J. A. S. SIMONSON.

CHAIRS AND SETTEES.

No. 193,731. Patented July 31, 1877.

Fig. 1

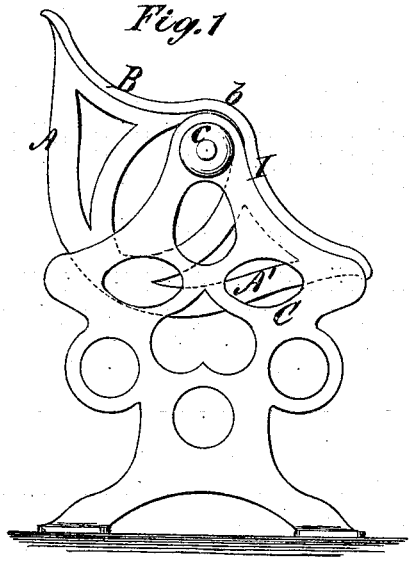


Fig. 2

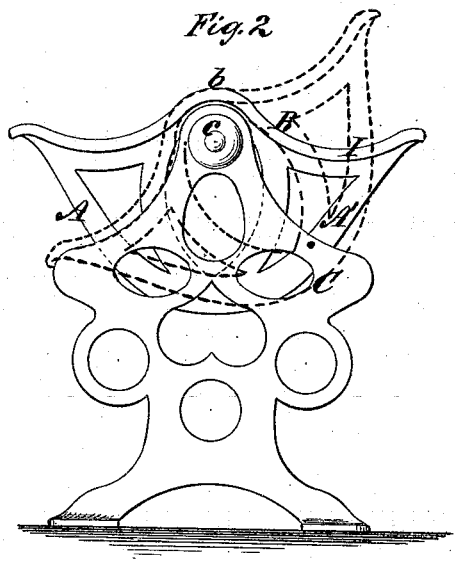


Fig. 3

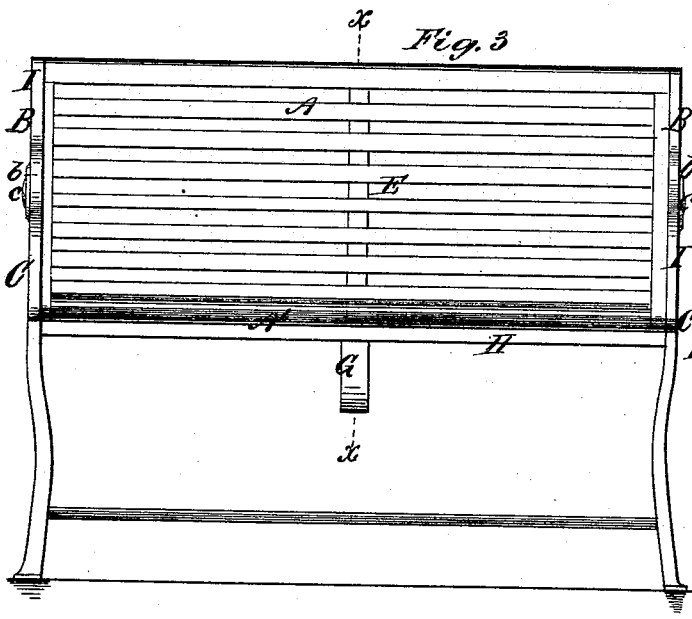


Fig. 4

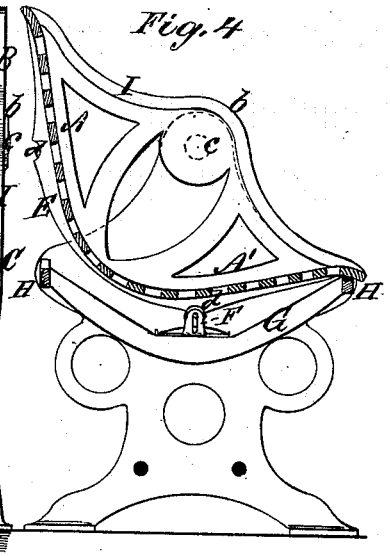


Fig. 5

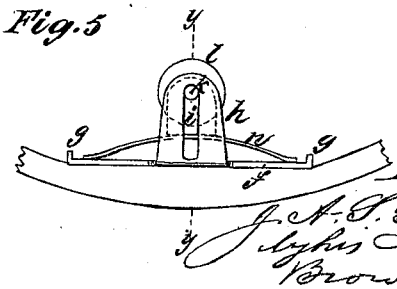
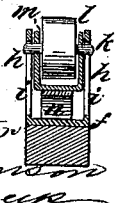


Fig. 6



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JACOB A. S. SIMONSON, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN CHAIRS AND SETTEES.

Specification forming part of Letters Patent No. 193,731, dated July 31, 1877; application filed May 1, 1877.

To all whom it may concern:

Be it known that I, JACOB A. S. SIMONSON, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Chairs or Settees, also applicable to use as a swinging cot, cradle, or sleeping-berth; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to reversible chairs or settees; and has for its principal object the adaptation of such a chair or settee to use as a swinging cot or cradle, or sleeping-berth for steamboats, car-seats, &c., or for domestic use. It has, moreover, for its objects the securing of greater strength and durability in the construction of such chairs or settees, and a noiseless action in reversing them or adjusting them for use as a swinging cot, cradle, or sleeping-berth.

The invention consists partly in the combination, with a reversible chair or settee composed of two united parts, either of which may be used as a seat or a back, of united reversible arm-rests, which also serve as end pieces for the interchangeable and reversible united parts, forming a seat and back, suspending pivots arranged midwise in said united reversible arm-rests, and rests or stops, which help to support the reversible parts when in use.

The invention also consists in the combination, with the pivoted end pieces of a reversible chair or settee, and the end supports for the same, of flanges formed on the said pieces, and which rest on the said end supports for relieving the pivots from strain when the whole is used for a chair or settee.

