April 13, 1926. 1,580,522

E. C. MURRAY

ALL METAL CHAIR

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Fig. 1.

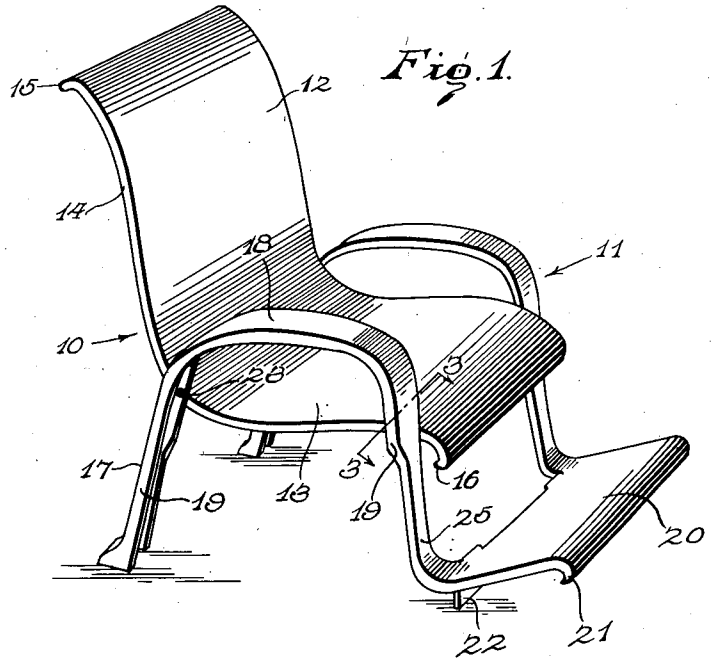


Fig. 2.

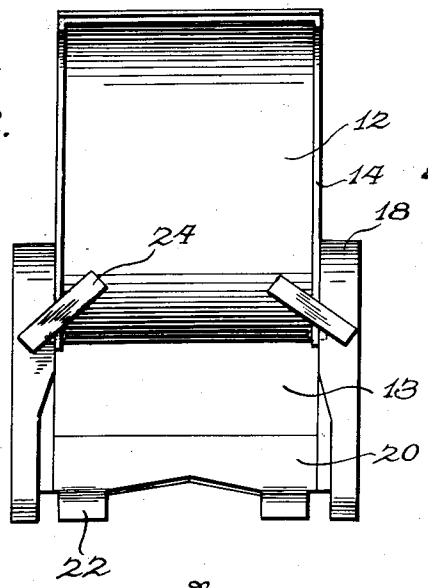
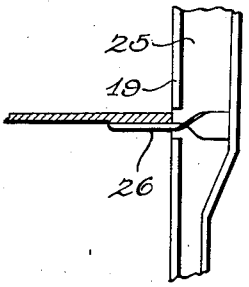


Fig. 3.



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Fig. 4.

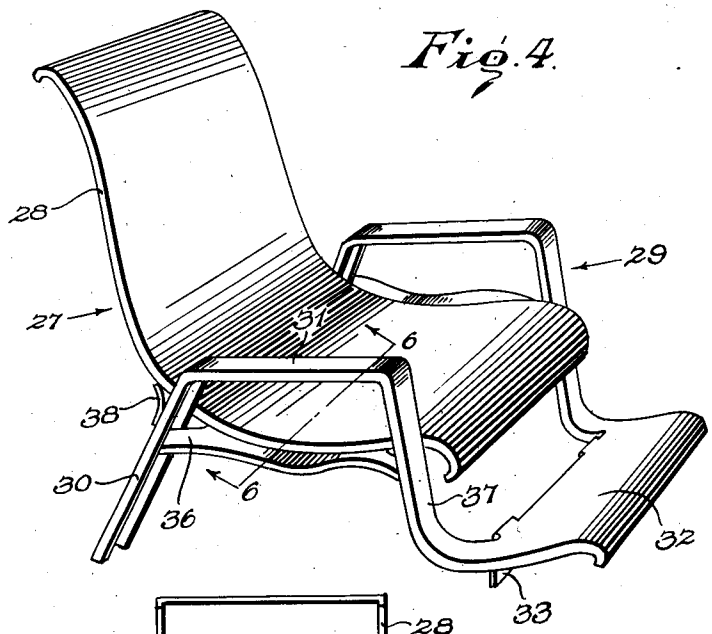


Fig. 5.

