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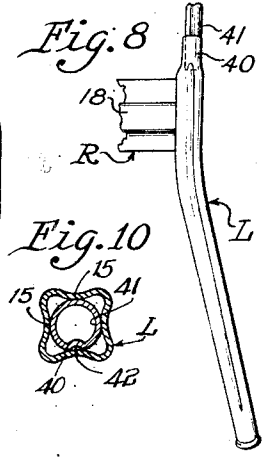
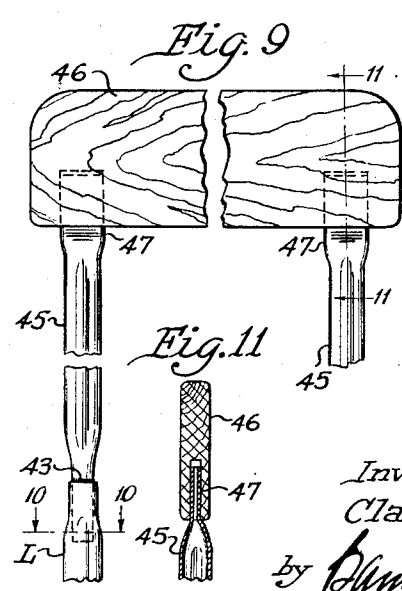
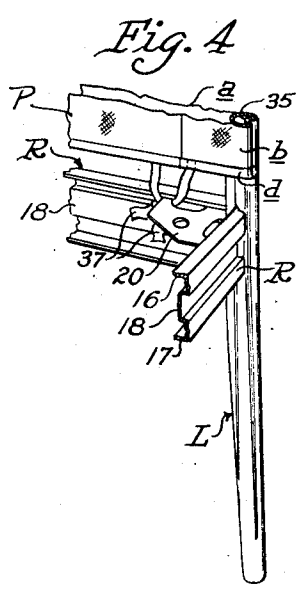
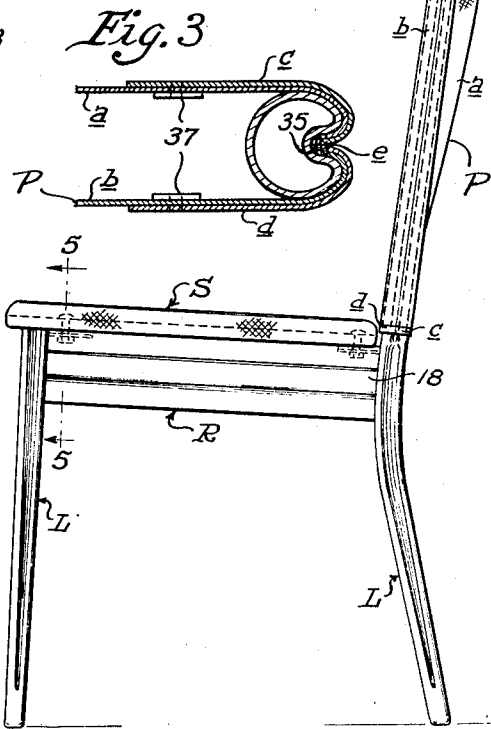
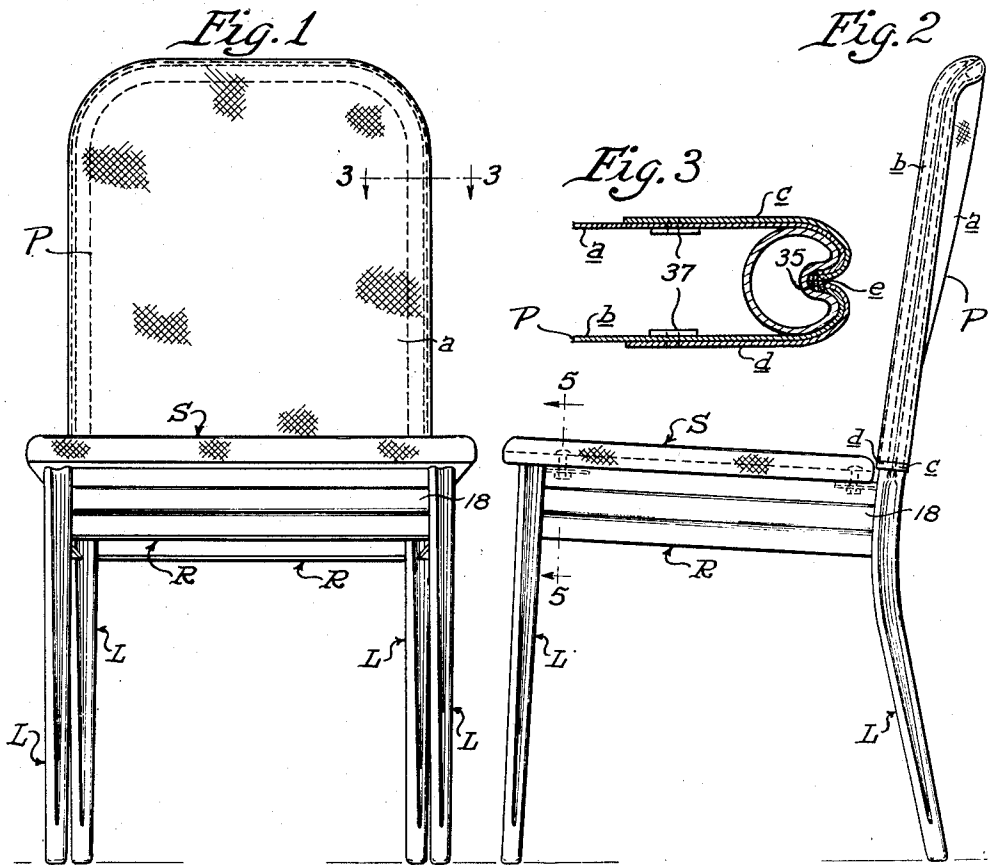
C. L. DEWEY

