

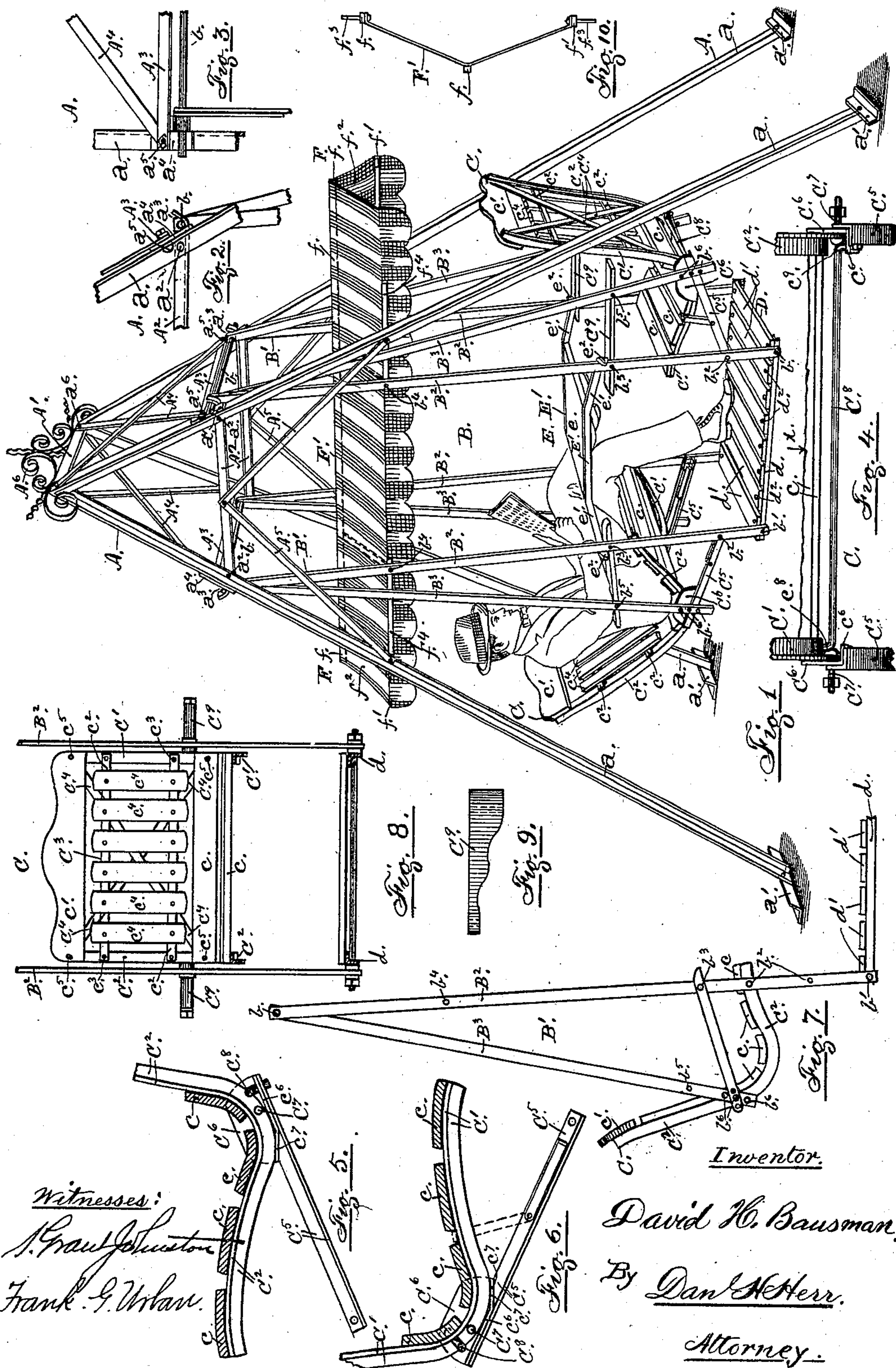
No. 725,396.

PATENTED APR. 14, 1903.

D. H. BAUSMAN.  
LAWN SWING.

APPLICATION FILED JULY 28, 1899.

NO MODEL.





# UNITED STATES PATENT OFFICE.

DAVID H. BAUSMAN, OF BAUSMAN, PENNSYLVANIA.

