J. F. ELLER.
Swing.

No. 198,091. Patented Dec. 11, 1877.

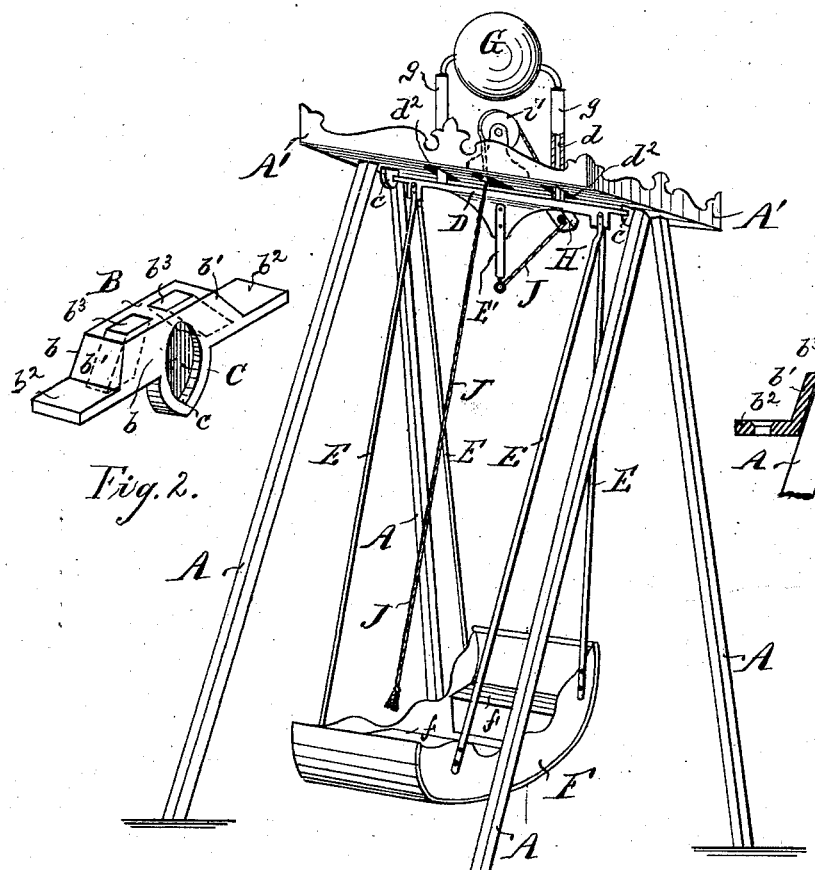

Fig. 1.

Fig. 2.

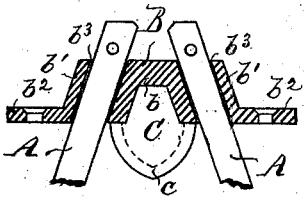

Fig. 3.

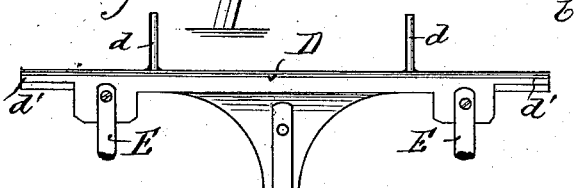

Fig. 4.

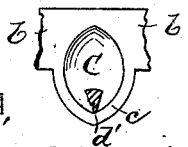

Fig. 5.

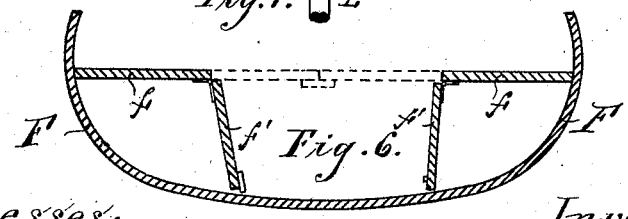

Fig. 6.

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UNITED STATES PATENT OFFICE.

JOHN F. ELLER, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN SWINGS.

Specification forming part of Letters Patent No. **198,091**, dated December 11, 1877; application filed October 24, 1877.

To all whom it may concern:

Be it known that I, JOHN F. ELLER, of St. Louis, in the county of St. Louis and State of Missouri, have invented an Improved Parlor-Swing, of which the following is a specification:

This invention will first be fully described, and the novel features thereof hereinafter pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my improvement. Fig. 2 is a perspective view of one of the castings used. Fig. 3 is a section through the casting, showing the upper ends of the legs passing through same. Fig. 4 is an enlarged side elevation of the swinging bar and its parts. Fig. 5 is a detail, showing the knife-edge of the swinging bar engaging the shoulder-bearing of the casting. Fig. 6 is a longitudinal section through the seat.

