C. I. LATTIG.

CHAIR CONSTRUCTION.

APPLICATION FILED SEPT. 18, 1916. RENEWED JULY 9, 1918.

1,295,043.

Patented Feb. 18, 1919.

2 SHEETS—SHEET 1.

Fig. 1.

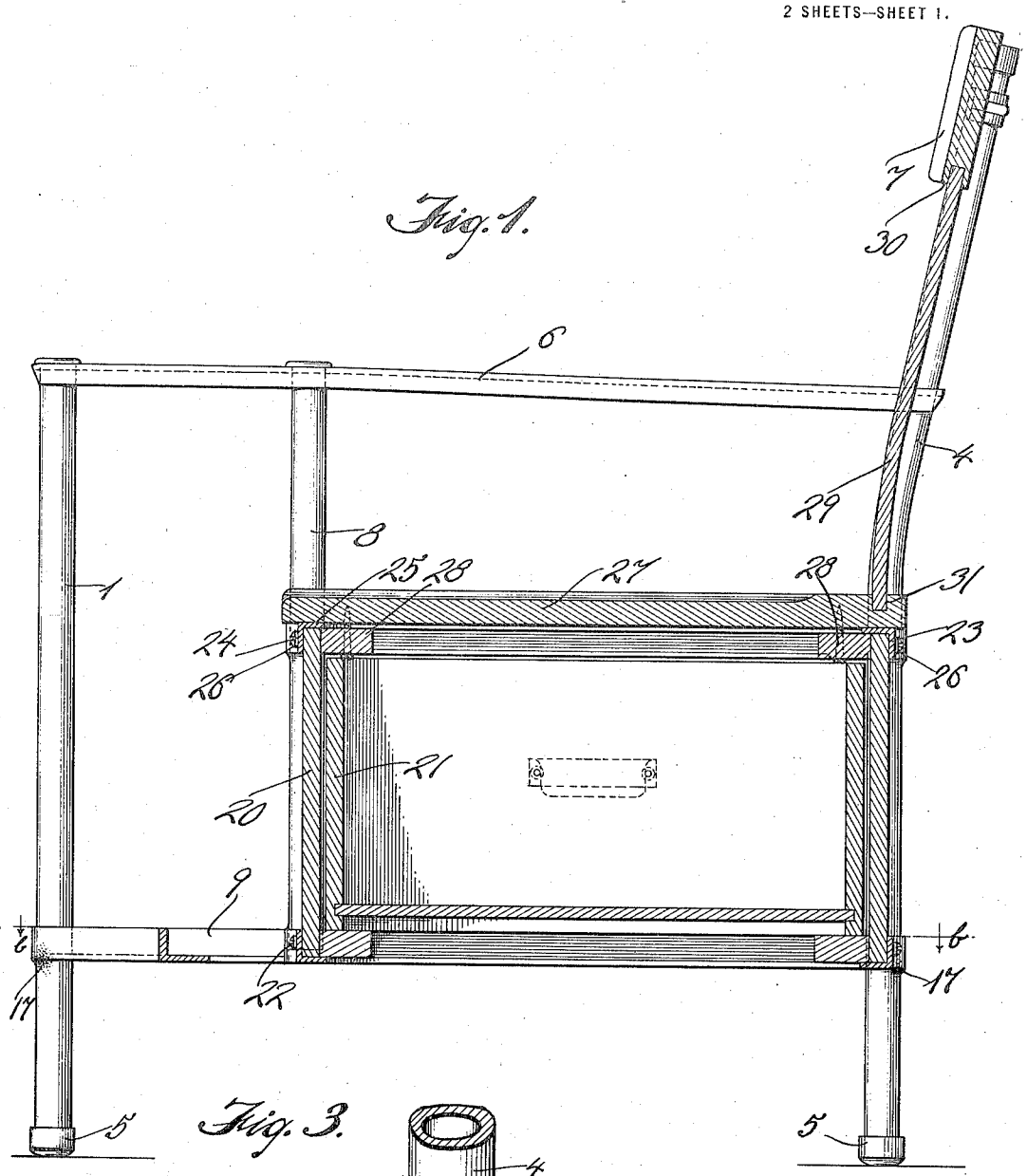
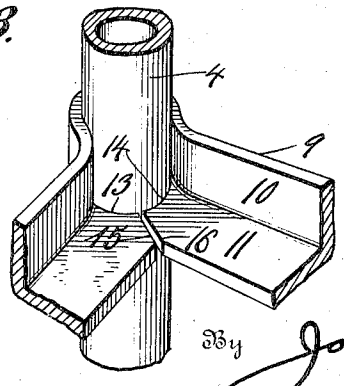


