No. 803,961. PATENTED NOV. 7, 1905.

H. L. ANDREWS & D. SCHUSTEK.

FURNITURE.

APPLICATION FILED JULY 30, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

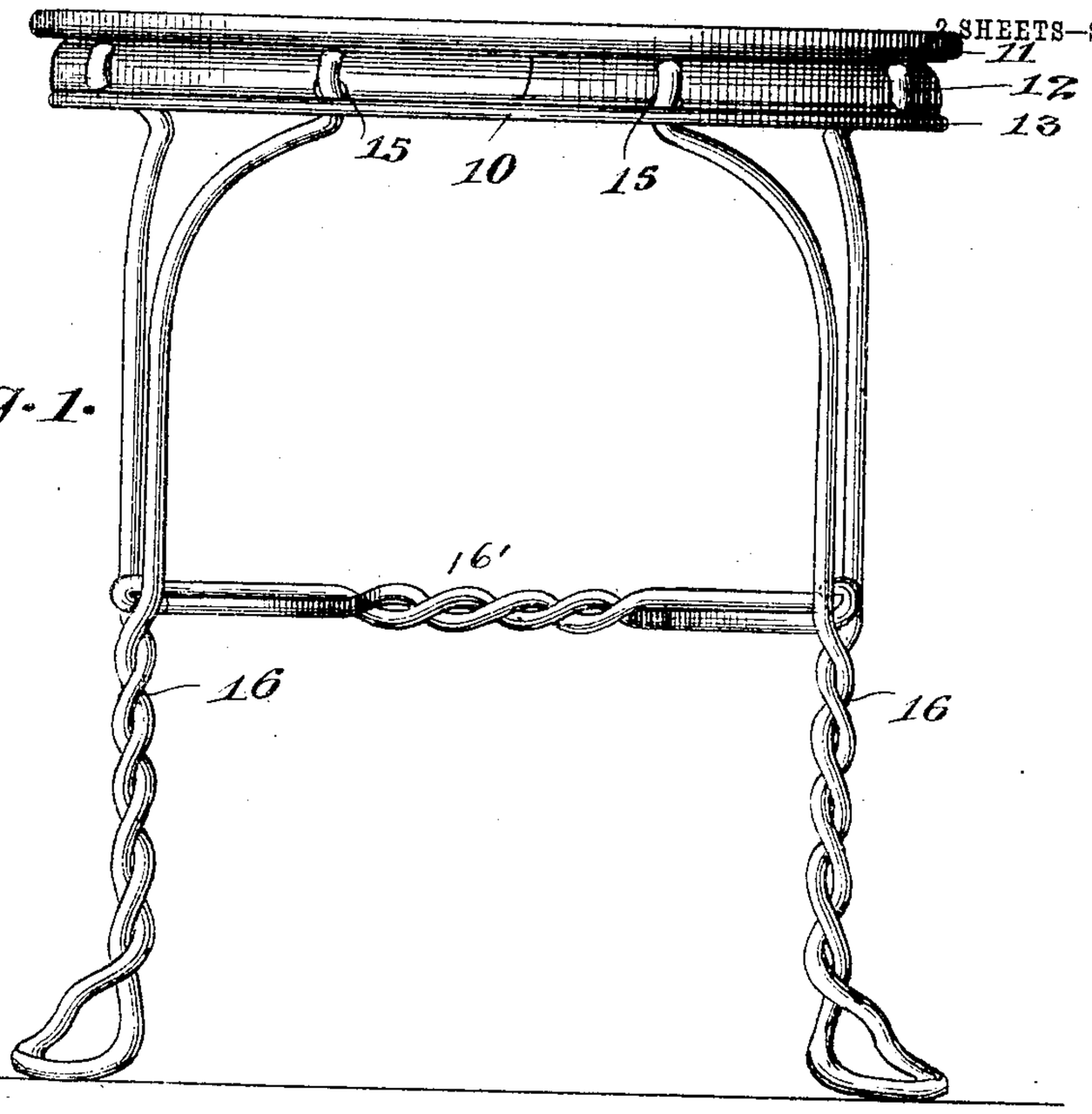


Fig. 5.