## LAWN-SWING.

SPECIFICATION forming part of Letters Patent No. 725,396, dated April 14, 1903.

Application filed July 28, 1899. Serial No. 725,350. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID H. BAUSMAN, a citizen of the United States, residing at Bausman, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Lawn-Swings; and I do hereby 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.

This invention relates to improvements in a swing of that class in which two oppositely-disposed chairs are pivoted in position to the lower portions of hangers consisting of side bars or straps having their upper ends rigidly affixed to rods or shafts whose ends roll or rock in bearings arranged in the upper portion of the framework supporting the swing; said arrangement constituting the chief feature of the invention, in which an awning is arranged to shade the chairs and a table provided between them, with a pivoted platform constituting a foot-rest for the occupants of the chairs.

The object of the invention is to provide a portable article of lawn equipment for pleasure or recreation, to be used in private grounds, public parks, or other places of resort.

The elements of the invention will severally and at large appear in the following description, and they will be separately and collectively set forth in the appended claims.

The purposes of the invention are attained by the mechanism, means, and devices illustrated in the accompanying drawings, similar reference characters designating like parts throughout the several views, in which—

Figure 1 is a perspective view of a fully-equipped swing embodying the elements of the invention. Figs. 2 and 3 are enlarged views, in side and end elevation, of a portion of the framework, showing the bearing supporting the upper end of the near hanger. Fig. 4 is an enlarged rear end view, in direct elevation, of a portion of the right-hand end chair in Fig. 2 detached from its hanger at the pivot-joints, showing its oscillating or rocking joints, with the recovering-spring and the upper portions of the oscillating-joint-supporting strips in place. Figs. 5 and 6 are elevations taken at a point  $x$  in Fig. 4,

showing the construction of said oscillating or rocking joints with the supporting-strips completed. Fig. 7 is a full side elevation of the left-hand end hanger detached from Fig. 1, showing pivoted thereto a chair without said oscillating or rocking joints. Fig. 8 is a direct elevation, viewed from the right of the lower portion of Fig. 7, showing the spring or yielding back of the chair in full front view. Fig. 9 is a direct plan, horizontally placed, of the arm-rest detached from Fig. 8; and Fig. 10 is an end view of the awning-frame detached from Fig. 1.

Now for the purposes of the invention the construction comprises the supporting-framework A, the swinging frame or rack B, the oscillating or rocking chair C, the platform or foot-rest D, the table E, the awning F, and, last but not least, the manner in which the upper ends of the hangers of the swinging rack are supported by the framework, especially the bearing of said support  $a$ .

The supporting-frame A has four posts  $a$ , arranged in pairs, two on each side, having their upper ends joined in the form of an inverted V and rigidly secured in any approved manner to the extremities of a tip cross piece or beam  $A'$ , having the required length to gage the width of the framework, each inverted V constituting a side thereof. These posts, together with the cross-piece  $a$ , preferably made of angle-bars of steel, arranged as shown in the drawings, and the posts have rigidly secured to their lower ends cross pieces or strips  $a'$ , also of angle-bar metal, to constitute bases or feet supporting the frame-work on the ground and preventing the posts from entering therein at the height of the swinging rack yet to be described. On each side of the framework the end posts  $a$  are bound together by bars or beams  $A^2$ , as shown, being rigidly secured thereto, as by rivets or bolts  $a^3$ , and having their vertical flat sides cut away flush with the outer faces of said end posts and their horizontal flat sides beyond said faces turned up into folds or recesses  $a^3$ , constituting the hanger-shaft bearings before mentioned, while a plate  $a^4$  may be placed against the outer face of each post, and these plates are secured in place by the bolts  $a^5$ , as shown, said plates serving as liners against the wearing of the



hanger-shafts into the adjacent faces of the end posts at these points. Onto the bolts  $a^5$  are secured the ends of cross beams or bars  $A^3$ , as shown, to hold the end posts crosswise in place, gaging the width of the framework at these points. In the spaces between the cross-bars  $A^3$  and the top piece  $A^1$ , with their lower ends secured onto the bolts  $a^4$   $a^5$  and their upper ends rigidly secured to the sides of said top cross-piece near the extremities thereof, as by bolts or rivets  $a^6$ , are arranged cross-braces  $A^4$ , assuring firmness or steadiness to the sides of the frame, while brace-bars  $A^5$ , with their upper ends secured to the centers of the side beams and their lower ends secured to the respective end posts  $a$ , as shown, serve to assure firmness or steadiness to the ends of said frame, and to the top of the frame may be secured any ornamental finial  $A^6$ , as the scrollwork of scrap-iron, as shown in Fig. 1.

