March 13, 1928. 1,662,457

W. S. FERRIS

FURNITURE CONSTRUCTION

Filed Jan. 8, 1924

Fig. 1

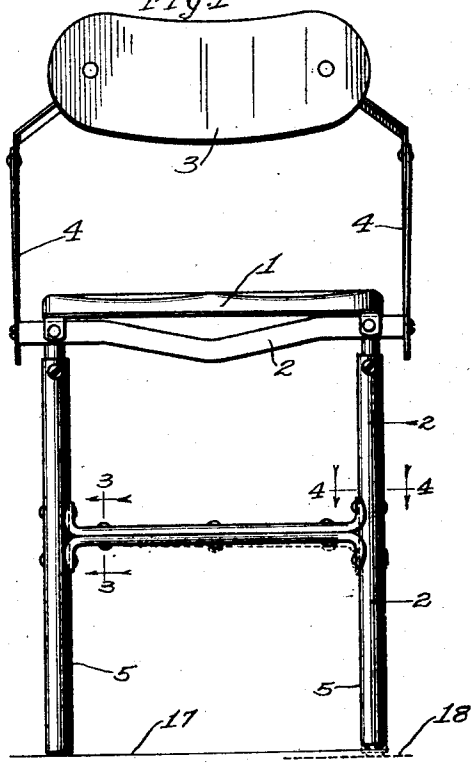


Fig. 2

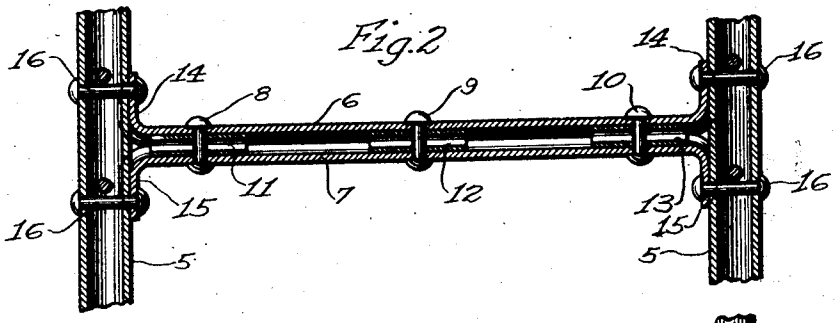


Fig. 3

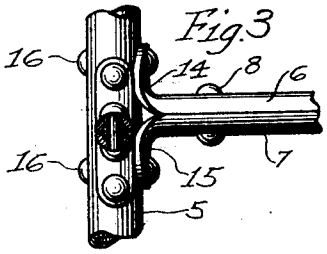
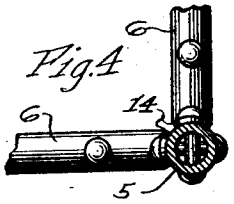


Fig. 4



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UNITED STATES PATENT OFFICE.

WILLIAM S. FERRIS, OF ELKHART, INDIANA.

FURNITURE CONSTRUCTION.

Application filed January 8, 1924. Serial No. 685,006.

My invention relates generally to improvements in furniture construction, but relates more particularly to improvements in the base or supporting portions of chairs, settees, tables, and the like.

Furniture of the class mentioned, heretofore devised, has been of such construction that when placed upon an uneven floor or other irregular supporting surface, the article was unsteady, thus rocking to and fro and causing annoyance to the user.

The general object of my invention is to provide an article of furniture of the class described, which when placed upon an uneven floor or other support, shall within reasonable limits, automatically adjust itself to such conditions so that the article shall stand rigidly in position.

Another object of my invention is to provide an article of furniture which shall automatically compensate for irregularities or unevenness in the floor or other support and which, at the same time, shall be of simple and durable construction.

Again I aim to provide an article of furniture having a base or supporting portion which shall be of such construction that it can be quickly and easily assembled; which shall adapt itself to quantity production, and which can be produced at relatively low cost.

My invention consists generally in a device of the form, arrangement, construction, and co-operation of the parts whereby the above named objects, together with others that will appear hereinafter, are obtainable; and my invention will be more readily understood by reference to the accompanying drawings which illustrate what I consider, at the present time, to be the preferred embodiment thereof.

In said drawings:

Fig. 1 is a front elevation of an article of furniture embodying my invention.

Fig. 2 is an enlarged sectional view substantially on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged view substantially on the line 3—3 of Fig. 1; and

Fig. 4 is an enlarged view substantially along the line 4—4 of Fig. 1.