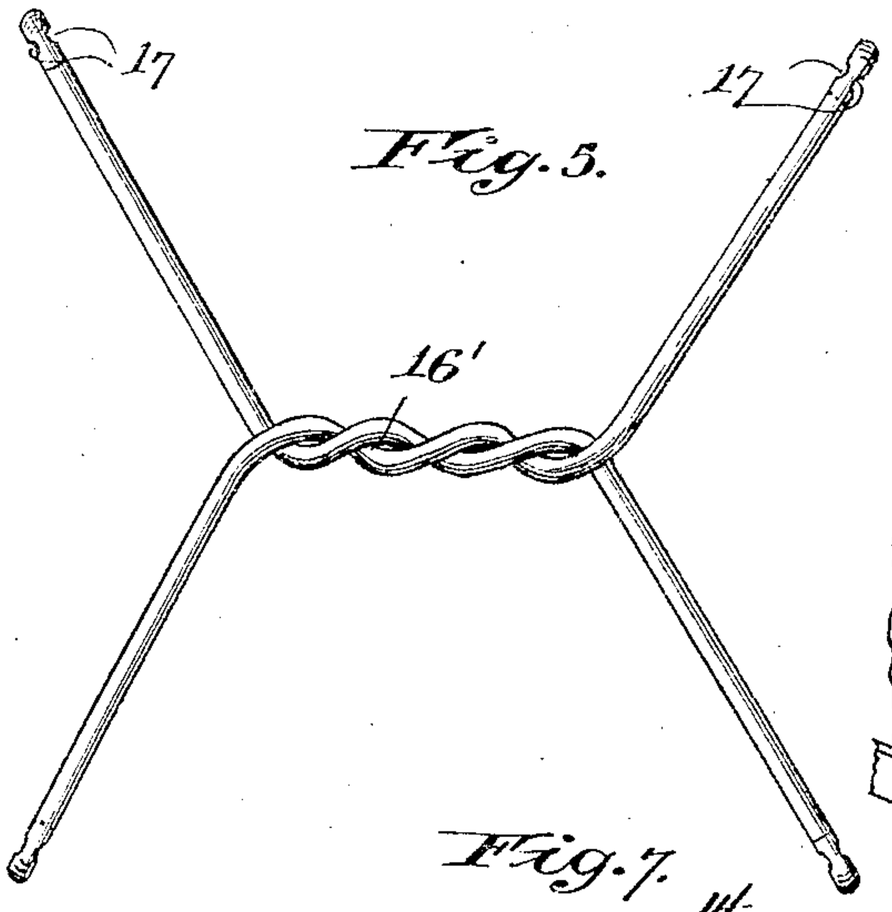


Fig. 6.

