H. W. MOORE.

CHAIR OR SEAT.

APPLICATION FILED NOV. 17, 1913.

1,100,901. Patented June 23, 1914.

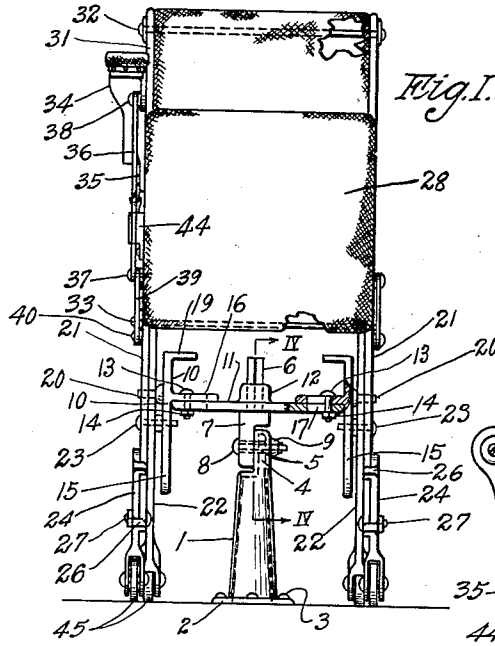


Fig. I.

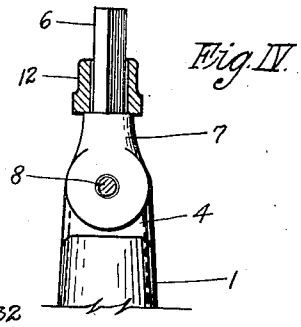


Fig. IV.

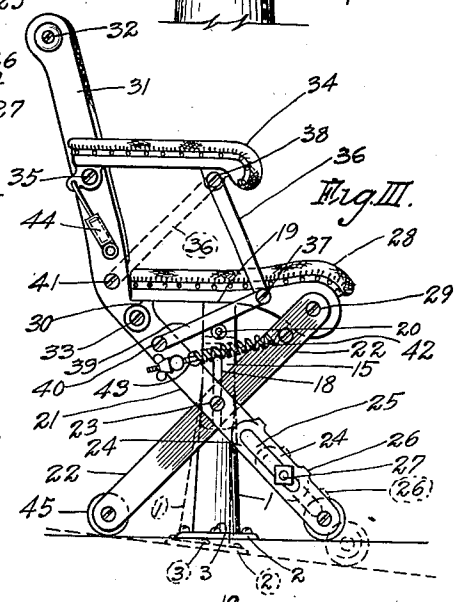


Fig. III.

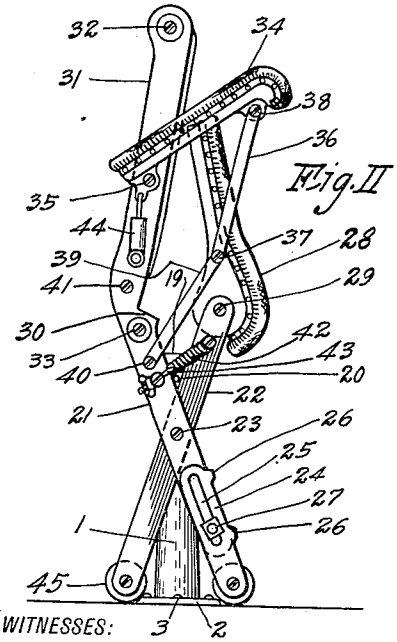


Fig. II.

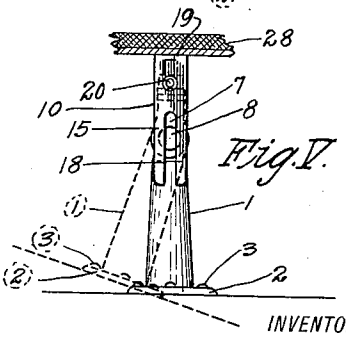


Fig. V.

WITNESSES:

Edmund Abbahill.

Annie L. Greer

INVENTOR

Harry W. Moore.

BY

M. C. Gillham

ATTORNEY

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HARRY W. MOORE, OF KANSAS CITY, KANSAS.

CHAIR OR SEAT.

1,100,901. Specification of Letters Patent. Patented June 23, 1914.

