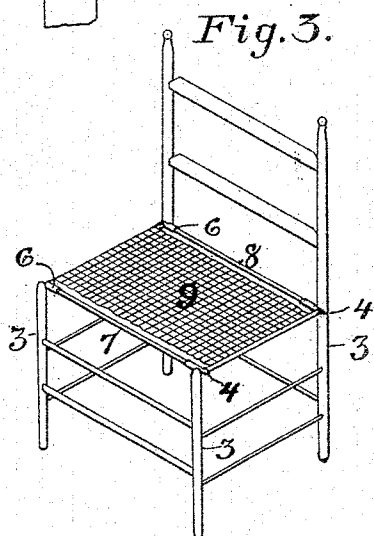
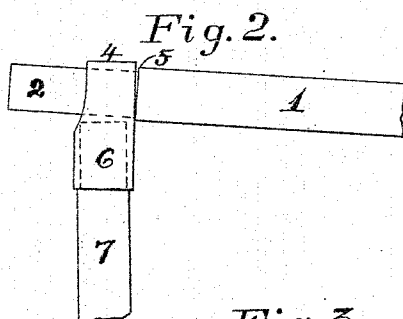
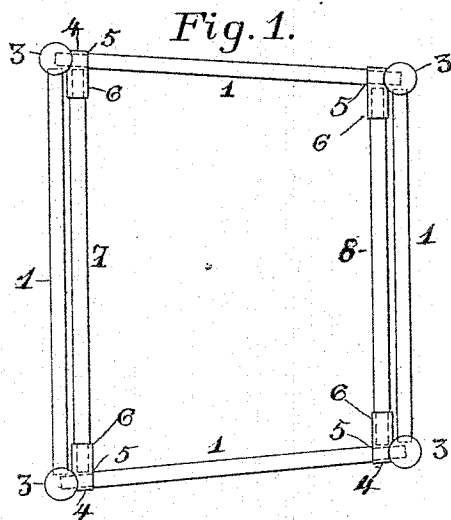


(No Model.)

A. VOSE.
CHAIR.

No. 491,300.

Patented Feb. 7, 1893.



Witnesses.

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UNITED STATES PATENT OFFICE.

ALBERT VOSE, OF PITTSFIELD, VERMONT.

CHAIR.

SPECIFICATION forming part of Letters Patent No. 491,300, dated February 7, 1893.

Application filed August 11, 1891. Serial No. 402,400. (No model.)

To all whom it may concern:

Be it known that I, ALBERT VOSE, a citizen of the United States, residing at Pittsfield, in the county of Rutland and State of Vermont, have invented certain new and useful Improvements in Chairs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

It is the purpose of my invention to provide a simple and novel construction of seat-frames for chairs, and particularly for knock-down chairs, whereby the four-sided frame, which is mortised into the legs at the ends of the side-stretchers, only, shall be rigid and firm, and its mortised members have strong, positive support, and be capable of sustaining weight without sagging the mortised bars, or turning the couplings by which they are connected to the two mortised bars.

It is my purpose, also, to provide a chair having a seat-frame, the parallel side-stretchers thereof being mortised into the front and rear legs, and the front and rear seat-supporting bar of said seat frame positively connected to the side-bars or stretchers, upon the inner side of the front and rear legs, by straight metallic couplings, in such manner that the line of strain upon said couplings is substantially coincident with the axes of the front and rear bars, whereby a stiff, rigid seat is formed, and whereby space is provided for the insertion of front and rear stretchers to spread the frame and protect the edges of the seat.

The invention consists, to these ends, in the novel features of construction and new combinations of parts hereinafter fully set forth and then more particularly pointed out in the claims following this description.

To enable others skilled in the art to understand and to make, construct and use my said invention, I will proceed to describe the same in detail, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of the seat frame, with the chair-back in section and the cane, or outer seat, removed. Fig. 2 is a detail plan

view of the coupling uniting the seat supports to the seat-supporting frame. Fig. 3 is a perspective view of an entire chair, showing the seat attached, and the front and rear stretchers of the seat supporting frame removed to expose the seat supports.