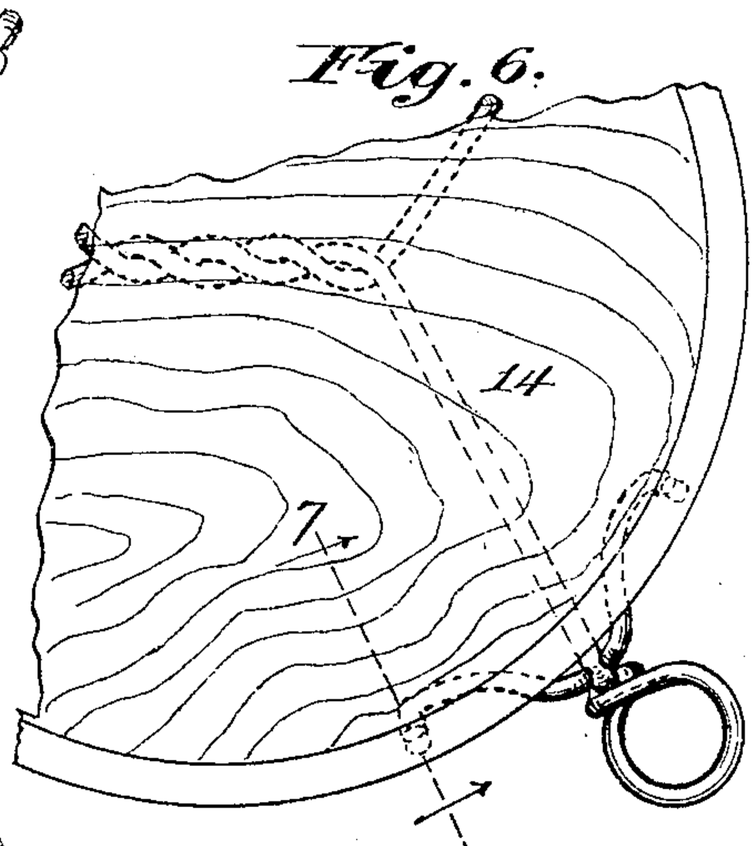
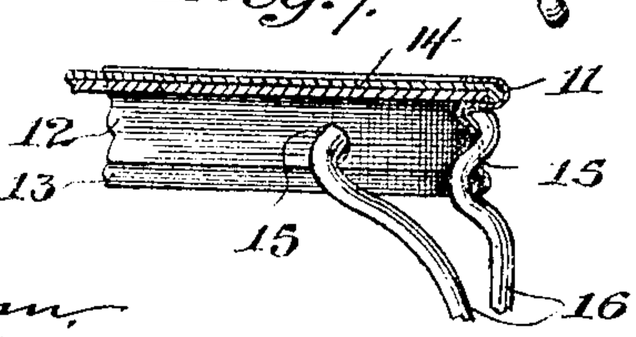


Fig. 7.



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2 SHEETS—SHEET 2.

