

Nov. 21, 1933.

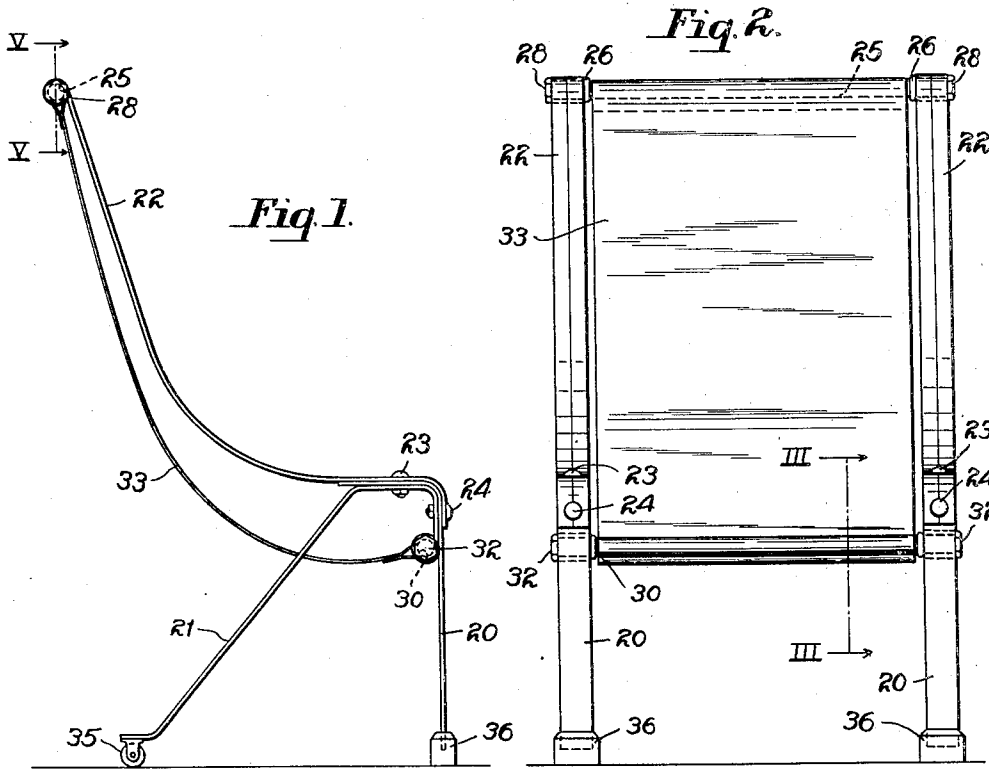
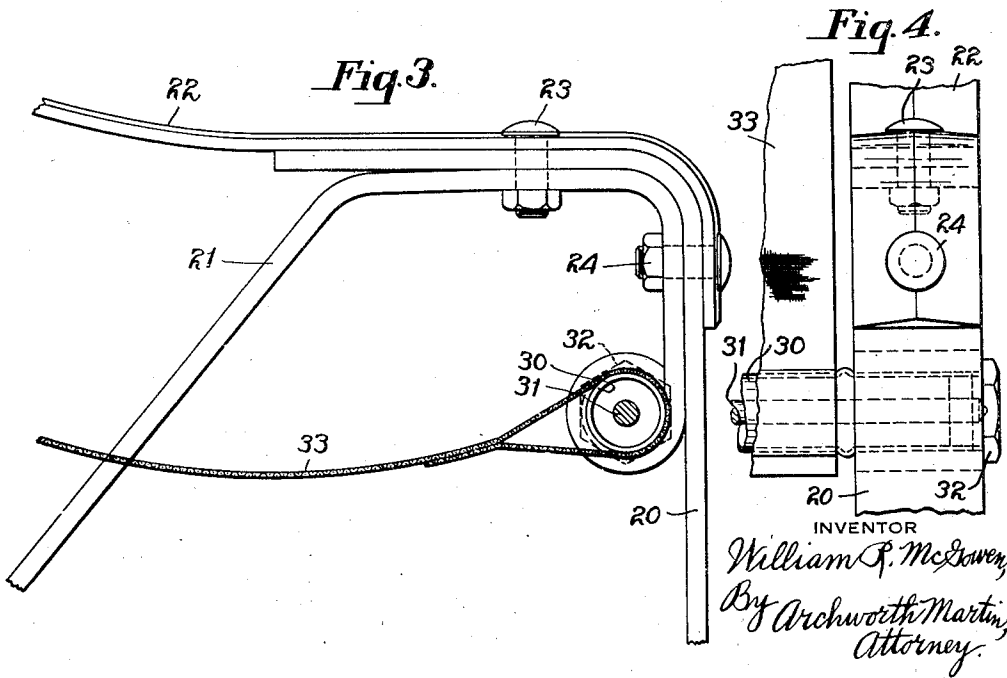
W. R. McGOWEN

