July 24, 1928. 1,678,004

W. S. FERRIS

CHAIR

Filed Jan. 8, 1924 2 Sheets-Sheet 1

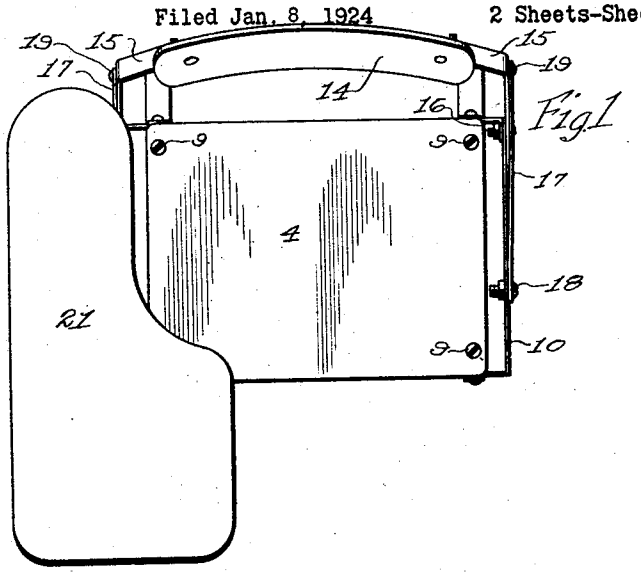


Fig. 1

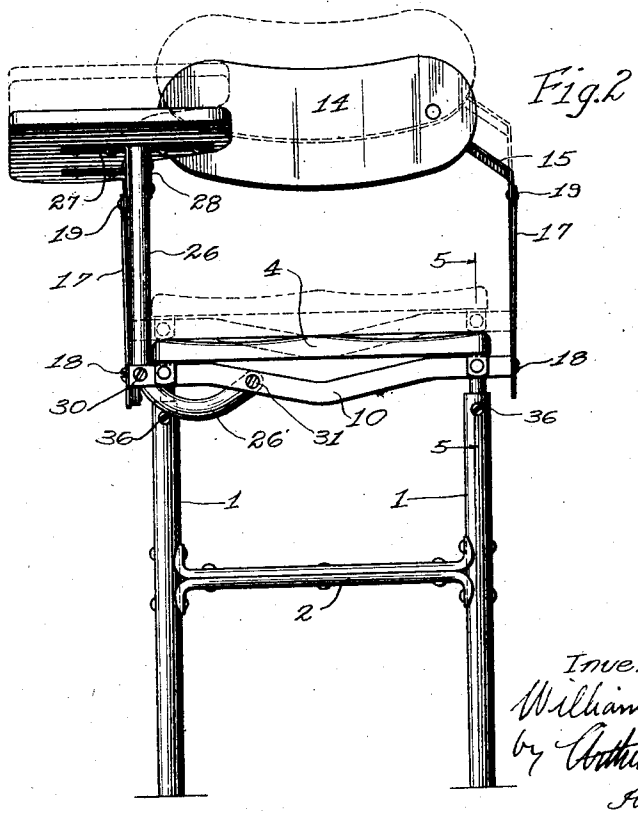


Fig. 2

Inventor
William S. Ferris
by Cuthwell & Nelson
Atty.

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Filed Jan. 8, 1924 2 Sheets-Sheet 2