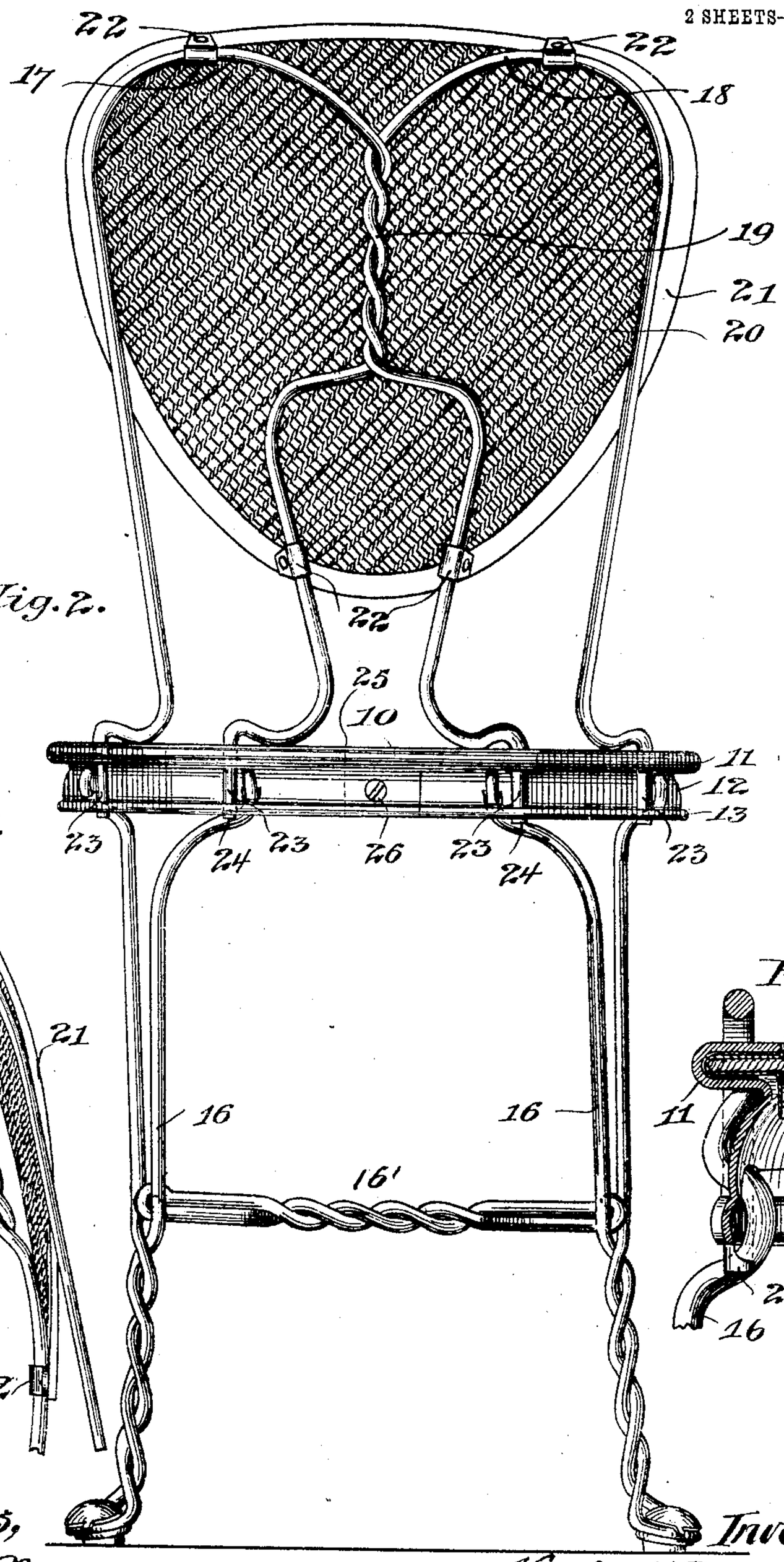

Fig. 2.

Fig. 3.

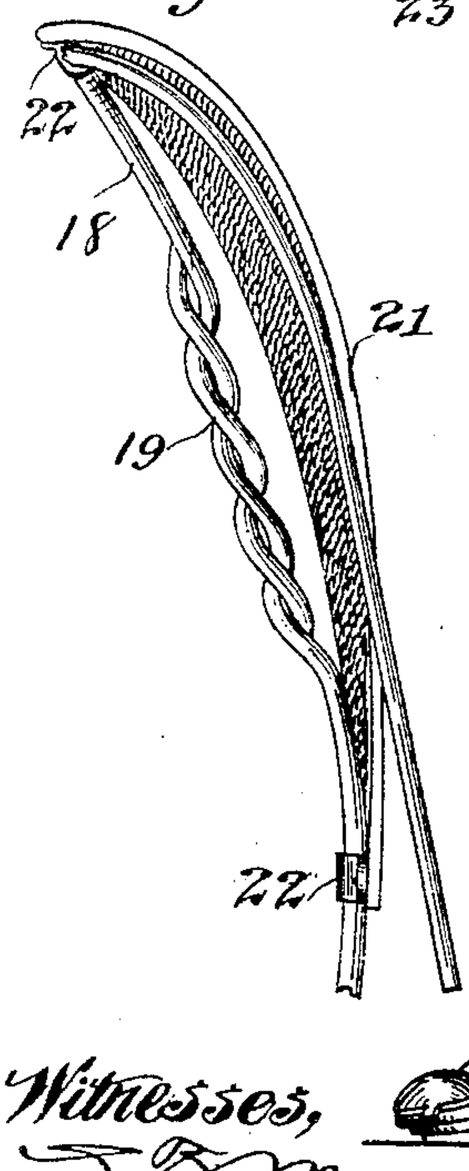

Fig. 4.

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UNITED STATES PATENT OFFICE.

HERBERT L. ANDREWS AND DANIEL SCHUSTEK, OF CHICAGO, ILLINOIS; SAID SCHUSTEK ASSIGNOR TO SAID ANDREWS.

FURNITURE.

No. 803,961. Specification of Letters Patent. Patented Nov. 7, 1905.