1,936,459

FURNITURE

Filed Nov. 18, 1931

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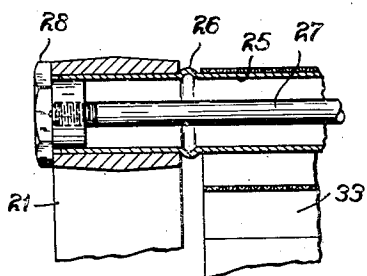


Fig. 5.

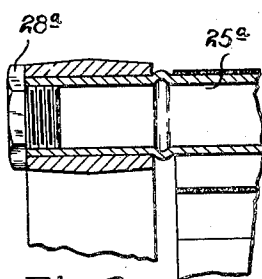


Fig. 6.

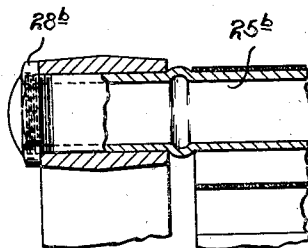


Fig. 7.

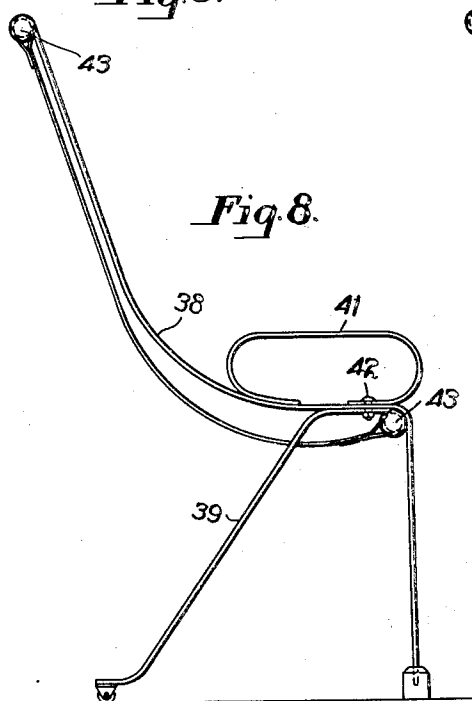


Fig. 8.

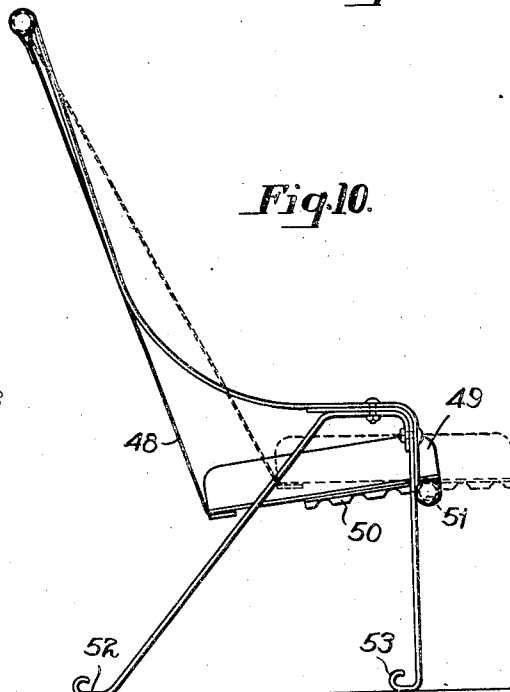


Fig. 10.

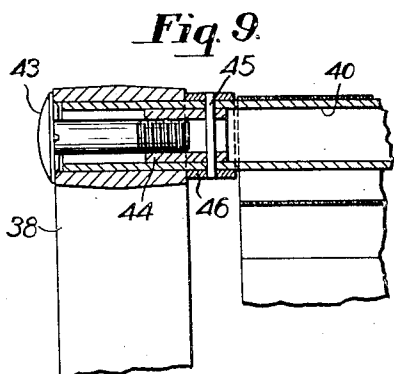


Fig. 9.

