Aug. 23, 1932. A. S. KUX 1,873,768

FOLDING CHAIR

Filed April 19, 1926 2 Sheets-Sheet 1

Fig. 1

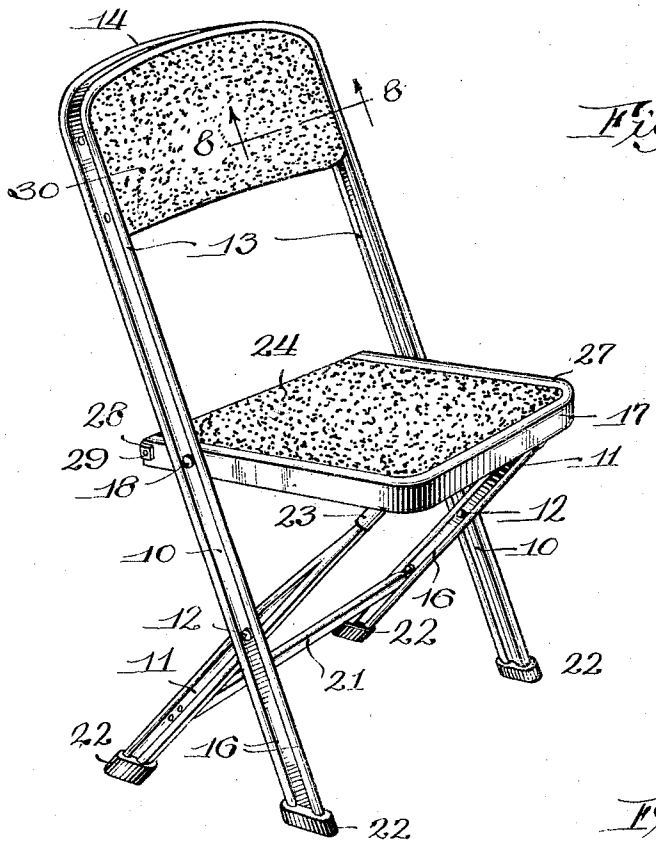



Fig. 4

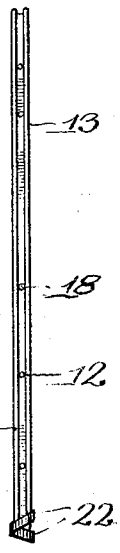



Fig. 2

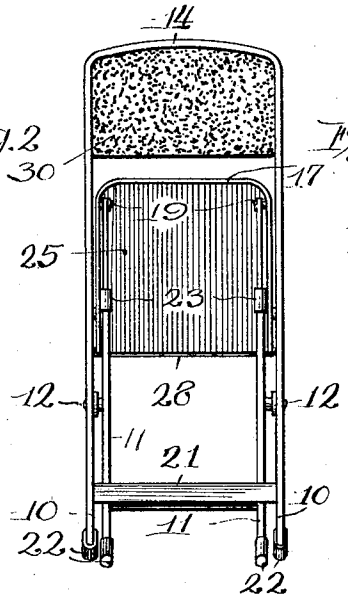
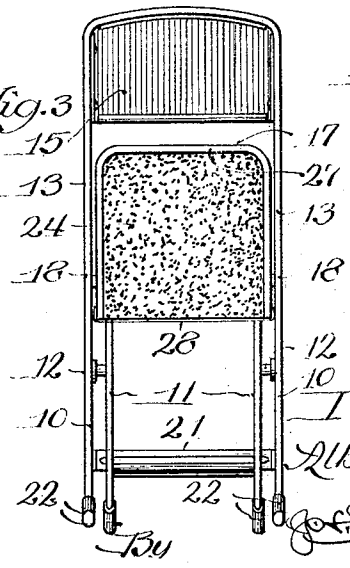



Fig. 3




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Aug. 23, 1932. A. S. KUX 1,873,768