Application filed July 30, 1904. Serial No. 218,914.

To all whom it may concern:

Be it known that we, HERBERT L. ANDREWS and DANIEL SCHUSTEK, residents of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Furniture, of which the following is a specification.

This invention relates to improvements in furniture, and more particularly to chairs, tables, or stools of that type which are made principally of rod metal or wire.

Among the salient objects of the present invention are to provide articles of furniture which can be easily and quickly assembled or unassembled without the use of any tools whatsoever and which when assembled are rigid and strong, as well as neat in appearance; to provide a brace member adapted to be connected with all of the legs of such chair, table, or stool when assembled to hold the same rigidly in normal position; to provide an improved form of back with means for attaching it to the structure to form a chair; to provide improvements in the means of interlocking the members in assembled position, and in general to provide a construction which is simple, neat, durable, and economical.

To the above ends the invention consists in the matters hereinafter described and will be readily understood from the following description, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation of the invention as embodied in a table or stool, the construction in each case being substantially the same. Fig. 2 is a rear elevation of the invention as applied to a chair. Fig. 3 is a side elevation of a back. Fig. 4 is a sectional view showing detail construction at a point where one arm of the back interlocks with one arm of the leg in the seat. Fig. 5 is a plan view of a brace member. Fig. 6 is a fragmentary view looking down upon Fig. 1 from one of the legs. Fig. 7 is a fragmentary sectional view taken on line 7 7 of Fig. 6.

Referring to the drawings, 10 designates as a whole a seat member or table-top, as the case may be, which is circular in the present construction and comprises a rim 11, having a downwardly-depending flange 12, slightly curved in cross-section and terminating at its lower edge in a bead-like stiffening portion 13. A seat-board or table-top 14, preferably of wood, is formed to fit into the groove of the rim 11, as indicated in Figs. 4 and 7, where it is secured in any desirable manner to form a tight and close-fitting joint. At intervals around said depending flange 12 adjacent said stiffening portion 13, at the lower edge thereof, are holes 15, arranged in pairs.

16 designates the legs, each composed in the present construction of a single piece of rod metal doubled upon itself and twisted for a part of its length to form the foot and lower portion of the leg, as clearly indicated in Fig. 1, the ends or upper portions thereof being carried upwardly and forming a **V**-shaped portion, the end of each arm terminating in a short **S**-like or ogee curve. (Clearly indicated in Fig. 7.) These two ends are passed through a pair of the holes 15 in the flange 12 from the inside thereof and the leg then straightened to a position substantially at right angles with the plane of the seat or table-top, whereupon the curved ends of the legs fit snugly around the curved portion of the flange 12 and into the corner or angle formed between the rim 11 and the flange 12, one portion of the ogee curve in said leg passing around the inside of the stiffening-bead 13 in the manner clearly indicated in Fig. 7. The leg cannot be moved outwardly at its lower end after the upper ends fully engage against the flange immediately beneath the rim 11, as will be clearly understood from the drawings.

In order to prevent the legs from moving inwardly at their lower ends, a brace member 16′ is provided. Said brace member (shown in Fig. 5) comprises a pair of rod members twisted together at their middle portions in such a manner as to rigidly lock them against relative movement one upon the other, a double twist being necessary to lock them against movement relative to each other and allow the opposite ends of each rod to project at opposite sides of the twist and in diametrically opposite directions, as is the case in the present construction.

The ends of the rods forming the brace member 16 are preferably looped back upon themselves a short distance and provided on opposite sides with grooves or indents 17, which extend at right angles to the general plane of the brace 16. The looping back of

the ends affords a double or much greater bearing than would be afforded by the straight end of the rod. The four arms of the brace member extend to the four legs of the structure, and the ends thereof are pressed downwardly between the arms of the V-shaped portion of the legs with the grooves in the arms resting between the arms of the legs upon the twisted portions thereof, thus preventing the legs from lateral movement and holding them rigidly in normal position.

