about said snubbing edge and extending in companion inner and outer layers from said snubbing edge back across the inner concave and outer convex faces of said strip, said bar with said fabric looped about the same being disposed in close fitting engagement over the side wall of said tubular frame with the inner concave side of the same holding the inner layer of looped fabric against said wall, said wall having a plurality of longitudinally aligned spaced slots and said strip having a plurality of correspondingly spaced inwardly projecting integral prongs on the inner concave side of the same extending through the layer of fabric on the inner concave side of the strip into and through said spaced slots in the wall of the tubular frame and thereby securing said strip and wide fabric to the tubular frame at a plurality of spaced apart attachment points but supporting said fabric by said elongated continuous snubbing edge continuously across the full width of the fabric.

References Cited in the file of this patent

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