Fig. 3.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

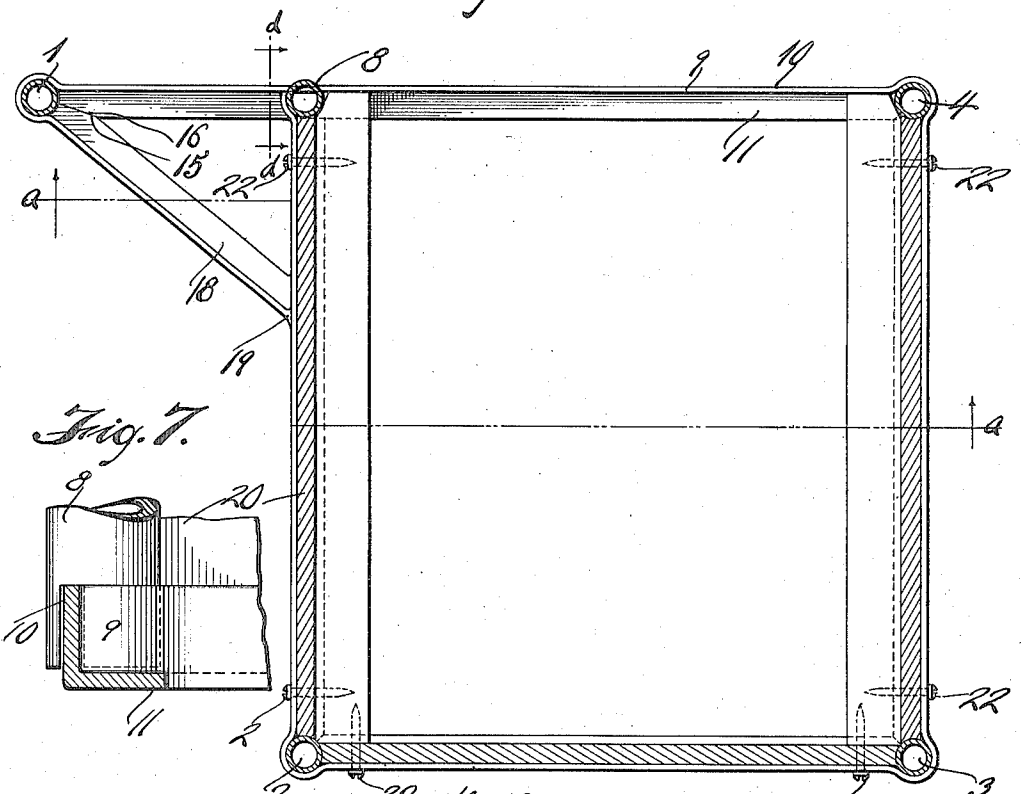


Fig. 7.

Fig. 4.

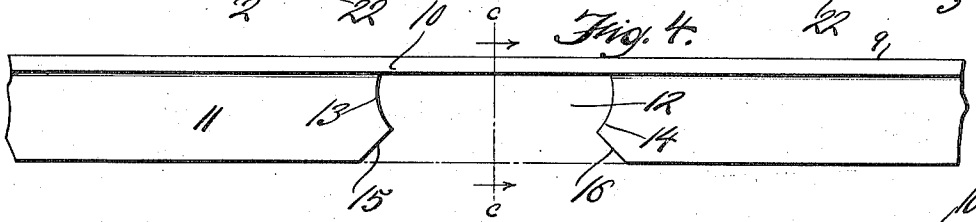


Fig. 6.

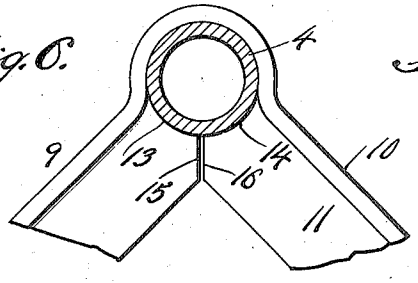
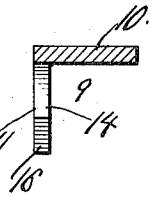


Fig. 5.