2,534,502

CHAIR COVER CONSTRUCTION

Filed Oct. 30, 1946

2 Sheets-Sheet 1



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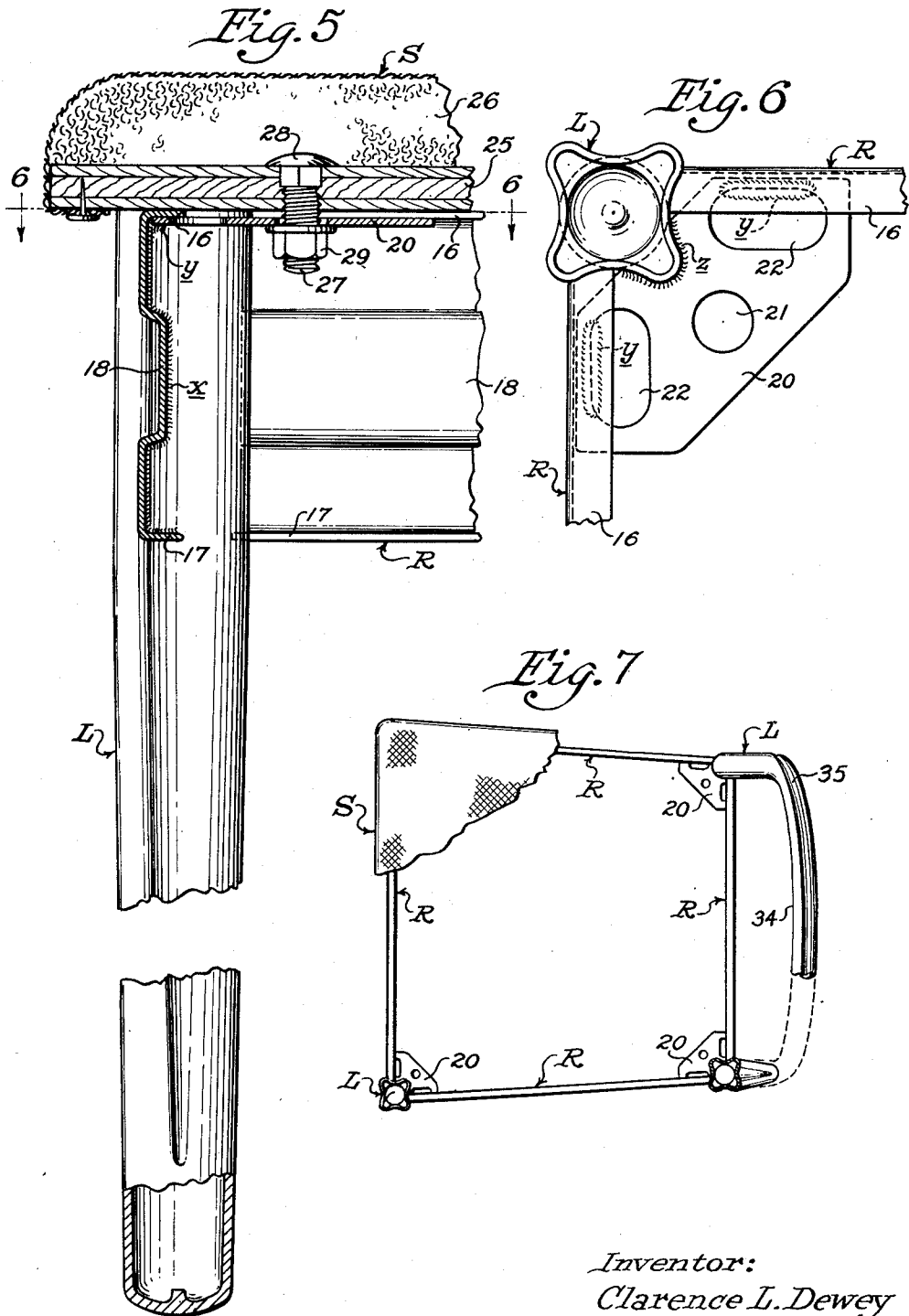
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CHAIR COVER CONSTRUCTION

