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R. TUSCHKAN
FURNITURE BRACE

Filed April 20, 1923

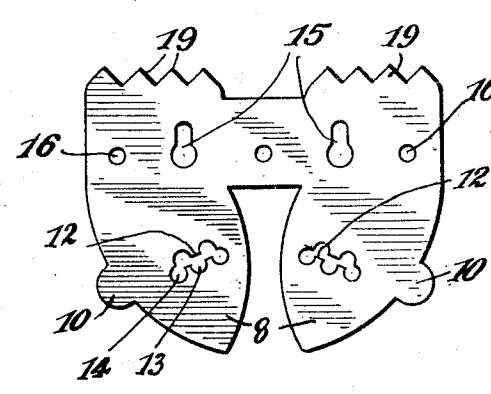
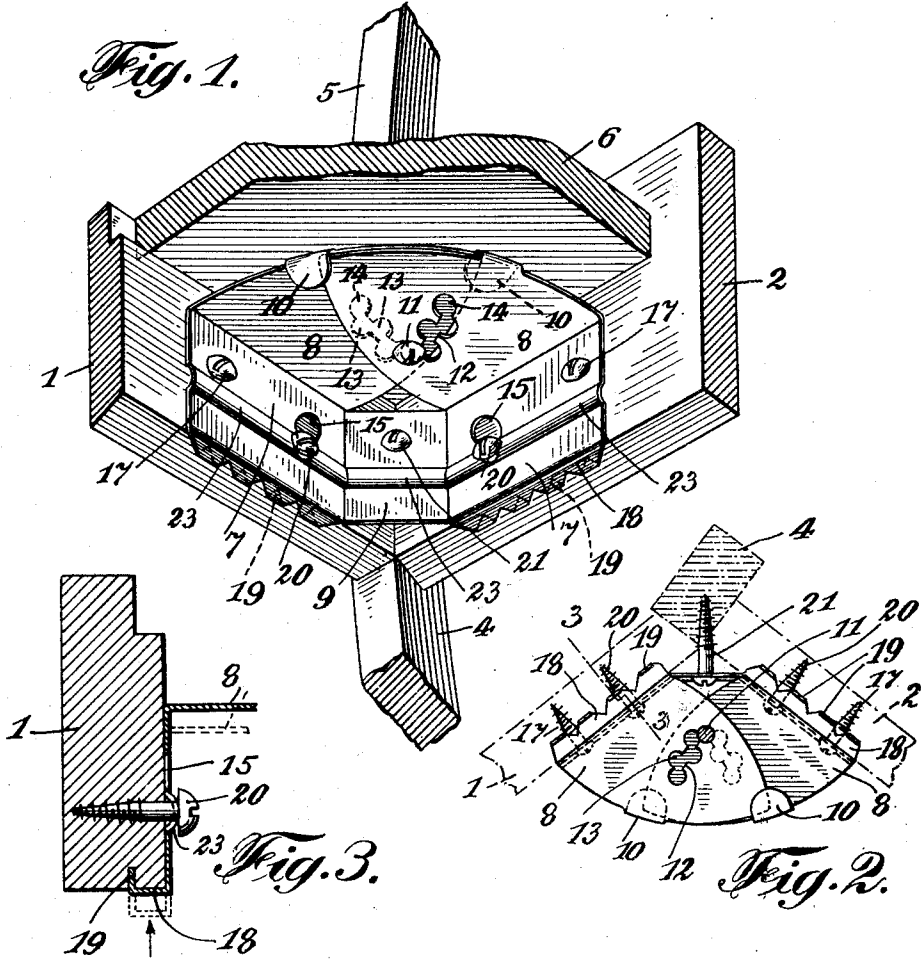


Fig. 4.

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UNITED STATES PATENT OFFICE.

RUDOLPH TUSCHKAN, OF KINGSTON, NEW YORK.

FURNITURE BRACE.

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To all whom it may concern:

Be it known that I, RUDOLPH TUSCHKAN, a citizen of the United States, and resident of Kingston, in the county of Ulster and State of New York, have invented new and useful Improvements in Furniture Braces, of which the following is a specification.

This invention relates to means for bracing members of an object extending at an angle to each other, and although adapted for general application in connection with objects having members so related, it is especially designed for use in connection with furniture, and particularly, chairs, and other articles subjected to severe usage.

A principal object of the invention is to provide means that will firmly brace and secure together the side and end rails and legs of a chair, and also, if desired, form a corner block and support for the chair seat.

A further object of the invention is to provide means for enabling articles of furniture, and especially chairs, to be shipped in knocked-down condition, and readily reassembled by an ordinary user.

The invention has for a further object, to provide a device of the character stated which shall be simple in construction, strong and durable in use, and adapted to be attached to an object without injury thereto, and be concealed from view.

With the foregoing and other purposes in view, hereinafter stated, the invention consists of the novel construction, combination, and arrangement of parts hereinafter more specifically stated, and illustrated in the accompanying drawings, wherein is shown a device embodying the structure of the invention in its preferred form, but it is to be understood that changes, variations, and modifications may be resorted to without departing from the scope of the invention.