Fig. 3

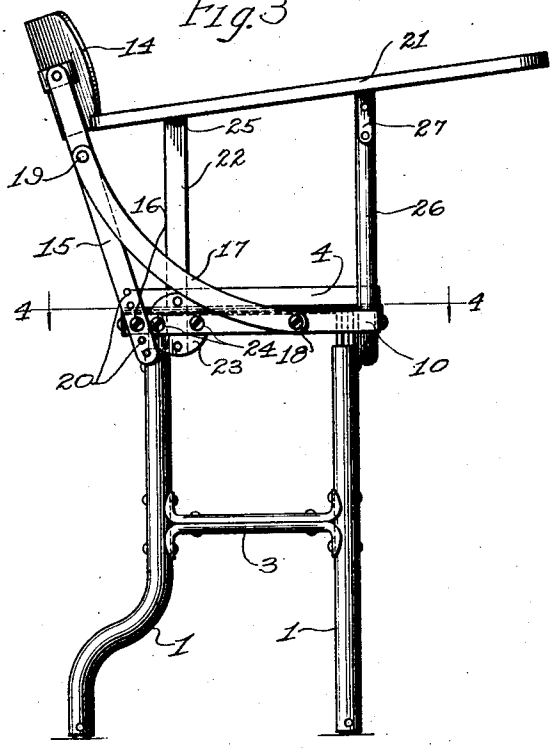


Fig. 4

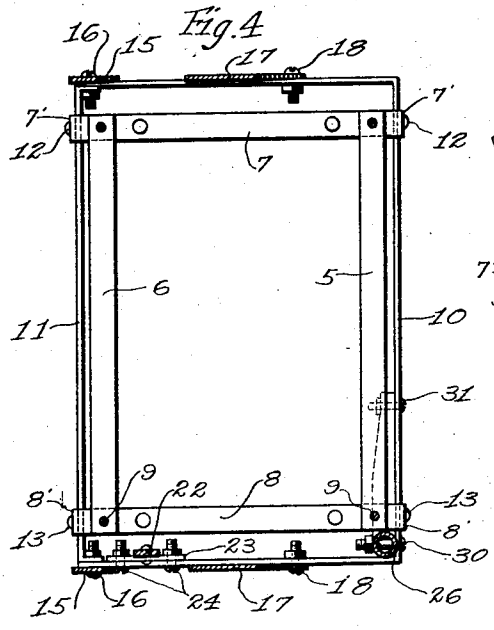
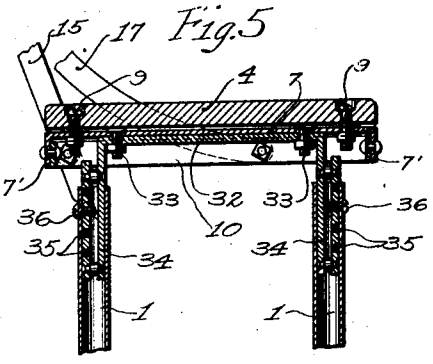


Fig. 5



Inventor
William S Ferris
by Arthur W Nelson
Atty.

Patented July 24, 1928. 1,678,004

UNITED STATES PATENT OFFICE.

WILLIAM S. FERRIS, OF ELKHART, INDIANA.

CHAIR.

Application filed January 8, 1924. Serial No. 685,005.

My invention relates generally to improvements in chairs, but relates more particularly to improvements in so called tablet arm chairs.

The general object of my invention is to improve the construction and operation of tablet arm chairs, i. e., chairs that have a tablet or table surface carried thereby.

Another object of my invention is to provide a tablet arm chair which shall be designed to present the best arrangement for use and which can be adjusted for use by persons of different sizes, as for example, children in the different school grades, without destroying the advantageous arrangement of the parts.

A further object of my invention is to provide a tablet arm chair which shall be especially adapted to withstand the peculiar strains to which such chairs are subjected in use.

I aim also to provide a chair, of the type described, which shall be simple and durable, and which can be produced at relatively low cost.

My invention consists generally in a tablet arm chair of the form, arrangement, construction, and co-operation of the parts thereof, 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 top plan view of a chair embodying my invention.

Fig. 2 is a front elevation thereof.

Fig. 3 is a side elevation of the chair.

Fig. 4 is a transverse sectional view substantially on the line 4—4 of Fig. 3; and

Fig. 5 is a detailed sectional view, on a slightly enlarged scale, substantially along the line 5—5 of Fig. 2.

The chair as here shown, comprises four tubular metal legs, 1, which are suitably cross connected by braces 2 and 3. The chair seat 4, in this instance, is carried upon a chair frame composed of front and rear metal strap members 5 and 6 which extend between the side strap members 7 and 8. These parts are secured together and to the seat 4 by a plurality of bolts 9 which extend through the several parts as is probably best shown in Fig. 5.

