Sept. 1, 1931. E. C. HARTER 1,821,636

CHAIR CONSTRUCTION

Filed Aug. 22, 1929

Fig. 1.

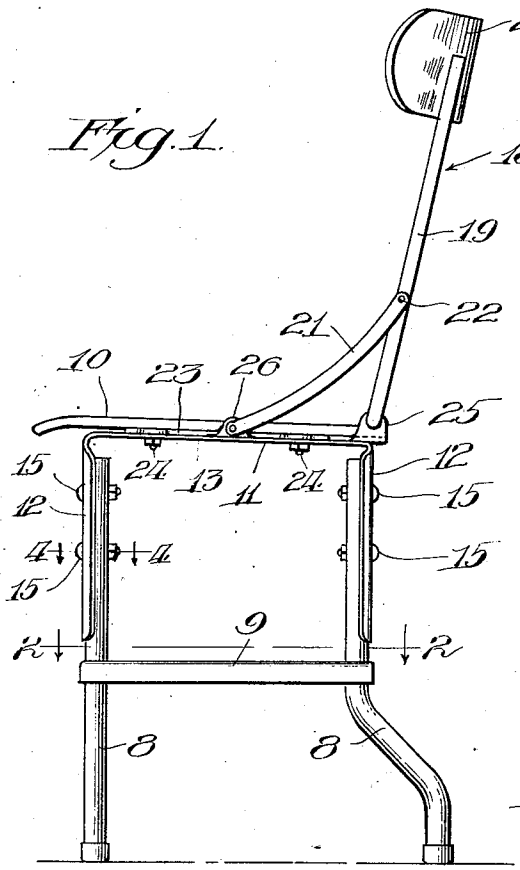


Fig. 2.

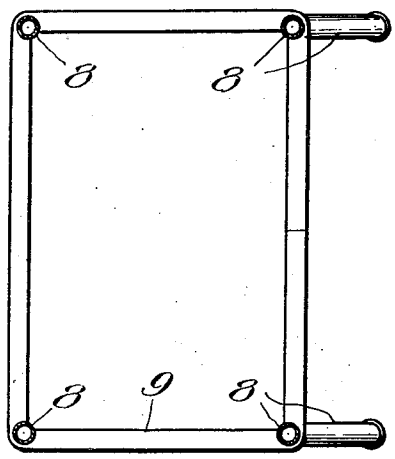


Fig. 3.

Fig. 4.

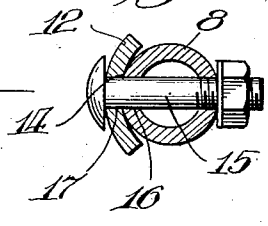


Fig. 5.

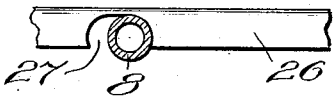


Fig. 6.

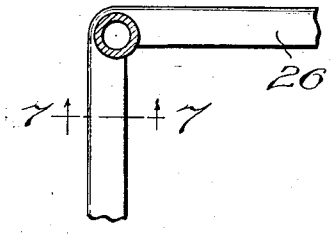
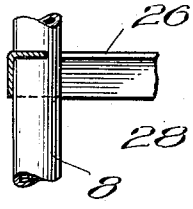
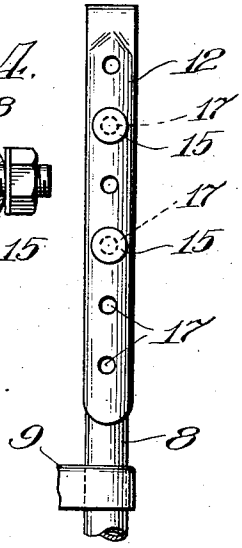


Fig. 7.





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Patented Sept. 1, 1931 1,821,636

UNITED STATES PATENT OFFICE

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CHAIR CONSTRUCTION

Application filed August 22, 1929. Serial No. 387,618.

My invention relates to chairs at least the greater portions of which are made of metal and provided for use more particularly in factories and similar places.

One of my objects is to provide a chair which shall be of economical construction, strong and rigid, and especially adapted to withstand hard usage.

Another object is to provide such a chair the seat portion of which may be adjusted to the desired height, and other objects as will be manifest from the following description.

Referring to the accompanying drawings:—

Figure 1 is a view in side elevation of a chair embodying my invention.

Figure 2 is a plan sectional view, the section being taken at the line 2—2 on Fig. 1 and viewed in the direction of the arrows.

Figure 3 is a broken, enlarged, elevational view of one of the corner portions of the chair.