In describing the invention in detail, reference is had to the accompanying drawings, which form a part of this specification, and wherein like characters of reference indicate corresponding parts throughout the several views and wherein:

Fig. 1 is a perspective view of the under side of a device applied to the side and end bars and leg of a chair;

Fig. 2 is a plan of the upper side of the device shown in Fig. 1, similarly attached;

Fig. 3 is a vertical section illustrating the manner in which the device is applied to the side bar of a chair;

Fig. 4 is a plan of the blank from which the brace is formed.

As illustrated in the drawings, 1 represents a side bar, and 2 an end bar of a chair connected with a leg 4, and a back bar 5.

A seat 6 may be attached to the end and side bar in the usual manner, if desired.

The brace is comprised of two companion sections and an intermediate section. Each section is provided with an attaching flange 7 having a wing 8 extending inwardly from the flange and at preferably a right angle thereto. An intermediate section 9 connects the flanges of the respective sections.

The inner portion of the wings 8 overlap each other, and, if desired, the wings may be provided with retaining lips 10 spaced from their respective sections slightly, so as to engage the inner margin or end of the adjacent section.

The brace is formed of flexible metal so that the flanges 7 may be bent at the desired angle to the connecting section 9, and thereby conform to the angle made by the side bars and cross bars of the chair.

When the flanges 7 are varied in angular relation to the connecting section 9, the overlapping portions of the wings move inwardly or outwardly relative to each other, and they are secured in position when set by means of a screw 11 which engages slots 12 formed in the wings of the respective sections.

In order to permit of varying adjustments of the wings relative to each other, and at the same time provide a round aperture conforming substantially to the shank of the screw 11, the slots are preferably fluted in outline, so as to form segmental recesses 13 on the sides of the slot and substantially circular recesses 14 at the ends thereof.

When the inner circular apertures of the slots are in alignment with each other, as shown in Fig. 1, the screw 11 locks the two wings together by passing through said apertures. When the flanges 7 are bent inward to form a more acute angle with the connecting section 9, and the wings are moved inwardly toward each other, a segmental portion of one slot will come into alignment with a corresponding section of another slot, and the screw 11 by passing through said recesses will firmly secure the sections together.

The opposite flanges of the brace may be inclined further toward each other in the

manner stated, until the outer circular portions of the slot are in alignment with each other. A considerable range of adjustment is thereby provided for chairs and other articles, varying considerably in respect to the angle of connection between two adjacent bars.

The flanges 7 are preferably provided with a keyhole slot 15 and another aperture 16 adapted to engage a screw 17, and for general use I prefer to offset the lower margin of the flange, as at 18, and provide such offset portion with return spurs 19.

When the brace is to be attached to an article of furniture, screws 20 engaging the keyhole slot 15 may be secured to the side and end bars, and the larger portion of the keyhole slots inserted over the heads of the screws 20, so as to hold the brace temporarily in position, as indicated by dotted lines in Fig. 3. The lower margin of the flanges 7 may be then driven inwardly toward the lower margin of the respective bars until the spurs 19 become embedded in the bars, as shown by full lines in Fig. 3.

When in such position the screws 20 are driven as far as possible into permanent position. Screws 17 may then be secured in place in the bars through the apertures 16 of the flanges, and a screw 21 be passed through the connecting section 9 and into the leg 4 of the chair.

When the flanges are so secured to the bars of the chair the screw 11 may be passed through the super-imposed portion of the slots 12 of the wings and may engage in the bottom of the seat 6. When so attached, a side bar is securedly connected with an end bar and also with a leg of the chair, with which the side and end bars are also connected.

By arranging the wings at substantially a right angle to the flanges 12, the wings will lie in a horizontal plane and form in effect a unitary plate resisting any strains that may be exerted on the brace, and thereby protect the chair or other article of furniture against the strains incidental to usage, and

also against the liability of those parts of the chair from becoming loosened through a drying out of furniture, which commonly causes the parts of a chair to separate at their joints.

In order to make the flanges 7 flexible enough to be readily bent at an angle to the connecting section 9, the metal must be made rather thin, and in order to compensate for the thinness of the metal, the flanges 7 and connecting member 9 may be provided with corrugations or ribs 23 to secure stiffness to the metal when applied to a chair. The corrugations of the flanges may be cut away slightly at their meeting ends with the corrugations of the central section, so that the flanges may be bent relatively to the central section or brace to the extent desired.

In the construction shown, the wings of the brace are arranged below the level of the seat 6. If desired, however, the flanges 7 may be of sufficient height to extend up to the seat and enable the wings to form a bearing block for the corners thereof.

What I claim as new and desire to secure by Letters Patent is:

1. A furniture brace comprising two sections each having an attaching flange and a wing extending inwardly from said flange, an intermediate attaching flange connecting the flanges of said sections, and means for variably locking said brace plates in overlapping engagement.

2. A furniture brace comprising two sections, each having an attaching flange and a wing extending inwardly from said flange, and provided with slots having recesses formed therein in staggered relation to each other, means engaging the recesses of said slots for variably locking said brace plates in overlapping engagement, and an intermediate flange connecting the flanges of said sections.

In testimony that I claim the foregoing as my invention, I have signed my name hereunder.

RUDOLPH TUSCHKAN.