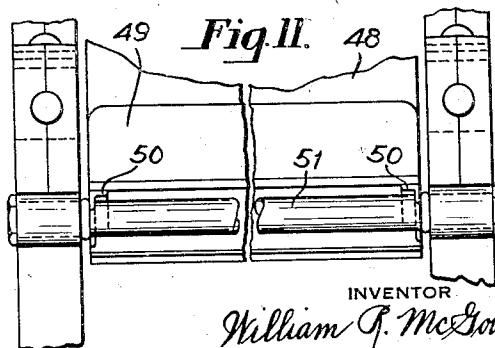


Fig. 11.

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Fig. 12.

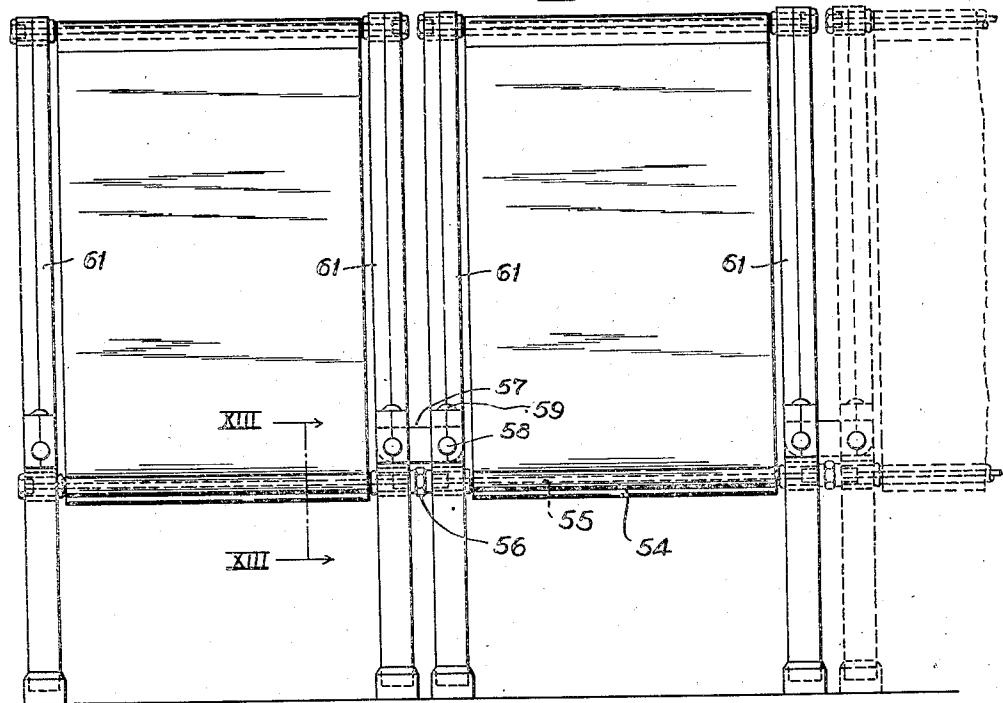


Fig. 13.

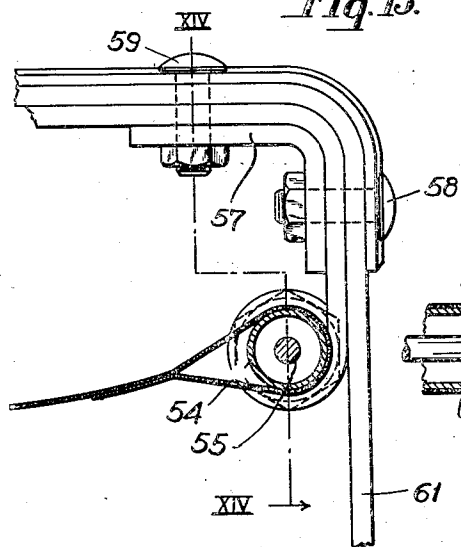
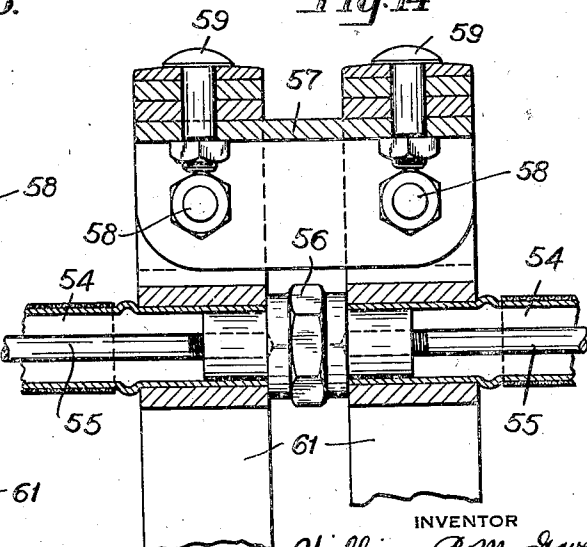