Application filed November 17, 1913. Serial No. 801,396.

To all whom it may concern:

Be it known that I, HARRY W. MOORE, a citizen of the United States, residing at Kansas City, in the county of Wyandotte, in the State of Kansas, have invented a new and useful Chair or Seat, of which the following is a specification.

My invention relates to chairs or seats of that class shown and described in the United States Letters Patent, issued to me August 30, 1910, and numbered 968871.

The object of my invention is: to improve the construction of the chair by the provision first, of a standard disposed beneath the chair, provided with a pivot pin adapted for sitting at variable angles to hold the chair in vertical position on level or inclined floors; second, by the provision of a frame, mounted on the standard, to support the seat of the chair in operative position, which may be adjusted to different widths of chairs; third, by the provision of an arm, which may be folded; fourth, by the provision of a foot, mounted on the forwardly-extending legs, which may be adjusted to level or inclined floors; fifth, by the provision of a bar, movably connecting the seat and one of the legs, to rotate the seat rearwardly upward, when the legs are folded; and sixth, by the provision of a retarding device, to retard the folding of the chair, to prevent shock and noise. These, and further objects, will appear in the following description, it being understood that changes in form, proportions and minor details of construction may be resorted to, within the scope of the appended claim.

In the accompanying drawings: Figure 1. is a front elevation of my improved chair, in folded position; Fig. 2. is a side elevation of my improved chair, in folded position; Fig. 3. is a side elevation of my improved chair, in operative position. Fig 4. is a vertical, sectional view of a part of my invention, on the line IV, IV, in Fig. 1; and Fig. 5 is a side view of a part of my invention, showing the standard and frame in operative position, on level and inclined floors.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The numeral 1 is a standard, preferably formed of metal, which is set beneath the chair and provided with a base flange 2, secured to the floor by fasteners 3. The top of the standard is cut away to form the portion 4, which is apertured to receive a bolt. A pivot pin 6, formed with a shoulder 7 and apertured in its lower extreme, is movably mounted on the cut-away portion by the screw threaded bolt 8, extending through the apertures in the pivot pin, and in the standard and having a nut 9, to clamp the pivot pin with the cut-away portion of the standard at any angle. The pivot pin is formed square above the shoulder for stationary chairs, and formed round for revolving chairs, and the shoulder is spaced apart from the standard to permit its rotary movement.

A frame 10, preferably formed of metal, is mounted on standard 1, and consisting of a transverse plate 11, provided with a boss 12, intermediate its length, the plate and the boss being apertured to receive the pivot pin 6. The plate is also apertured adjacent its ends, through which apertures screw-bolts 13, carrying nuts 14, are extended. Side plates 15 are each formed with a lug 16, intermediate their lengths, and each provided with a slot 17, which lugs slidingly bear on the end portions of plate 11, and are secured thereto by the bolt 13, which extends through the aperture in the plate, and the slot in the lug, the nut 14, on the bolt 13, clamping the latter parts together. The slotted lugs provide means for adjusting the width of the frame to any chair width. The lower extremes of the side plates 15 are slotted as at 18, through which slots the pivot pins of the crossed legs are extended, for a purpose hereinafter explained. A lug 19 is extended inwardly from the upper extreme of each side plate, to provide a support for the seat in operative position. A post 20 is extended outwardly from each side plate, passing between the crossed legs, to support the chair substantially vertical, when the latter is folded.

The chair consists of a pair of crossed legs 21 and 22, and each pair is movably pivoted by the pivot pins 23, the latter being extended inwardly through the slots 18, in the side plates 15, of the frame 10, so that the legs shall be held in proper alinement, the pivot pins sliding vertically in the slots 18, with the up and down movements of the chair

during the unfolding and folding operations. The pivot pins 23 are screw-threaded bolts, carrying nuts, and the heads of the bolts bear against the adjacent surface of legs 21, and the nuts bear against the adjacent surface of the legs 22, clamping the legs together. A detachable foot 24, slotted as at 25, provided with lugs 26, is slidingly mounted on the lower end of legs 21, and the lugs hold the foot to register with the leg. A screw-threaded bolt 27, carrying a nut, is extended through the legs and the feet, to hold them clamped together. The foot may be adjusted to level or inclined floors, by moving the same forwardly or backwardly, as required.