The cross members 7 and 8, in turn, have end portions 7′ and 8′ which are bent downwardly and there secured to the box-like metal frame composed of the U-shaped strap 10 and the rear cross or connecting strap 11. Rivets 12 and 13 secure the members 7 and 8 firmly to the box frame 10 and 11 thus providing a rigid construction.

The chair also is provided with a back rest 14 which in turn, is swingably carried in arms 15—15 which upstand from the box-like frame and which are pivotally secured thereto by means of the bolts 16. The bolts 16 also serve to bind the members 10 and 11 of the frame together. The arms 15 are suitably braced by means of the curved links 17 which are secured to the box-like frame by means of bolts 18 and to the arms by means of pivots 19. The arms 15 are furthermore provided with a series of holes 20 so that the angular position of the back rest supporting structure may be varied.

A tablet arm or table-like member 21 is supported from the seat carrying frame in a novel manner. Thus at the rear it is supported by a vertical member 22, which is riveted or otherwise rigidly secured to a metal disc or plate 23 which in turn, is firmly bolted to the box-like frame as by means of the bolts 24. At the upper end, the support 22 is bent substantially at right angles outwardly and there secured to the tablet arm or table 21 by means of the fastening devices 25. Forward of the brace or support 22, there is an additional supporting member 26, which is formed of a metal tube which is secured to the tablet arm 21 by means of two angle shaped strap metal members 27 and 28 respectively. The members 27 and 28 are preferably riveted to the tablet arm support 26. The tablet arm 21 in use is subjected to considerable pressure by the user which would tend to swing or bend the supports 22 and 26 outwardly, but I have provided a construction which prevents such movement. To this end, the lower part 26′ of the member 26 is bent to arcuate form and is secured to the member 10 of the seat frame at spaced points as by means of the bolts 30 and 31 respectively. This forms a sort of cantilever construction which very effectively braces and rigidifies the tablet arm 21 against the peculiar strains to which it is subjected in use.

The tablet arm 21 it will be observed, is arranged at an angle and is positioned at

that distance above the seat 4 which has been found to give the best posture for writing and reading since these chairs are very largely used in educational institutions. In such institutions, it is often necessary or at least highly desirable that the same chairs be adapted for use by students of widely different ages and of correspondingly different sizes, but at the same time, it is not desirable to disturb the predetermined position of the tablet arm. To this end I have arranged the tablet arm, the back rest and the chair seat for movement as a whole to and from the floor, so that the chair can be readily adjusted to accommodate the different persons. Thus, I have secured to the cross members 7 and 8, members 32 as by means of bolts 33, the members 32, in turn, having depending portions 34 which enter telescopically into the upper portions of the hollow legs 1.

The portions 34, in turn, are provided with a plurality of openings 35 with any one of which a set screw 36 may co-operate. With this construction, the back rest, seat frame and seat, and the tablet arm may all be moved as a unit toward and from the floor, thus leaving the relation of the parts, such as has been determined to be the most advantageous.

The improved features of my chair will now be understood by those skilled in this art without further comment.

I claim:

1. A chair embodying therein a plurality of legs, a rectangular metallic seat frame including side and front frame members, a tablet disposed above one side of the frame, an upright member secured at its top end to the front end of the tablet and having a curved bottom end disposed below the seat frame and secured to the front member thereof at a plurality of points and a second upright member secured at its top end to the rear end of the tablet, and at its bottom end to the side member of the frame.

2. A chair embodying therein a plurality of legs, a rectangular metallic seat frame, a tablet arm along and above one side of the seat frame, an upright member secured at its top end to the tablet arm and terminating in an arcuate portion, said arcuate portion extending below the seat frame, and means for securing said arcuate portion to the seat frame at both ends of the arcuate portion.

3. A chair comprising a plurality of legs, a chair frame, a seat supported by the chair frame, a box-like metal frame surrounding the chair frame and secured thereto, a tablet arm extending along and above one side of the seat, an upright member secured at its top end to the tablet arm and terminating in an arcuate portion extending below the seat, securing means for fastening the arcuate portion to the box-like frame at a plurality of points, a back rest pivotally and adjustably mounted at the rear of the box-like frame and bracing means secured to the sides of the box-like frame and to the back rest.

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

WILLIAM S. FERRIS.