Referring to Figs. 2, 3, and 4, wherein a back is applied to the structure just described, making a complete chair thereof, said back is composed in the present construction of a couple of lengths of rod metal 17 and 18, twisted together, as at 19. The ends above said twisted portion are arched over and turned downwardly to the seat 10 to form the outer pair of arms of said back, while the ends below said twisted portion are diverged outwardly and downwardly to the seat 10 and form the inner or proximate pair of arms. Any suitable or desirable design may be adopted in forming the back, and any number of twists or coils may be formed in said arms intermediate their ends. It will be noticed, however, by reference to Fig. 3 that the outer arms are set farther around on the seat than are the inner or proximate arms, thus affording a better and stronger brace effect for said back.

A woven-wire fabric 20, provided with a rim or frame 21, is mounted upon said back by means of the clips 22, engaging the outer arms of said back and the inner arms thereof in such manner that the middle or main portion of the wire fabric is free from contact with the back-arms, whereby a cushion or hammock effect is secured, as will be clearly understood by reference to Fig. 3. In order to attach said back to said seat, the ends of the arms are made straight and passed downwardly through suitable apertures in the rim 11 adjacent the upper ends of said legs and through the lower portion of the flange 12, so that the straight portions (designated 23) rest between the bead 13 and the upper arms of said V-shaped portions of the legs 16, as indicated at 24 in Figs. 2 and 4. The straight portions 23 are provided with grooves or sockets on their sides adjacent the legs, which fit around said legs when the parts are in place, thus preventing the back-arms from being withdrawn until the legs are released and moved inwardly out of engagement therewith. It will thus be seen that by a series of interfitting and interlocking engagements between the back and the legs through the rim 11 and the flange 12 and between the legs and the brace 16′ the parts are rigidly locked together as a strong, neat, and durable chair. The legs, it will be understood, are prevented from being withdrawn from the flange by reason of the cross-sectional curve in the flange 12, around which the ends of said legs fit, whereby the lower ends of said legs must be moved inwardly before the legs can be withdrawn therefrom.

The joint in the rim 11 and flange 12 is formed by overlapping the flange in the manner indicated in Fig. 2, the rim 11 coming together by an end-to-end engagement, as indicated at 25. The two ends of the overlapped flange are held together by means of a bolt 26. It will thus be seen that the seat-board or table-top may be taken out of the rim 11 by simply removing the bolt 26.

While we have herein shown and described what we consider the preferable construction and arrangement, it is obvious that modifications and alterations can be made without departing from the spirit of the invention, and we do not, therefore, limit the invention to these details of construction and arrangement except in so far as they are made the subject-matter of specific claims.

We claim—

1. In an article of furniture, the combination of a body, an upright flange thereon, said flange being provided with leg-receiving apertures, legs having their upper ends passed through the apertures of said flange and bearing at their inserted ends against the flange, and means holding said legs against movement relatively to the flange, for the purpose described.

2. In an article of furniture, the combination of a body, an upright flange extending around said body, said flange being provided with leg-receiving apertures, legs having their upper ends passed through the flange-apertures and the extreme end portions resting against the outside of the flange and a brace extending between and engaging the several legs at points below and removed from the flange.

3. In an article of furniture, the combination of a body, an upright flange extending around said body, said flange being provided with leg-receiving apertures, legs having their upper ends passed through the flange-apertures and the extreme end portions resting against the outside of the flange and a brace extending between and engaging the several legs at points below and removed from the flange, the interengaging portions of the legs and flange being interfitted, whereby said parts are interlocked while held in normal position, but may be separated when the legs are oscillated out of their normal position.

4. In an article of furniture, the combination of a body provided with a rim having a downwardly-depending flange, said flange being provided with leg-receiving apertures, legs having their upper ends passed through said apertures and resting against said rim, said legs being interlocked with said flange

when in their normal position, and a brace holding said legs in normal position.

5. In an article of furniture, the combination of a body having a downwardly-depending flange provided with leg-receiving apertures, legs with bent upper ends adapted to be passed through said apertures from the inside of said flange and resting against the outside thereof when in normal position, means locking said legs against being withdrawn when in their normal position, and a brace member holding said legs in normal position.