FOLDING CHAIR

Filed April 19, 1926 2 Sheets-Sheet 2

Fig. 5

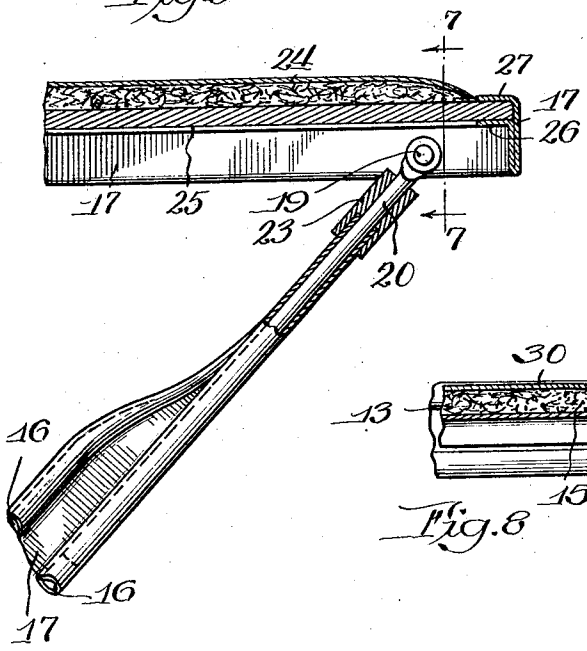
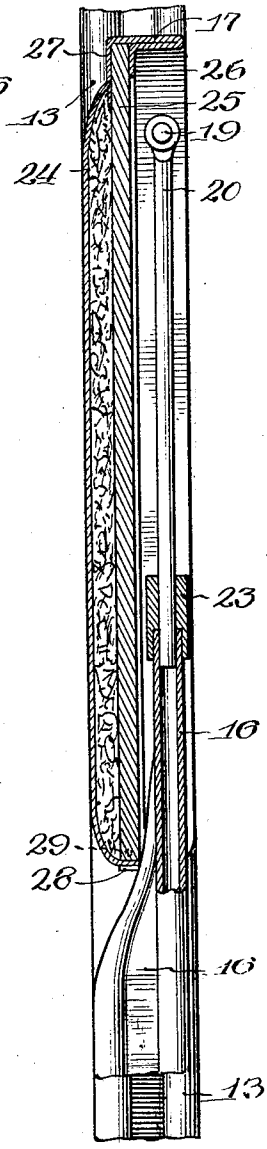






Fig. 8

Fig. 6



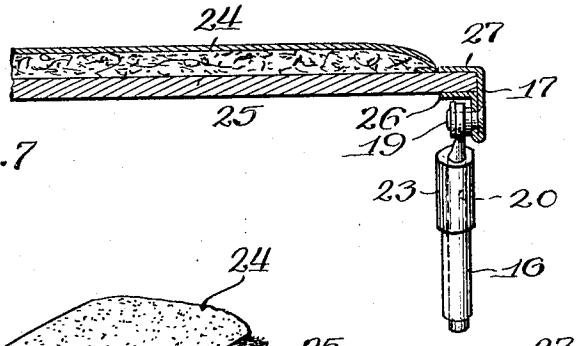




Fig. 7

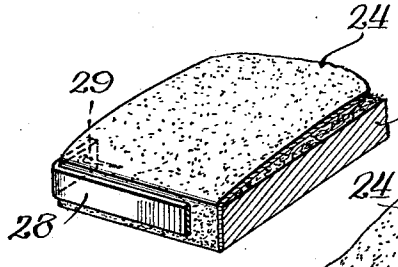



Fig. 9

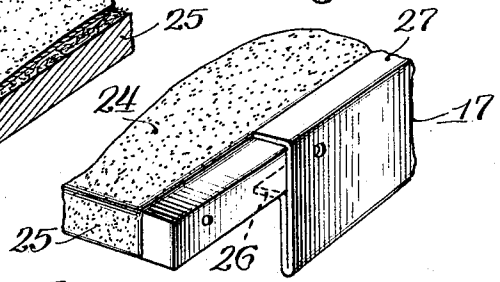



Fig. 10

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Patented Aug. 23, 1932 1,873,768

# UNITED STATES PATENT OFFICE

ALBERT S. KUX, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO STAKMORE CO. INC., A CORPORATION OF NEW YORK

## FOLDING CHAIR

Application filed April 19, 1926. Serial No. 102,847.

This invention relates to improvements in folding chairs and one of the objects of the same is to provide an improved foldable chair which will be comparatively light and of metallic construction in which there will be no projecting bolts, screws, or fastening devices, especially about and around the seat, on which the clothing of the occupant might catch or snag.

A further object is to provide an improved chair of this character which is adapted to fold compactly, the foldable parts being adapted when folded to stand substantially within the plane of the edges of the uprights or supports, so that the folded chair will lie flat, and a plurality of chairs may be compactly arranged for the purpose of storage or transportation.

To the attainment of these ends and the accomplishment of other new and useful objects as will appear, the invention consists in the features of novelty in substantially the construction, combination and arrangement of the several parts hereinafter more fully described and claimed and shown in the accompanying drawings illustrating the invention; and in which,

Figure 1 is a perspective view of a chair constructed in accordance with the principles of this invention and showing the parts in unfolded positions ready for use.

Figure 2 is a view of the chair taken from one side thereof.

Figure 3 is a view similar to Figure 2 taken from the other side.