Fig. 14.



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UNITED STATES PATENT OFFICE

1,936,459

FURNITURE

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Application November 18, 1931

Serial No. 575,761

14 Claims. (Cl. 155—50)

My invention relates to furniture, and more particularly to chairs, settees, and the like.

One object of my invention is to provide a structure readily yieldable throughout its principal parts, to render it comfortable and restful to users; which will permit of a rocking motion by the user without the necessity of providing rockers, and wherein the back will readily yield to automatically provide the degree of inclination desired by the user.

Another object of my invention is to provide a structure of simple form which may be readily assembled and disassembled, and which nevertheless is possessed of sufficient strength to withstand hard usage.

A further object of my invention is to provide a chair structure of such form that various chair units may be readily assembled to provide a tête-à-tête.

Still another object of my invention is to provide a seating structure of generally simplified and improved form.

Various forms embodying my invention are shown in the accompanying drawings wherein Figure 1 is a side elevational view of a chair; Fig. 2 is a front elevational view thereof; Fig. 3 is a view, on an enlarged scale, taken on the line III—III of Fig. 2; Fig. 4 is a front elevational view of the structure of Fig. 3; Fig. 5 is a view, on an enlarged scale, taken on the line V—V of Fig. 1; Figs. 6 and 7 are views similar to that of Fig. 5, but showing modified forms of fastening devices; Fig. 8 is a view similar to that of Fig. 1, but showing another form of chair; Fig. 9 is a sectional view, on an enlarged scale, of a portion of the apparatus of Fig. 8; Fig. 10 shows still another form of chair; Fig. 11 is a front elevational view of a portion of the structure of Fig. 10; Fig. 12 is a face view of a plurality of chairs of one of the forms shown in the other figures, fastened together in unitary relation to form a multiple seat arrangement; Fig. 13 is a view taken on the line XIII—XIII of Fig. 12, and Fig. 14 is a view taken on the line XIV—XIV of Fig. 13.

Referring first to the structure of Figs. 1 to 5, the chair is shown as composed principally of spring metal bars, preferably of such thickness that various portions thereof will yield somewhat under the weight of a person sitting in the chair. The bars may be chromium plated and enameled in various colors to make the article of pleasing appearance.

Each of a pair of front legs 20, a pair of rear legs 21, and a pair of side bars 22 are secured

together at their overlapping ends by means of bolts 23 and 24. The upper ends of the side bars 22 are curled to form eyes for the reception of a tubular cross bar 25, which is provided near each end with a bead or rib 26 that will serve as an abutting surface for the inner end of the adjacent eye. A rod 27 extends through the cross bar 25, and a cap nut 28 is screwed on each end of the rod 27 to draw the side bars 21 into tight engagement with the ribs 26, and thereby maintain the various parts in assembled relation.

The forward ends of the leg members 21 are curled to form eyes for the reception of a tubular cross bar 30 within which a tie rod 31 lies, and to the ends of which tie rods, cap nuts 32 are secured to hold the leg portions of the structure in rigid relation. The members 30—31 and 32 may be identical in structure with the members 25, 27, and 28, the nuts 28 and 32 being readily removable to permit disassembly of the device for packing or storing.

A canvas strip or other suitable flexible material 33 is secured at its ends to the cross bars 25 and 30 and serve as a combined seat and back. The lower, approximately horizontally-extending, portions of the side bars 22 may conveniently serve as arm rests, because the front edge of the seat, at the bar 30, is located in a plane below the side bars.

In Fig. 6 I show a structure wherein the tie rod 27 is dispensed with, only the tubular cross bar 25a and an externally threaded nut 28a being required to hold the side bars and the legs in assembled relation, the threaded shanks of the nuts 28a having threaded engagement with internal threads in each end of the cross bar 25a.