6. In an article of furniture, the combination of a body having a downwardly-depending flange provided with leg-receiving apertures, legs with upper ends adapted to be passed through said flange-apertures from the inside thereof and interlocked with the outside of said flange by the outward movement of the lower portion of said legs, and a brace detachably connected with said legs and holding the same in said interlocked position, for the purpose described.

7. In an article of furniture, the combination of a body having a rim provided with a downwardly-depending flange portion, said flange portion being provided with leg-receiving apertures, legs having their upper ends adapted to be passed through said apertures from the inside of said flange and interlocked therewith by an interfitting engagement in the angle formed between said rim and said flange, said engagement being caused by the outward movement of the lower portion of said legs, and a brace member detachably connected with said legs intermediate their ends, for the purpose described.

8. In an article of furniture, the combination of a body having a rim provided with a downwardly-depending flange portion, slightly curved in cross-section and having therein leg-receiving apertures, legs adapted to be passed through said apertures from the inside of said flange and the extreme end brought around the curve in said flange member and into the angle between said rim and flange member by the outward movement of the lower portion of said legs, and a brace member detachably connected with said legs intermediate their ends and holding them in such interlocked position, substantially as described.

9. An article of furniture comprising in combination a seat member or table-top provided with a rim having a downwardly-depending flange, said flange being slightly curved in cross-section and provided with apertures arranged in pairs, a plurality of leg members of twisted rod metal and having forked upper ends, said ends being bent to conform to said flange member when passed through said apertures and the lower portions of said legs moved outwardly to cause an interlocking of said legs with said flange, and a brace having an arm for each leg and detachably connected therewith in the manner described to hold said legs in interlocked position.

10. In an article of furniture, a plurality of leg members each provided with a yielding brace-receiving socket, a brace member comprising two lengths of rod metal twisted together at their middles into locked engagement with each other with their ends projected to the leg members, the ends of said brace member each provided with a reduced, neck-like portion adapted to be pressed into said yielding socket, whereby the leg members are rigidly held in normal positions.

11. In an article of furniture, a plurality of leg members pivotally attached and each provided with a yielding brace-receiving socket, a detachable brace member for holding said leg members in normal positions, said brace member comprising two lengths of rod metal twisted together at their middles into locked engagement with each other with their ends projected to the leg members and folded back upon each other to make double thickness and each provided at diametrically opposite sides with grooves extending transversely thereof to form a reduced, neck-like portion adapted to be pressed into said yielding socket, substantially as described.

12. In an article of furniture, a seat member provided with a rim and a downwardly-depending flange having a stiffening-bead on its lower edge, said rim and said flange being provided with registering apertures, a rod-metal back provided with straight attaching ends adapted to fit into said registering apertures, leg members attached to said flange and interlocked with the ends of said back, whereby to prevent the withdrawal of the latter from said apertures, and means for holding said legs in such interlocked position, substantially as described.

13. In a chair, a back member comprising a skeleton frame of rod metal, the side or outer members and the middle member of which lie in two different planes and converge at their upper portions, a woven-wire fabric member provided with a metal rim mounted upon the front of said skeleton frame, the lower edge of said fabric member being carried backwardly between the side members and secured to the middle member, substantially as described.

14. In an article of furniture, a seat member provided with a downwardly-depending flange, a back having straight stud-like attaching portions engaging said flange, legs engaging said flange and interlocked with said stud-like attaching portions, and a brace member holding said legs in interlocked position, for the purpose described.

15. In an article of furniture, a seat member provided with a flange portion having leg-receiving apertures therein with back-receiv-

ing apertures adjacent some of said leg-receiving apertures, a back with attaching projections adapted to pass through said back-receiving apertures, legs with their ends adapted to pass through said leg-receiving apertures into interfitting and interlocking engagement with said back projections, and a brace member adapted to said legs and holding them in interlocked position, for the purpose described.

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