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,534,502

CHAIR COVER CONSTRUCTION

Clarence L. Dewey, Grand Rapids, Mich.

Application October 30, 1946, Serial No. 706,703

2 Claims. (Cl. 155—182)

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My present invention relates to a chair, this term including various related furniture pieces such as a stool, bench, settee, or the like, each of which is equipped with legs for support of a seat and of a back of some kind. More particularly this invention has to do with means for joining together certain of the components of the furniture article, such as a removable seat near the tops of the legs, a removable panel with the chair back, etc.

It is a primary object of this invention to provide a sturdy metallic chair frame with which may be utilized a back and a seat of optional form and construction. The seat, for example, may comprise a cushion carried on a base, and the back may comprise a panel which is of flexible material such as fabric. Such a seat and a back, when made of materials suitable for their respective purposes but differing from that of a metallic frame structure, are apt to present attaching difficulties; but as hereinafter will appear, all such difficulties may be satisfactorily overcome by my improved construction.

The instant furniture article, of which a suggestive embodiment is set forth in the accompanying drawings, is illustrated in the manner following:

Figure 1 is a front elevation of the chair in its entirety;

Fig. 2 is a side elevation thereof;

Fig. 3 is a detail in transverse section, enlarged, taken on line 3—3 of Fig. 1;

Fig. 4 is a detail in perspective of a rear corner of the chair frame;

Fig. 5 is an enlarged detail in section taken on line 5—5 of Fig. 2;

Fig. 6 is a sectional detail taken on line 6—6 of Fig. 5;

Fig. 7 is a top plan view of the chair with a major part of the seat broken away to better exhibit the frame structure;

Fig. 8 is a view in side elevation of one of the rear legs of the chair showing a modified construction;

Fig. 9 is a front elevational view of one form of chair back that is suitable for use with the leg construction of Fig. 8;

Fig. 10 is a sectional detail, enlarged, taken on line 10—10 of Fig. 9; and

Fig. 11 is a sectional detail, taken on line 11—11 of Fig. 9.

The chair here illustrated is of the type which comprises four legs L interconnected by rails R from front to rear and from side to side to form a rigid structure. Supported by these legs is a

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seat S to the rear of which is an upstanding back. The legs and interconnecting rails, also the supports for the back, constitute a framework all of whose parts may advantageously be produced from light-weight metal suitably configured for attractiveness in appearance, and for mechanical functioning, as will hereinafter be explained in detail.

Each of the legs L is preferably tubular with ornamental flutings extending longitudinally thereof to provide for a large part of its length a cross-sectional contour which is generally square with concave sides 15 between the corners which are rounded (see Fig. 10). Extending away from each leg is a rail R, one in right angular relation to the other. Each rail abuts one leg at its opposite ends, and top and bottom flanges 16 and 17 which are inwardly extended therefrom are angled at their ends to conform generally to the surface of the leg in its outer part. The rails are accordingly disposed predominantly to the outside of each leg center as indicated plainly in Fig. 6. A recessed channel 18 may be formed in each rail intermediately of its top and bottom flanges to extend longitudinally thereof, whereby to add ornamental and reinforcing value thereto.

The rails, being in butt engagement at opposite ends with two of the legs, may readily be joined thereto as by a line of welding *x*. In addition, I provide adjacent the top of each leg a corner plate 20 (see Figs. 5 and 6) which is adapted to be secured, as by welds *y*, to the proximate rails R adjacent the under faces of the top flanges 16 thereof. This weld connection may also be extended to the adjacent faces of the leg as well, as indicated at *z*. To increase the area of edge contact of the plate with the leg, the plate corner engaging the leg may be recessed inwardly somewhat in conformity with the contour of the leg at that point. Also, for purposes which will presently appear, each corner plate is provided more or less centrally with a hole 21 and with a pair of elongated slots 22, one adjacent each of its edges which underlies a flange 16 of the adjacent rail and bar. By the provision of these slots it is possible to make the weld connection *y* with greater facility and dependability.

