April 6, 1937. R. L. FICKS 2,076,510

CHAIR CONSTRUCTION

Filed Nov. 30, 1936

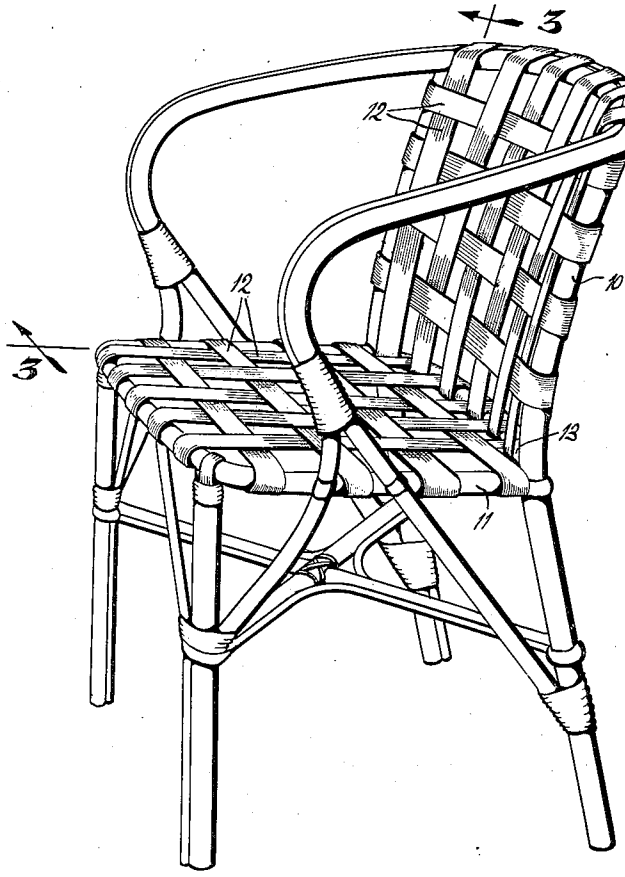

Fig. 1

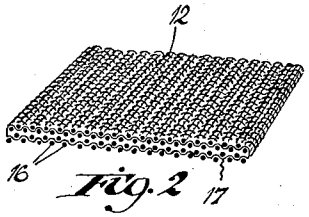

Fig. 2

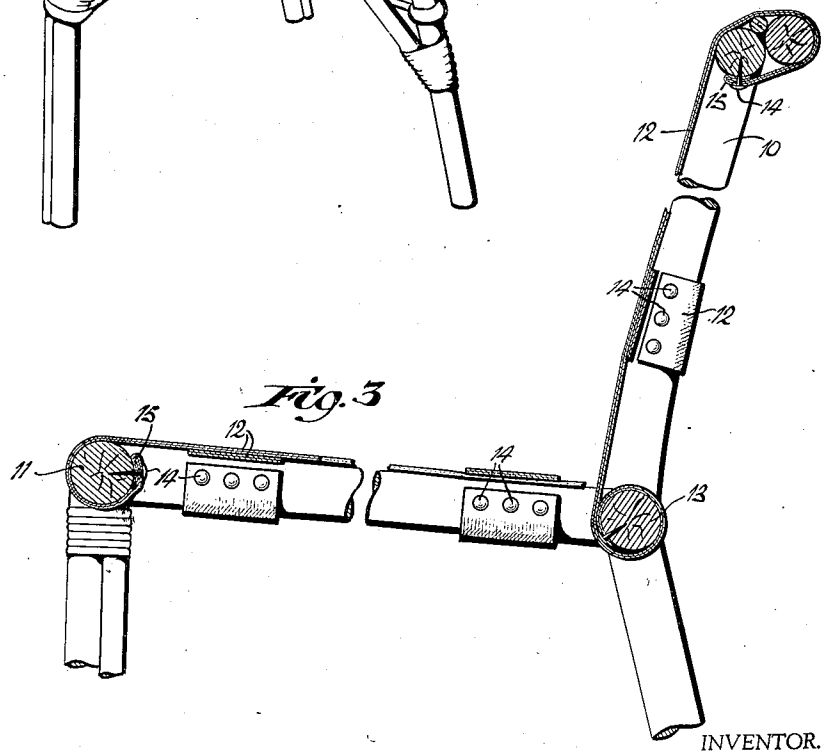

Fig. 3

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CHAIR CONSTRUCTION

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Application November 30, 1936, Serial No. 113,355

