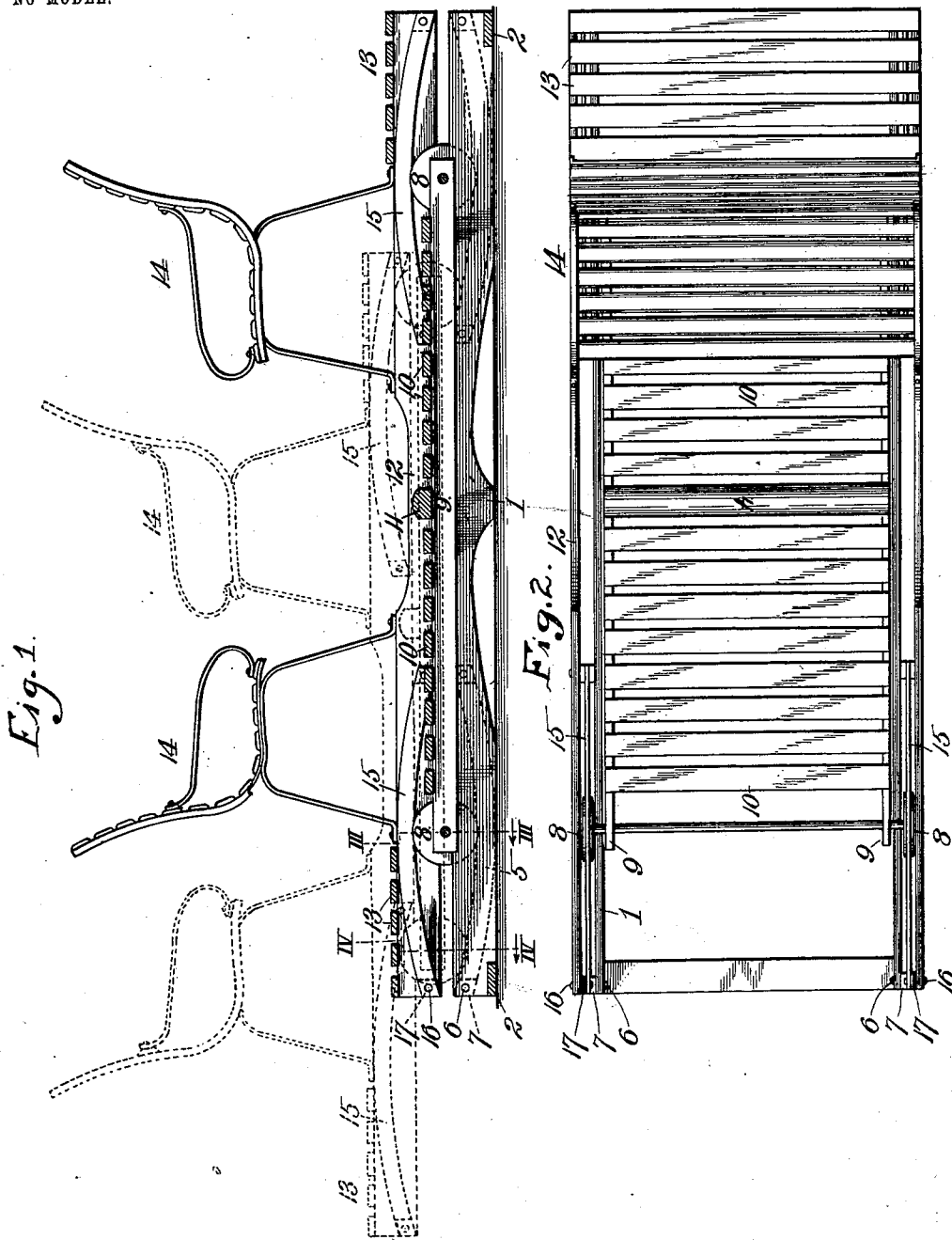


J. S. TUTTLE.
LAWN OR HOUSE SWING.
APPLICATION FILED JAN. 2, 1903:

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:

Amethun

Ch. C. Rodgers.

Inventor:
J. S. Tuttle.

By *George J. Hooper* atty.

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Fig. 4.

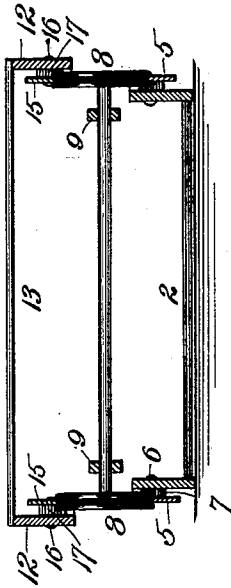


Fig. 3.