In the construction shown, the seat S comprises a base board 25 whereon is affixed a cushion 26 (see Fig. 5). Depending from the base board are four bolts 27 whose shanks extend therethrough to present their heads 28 in engagement with the top face thereof. These bolts are so located as to register with the plate holes 21 through which

they are extended to receive upon their lower ends coacting nuts 29 adapted to engage the under faces of the corner plates and, when tightened, to secure the seat immovably upon the chair frame.

According to the construction of Figs. 1-7, the two rear legs are integrally joined through an upward extension of each to provide an arched frame for supporting a back. The two rear legs, together with their upward extensions, are accordingly bridged at 34 across the top. The outermost faces of the two rear legs are desirably formed with an inward crimp 35 which is continued throughout the extended archway and over its bridge (see Figs. 2 and 7), whereas the flutings 15 terminate in a plane close to the top flanges 16 of the rails. To promote comfort, the bridge may be rearwardly bowed in the conventional manner, as shown in Fig. 2.

The arched rear frame is adapted to support a flexible panel P here shown as a fabric envelope open only at the bottom. Such an envelope may conveniently be produced from two identically shaped pieces *a* and *b*, with reinforcing strips *c* and *d* at the edges, the pieces *a* and *b* and strips *c* and *d* being laid one on the other for seaming together at *e* continuously around their edges all except the bottom. The envelope so produced is then turned inside out to project the seam *e* inwardly where it remains concealed. When the envelope is fitted over the arched rear frame of the chair, the seamed edges will enter the concaved fluting 35 which extends continuously in line therewith. In this manner I prearrange a space for accommodating the inwardly projecting seamed edges of the fabric envelope that is adapted to be fitted over the arched rear frame of the chair to provide a flexible panel therefor. As by means of tapes 37 which are affixed to the envelope adjacent opposite ends of its open bottom in position to be passed through the slots 22 of the rear corner plates 20, the envelope may be removably tied to the chair frame so as to remain fixedly in place when in use.

According to the showing in Fig. 8, the two rear legs L need not be extended upwardly appreciably beyond the seat. In this construction, each rear leg terminates in a substantially cylindrical tubular upper end portion 40 into which may be fitted the lower end 41 of one leg of a back frame which is inwardly fluted at 42 along its outer sides and over the bridge across its top. Such a back frame may then be brazed at 43 or otherwise secured immovably to the rear legs to which it is fitted. Or the frame may comprise a pair of tubes 45 interconnected by a back board 46 (see Fig. 9), the lower ends of the tubes being formed to fit into the upper ends of the rear legs L to be supported thereby. As shown, the upper ends of the tubes 45 are flatted and spread at 47 to enter mortised openings in the back board and be confined therein by a drive fit or otherwise. In the arched frame construction, a fabric panel, the same as the one already described, will

be used, but where a back board (one or more of them) is used to interconnect two tubes, the addition of a flexible back may be unnecessary.

I claim:

1. A chair having a four-sided metal frame which includes brace plates in a common plane in the corners adjacent its legs and a tubular back in the form of an archway having an inward crimp extended continuously along its outermost point, a seat mounted on the chair frame and secured to the corner braces thereof, a panel extended across the archway and supported thereby, the panel being in the form of an envelope made of two plies of material inwardly seamed along their edges except at the bottom, the envelope being fitted over the frame archway, open bottom down, with its inwardly extended seams disposed within the crimp thereof, and flexible ties connected to the envelope at its bottom and extended therefrom to the proximate brace plates, the latter being provided with means wherewith the ties may engage to secure the envelope against movement upwardly from its downmost position.

2. A chair having a four-sided metal frame which includes apertured brace plates in a common plane in the corners adjacent its legs together with rails secured thereto and to the brace plates and above the rails a tubular back in the form of an archway having an inward crimp extended lengthwise thereof, a seat mounted on the chair frame and secured to the corner braces thereof, a panel extended across the archway and supported thereby, the panel being in the form of an envelope made of two plies of material inwardly seamed along their edges except at the bottom, the envelope being fitted over the frame archway, open bottom down, with its inwardly extended seams disposed within the crimp thereof, and flexible ties connected to the envelope at its bottom and extended therefrom through the proximate brace plates for attachment thereto for securing the envelope against movement upwardly from its downmost position.

CLARENCE L. DEWEY.

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