Figure 4 is a section taken at the line 4—4 on Fig. 1 and viewed in the direction of the arrows.

Figure 5 is a broken plan view, partly sectional, of a detail of the structure showing it in the process of manufacture.

Figure 6 is a similar view of the same detail showing the structure in a subsequent stage of manufacture; and

Figure 7, a broken section taken at the line 7—7 on Fig. 6 and viewed in the direction of the arrows.

The particular illustrated embodiment of my invention comprises a plurality of legs 8 shown as grouped in rectangular arrangement and secured together by a frame member 9 surrounding these legs between the upper and lower extremities thereof, the legs 8 being shown as formed of metal tubing of circular shape in cross-section.

The chair also comprises a seat portion 10, preferably of wood and provided at its lateral edge portions with yokes 11, the depending arms of which are represented at 12.

The yokes 11, which extend substantially parallel to each other from the front to the back of the chair with their upper cross-bar portions 13 flatwise opposing the under surface of the seat 10, are shown as formed of metal strips bent into yoke form with their depending arms 12 transversely curved as represented more particularly in Fig. 4, to present inwardly facing concave surfaces as shown at 14 of the arm 12 illustrated in section in Fig. 4.

The arrangement of the legs 8 and yokes 11 is such that the arms 12 register with the legs 8, respectively, lapping the same as shown of the arm 12 in Figs. 3 and 4, the seat structure, with its depending arms 12, thus being adapted to be adjusted vertically on the legs 8.

Any desirable means for securing the arms 12 to the legs 8 in the desired adjusted position may be provided. In the arrangement shown bolts represented at 15, are provided for this purpose, two bolts for each leg 8 being employed, these bolts extending through holes 16 in the legs 8 and through registering holes 17 provided in the arms 12, as shown of the arm illustrated in Fig. 3.

The chair shown also comprises a back portion 18 formed of uprights 19 (one only of which is shown) located at opposite lateral edges of the seat 10, a back rest 20 connected with the upper ends of the uprights 19, and braces 21 connected at their upper ends, as represented at 22, to the uprights 19.

The uprights 19 and braces 21 are supported on plate-like members 23 (one only of which is shown) located at opposite lateral edges of the seat 10 and interposed between the seat 10 and the cross-bars 13 of the yokes 11, the seat 10, members 23 and yoke 11 being secured together by bolts 24 passing through these several parts.

The members 23 have upturned portions 25 and 26 at their rear ends and toward their central portions, respectively, at which the lower ends of the uprights 19 and the lower, forward, ends of the braces 21 are connected, as represented.

The frame member 9 is shown as of endless form, it being formed of a length of angle iron the horizontal flange 26 of which is apertured at intervals, as represented at 27, to receive the legs 8, the member 9 therefor extending at its vertical flange 28 around the

grouped legs as shown, the portions of the vertical flange 28 at the corners of the chair extending along the outer sides of the legs, as shown.

In forming the frame 9 from a single length of angle iron, the openings 27 in the horizontal flange 26 thereof would be provided at such locations thereon and of such shape, as shown in Fig. 5, that when the angle iron strip is bent into rectangular form the openings at the corners thereof will register with the legs 8, respectively, and the walls of these openings will preferably snugly fit the legs. The frame 9 may be bent into the rectangular form shown in Fig. 2 either as an operation preliminary to the assembling of the frame with the legs or bent into such form about the grouped legs. In any event, the ends of the angle irons strip, after the latter is bent into frame-forming condition, would be secured together in any desirable way, as, for example, by welding or brazing them.

Following the assembling of the legs and the frame 9, the legs 8 and those portions of the frame 9 which oppose the legs are preferably welded or brazed together.

By associating with the legs 8, frame 9 of the construction above described, the base structure of the chair may be of relatively light weight and economically produced and still present sufficient resistance to objectionable distortion of the base structure under the stresses to which it is subjected in use.

The feature of providing the depending arms 12 with concave faces at which they lap the legs 8 is desirable inasmuch as tendency of the upper structure of the chair to tilt or otherwise become laterally displaced on the legs, is reduced to the minimum.

While I have illustrated and described a particular construction embodying my invention, I do not wish to be understood as intending to limit it thereto, as the same may be variously modified and altered without departing from the spirit of my invention.

I claim:

A chair comprising legs and a seat, a U-shaped member at each side of said seat and including a cross-bar associated with said seat and arms depending from said cross-bar and secured to said legs, a platelike member at each side of said seat disposed between said seat and said members, means securing said seat, U-shaped members and platelike members together, and a chair-back portion connected with said platelike members.

EVAN C. HARTER.