The swinging frame or rack B consists of two hangers  $B^1$ , arranged in the opposite ends of the framework, as shown, each hanger having a rod or shaft  $b$  with its ends engaging or turned in the bearing-recesses  $a^3$ , as shown, adjacent to said bearings. With their upper ends rigidly secured to said shafts  $b$ , as by being shrunk or driven thereon, are arranged straps or strips  $B^2$   $B^3$ , the forward or adjacent one,  $B^2$ , being practically parallel to each other and somewhat longer than the rearward or outer ones,  $B^3$ . These bars at prescribed points are provided with orifices  $b^1$   $b^2$   $b^3$   $b^4$   $b^5$   $b^6$ , as shown, completing the swinging rack and adapting it to pivotally support the chairs, the foot-rest, the table, and the awning.

In the construction of the swing two chairs C are used, being pivoted right and left to the hangers, one being on each side of the rack. Since the chairs are exact counterparts, one only will be described. In the construction of the chair two pieces  $C^1$   $C^2$ , of angle metal, are shaped as shown, being practically L-shaped in form to constitute the supporting sides thereof. To the horizontal portions of these sides are rigidly secured in any approved manner a number of slats or strips  $c$ , constituting the seat portion of the chair, and the vertical portions constituting its back have rigidly secured to their upper ends a strip or board  $c'$ , and between this board  $c'$  and the upper slat of the seat is arranged the yielding back  $C^3$ , comprising two straps or strips  $c^2$  of spring metal, having their ends rigidly secured onto the forward faces of the side pieces  $C^1$   $C^2$ , as by screws or rivets  $c^3$ , said straps or strips  $c^2$  having secured to their forward faces, as by rivets, the required number of vertically-arranged strips or slats  $c^4$ , and behind them are arranged cross-pieces  $C^4$ , also of spring metal, with their extremities rigidly secured onto the rear end of the side faces  $C^1$   $C^2$  by the bolts or screws  $c^5$ , also securing the upper slat  $c$  of the seat and the top backboard

$c'$ . In mounting the chairs C to their respective hangers pieces or bars  $C^5$ , preferably of angle-bar metal, have their lower or forward ends pivoted to the hanger-straps  $B^2$  by pins or bolts through the orifices  $b^2$  thereof, and to the upper or rearward ends of these bars are rigidly secured plates  $C^6$ , having inwardly-projecting flanges  $c^6$  along their lower edges, with their forward ends turned up to form stocks or seat-rests  $c^7$  for engagement against the lower edges of the chair sides pivoted thereto, as by bolts  $C^7$ , passing through its side pieces  $C^1$   $C^2$  and through the plates  $C^6$ , as well as through one of the orifices  $b^6$  of the hanger-straps  $B^3$ , as shown, while a torsional spring-rod  $C^8$ , with one end  $c^8$  turned up through the side piece  $c'$  of the chair and the other end  $c^9$  turned down through the flange  $c^6$  of the plate  $C^6$  adjacent to its side piece  $C^2$ , serving to hold said chair in normal position, allowing it to oscillate or rock to and fro, as may be desired, and strips of pieces  $C^9$  are pivoted to the hanger-straps  $B^2$   $B^3$  by bolts or pins through the orifices  $b^3$   $b^5$ , as shown, constituting arm-rests for the occupants of the chairs.

At the lower end of the swinging rack is arranged the platform or foot-rest B, extending between the hangers, as shown. Extending from the straps  $B^2$  of the opposite hangers are pieces or bars  $d$ , preferably of angle-bar metal, having their extremities pivoted to said straps by pins or bolts passing through the lower end orifices  $b^1$ , and on top of said bar  $d$  are arranged crosswise pieces of slats  $b'$ , as shown, and rigidly secured in place, as by rivets or screws  $b^2$ . At about the height of the chair-arms and between the hangers is arranged the table E, consisting of a practically rectangular board  $e$ , provided with rigidly-secured end strips or cleats  $E^1$ , having downwardly-sloping or inclined arms  $e'$  adjacent to and passing by the inner sides of the hanger-strap  $B^2$ , where said arms are provided with outwardly-projecting ends or fingers  $e$ , embracing said straps and resting on top of the forward ends of said chair-arms, securely supporting said table in position.