In Fig. 7 still another form of fastening device is employed. In this arrangement, tubular cross bars 25b are threaded exteriorly at their ends, for engagement with cap nuts 28b, the end portions of the cross bars 25b fitting snugly within the eyes formed in the side bars and in the legs.

In using the chair, the side bars 22 and the rear legs 21 will flex under the weight of a sitter, and a greater or less inclining effect can be produced by the sitter throwing more or less of his weight toward the rear of the chair. Furthermore, slight movements of the sitter forward and backward will produce a rocking effect, through the ready flexing of the members 21 and 22. Flexing of the members 21 is facilitated by the provision of rollers 35.

The front legs 20 may carry blocks 36 of rub-

ber or other suitable material to prevent the lower ends of these legs from marring floors and the like.

In Fig. 8, I show a structure wherein each front leg and its associated side bar may be composed of a single strip of steel 38, the rear legs 39 each being curled at their forward ends for the reception of a cross bar 40, such as shown in Fig. 9, or some other form of bar such as described herein. In this form of device, arm rests 41 are secured to the legs 39 and the arms 38 by bolts 42, which bolts also serve to secure the side bars and the rear legs together.

As shown in Fig. 9, the cross bars 40 are secured to the side bars and the rear legs by bolts 43 that are threaded into short sleeves or ferrules 44 which are secured in the sleeves by means of key pins 45. The key pins 45 also retain collars 46, which collars serve as abutting shoulders for the side arms 38 and the legs 39, respectively.

In Figs. 10 and 11, I show a structure wherein the legs and the side bars are fastened together substantially in the manner shown in Figs. 1 to 4, but wherein separately-formed seat and back members are provided. The back member 48 may suitably be of canvas, but the seat proper, 49, is of cushion or box spring form. The upper end of the canvas 48 is, of course, fastened to the upper cross bar while the lower end thereof is secured to the rear edge of the seat 49. The seat 49 has serrated bars 50 on its lower edge that permit it to be adjusted at various positions longitudinally of itself on the cross bar 51, the notches serving to prevent slipping of the seat on the cross bar. This adjustment of the seat permits it to be placed at various degrees of inclination to suit the whim of the sitter.

The rear legs of the seat of Fig. 10 are bent to runner-like form as indicated at 52, to permit of the chair to be used on lawns where the legs would otherwise sink into the sod, and also to permit sliding thereof when the rear legs are flexed. The front legs may also be bent to runner-like form as indicated at 53, so as to prevent the legs from sinking into the ground, or damaging the sod of the lawn.

In Figs. 12 to 14, I show a structure wherein various single chair units may be mounted in assembled or unitary relation with respect to one another. These chairs may be individually constructed similar to those shown in Figs. 1 to 11, but a slightly different form of cross bar and fastening means is shown in order to facilitate the assembly of the units. In this arrangement, each chair unit contains a tubular cross bar 54 and a connecting rod 55, the connecting rod of each unit being secured to the connecting rod of an adjacent unit by means of a double-ended cap nut 56, which has threaded engagement with the rods 55, as shown more clearly in Fig. 14.

The units are further connected together by means of tie plates 57 which may be suitably in the form of angle bars and which are secured in place by means of bolts 58 and 59. The chair units can be detached from one another, and used singly, or as many as desired may be assembled together to form a settee-like arrangement.

The upper ends of the side bars 61 of each chair are shown as disconnected from the upper ends of the side bars of the adjacent chairs, so that each individual may recline in his chair, to any degree, independently of the other chairs. Obviously, the upper ends of the side bars 61 could be connected together, if desired.

In the structures of the various figures, the front legs are somewhat rigid relative to the side bars, and the rear legs, and ordinarily will flex but little, if at all, because in the case of the legs 20, for example, they are short relative to the rear legs 21 and the side bars 22, and weight imposed thereon is mainly in a vertical direction, instead of in generally transverse directions.

I claim as my invention:—

1. Chair structure comprising a pair of side frame portions connected by a cross member and each composed of a front leg member, a rear leg member, and a side bar member all formed of spring metal, the rear leg members extending upwardly and forwardly, and being curled at their forward ends to form eyes for attachment to the cross member.