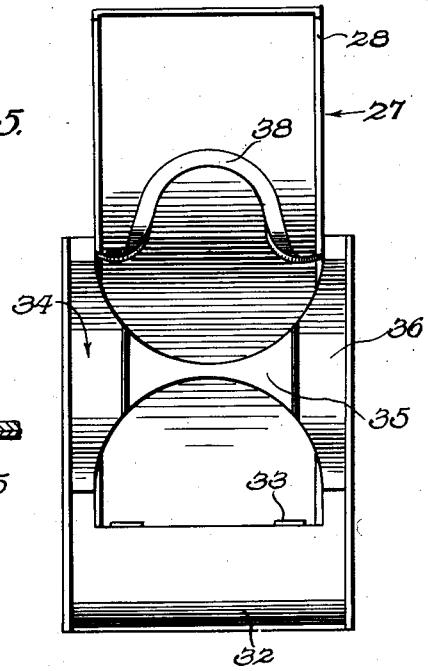
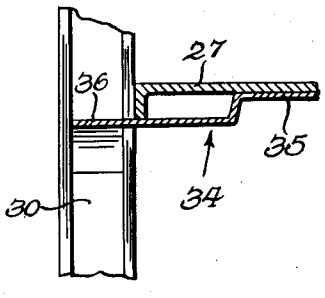


Fig. 6.



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UNITED STATES PATENT OFFICE.

ELDON C. MURRAY, OF PEORIA, ILLINOIS.

ALL-METAL CHAIR.

Application filed July 28, 1924. Serial No. 728,671.

To all whom it may concern:

Be it known that I, ELDON C. MURRAY, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in All-Metal Chairs, of which the following is a specification.

The object of the present invention is to provide a chair made entirely of metal, preferably sheet steel. Another object is to make the chair in as few parts as possible. These parts consist of a seat and back member and a leg, foot rest and arm rest member. These two members are firmly united to make a very strong construction which can be manufactured at a very low cost.

In the accompanying drawings, two different forms of the invention have been illustrated, and

Figure 1 is a perspective view of the preferred construction;

Fig. 2 is a rear view of Fig. 1;

Fig. 3 is a fragmentary section on the line 3—3 of Fig. 1;

Fig. 4 is a perspective view of a slightly modified form of the chair;

Fig. 5 is a bottom view of the same, and

Fig. 6 is a fragmentary section on the line 6—6 of Fig. 4.

Referring now particularly to Figures 1, 2 and 3 of the drawings, the reference numeral 10 represents a back and seat member, and the reference numeral 11 a member forming the legs, foot rest and arm rests for the chair. The member 10 is cut from a piece of parallel sided sheet metal to form the back rest 12 and the seat 13. The side edges of this member are preferably flanged, as at 14, to give sufficient stiffness to the structure and the member is curved, as seen in Figure 1, to produce a comfortable back rest and seat with rolled top and bottom edges, as at 15 and 16, respectively.

The second member 11 is also stamped from sheet metal in such a manner that rear legs 17 are formed and in continuation therewith arm rests 18 and front legs 25. These parts are preferably flanged along their inner and outer edges, as at 19, in order to increase the strength of the chair and the front legs are cross connected by a foot rest 20 which terminates with a rolled edge 21. At the rear edge of the foot rest and between the front legs 25 are formed front feet 22. It is evident that the second member 11 can be easily cut out and shaped by stamping to give the desired contour, as indicated in Figure 1.

Through the flanges 14 and 19 formed on the seat member 10 and legs 17, respectively, are inserted bolts 23. Braces 24 are also provided to further increase the strength of the joints between the seat member 10 and the rear legs 17. These braces are preferably sweated or welded to the parts. The front legs 25 are preferably united with the seat member 10, as indicated in Figure 3, by means of a brace 26 which is twisted and welded to the seat portion 13 and to the rear face of each front leg 25. It will be necessary to cut away a small portion of the flange 19 in the front leg to accommodate this brace 26.