The invention also consists in the combination, with the reversible chair or settee, having recessed stops formed in or on its bottom, of a compound metal and rubber spring, which engages the stops to hold the reversible seat and back in position, as hereinafter described.

A chair constructed according to my invention differs only in its length from a settee. It will, therefore, be sufficient to describe a settee so constructed to fully illustrate my invention.

Figure 1 in the drawing represents an end view of a reversible settee constructed in accordance with my improvement, and adjusted for use as a settee. Fig. 2 is an end view of the same adjusted for use as a swinging cot, cradle, or sleeping-berth. Fig. 3 is a front view of the same adjusted for use as a settee. Fig. 4 is a vertical section on the line *x x* in Fig. 3. Fig. 5 is a side view of the compound spring which fastens the settee when adjusted for use as a settee. Fig. 6 is a vertical transverse section on the line *y y* in Fig. 5.

A and A′ represent, respectively, two similar interdependent conjoined and coacting parts of a settee, either of which may be used as a seat or as the back of a settee, according as the said settee is adjusted in the position shown in Figs. 1, 3, and 4, or in the reverse position shown in dotted outline in Fig. 2.

To each end of the settee is joined an end piece, B, the upper part of which is provided with a central swell or projection, *b*, of such form and proportions that, when the structure is used for a settee, one side or the other of said projection or swell forms a comfortable arm-rest.

The parts A A′ and end pieces B form one continuous structure, which is pivoted to the end supports C by pivots *c* passing through the upper part of the said end supports C, and through the upper and middle part of the end pieces B, in such manner that the continuous structure A A′ B B may be centrically suspended from said pivots and adjusted in the position shown in full outline in Fig. 2, for use as a swinging cot, cradle, or sleeping-berth.