A seat 28, is movably pivoted with the legs 22, as shown at 29, in Fig. 3. The seat in operative position bears upon the shoulders 30, formed with the legs 21, and upon the lugs 19, on the frame 10. A back portion 31, preferably formed integral with the legs 21, between which a chair-back is mounted and secured by the tie rods 32 and 33, extending through the back portion 31 rearwardly of the chair back. An arm 34 is movably pivoted to the back portion 31, as shown at 35, in Fig. 2. A metal bar 36 is movably pivoted at one end to the seat, as at 37, and its opposite end movably pivoted at the arm, as at 38, for the purpose of rotating the arm to and from operative position with the movement of the seat. A metal bar 39 is movably pivoted at one end to the seat, as shown at 37, and its opposite end movably pivoted to the leg 21, as shown at 40, for the purpose of rotating the seat rearwardly and upwardly when the legs are folded, and to open the legs when the seat is pressed downwardly, thus limiting the spreading of the legs to the extent required for bringing the seat to operative position. If the arm 34 is desired to remain fixed in operative position, the lower end of the bar 36 is removed from the pivot, shown at 37, and secured to the pin on the leg 21, shown at 41, and as shown by dotted lines in Fig. 3.

An extension spring 42 attached to a rod 43, having its free end extended through a boss on the leg 21, and provided with screw-threads engaged by a screw-threaded thumb-nut and the opposite end of the spring connected with the leg 22, is provided to hold the legs normally folded, and the thumb-nut on the rod 43 provides means for adjusting the spring tension.

An air piston 44 is movably mounted on the back portion 31, and the stem of the piston is movably connected with the arm 34, for the purpose of retarding the folding movement, to prevent noise and shock. A roller 45 is mounted on the legs 21 and the feet 24.

The chair is made of any suitable material, such as wood, iron, steel and the like, preferably of cast-iron, and the seat bottom and back support is made preferably of wood, which may be decorated or upholstered.

To assemble the chair, the standard 1 is secured to the floor, and the pivot pin 6 adjusted to vertical position. The frame 10 is set upon the standard, with the pivot pin 6 extending through the plate 11, of the frame, the latter bearing on the shoulder 7, of the pivot pin 6, and the slots 18 of the frame engaging the pivots 23, piercing the legs, the posts 20, on the sides of the frame being inserted between the legs.

To move the seat of the chair to operative position, a downward pressure is exerted against the seat, which causes the legs to open and the arm 34 to turn downwardly until the seat rests on the shoulders 30, on the legs 21, and on the lugs 19, of the frame 10, when the seat is in operative position. In this movement the legs, seat and arm move simultaneously, by means of the connecting bars 36 and 39. When the pressure on the seat is removed, the spring 42 reacts, and draws the legs together, which movement turns the seat upwardly and the chair assumes its normal folded position. The air piston, operable by the arm, retards the folding movement until the air in the piston is exhausted. The posts 20, projecting from the frame 10, between the legs, holds the chair substantially vertical in folded position.

If the chair is removed from the frame 10, it becomes a portable, folding chair. If a round pivot pin is used on the standard, the chair will revolve in operative or folded position.

When the chair is mounted on the frame 10, supported by the standard 1, the same moves vertically of the standard during the folding operation, the pivot pins of the legs sliding upwardly in the recesses in the side plates of the frame. When the chair is extended to operative position, the pivot pins of the legs slide downwardly in the slots in the frame.

Having thus described my invention, what is claimed is:

In combination, a folding chair having a pair of crossed legs and one of the legs being provided with an adjustable foot extension, an adjustable tension device adapted to normally hold the legs folded, a back combined with the extension legs, a seat pivotally mounted on the other of the legs and provided with a lever having one end pivotally mounted on said seat and the opposite end pivotally mounted on the extension legs, an arm pivotally mounted on the back portion and provided with a lever having one end pivotally mounted on said arm and the opposite end pivotally mounted on the seat, a retarding device mounted on the back por-

tion and adapted to retard the movement of the arm from operative to normal position, a supporting frame slidably mounted beneath the seat in engagement with the pivot pins piercing the crossed legs and provided with posts extending between the crossed legs, and a standard having an adjustable pivot pin in engagement with the supporting frame and adapted for holding the chair in vertical position.

HARRY W. MOORE.

Witnesses:
ROBERT O. MCLIN,
ANNIE L. GREER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."