Figure 4 is an end elevation of Figures 2 and 3.

Figure 5 is an enlarged detail view partly in elevation and partly in section, showing the manner of connecting one pair of legs with the seat frame.

Figure 6 is an enlarged vertical sectional view of a portion of the chair in folded position.

Figure 7 is a sectional view taken on line 7—7 Figure 5.

Figure 8 is a detail sectional view taken on line 8—8 Figure 1.

Figure 9 is a detail view partly in elevation and partly in section of one end of the seat frame with the seat therein.

Figure 10 is a detail perspective view of a portion of the seat frame showing the manner of inserting the seat therein.

Referring more particularly to the drawings the numerals 10 and 11 designate respectively two pairs of legs or supports which are pivotally connected together as at 12 intermediate the extremities of each. The legs 10 extend upwardly for a considerable distance to form standards 13, which are preferably connected together by their upper extremities as at 14, and a back member 15 is supported therebetween.

The legs 10 and 11 together with the standards 13 are formed of metal, preferably substantially I shape in cross section, the portions 16 of the metal being tubular.

A substantially U shaped seat frame 17, preferably constructed of angle iron is pivotally supported adjacent one end thereof as at 18 intermediate the standards 13 preferably so that the open portion of the frame will be disposed at the rear of the seat.

Pivotally connected adjacent the forward edge of the seat frame 17 as at 19, is a bar or rod like member 20 which is adapted to telescope into the extremity of the tubular portion at the upper extremity of the leg 11, one of the these bars or rods 20 being provided on each side of the seat frame.

The legs 11 may be braced if desired by means of a cross member 21, and if desired suitable feet or cushioning members 22 may be provided on the lower extremities of the legs.

The back member 15 is so arranged that it will not interfere with the folding movement of the seat frame 17.

With a chair of this character, it will be manifest that when the seat frame 17 is folded with respect to the standards 13, it will swing about the pivots 18, at the same time the legs 11 will swing about the pivots 12, and the bars or rods 20 will have sliding movements out of the extremities of the legs to permit of such movement of the seat frame. When the seat frame 17 is pivoted away from the standards 13, the rods 20 will have tele-

scoping movements into the upper extremities of the rear legs and thereby cause the opening of the rear legs.

All of the parts above described are of such a size that when the seat frame 17 is folded, as shown in Figures 2 and 3, the seat frame and the legs 11 will be disposed substantially within the plane of the edges of the standards 13 and legs 10, as shown more clearly in Figure 6, so that a plurality of these chairs when folded may be compactly arranged for storage or shipment purposes.

If desired a cap or ferrule 23 may be provided on the upper ends of the legs 11, and through which ferrule or cap the rod 20 passes.

A seat member 24 preferably having a base 25 is provided, and the edges of the base 25 project beyond the edges of the seat or cushion and these edges are adapted to enter inwardly opening channels formed by an inwardly projecting flange 26 carried by the walls of the seat frame which co-operates with the upper edge of the seat frame.

The seat frame 17 may be formed of a single piece of metal bent into shape to form an angle iron construction, and also to form a flange 26 (see Figure 10) which co-operates with the upper edge or flange 27 of the seat frame 17.

Any suitable means may be provided for maintaining the seat within the frame, such for instance, as a member 28, which is adapted to be extended across the open end of the seat frame and which member may be secured in position by means of suitable fastening devices passing therethrough.

If desired a pad or cushion 30 may be provided on the back member 15 and which pad or cushion is preferably of a thickness to be substantially flush with the front edges of the uprights or standards 13.

With this invention it will be manifest that a very light but strong and durable chair may be produced, which may be readily folded and unfolded and which will lie flat upon a supporting surface when the parts are folded.

While the preferred form of the invention has been herein shown and described, it is to be understood that various changes may be made in the details of construction and in the combination and arrangement of the several parts, within the scope of the claims, without departing from the spirit of this invention.

What is claimed as new is:—

1. A folding metallic chair embodying legs pivotally connected intermediate their extremities, a metallic seat member pivotally supported adjacent its rear end between one pair of legs, the upper portions of the latter extending above the seat pivot to form standards, the upper extremities of the other pair of legs being disposed in close proximity to the forward edge of the seat when the seat is lowered, members pivotally connected by one extremity to the seat adjacent the front edge of the seat, and a telescoping connection between the said members and the upper extremities of the said other pair of legs.

2. A folding metallic chair embodying legs pivotally connected intermediate their extremities, a seat pivotally supported adjacent its rear end between one pair of legs, the upper portion of the said legs extending above the seat pivot to form standards, the upper extremities of the other pair of legs being tubular, rods pivotally connected by one extremity to the opposite sides of the seat adjacent the front of the seat, said rods telescoping into the respective tubular portions, and a back member secured to the said standards and extending across the space therebetween and spaced above the seat.