2. Chair structure comprising a pair of side frame portions connected by a cross member and each composed of a front leg member, a rear leg member, a side bar member all formed of spring metal, the rear leg member extending upwardly and forwardly, and being curled at its forward end to form an eye for attachment to the cross member, and the side bar member being bent at its rear end to form an eye for the attachment of a cross bar.

3. Chair structure comprising a pair of side frame portions each composed of a front leg member, a rear leg member, and a side bar member, the said members being connected together adjacent to the front of the structure, and one of the members of each frame portion being curled adjacent to said point of connection, to form eyes, and a cross bar having an end connected to each of said eyes.

4. Chair structure comprising a pair of side frame portions each composed of a front leg member, a rear leg member, and a side bar member, the said members being connected together adjacent to the front of the structure, and one of the members of each frame portion being curled adjacent to said point of connection, to form eyes, and a cross bar having an end extending into each of said eyes and detachably clamped thereto.

5. Chair structure comprising a pair of side frame portions each composed of a front leg member, a rear leg member, and a side bar member, the said members being connected together adjacent to the front of the structure, and one of the members of each frame portion being curled adjacent to said point of connection, to form eyes, and a cross bar having an end extending into each of said eyes and detachably clamped thereto, the cross bar having peripheral beads seating against the inner ends of the eyes.

6. Chair structure comprising a pair of side frame portions each including a front leg member, a rear leg member, and a side bar member, said members being connected together adjacent to the front of the structure, and certain of the frame members being flat, with one of the flat members of each frame portion being curled to cylindrical form adjacent to said point of connection to form eyes, and a cross bar having an end fitting within and connected to each of said eyes.

7. The combination with a pair of members having eyes formed thereon, of a connecting device therefor comprising a tubular bar with its ends extending into said eyes and provided with stop shoulders abutting the inner ends of said eyes, a tie bar disposed within the tubular bar, and headed clamping members connected to the tie bar and abutting the outer ends of said eyes.

8. The combination with a pair of members having eyes formed thereon, of a connecting device therefor comprising a tubular bar with its ends extending into said eyes and provided with stop shoulders abutting the inner ends of said eyes, a tie bar disposed within the tubular bar, and headed clamping members connected to the tie bar and abutting the outer ends of said eyes, one of said clamping members having threaded connection with the tie bar.

having its ends snugly fitting within the said eyes, a tie bar disposed within the tubular bar, and headed clamping members connected to the tie bar and abutting the outer ends of said eyes.

12. The combination with a pair of approximately flat members curled to form eyes, of a connecting device therefor comprising a tubular bar having its ends snugly fitting the said eyes, stop members on said member abutting the inner ends of the eyes, a tie bar disposed within the tubular bar, and headed clamping members connected to the tie bar and abutting the outer ends of said eyes.

13. The combination with a pair of members having eyes formed thereon, of a connecting device therefor comprising a tubular bar with its ends extending into said eyes, and provided with stop means for abutting the inner ends of the eyes, a tie bar disposed within the tubular bar, and nuts having threaded engagement with the ends of the tie bar and provided with heads abutting the outer ends of the eyes.

14. The combination with a pair of members having eyes formed thereon, of a connecting device therefor comprising a tubular bar with its ends extending into said eyes, and provided with stop means for abutting the inner ends of the eyes, a tie bar disposed within the tubular bar, and nuts having threaded engagement with the ends of the tie bar and provided with heads abutting the outer ends of the eyes, the body portions of the nuts snugly fitting within the ends of the tubular bar.

9. The combination with a pair of members having eyes formed thereon, of a connecting device therefor comprising a tubular bar with its ends extending into said eyes and provided with stop shoulders abutting the inner ends of said eyes, a tie bar disposed within the tubular bar, and headed clamping members connected to the tie bar and abutting the outer ends of said eyes, the clamping members extending into the tube and holding the tie bar centered therein.

10. The combination with a pair of members having eyes formed thereon, of a connecting device therefor comprising a tubular bar with its ends extending into said eyes and provided with peripheral beads abutting the inner ends of said eyes, the beads being curved in directions longitudinally of the bar, a tie bar disposed within the tubular bar, and clamping members engaging said tie bar and abutting the outer ends of said eyes, one of said clamping members being adjustable longitudinally of the tie bar.

11. The combination with a pair of approximately flat members curled to form eyes, of a connecting device therefor comprising a tubular bar

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