In the drawings, I have shown a chair as the article in which my invention is embodied, but this, it should be understood, is by way of illustration and not by way of limitation.

The chair, as here shown, comprises a seat 1, a seat-supporting frame 2, a back rest 3, and suitable supports 4, for the back rest 3. As these parts may be of the usual or desired construction, no detailed description thereof will be given. Suffice it to say that the seat-frame supporting structure 2, is carried by the upright members 5, constituting the chair legs of which there are four in this instance. The chair legs 5, are cross connected in a novel way which at once gives the necessary rigidity to the structure and at the same time, enables it automatically to adjust itself to the irregulartities or unevenness in the floor or other supporting surface. The various pairs of legs 5 are cross connected in the same manner, so that a description of the cross connecting structure extending between one pair of legs will suffice for all. As here shown, the legs 5 are in the form of metal pipes or tubes of circular cross section. Extending between them is a bracing structure in this instance composed of an upper member 6 and a lower member 7, each of which is arcuate or semi-circular in cross section, so that when placed together they form a tubular structure. The parts 6 and 7 are held together by means of the rivets 8, 9, and 10, which rivets also pass through short sections of pipes or tubes 11, 12, and 13, respectively. The tube sections 11, 12, and 13 serve to reinforce the bracing structure. The ends 14 and 15 respectively, of the members 6 and 7 are bent at substantial right angles to the body portions thereof and are conformed to the circular surface of the chair legs 5 to which they are secured by means of rivets 16. I have thus provided a chair construction which is sufficiently rigid to stand up satisfactorily in use, but which when placed upon an uneven floor or other surface, can automatically adjust itself to such surface. Thus in Fig. 1, the floor is indicated as having a high portion 17 and a low portion 18, the chair legs over the portion 18 assuming the dotted line position in contact therewith. This is permitted under the weight of the user by virtue of the flexible construction of the bracing structure before described. Of course, it will be understood that this compensating feature is only operable within reasonable limits, but it is nevertheless, of great value in overcoming those irregularities ordinarily found in the usual floor construction.

The many advantageous features of the construction of my chair will now be under-

stood by those skilled in this art without further comment.

I claim:

1. An article of furniture embodying therein a plurality of leg members, a hollow brace extending between a pair of said legs, each brace comprising transversely separated parts of a length equal to the distance between said leg members, a plurality of tubular reinforcing members arranged within the parts of said brace, and extending longitudinally thereof, and means securing said brace parts together at a plurality of points.

2. An article of furniture embodying therein a plurality of leg members, a hollow brace extending between a pair of said legs, each brace comprising transversely separated parts of a length equal to the distance between said leg members, a plurality of tubular reinforcing members arranged within the parts of said brace and extending longitudinally thereof, and means securing said brace parts and tubular reinforcing members together.

3. A brace for chair legs, embodying therein a plurality of brace members of an arcuate cross section and arranged in edge to edge engagement, at least one of said members having an end bent at an angle, for attachment to a chair leg, means for securing the members of the brace together at a plurality of points and tubular members fitting and closely engaging the members of arcuate cross section for reinforcing the same.

4. A brace for chair legs, embodying therein a plurality of brace members of an arcuate cross section and arranged in edge to edge engagement, at least one of said members having an end bent at an angle, for attachment to a chair leg, tubular members fitting and closely engaging the arcuate members of the brace, and means passing through said arcuate members of the brace and said tubular members for securing them together.

5. A brace for chair legs, embodying therein a plurality of brace members of an arcuate cross section and arranged in edge to edge engagement, at least one of said members having an end bent at an angle, for attachment to a chair leg, spaced longitudinal tubular members arranged within said brace members and rivets passing through said members of the brace and said tubular members for securing them together.

6. A brace for chair legs embodying therein, two semitubular members having an edge to edge engagement, with the ends of each member bent at an angle and of a cross section to fit upon a chair leg, tubular members positioned in spaced relation within the brace and extending longitudinally thereof, and means passing through said semitubular members of the brace and the tubular members within the same and extending in a plane at a right angle to the plane of the engaging edges of said semitubular members.

7. An article of furniture embodying therein, a plurality of leg members, a brace extending between a pair of said leg members, said brace being composed of a plurality of metal portions arcuate in cross section and each of a length equal to the distance between said legs, the ends of said metal portions being secured to respective leg members, means for reinforcing said brace at a plurality of points, and means for securing said arcuate portions together at a plurality of points.

In testimony whereof, I have hereunto set my hand, this 27 day of December, 1923.

WILLIAM S. FERRIS.