3. A folding metallic chair embodying legs pivotally connected intermediate their extremities, a seat frame pivotally supported adjacent one edge between one pair of legs, the upper portions of the latter extending above the seat, the upper extremities of the other pair of legs being disposed in close proximity to the forward edge of the seat frame when the latter is lowered, and linearly slidable means connecting the last recited extremities pivotally to the inner face of said seat frame said means being pivotally associated at a constant point in close proximity to the forward edge of the seat frame whether the chair be folded or open, the said legs and the said extremities being substantially I shape in cross section.

4. A folding chair embodying a main frame, said frame embodying spaced substantially straight side members and a cross member connecting the upper extremities thereof, all forming an integral structure, the lower portions of the side members constituting legs, the upper portion and cross member constituting a back, an additional pair of legs crossing and pivotally connected intermediate their ends respectively to and between the first recited legs, the upper portions of said additional legs being of a reduced cross section so as to permit folding of the seat of the chair and last named legs within the longitudinal edges of the side members of the main frame, a seat pivotally mounted adjacent one end between and upon the said side members, and members pivotally connected with the seat member adjacent the forward edge thereof, the last recited members telescopically engaging the extremities of the respective legs of the said additional pair, said seat, additional legs and telescoping members being foldable within the plane of the longitudinal edges of the said side members.

5. In a folding chair, the combination of a frame having two standards whose upper portions comprise the back of a chair and

whose lower portions comprise the front legs of a chair, a pair of rear legs pivotally connected to said frame, a seat pivotally connected to said frame, and telescoping connections between said seat and said pair of rear legs, each of said connections comprising a member pivotally connected to said seat and a member associated with said rear legs.

6. The combination set forth in claim 5 in which the members which are pivotally connected to the seat are rods and the members which are associated with the rear legs are tubular and are embodied in the structure of the rear legs.

7. In a folding chair, the combination of a frame having two standards whose upper portions comprise the back of a chair and whose lower portions comprise the front legs of a chair, a seat pivotally connected to said frame, means for supporting said seat in a lowered position, said means comprising two pairs of members, each pair having one member linearly slidable relatively to the other member, one of said members being pivotally connected to said seat and the other of said members being pivotally connected to one of said standards at a point below said seat and extended to form a rear leg of the chair.

8. A folding metallic chair embodying a frame member forming substantially straight side members constituting legs and a back portion, a seat member projecting within the first recited frame member and pivotally connected thereto adjacent one edge of the said seat member, additional leg members within the first recited leg members, said additional leg members being pivotally connected intermediate their extremities and beneath the said seat member, the upper portions of said additional leg members being of a reduced cross section so as to permit folding of the seat of the chair and the said additional leg members within the longitudinal edges of said main frame, rods pivotally connected to the seat member adjacent its forward edge, said rods telescoping into the said additional leg members, whereby when the seat member and the additional leg members are folded with respect to the frame member they will stand substantially within the plane of the longitudinal edges of the latter.

9. In a folding chair, the combination of rear legs and front legs, said legs being arranged in pairs, each pair of legs constituting a crossed front leg and rear leg pivotally connected together intermediate their ends, a seat pivoted to the front legs above the pivotal connections of the legs and supported near its front edge by the upper ends of said rear legs, and connecting means between the seat and the rear legs comprising telescopically engaged members substantially parallel to the rear legs.

10. In a folding chair, the combination comprising a pair of standards, a seat pivotally secured to said standards, a pair of legs pivotally connected to said standards, said legs having at least a portion thereof tubular, and an extension telescoped within the tubular portion of each leg and pivotally connected with the seat forwardly of the pivotal connection of the seat with the standards.

11. In a folding chair, the combination comprising a pair of standards, a seat journalled between the standards, upon a pivotal support carried thereby, a pair of legs journalled to said standards, an extension for each leg pivoted to the seat and telescoping within the leg above its pivotal connection with the standard, and means determining the unfolded position of said seat.

12. In a folding chair, the combination comprising a pair of standards, a pair of rear legs pivoted thereto, a seat, means pivotally connecting said seat to said uprights, two pairs of telescopic members intermediate the upper ends of said rear legs and said seat, said pairs of telescopic members each having one member pivotally connected to said seat whereby pivotal movement of said seat in respect to said standards causes the rear legs to pivot in respect to said standards, and means for supporting said seat in an unfolded position.

In testimony whereof I have signed my name to this specification, on this 16th day of April, A. D. 1926.

ALBERT S. KUX.