Extending longitudinally above the chairs, through the swinging rack, and between the side straps of the hangers is arranged the awning F, having a framework  $F^1$ , consisting of a ridge-pole  $f$  and two parallel side rails  $f'$ , rigidly secured to and supported by two double-pitched brackets  $F^2$  at a distance apart equal to the distance between the opposite hanger-straps  $B^2$ , with which their extremities should register, said framework having been covered with any suitable awning cloth or material  $f^2$ , as shown, said awning being pivoted in place by pins or bolts  $f^3$ , passing through the bracket ends, through the side rails, and through the orifices  $b^4$  of said hanger-straps, while fender-strips  $f^4$  are placed between the awning-cloth and the adjacent hanger-straps  $B^2$   $B^3$  to prevent the fric-



tional contact or rubbing of the latter from wearing into or through the cloth when the swing is in motion.

When so desired, the oscillating or rocking elements hereinbefore set forth may be omitted and the chair pivoted direct to the hanger-straps, Fig. 7, and the pivoted arm may have the shape shown in plan in Fig. 9, all without materially affecting the character of the invention.

It will here be remarked that steel is used in the construction of this invention in preference to any other metal in that it may have great strength, combined with extreme lightness in weight. It will also be remarked that portable lawn-swings of various types are old and well known to the trade; but the following instrumentalities used in this construction are believed to be new: making the framework of steel with its system of bracing and the arrangement or construction of the bearings supporting the chair-hangers; making the chair hangers also of steel, each consisting of a shaft with pairs of depending straps having overlapping upper ends rigidly secured to or shrunk onto said shaft near to the ends thereof, said ends being adapted to rotate or rock in said bearing; making the chairs of steel and wood, providing them with yielding or springing backs, and pivoting them to the hangers in the lower portions thereof, so that they may rock freely or oscillate on their pivot-joints; making the platform of steel and wood and pivotally supporting it at the lower ends of the hangers, and making the table of wood and steel and supporting it between the chairs and arranging an awning having framework of wood and steel above the chairs and pivoting it to the hanger-straps, with fenders interposed to prevent contact of said straps with the covering of said frame.

The invention having been ascertained and described and the manner in which it is performed duly set forth, what is considered new, and desired to be secured by Letters Patent, is—

1. In a lawn-swing, a steel frame comprising: angle-bar posts arranged to form inverted-V-shaped sides, an angle-bar ridge-beam with its ends secured to the apexes of said inverted-V-shaped sides, horizontal side beams and cross-beams with their ends secured to said posts, cross-braces with their ends secured to the extremities of said ridge and cross beams, brace-bars with their upper ends secured to the centers of said side beams and their lower ends to the adjacent end posts, with hanger-bearings arranged against the outer faces of the posts and in line with said side beams, said frame adapted to support the oscillating mechanism of said swing, substantially as described and for the purpose hereinbefore set forth.

2. In a lawn-swing having a steel framework with inclined posts arranged to form inverted-V-shaped sides, and a ridge-beam with its ends rigidly secured to the apexes of said

sides—a system of bracing comprising side beams and cross-beams with their ends rigidly secured to the posts, cross-braces with their ends secured to the extremities of said ridge and cross beams, and brace-bars with their upper ends rigidly secured to the side beams at the centers thereof and their lower ends to the adjacent end posts of the sides, with hanger-bearings provided against the outer faces of said posts in the ends of the frame, all substantially as described and for the purpose hereinbefore set forth.

3. In a lawn-swing with a steel frame having inverted-V-shaped sides, a ridge-beam with its ends rigidly secured into the apexes of said sides, cross-beams parallel to said ridge-beam with their ends rigidly secured to the end posts of the sides, and cross-braces with their ends rigidly secured to the extremities of said ridge and cross beams—longitudinal beams with their ends rigidly secured to the side end posts of the frame, and brace-bars with their upper ends rigidly secured to the latter beams at the centers thereof and their lower ends to said end posts, said longitudinal beams having their ends extending beyond the outer faces of the posts and turned up as shown, with liners adjacent to said turned-up ends and rigidly secured to the outer faces of said posts, constituting bearings for the hanger-shafts, substantially as described and for the purpose hereinbefore set forth.