The supporting-frame consists of the legs A and the canopy A′, from which the swinging parts are suspended. The legs A are secured at top in the canopy as follows: I cast a casting, B, of the constructive shape shown in Figs. 2, 3, said casting having the longitudinal sides *b b*, and the sloping transverse sides b^1 b^1, terminating with the shoulders b^2 b^2. In the body of the casting B are made two mortises, b^3 b^3, the opposite transverse faces of which slant or incline. (See dotted lines in Fig. 2, also shown in Fig. 3.) It is through the mortises b^3 b^3 that the upper end of each leg passes to be united to the casting and canopy, the inclination of the faces b^3 b^3 being to suit the inclination of the legs when spread transversely to the position of the canopy. The side *b* of the casting is made slanting, to enable the legs to be secured thereto so that the legs can have their lower ends spread somewhat apart in a direction longitudinal to the position of the canopy, and thus make a still further support for the swing proper.

Forming part of the casting B is a lug projection, C, having the shoulder-bearing at *c*. (See Figs. 1, 2, 3, and 5.) Two of the castings B are constructed for each swing, each casting fitting in a corresponding mortise made near each end of the canopy, (see Figs. 1, 2, and 3,) and secured to same by bolts passing through the shoulders b^2 b^2, firmly fastened with nuts. The upper ends of the legs pass through the respective mortises b^3, and are secured in any proper manner.

D is the swinging bar of metal, cast with upright pins *d d*, the ends of said bar at d^1 d^1 being knife-edges, (see Figs. 1 and 4,) the knife-edges being to engage the shoulder-bearings *c*, and a counter-weight engaging the pins *d d*. Near each end of the swinging bar D is bolted the upper end of the hangers E, the lower end of each thereof being bolted to the corners of the seat. (See Fig. 1.)

E′ is a vertical arm. Its upper end is bolted to the swinging bar D, the lower end of the arm being carried down, as indicated in Fig. 1, in center of the seat.

F is the seat. This can be of ordinary pattern and construction, but I prefer to make a seat having the following constructive features: My object is to be capable of converting the seat into a cradle. Hence I construct the seats *f* proper to have hinged thereto one or more wings, *f′*. (See Figs. 1, 6.) Both the opposite wings *f′* can be raised and secured in a horizontal position, thus forming a false bottom, which changes the seat F into a cradle. (See Fig. 6.) When not used as a cradle the hinged wings are placed vertical, or folded out of the way, and the seats *f* properly used as such. (See full lines in Fig. 6.)

In order to swing or oscillate the seat F (or cradle) so suspended from the bar D, the following arrangement of parts is provided: There are two slots, d^2 d^2, in the canopy, through which the pins *d d* of the bar passes, and with sufficient clearance for said pins to oscillate.

G is a counter-weight, having the hollow stems *g*, which engage the pins *d d*, (see Fig. 1,) said weight being to counterbalance and ease the oscillation of the swinging parts.

H is a projecting arm, secured to the canopy so as to incline to the rear thereof, (see Fig. 1,) and in the lower end of said arm a roller is provided. Top of the canopy is secured a bracket containing a grooved roller, *i′*. The arm *h* and roller *i′* are arranged in line with the center arm E′. (See Fig. 1.)

J is the cord. One end thereof is secured to the arm E′; thence said cord is carried over the roller in the arm H, from thence over

the top roller i' down through a slot in the roller-bracket and through the canopy, and finally said cord is carried down in front of the center arm within the reach of the operator. (See Fig. 1.) But a slight vertical reciprocation of the cord J oscillates the swinging parts. The swinging action is, by this construction and arrangement of parts, facilitated by the fact that the cord is passed from the center point over the rear projecting arm H, and carried forward over the top roller i'. Specially be it noted that the knife-edge bearing of the swinging parts reduces the friction to the least, and added to which is the counter-balance to produce a swing easy for operation.

When the cradle is used, the cord J, instead of passing through the canopy, can be carried over the front of same, and made to extend to any distance, so that the operator can swing the cradle seated away from same.

The seat or cradle can be disengaged from the hangers, and in its place a hobby-horse, &c., can be secured.

What I claim is—

1. In a swing, the bracket B, having the mortises b^3 b^3, the lug-projection C with the shoulder-bearing c, as and for the purpose set forth.

2. The swinging bar D, having knife edges d^1 d^1, in combination with the shoulder-bearings c, as and for the purpose set forth.

3. The counter-weight G, having hollow stems g, in combination with the pins d d, as and for the purpose set forth.

4. The combination of the hinged sectional wings f' with the seats f, as and for the purpose set forth.

5. The combination of the cord J, roller i', arms H E′, bar D, having knife-edges d^1, the bearings c, hangers E, seat F, the canopy A′, legs A, all said parts being constructed to operate in the manner and for the purpose set forth.

6. The combination, with the parts mentioned in the preceding claim, of the pins d d, and counter-balance G, to operate as set forth.

In testimony of said invention I have hereunto set my hand.

JOHN F. ELLER.

Witnesses:

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