5 Claims. (Cl. 155—187)

My invention relates to improvements in the construction of chairs, particularly straight chairs or those having a rigid frame construction. Chairs constructed in accordance with the preferred embodiment of my invention are adapted to be used out of doors, in gardens, on open porches and other places where they are constantly exposed to the elements. My invention is also particularly adapted to chairs which are used adjacent to swimming pools either outdoors or indoors, and beaches, where those using the chairs frequently do so while wearing a wet bathing suit or beach robe.

The types of chairs which have been most commonly used for these purposes are those having open-work seats and backs made of woods such as cane and reed and of metal, the open-work being for the purpose of allowing the drainage of dew, rain or the water present on the saturated clothing of the user. Canvas is regularly used in reclining chairs and has been occasionally used in upright or straight chairs. However, neither canvas nor other fabrics which have a comparatively wide spacing between the warp threads, are well adapted to use in chairs of the upright type, because when used in sheet form such fabrics tend to pull away from the framework of the chair, and in general are deficient in strain-resisting qualities. I am not aware of canvas being used in strips in the manner characteristic of my invention, but if it were used in this way it would be unsatisfactory, because any fabric such as canvas, in which the warp threads and woof threads are of equal weight and in which there is a comparatively wide spacing between the warp threads, will tend to tear and pull away from the framework of the chair.

Chairs fabricated in whole from cane, reed and other woods, are fairly satisfactory for the purposes mentioned, but are comparatively heavy in comparison with the construction of my invention, are cumbersome to move about, and because of the quantity of materials needed to provide sufficient strength in the seat and back, and the labor necessary to accomplish a sufficiently strong framework at these points, are apt to be rather costly to manufacture. Metal chairs, on the other hand, although possessing perfect water resistant and water shedding qualities, are even heavier than those made entirely of wood, are costly to manufacture, and in addition, give a decidedly cold feeling to a user only partially clad, as in a bathing suit.

One object of my invention is to provide a chair for outdoor use which is rigid, light in weight, of simple but strong construction, and of pleasing appearance.

A second object of my invention is to provide a chair which is adapted to use in connection with swimming pools and bathing beaches, and one in which the back and seat are constructed of materials which are water resistant, but still comfortable to the touch.

Other purposes and objects will become apparent in the further and more detailed description of my invention.

Referring now to the drawing, Figure 1 is a perspective view of a chair embodying my invention.

Figure 2 illustrates the preferred type of fabric strip used to form the interlace in the seat and back.

Figure 3 is a cross section along the line 3—3, Fig. 1, illustrating the method of doubling and snubbing the fabric strips around the framework of the chair.

By covering the back frame 10 and seat frame 11 of the chair with an interlace of woven fabric belting strips 12, as in the preferred embodiment of my invention, I am able to utilize a chair framework of the most elementary character, which dispenses with all unnecessary bracing and supporting members. As shown in Figure 1, the rear supporting member 13 of the seat frame is the same member as the lower supporting member of the back frame. This is possible and practicable because the belting strips covering the back framework in themselves make a strong and entirely comfortable back support and dispense with the necessity of additional bracing or supporting elements across the back framework. The perpendicular strips across the back framework are also valuable in that they act as hangers and assist in transferring some of the strain from the lower supporting member of the back frame to the upper supporting member.