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UNITED STATES PATENT OFFICE.

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CHAIR CONSTRUCTION.

1,295,043. Specification of Letters Patent. Patented Feb. 18, 1919.

Application filed September 16, 1916, Serial No. 120,600. Renewed July 9, 1918. Serial No. 244,124.

To all whom it may concern:

Be it known that I, CHARLES I. LATTIG, a citizen of the United States, residing at Bethlehem, in the county of Northampton and State of Pennsylvania, have invented certain new and useful Improvements in Chair Construction, of which the following is a specification.

My invention consists of improvements in chair construction, one object being to make an extremely strong and durable chair of simple construction.

Another object of my invention is to provide a chair with a rail which acts as a connecting member for all of the legs of the chair, and which also serves as a convenient support for the seat of the chair.

A more specific object of my invention is to employ supporting rails for the seats of chairs, said supporting rails being made of malleable metal angle rods which are cut to embrace and secure the legs of the chairs and to form supports for box seats.

A still further object of my invention is to so cut and secure the angle rod to the legs that the chair may be easily and quickly manufactured and that the cost of manufacture will be comparatively low.

These objects, and other advantageous ends which will be described hereinafter, I attain in the following manner, reference being had to the accompanying drawings in which—

Figure 1 is a sectional elevation of a chair, constructed in accordance with my invention, taken on the line *a*—*a* of Fig. 2.

Fig. 2 is a sectional plan view taken on the line *b*—*b* of Fig. 1.

Fig. 3 is a fragmentary perspective view showing the manner of cutting, forming, and securing an angle rod to the leg portion of a chair made in accordance with my invention, said angle rod forming a connecting rail between the legs of the chair and designed to support a seat or other structure on the chair.

Fig. 4 is a plan view of an angle rod rail which is cut in accordance with my invention.

Fig. 5 is a section on the line *c*—*c* of Fig. 4.

Fig. 6 is a view of the angle iron rail shown in Fig. 4 as it appears when bent around the leg of the chair.

Fig. 7 is an enlarged section on the line *d*—*d* of Fig. 2.

Referring to the drawings, 1, 2, 3, and 4 represent the legs of the chair which may be made of pipe and are each provided with floor engaging caps 5. An arm rest 6 connects the upper end of the front leg 1 and the rear leg 4, the latter leg and the leg 3 being extended to form supporting means for a back rest 7.

An intermediate leg 8 is connected to the arm rest 6 and to a bottom rail, the latter being formed by an angle rod 9 which is secured to the legs 1, 2, 3, and 4, in a manner hereinafter more fully described.

The angle rod 9 has two leg portions 10 and 11 which extend at substantially right angles to each other, the leg portion 11 being substantially horizontal and the leg portion 10 vertical. The leg portion 11 is cut away at different points throughout its length as indicated at 12 in Fig. 4, the design of this cutting being dependent upon the shape of the cross section of the legs of the chair.

In the present instance, I have illustrated these legs as being circular in cross section, and hence the edges 13 and 14 of the cut away portion 12 are made curved, so that when the angle is bent around a respective leg as shown for example in Fig. 6, the edges 13 and 14 will snugly fit against the outer surface of said leg. The edges 15 and 16 forming said cut are arranged at an angle which will permit the bending of the angle rod at substantially ninety degrees (90°).

The leg portion 10 is not cut away between the edges 13 and 14 but forms a band which embraces the portion of the leg which is opposite from the edges 13 and 14 (see Figs. 4, 5, and 6).

Each of the legs 1, 2, 3, and 4, of the chairs is embraced by the angle rod 9, and the portion 10 of the angle rod is brazed or welded to said legs of the chair at 17. This brazing or welding may be done electrically or by any of the modern methods, such as electric welding, spot welding, or oxy-acetylene welding, so that said welding forms an actual fusing of the metal of the angle rod and the metal constituting the legs of the chair. This welding may be done neatly, so that when the legs and rail are painted, it is practically invisible.

The portion of the angle rod which embraces the leg 1 has its edge portions 15 and 16 extending at a more acute angle than the angles of the edges 15 and 16 which embrace the leg portions 2, 3, and 4. This difference is made to provide an angular bracket 18 which has its end brazed to the front portion of the bottom rail as shown at 19 in Fig. 2. The angle rod 9 extends from the intermediate leg 8 around the legs 2, 3, 4, and 1, and terminates at 19 as above described. The angle iron does not encircle the intermediate leg 8 as illustrated, since said latter leg does not extend to the floor level.