4. In a lawn-swing having a steel frame as described and with bearings arranged in the ends thereof as shown—hangers comprising rock-shafts with the ends thereof mounted in said bearings, and pairs of depending straps with their overlapping upper ends secured to said shafts near to the ends thereof, said straps having pivoting-orifices through their bodies with chairs pivoted thereto as shown, and having a series of said orifices near to the lower ends of the outer straps, whereby the angles of the chairs at the pivot-points may be changed at pleasure, substantially as described and for the purpose hereinbefore set forth.

5. In a lawn-swing of the character described—a chair having practically L-shaped steel angle-bar side frames, with transverse slats having their ends secured to the upper faces of said side frames in the horizontal portions thereof, and a transverse top piece with its ends secured to the forward faces of the upper ends of their vertical portions, parallel straps of spring metal between the rearward seat-slat and said top piece with their ends rigidly affixed to the forward faces of the chair side frames, vertical pieces with spaces between them rigidly secured to the forward faces of said parallel straps, and straps of spring metal arranged crosswise against the backs of the parallel straps with their ends rigidly secured to the forward faces of said side frames, said chair adapted to be pivoted to the lower ends of the hangers



and oscillate between the depending side straps thereof, substantially as described and for the purpose hereinbefore set forth.

6. In a lawn-swing with a supporting-frame 5 as shown and having a hanger with depending pairs of side straps swinging in each end of said frame, and a chair as described arranged in the lower portion of the hanger, between said pairs of straps and pivoted to 10 the lower ends thereof, said pivot-joints comprising—obliquely-disposed angle-bar strips with their lower ends pivoted to the forward end pair of said hanger - straps, and their higher ends engaging against the inner faces 15 of the outer end pair; angle-plates within the angles of said oblique strips and rigidly secured to said higher ends, the horizontal flanges of the plates on top of the horizontal flanges of the strips, with seat-rest stops at 20 the forward ends of the plates; said chair arranged between said hanger-straps, having its sides at the juncture of its seat and back adjacent to said plates, with the under edges of said sides in engagement with the horizontal 25 flanges and seat-rest stops thereof, and pivot-bolts with nuts on their threaded ends passed through said sides and plates and outer pair of hanger-straps; and a torsional spring-rod, extending across the width of the 30 chair, with one end securely affixed to the horizontal flange of the adjacent pivot-plate, and the other end to the adjacent side of the chair; all substantially as described and for the purpose hereinbefore set forth.

35 7. In a lawn-swing having a steel frame with hangers arranged in the ends thereof, each hanger having a pair of depending side straps supporting a chair pivotally between them,

and the forward pairs of straps of the opposite hangers somewhat longer than their rear- 40 ward pairs—a platform arranged between said forward pairs of hanger-straps, said platform comprising side pieces of angle-bars having their ends adjacent and pivoted to the lower 45 ends of the opposite straps of said forward pairs, and transverse strips at intervals with their ends rigidly secured to the tops of said side pieces, substantially as described and for the purpose hereinbefore set forth.

8. In a lawn-swing having a steel frame with 50 hangers arranged in the ends thereof, said hangers having a pair of depending straps on each side thereof, and chairs as described pivoted between the pairs of straps of each hanger—arm-rests with pivoting - orifices 55 through their bodies, and bolts passing through said orifices whereby said arm-rests are pivoted to said pairs of straps, substantially as described and for the purpose hereinbefore set forth. 60

9. In a lawn-swing having a steel frame with hangers swinging in the ends thereof, each hanger having side pairs of depending straps, with chairs pivoted between the respective 65 pairs—arm-rests with pivoting - orifices through their bodies, and bolts therethrough, whereby said arm-rests are pivoted to the straps of the respective sides, substantially as described and for the purpose hereinbefore set forth. 70

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

DAVID H. BAUSMAN.

Witnesses:

DANL. H. HERR,

EDW. R. HEITSHU.