The reference numeral 1 in said drawings indicates the seat supporting frame of the chair, which consists of a front and rear stretcher and two side stretchers, as usual. Two of these stretchers, as, for example, those upon the sides, are provided with reduced end-portions, or tenons, 2, which enter mortises in the uprights, or legs 3, as shown in Fig. 1. The extremities of the front and rear stretchers usually rest in shallow notches, or seats, in the uprights, merely sufficient to prevent them from displacement by slipping. The tenons 2 of the side-stretchers are prolonged sufficiently to receive a coupling upon each, said coupling consisting of an eye 4, which surrounds the reduced portion, or tenon, and lies between the shoulder 5, at the base thereof, and the upright, or leg, entered by the end of the tenon, by which a firm support is given and all displacement or play, prevented.

The coupling is substantially straight, its end being provided with a socket 6, which receives the end of the seat-supporting bar 7. As these couplings are practically continuations of these bars, the line of strain will be substantially coincident in both the bars and the couplings, and will be applied in a direct line to the side-stretchers, thereby giving a stiff, rigid frame, capable of sustaining a weight without sagging the front and rear seat-supporting bars and without causing the couplings to turn upon the mortised stretchers and drop the bars 7 below the level of the side-stretchers. A parallel and similar support 8 is mounted in two other like couplings with the reduced ends or tenons at the other extremity of the side-stretchers. It will be noted that these seat supports 7 and 8 constitute, with the couplings, the connecting devices by which the lateral portions of the seat frame are held together. The connection between the front and rear sections, or parts, is effected by the side stretchers. The eyes 4 of the couplings being mounted on the side-stretchers adjacent to the inner sides of the

front and rear legs, and the couplings being substantially straight, a space is left between the front legs and adjacent to the seat-supporting bar 7, and a like space, also, is formed between the rear legs and having a similar relation to the rear seat-support 8. This space is utilized as follows:

The seat 9, is applied to the seat-supports 7 and 8, over which it is drawn in any ordinary way, its front and rear edges lying between the front and rear seat supports and the correspondingly located stretchers, which lie close to, and in substantial parallelism with, the seat supports. The edge of the seat, and especially the front edge, which is peculiarly exposed to wear, is well protected by this construction. The rearward edge, also, which is always liable to be worn by the feet of those sitting in rear of other chairs, owing to the habit of many persons of resting the feet upon some elevated support in front of them, receives full protection by the rearward stretcher. The front and rear stretchers may be regarded, also, as spreaders, since they serve to hold the lateral portions of the seat frame apart, while one function of the seat-supports 7 and 8 is exactly opposite in character, since it is by them that the lateral portions of the seat frame are held together and abutting upon the ends of the front and rear stretchers. It will be noticed, also, that when the seat 9 is applied, it holds the seat-supports 7 and 8, upon the side stretchers, drawing the eyes 4 closely up against the shoulders 5, and making practically a unitary structure of the parts shown in Fig. 1, as well as the side stretchers and seat supports, when the chair is knocked down, to be packed for transportation, or for other purposes.

Heretofore and prior to my invention the four bars of a seat frame have been connected by corner-clamps, curved to measure an angle of ninety degrees, or nearly so, and having at each end a ferrule surrounding the intersecting bars. As only two of these bars are mortised into the legs, it will readily be seen that the imposition of weight will be very

liable to depress the two bars which are not mortised into the legs, and thereby turn the clamps partly around upon the mortised ends of the other bars. To drive cross-pins through the tenons will only cause them to split under the tensional strain and is very objectionable for other reasons. Moreover, the curved angle-clamp brings the front and rear bar into the space between the legs, where I desire to place the protecting bars.

What I claim is:

1. A seat-frame for a chair, consisting of side stretchers mortised into the chair-legs, front and rear seat-supporting bars disconnected from the legs but positively connected to the side stretchers on the inner sides of the legs by couplings having sockets receiving the ends of the seat supporting bars and provided with eyes surrounding the side stretchers, said couplings being substantially straight continuations of the seat-supporting bars, whereby the line of strain in said couplings is substantially identical with the axes of the front and rear seat-supports, substantially as specified.

2. A seat-frame for a chair, consisting of side stretchers mortised into the front and rear legs, front and rear seat-supporting bars disconnected from the legs, metallic couplings having sockets entered by the ends of the seat-supporting bars in the longitudinal line of the sockets, and provided at their other ends with eyes engaging the side stretchers adjacent to the legs, said couplings being substantially straight continuations of the front and rear bars, and front and rear stretchers lying in the spaces between the front legs and rear legs and lying parallel with and adjacent to the seat-supporting bars, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT VOSE.

Witnesses:

S. P. WILLIAMS,
ELLA M. BALLOU.