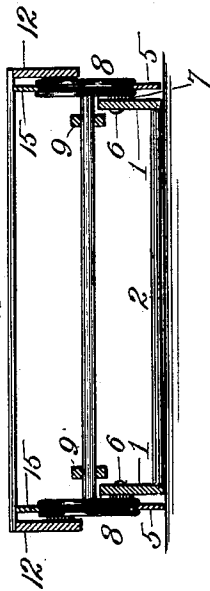
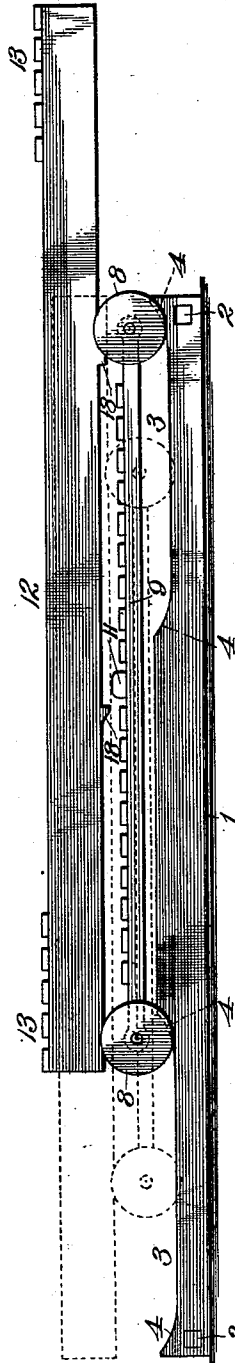


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOSIAH S. TUTTLE, OF KANSAS CITY, MISSOURI, ASSIGNOR TO BION S. HUTCHINS, OF KANSAS CITY, MISSOURI.

LAWN OR HOUSE SWING.

SPECIFICATION forming part of Letters Patent No. 742,932, dated November 3, 1903.

Application filed January 2, 1903. Serial No. 137,610. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH S. TUTTLE, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Lawn or House Swings, of which the following is a specification.

My invention relates to wheel-swings; and my object is to produce a swing of this character without suspension arms or hangers of any sort and with all of its parts below the seats which can be operated with a minimum application of power by the occupant.

A further object is to produce a swing of the type outlined which is simple, compact, light, strong, durable, and cheap of construction and which can be almost instantly set up in operative position or knocked down for convenience of storage or transportation.

With these general objects in view the invention consists in certain novel and peculiar features of construction and organization, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 is a central longitudinal section of a swing embodying my invention. Fig. 2 is a top plan view of the same with one of the seats and one set of the cross-slats of the seat-carrying frame removed. Fig. 3 is a vertical cross-section taken on the line III III of Fig. 1. Fig. 4 is a vertical cross-section taken on the line IV IV of Fig. 1 when the swing is at one extreme of its movement. Fig. 5 is a side view of a modified form of the swing.

In the said drawings, where like reference-numerals designate corresponding parts, a base or trackway frame to rest upon the ground consists of the parallel side bars 1, braced by cross-bars 2 or otherwise. In perhaps its simplest form, as exemplified in Fig. 5, bars 1 are preferably formed with tracks 3, turned up at opposite sides of their centers, as at 4. In the preferred form, however, segmental tracks 5, arranged outward of and parallel with bars 1, with their concaved edges disposed upwardly, are secured by bolts 6 to said bars, spacing-blocks 7 being interposed to hold them at the required distance from the bars. (See Figs. 2, 3, and 4.)

The wheeled frame consists, preferably, of four wheels 8, connected in opposite pairs, one wheel being located on each track 3 or 5, longitudinal bars 9, secured at their ends on the wheel-axles, and cross bars or slats 10, connecting the bars 9, the central cross-bar preferably projecting higher than the others, as at 11, to form a brace against which the feet of the operator may rest.

The carrying-frame consists, preferably, of longitudinal bars 12, connected near each end by a series of transverse slats 13 or otherwise, if desired. This frame in Fig. 5 has its side bars 12 resting squarely on the wheels of the wheeled frame, and the lower edges of said bars may be either perfectly straight, as shown, or may form a plurality of tracks, like tracks 3, if desired, though I prefer the structure as it is shown.

Mounted on the carrying-frame forward of the series of slats 13, upon which one or more children may sit or stand while the swing is in operation, are seats 14, of any suitable or preferred type, it being understood, of course, that a cradle, couch, or any other support whereon the occupant or occupants may comfortably rest, may be substituted for the seats, if desired.