The modified form shown in Figures 4, 5 and 6 has a back and seat member 27 similar in construction to that shown in Figures 1, 2 and 3 and having flanged side edges 28. The second member 29 is also similar to the one already described having rear legs 30, arm rests 31 and a foot rest 32 all cut from one piece of sheet metal and flanged, as before. Feet 33 are also provided at the rear edge of the foot rest 32. The main difference between this and the former construction resides in the fact that a bottom brace 34 is here provided. The brace 34 has a central strap 35 welded or in any other suitable manner secured under the seat portion of the member 27 and extending across the same terminating at each side with a bar 36 extending in longitudinal direction of the chair and united at its ends by welding or the like to the rear legs 30 and the front legs 37. An arched brace 38 is provided to stiffen the back of the seat member 27 and is welded to the same as well as to the rear legs 30, as indicated in Figures 4 and 5.

In some cases the foot rest and the arm rests may be omitted and it is evident that this would simplify the construction still more when the legs will be secured underneath the seat member, as by welding or the like. Suitable material from which the chair may be manufactured might be sheet steel, brass or aluminum but other materials, such as hard fiber or papier-mâché may be used, but in any case the same material is preferably used for all parts of the

chair. The curvature of the back and seat member is such as to adapt itself to the human body in sitting position.

The advantages claimed for this chair are simplicity of construction, durability, cheapness of manufacture, and a comfortable receptacle for a relaxed human body in sitting position, the chair being, furthermore, sanitary as it can be cleaned very easily. If lightness is required, the seat back and foot rest may be perforated.

It is evident that for securing the members 10 and 11 together welding alone may be resorted to or in conjunction with bolts at points of contact or that bolts only may be used in some cases. Instead of making the member 11 in one-piece only, it may be made in two or three pieces when the foot rest 20 may be dispensed with altogether or made optional and bolted or welded to the front legs 25 which form integral parts with the arm rests 18 and the rear legs 17 as before.

It is also evident that, when producing a chair without foot and arm rests, it may be built from one blank, the legs then being bent down from the seat portion, the curvature of the seat and back increasing the strength.

Having thus described the invention, I claim:

1. A chair comprising a seat and back member produced from sheet metal, and supporting members also produced from pressed sheet metal and defining parallel side arms between which the seat and back member fits and to which the said member is rigidly secured, the supporting members being rigidly connected below the front end of the seat and back member.

2. A chair comprising an integral seat and back member of sheet metal, supporting members of sheet metal at each side of the seat and back member and each including an upstanding side portion consituting a front leg, a back leg and an arm rest connecting and integral with the upper ends of the legs, the lower forward portion of the seat and back member fitting between the upstanding side portions and being rigidly secured to both legs of each side portion, and a transverse member rigidly secured to and connecting the front ends of the supporting members and constituting a foot rest.

3. A chair comprising an integral seat and back member of sheet material, and an integral supporting member of sheet material including a front transverse portion constituting a foot rest, depending feet at the rear edge of said transverse portion, and parallel upstanding side portions each consisting of a front leg, a back leg and an arm rest connecting the upper ends of the legs, the lower forward portion of the seat and back member fitting between the upstanding side portions of the supporting member and being rigidly secured to the legs of said side portions.

4. A chair comprising an integral seat and back member of flanged sheet material, and supporting members of flanged sheet material including upstanding side portions each constituting a front leg, a back leg and an arm rest integrally connecting the upper ends of the legs, the lower forward portion of the seat and back member fitting between the supporting members and being rigidly secured to all the legs, and brace elements rigidly connecting the flanged edges of the seat and back member with the flanged edges of the supporting members at the rear legs of said members.

5. A chair comprising an integral seat and back member of sheet material, and an integral supporting member of sheet material including a front transverse portion constituting a foot rest, parallel upstanding side portions extending from the ends of the transverse portion and each constituting a front leg, a back leg and an arm rest connecting the upper ends of the legs, the lower forward portion of the seat and back member fitting between the upstanding side portions of the supporting member and being rigidly secured to the legs of said side portions, and a cross brace having a central portion intimately united with the under side of the seat and back member and having terminal elements intimately united with the legs of the supporting member.

In testimony whereof I affix my signature.

ELDON C. MURRAY. [L. S.]