On or in some part of the under side of the structure A A′ B B, I form stops *d d*, preferably notches, in the middle curved cross-bar E, Figs. 3 and 4; but recessed stops may be formed or attached at any other part of the under side when placed in proper relation with each other and the compound spring F, Fig. 4, hereinafter described, and which engages one or other of said stops to fasten the said structure A A′ B B in position when used as a settee.

Said compound spring is shown in detail in Figs. 5 and 6. It consists of a flat base-plate, *f*, having the short vertical lugs *g* at its ends, and the longer slotted vertical lugs *h* at the sides thereof. In the slots *i* of the lugs *h*

play vertically the pivots *k* of the elastic roller-spring *l*, said roller-spring being preferably made of india-rubber, or a composition of the same. The said pivots are also fitted in holes formed in the U-shaped bearing *m*, Fig. 6, the base of which rests upon the metal spring *n*, which is preferably a bent plate-spring, placed convex side uppermost between the lugs *h* of the base-plate *f*, the ends of said plate-spring resting on said base-plate and sliding on the same when in use. The spring thus formed is placed in proper relation with the stops *d d*, and attached to a suitable support, (preferably a cross-bar, G, attached to the bar-rests H,) and engaging one or other of said stops fastens to the reversible structure A A′ B B in position when used as a settee. Each of said bar-rests H performs two functions, one of which is the support of the outer edge of the part A or the part A′, when said parts are adjusted either in the position shown in Figs. 1, 3, and 4, or in that shown in dotted outline in Fig. 2. The other function is the bracing of the end supports C, and the said rests or stops H may consist of projections from the inner sides of the said end supports, or they may be otherwise constructed and arranged to limit the turning of the parts A A′ on the pivots *c*, and support said parts in proper position to be used as a settee.

Extending along the upper and outer border of the end pieces B is a flange, I, the under side of which is composed of two similar and equal curves, having the same configuration as that of one-half of the upper margin of the end supports C. When the structure is adjusted for use as a settee, said flanges rest upon one side or the other of the tops of said end supports, and support said end pieces and the attached parts A A′ independently of the pivots *c*, relieving said pivots from strain while the said parts are so adjusted.

The rests H, of whatever form they may be, are preferably cushioned with rubber to prevent noise in reversing the parts A A′.

The compound spring F, when engaged with either of the stops *d d*, holds the parts A A′ from too easily reversing, but not so firmly as to prevent the ready reversing of the same by slight exertion of the hand, and its engagement with the stops is perfectly noiseless. When persons are sitting on the settee, its natural elasticity causes the spring F to engage the stops *d* with greater force than when no weight rests on the seat, and consequently to hold the reversible structure more firmly.

These settees will be found very convenient for Sunday-schools, as a short seat can be arranged between long ones, and the short and long ones faced in opposite directions, and they make no disagreeable noise in reversing them. They are also well adapted to use in railway-cars and on steamboats, as they can readily be converted into comfortable sleeping-berths.

In domestic use such a settee furnishes a useful cradle or bed for children.

Double reversible seats, having double reversible arm-rests, have heretofore been in use, and transverse bearings or bars for supporting a double reversible seat in either position to which it may be adjusted are also old; and, further, detents have been used for holding or locking a reversible seat in its adjusted position, and such features I do not broadly claim; but

I claim—

1. The combination, with the reversible parts A A′, each acting as a seat or a back, of the end pieces B, forming united reversible arm-rests, the suspending-pivots *c*, arranged midwise in the said united arm-rests, and the rests or stops H, the whole combined substantially as and for the purpose set forth.

2. The combination, with the pivoted end pieces B of the reversible chair or settee, and the end supports C, of the flanges I on the said end pieces, for relieving the pivots from strain when the whole is used as a chair or settee, substantially as and for the purpose set forth.

3. The combination, with the reversible seat and back A A′, having in or on the bottom recessed stops *d* of the compound metal and rubber spring F, substantially as and for the purpose specified.

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