(No Model.)

J. D. HOWE.

CHAIR.

No. 534,069. Patented Feb. 12, 1895.

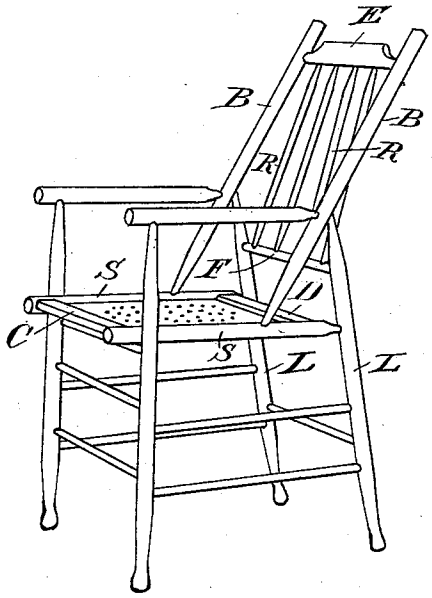
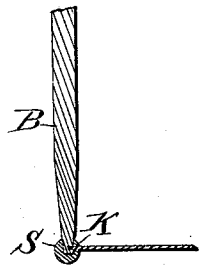


Fig. 1

Fig. 4.



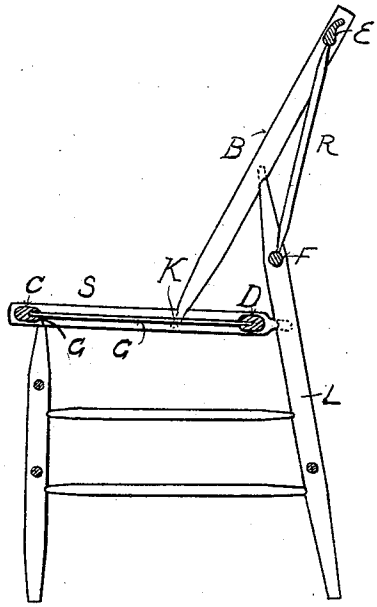
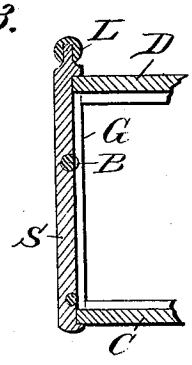


Fig. 2

Fig. 3.



Witnesses

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CHAIR.

SPECIFICATION forming part of Letters Patent No. 534,069, dated February 12, 1895.

Application filed June 13, 1893. Serial No. 477,485. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. HOWE, of the city and county of St. John, Province of New Brunswick, Canada, have invented new and useful Improvements in Chairs, of which the following is a specification.

The object of my invention is to provide a chair that in the semi knock down state will pack into a comparatively small space, that from that state can be accurately and easily put together by one having very little experience; and when properly put together will be very strong, light and durable. Almost all the parts are preferably made of straight, turned wood.

The invention consists in tenoning the side bars of the seat into the rear legs which are extended above the seat, and tenoned into the back of the sloping side pieces of the back at a point part-way between the ends of said back bars, and said back bars in their turn are tenoned into the side bars of the seat at a point on each part-way between the rear and front. Preferably the mortise holes are from a third to a half the length of each piece from its tenoned end. These three parts, viz: the side bar of the seat, the rear leg extended above the seat, and the sloping side bar of the back, when put together in this way form a triangular joint at or above the seat, and with the addition of the side rung or rungs below the seat, the front leg and, if used, the arm-bar, form the side frame of the chair; and the said three pieces jointed together in this way and fastened with glue and the key described below form an exceedingly strong joint. In putting them together, with close fitting tenon and mortise, the parts must be slightly sprung to get them driven together or to get them apart again, so that this force helps the glue in holding the joints together, and the position of the joints is so arranged that in ordinary use the only one of the three tenons that has much tendency to draw is the one at the end of the side bar of the back and this joint is strengthened by the key. The keys are formed by the side edges of the panel or slat seat bottom let into grooves in the edge of the side bars of the seat, said grooves being cut into the sides of the tenons of the side pieces of the back. Then again as a triangular system is the strongest against deformation, I have arranged the parts of the back to form such a triangular bracing, the upper and lower rails of the back acting as abutments for the rungs or filling which form one side, while the continuation of the rear leg above the seat and the sloping side bar of the back above its connection with the rear leg, on each side, form the other sides of the triangular bracing as appears on the sectional view of the chair Figure 2; in this way not only adding strength to the chair, but placing the support for the sitter's back in the most comfortable position. The seat bottom or filling is preferably a paneled one as intimated above.

In the accompanying drawings in which similar letters of reference refer to like parts, Fig. 1 is a perspective view of the chair, shown with arms. Fig. 2 is a section of the chair through the center of the back and seat, but is shown without arms. These two chairs are the same as far as the back, back legs and seat are concerned. Fig. 3 is a partial sectional plan of the seat and tenon at the part where the tenon on the end of the side bar of the back is held, and Fig. 4 is a partial cross section of the seat and side bar of the back in line with said side piece, showing the edge of the panel-seat piece which acts as the key, and the groove in the side bar of the seat and in the side of the tenon on the end of the side bar of the back, which I call the key way.

B B are the side bars of the back.

L L are the rear legs.

S S are the side bars of the seat; C and D, the front and back rails of the seat respectively; E and F, the top and bottom rails of the back, and R R R are the rungs of the back filling.

At K is shown the key or edge of the panel-seat bottom fitted into the groove, G, in the edge of the seat bar, which also cuts into the side of the tenon on the end of the side bar of the back.

A side frame is composed of a side rail, S, of the seat, a side bar, B, of the back, a rear leg L, a front leg, one or more side bars below the seat, and an arm bar if used. These pieces being turned or shaped, with the mortises and tenons, necessary to put them to-

gether, it is proposed to put them together in the factory, then to cut the remaining mortises and to groove the side rail of the seat to receive the edge of the panel.

I do not claim a triangular bracing of the side of the chair such as shown in Hunzinger's patent, No. 88,297, dated March 30, 1869, nor in De Lill's patent, No. 368,528, dated August 16, 1887, nor yet in Clayton's patent, No. 335,428, dated February 2, 1886; but

What I claim is—

1. A chair comprising side frames connected by a seat, each side frame composed of front and rear legs a back bar and connecting bars, the rear legs extending above their point of connection with the seat-bars, back bars having connection with the seat bars in front of the point at which the rear legs and seat bars are connected and secured to the upwardly extending rear legs, and a back frame secured at its lower end to the rear legs and at its upper end to the back bars; as shown and described.

2. A chair comprising side frames connected by a seat, each side frame composed of front and rear legs a back bar and connecting bars, the rear legs extending above their point of connection with the seat-bars, back-bars having connection with the seat-bars in front of the point at which the rear legs and seat-bars are connected and secured to the upwardly extending rear legs, grooves in said seat bars and back-bars a seat panel fitting in the grooves and a back frame secured at its lower end to the rear legs and at its upper end to the back bars, as shown and described.

3. A chair comprising side frames connected by a seat each side frame composed of front and rear legs a back bar and connecting bars, both front and rear legs extending above their point of connection with the seat bars, back bars having connection with the seat bars in front of the point at which the rear legs and seat-bars are connected, and secured to the upwardly extending rear legs, arm bars having connection with the back bars and secured to the upwardly extending front legs and a back frame secured at its lower end to the rear legs and at its upper end to the back bars, as shown.

JOHN D. HOWE.

Witnesses:
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