The material which I prefer to use for the strips is a woven fabric belting of the type known to the trade as bathing suit belting, although there may be other fabrics which will also readily lend themselves to use. I prefer to use a fabric in which the warp threads are heavier and their spacing is less than the spacing of the woof threads, in order to provide greater longitudinal strength, and in order to have a belting which will be lighter in weight and of low cost. The belting which is the preferred material of my invention is extremely water resistant, strong and durable, retains tacks well, and possesses a suffi-

cient degree of elasticity. Also, this belting, as is true of many fabrics, readily lends itself to dyeing and it is thereby possible to give the chair a very pleasing appearance by the use of different colored strips which may be interlaced in various attractive designs.

The preferred type of belting is shown in Figure 2 of the drawing, the warp threads being indicated by the numerals **16** and the woof threads by the numerals **17**.

In attaching the strips of woven fabric belting to the framework of the seat and the back of the chair, I prefer to snub the end of the strip a considerable distance around the frame of the chair before tacking the end of the strip into the framework by means of ordinary round headed upholsterer's tacks **14**, as illustrated in Figure 3 of the drawing. The advantage of this method of attachment is that the friction between the coiled end of the strip and the framework abutment around which the strip is snubbed, tends to counteract the strain placed upon the seat or back of the chair by the weight of the person sitting in it.

Before tacking the end of the snubbed strip into the framework, I prefer to double over the end of the strip in order to provide a doubled thickness as at **15**, through which the tacks may be driven. This doubling of the end of the strip is for the purpose of assisting in preventing the points of the upholsterer's tacks from splitting the fabric and destroying the attachment.

During the process of attachment, the belting strips are interlaced with a second series of strips, intersecting them at approximate right angles. In this interlace the strip members, which span the seat in one direction, alternate with strip members spanning the seat in the other direction. This method of interlace tends to provide uniform load distribution on the seat and back frame elements and on the tacks or fastening elements which hold the spanning members in position, and when the structure is made in accordance with my invention, will produce a chair of sufficient strength to readily sustain the weight of any ordinary person.

I desire to be limited only by the following claims:

1. A chair having a frame providing a back frame and a seat frame, said back frame including a lower supporting member, said member being the rear supporting member of said seat frame, interlaced and spaced strips of woven fabric belting securely attached across the front portion of said back frame and the top portion of said seat frame.

2. A chair having a frame providing a back frame rigidly connected with the seat frame thereof, multiple strips of woven fabric belting securely attached to the framework of the seat and back, approximately half of said strips running longitudinally of the seat and back of the chair and approximately the other half intersecting such longitudinal strips at right angles, each strip passing over and under alternately the strips running at right angles to it, said strips being spaced apart thereby providing an open interlace covering the back and seat frame portions of the chair.

3. A chair having a frame providing a back frame and a seat frame, said back frame including a lower supporting member, said member being the rear supporting member of the seat frame, interlaced strips of woven fabric belting attached over the top portion of said seat frame and over the front portion of said back frame; each of said strips being doubled at the end, and said doubled end being wrapped completely around the adjacent frame member, and attaching means inserted through said doubled ends into the frame members, those strips which are attached longitudinally against the front portion of said back frame being staggered with respect to those strips which are attached longitudinally across the top portion of said seat frame.

4. In a chair having a frame providing a back frame and a seat frame, an interlace of strips of woven fabric belting secured to the framework of the seat, said strips being spaced apart approximately the width of the strips, the ends of said strips being doubled and passed over the upper portion of said framework and around the contour of said framework to the approximate point of contact between the strip and the inner edge of the framework, and fastening means for securing the strips to the framework inserted through said doubled end at a point below the upper surface of said framework on the inner side thereof.

5. In combination, rigidly connected back and seat frames of a chair and a plurality of interlaced strips of woven fabric belting securely attached to the back and seat frames; each of the strips of the interlace on each frame being substantially separated from the other strips running in the same direction, thereby providing an open-work interlace.

ROBERT L. FICKS.