In order to form a neat connection between the lower end of said intermediate leg 8, I preferably slot the lower end of said leg 8, the portion 10 of the angle rod extending through said slot as clearly shown in Fig. 7. With this arrangement of the angle bar 9, the portion 11 forms a ledge for supporting panels to provide a box or casing 20. This casing includes a drawer 21.

The upwardly extending leg portion 10 of the angle bar or rail 9 is as illustrated, provided with holes through which screws 22 are inserted, said screws acting to secure the casing 20. Another rail 23 of angle bar extends around the legs 2, 3, 4, and 8, the cutting of said angle bar being substantially the same as above described in connection with the angle bar 9, with the exception that the bar engages the intermediate leg 8 in a manner similar to the engagement of said bar with the other of said legs.

The leg portions 24 and 25 of the angle bar 23 are substantially identical to the leg portions 10 and 11 of the angle bar 9 with the exception that the portion 24 extends downwardly, whereas the portion 10 of the bar 9 extends upwardly (see Fig. 1), the portion 25 being cut out similarly to the portion 11 at points adjacent the legs of the chair above mentioned. This bar 23 is welded to the legs 2, 3, 4, and 8, in a manner similar to that described in connection with the welding of the rail 9 to the legs of the chair. The rail or bar 23 thus forms a housing for the upper edge portion of the casing 20, and is provided with holes through which extend screws 26 which secure said upper edge portion of the casing 20.

The upper surface of the rail 23 forms a support for a seat 27. Battens 28 are secured to the inner portion of the casing and these battens in turn are screwed or otherwise joined to the lower surface of the seat 27 to retain the latter in place. A back board 29 has its upper and lower edge portions mounted within grooves 30 and 31 respectively in the back rest 7 and seat 27.

A chair constructed in accordance with my invention can be easily and quickly manufactured, since it is merely necessary to stamp or cut the angle rods and bend them in their positions with respect to the legs after which they are brazed or welded as above described.

The sections forming the casing 20 may be quickly placed within the recesses provided by the angle rods, and the screws 22 and 26 inserted. The other portions of the chair can be quickly assembled.

A chair constructed as above described may be used in school rooms or for any other purpose where rough usage may be expected, the drawer 21 and casing 20 providing a receptacle for the storage of books or other articles.

Furthermore, with this construction, it is practically impossible for the members to become detached, since the rails after the brazing operation, are substantially integral with the legs of the chair, and thus there is practically no strain on the screws or attaching means for the casing or other elements.

While I have described my invention as taking a particular form, it will be understood that the various parts of my invention may be changed without departing from the spirit thereof, and hence I do not limit myself to the precise construction set forth, but consider that I am at liberty to make such changes and alterations as fairly come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A chair having a metallic frame including a rail made of angle rod, one of the flanges of the angle rod being cut away to interrupt it in its length at different points, the portions of the other flange adjacent said cut away portions being bent outwardly around the chair legs and secured to the latter, said legs also extending through the space formed by the interruption of said flange, and panels supported on said latter mentioned flange and extending between said legs, said legs serving as abutments for the adjacent edges of said panels, substantially as described.

2. A chair having an angle rod bent around the legs of the chair and forming a supporting rail, said angle rod having one of its flanges cut out at different points to form spaces through which the legs of the chair extend, the other flange at points adjacent the cut out portions being bent outwardly around the legs and secured thereto, the flanged portions of said angle rod extending respectively in upward and horizontal directions to provide a recess, a casing including panels fitting said recess and supported by the cut out flange, a second rail comprising an angle rod having its leg portions extending respectively in downwardly and horizontal directions to form a recess to receive the upper portion of said casing, and

a seat positioned above second said angle rod, said legs forming abutments for the ends of the panels, substantially as described.

3. A chair having a metallic frame including two rails made of angle rod, one mounted above the other, one of the flanges of each angle rod being cut away to interrupt it in its length at different points, portions of the other flanges of each angle rod being bent outwardly around the chair legs and secured to the latter, said legs extending through the spaces formed by the interruptions of said flanges, and panels fitting in between the cut flanges and abutting the legs to form a casing, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES IRWIN LATTIG.

Witnesses:
S. D. SHIMER,
M. J. SHIMER.