The preferred form also embodies cross-slats and seats as well as the side bars 12, though in this case the seat-carrying frame is wider than the track-frame and is equipped inward of the side bars with tracks 15, corresponding to tracks 5, but inverted with respect thereto, these tracks 15 of course occupying the same vertical plane as the other tracks and secured at their ends on bolts 16, carried by said bars 12, spacing-blocks 17 being interposed between said bars and said tracks to provide a sufficient space between for the free operation of wheels 8, and in this connection it should be stated that the principal reason why the seat-carrying frame is wider than the other is that it may normally almost hide the wheels from the view of a person located at one side, said wheels of course being more exposed as the swing attains one of its extreme positions or the other. (See Fig. 4.) It is obvious, of course, that it would be a simple matter to completely increase the wheels, at least at the outside. To

prevent any possibility of lateral dislocation of the wheels with reference to the tracks, they bear a tongue-and-groove relation, the wheels being grooved, preferably, and the tracks engaging the same. (See Figs. 3 and 4.)

In the operation of the swing the pressure of the seat-occupant's feet against the cross-brace 11 causes the seat-carrying frame to move in the direction opposite to that which the occupant is facing, and this movement of said frame is attended by movement in the same direction of the wheeled frame, but at only half the speed. It will thus be seen that movement of the wheeled frame from the position shown in full to the position shown in dotted lines in Figs. 1 and 5 is attended by like movement on the part of the seat-carrying frame, the latter moving twice the distance and at double the speed of the wheeled frame. In the preferred construction the movement of the frames from the position shown in full to the position shown in dotted lines is in a plane that inclines slightly upward. As the above parts attain this position the operator removes all of the pressure from cross-bar 11, and the pitch of the tracks instantly starts the swing on its return, such movement of course not stopping at the position shown in full lines, but continuing until the wheels attain the opposite ends of the tracks, after which gravity forces the swing in the opposite direction.

A single operator by applying pressure on the cross-bar with each alternate movement of the swing can with but little exertion keep the latter in motion. When both seats are filled and children are standing or sitting on the slats 13, an operator on each seat by alternately applying pressure on the cross-brace 11 can operate the swing so easily that an observer can hardly tell how the power is applied.

The structure shown in Fig. 5 gives a movement that is almost horizontal, and could be made exactly so by dispensing with the upturned portions 4 of the trackway. The structure shown, however, is preferred, as without the use of springs or equivalents the slight upward movement given to the wheeled and seat-carrying frames by the upturned ends of the tracks tends to arrest the movement of the swing without shock or jar to the occupant and at the same time gives the wheeled frame an impetus in its movement in the opposite direction.

To prevent the seat-carrying frame when formed with its lower or track surface horizontal, as shown in Fig. 5, from creeping on the wheels as the extreme limit of movement in either direction is attained, I provide said track with depending stop-blocks 18, which contact with certain of the wheels at the instant their movement in one direction is completed.

From the above description it will be apparent that any means, whether worked by

the feet or not, whereby power could be simultaneously applied in opposite directions on the wheeled and seat-carrying frames would result in the proper operation of the swing, though for convenience of operation and simplicity and cheapness of construction, as well as for attractiveness of appearance, I prefer to cause such movement by foot-power.

I have illustrated and described two types of swings that I have practically tested; but it is to be understood that the invention is susceptible of modification as regards its form, proportion, detail construction, and organization without departing from its spirit and scope or sacrificing any of its advantages.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A swing, comprising a trackway, a wheeled frame thereon, a carrying-frame formed with tracks which rest upon the wheels of said frame, and means to limit each journey or movement of the wheeled frame and give it an impetus toward opposite movement.

2. A swing, comprising a trackway having its tracks turned upward at opposite sides of their centers, a wheeled frame thereon, and a carrying-frame formed with tracks which rest on the wheels of said frame.

3. A swing, comprising a trackway having its tracks turned upward at opposite sides of their centers, a wheeled frame thereon, and a carrying-frame formed with tracks similar but inverted with respect to the first-named tracks; said inverted tracks resting on the wheels of said frame.

4. A swing, comprising a trackway, a wheeled frame thereon, means to limit each journey or movement of said frame and give it an impetus toward opposite movement, a carrying-frame formed with tracks which rest upon the wheels of the wheeled frame, and means for checking the movement of the carrying-frame as each wheeled-frame movement terminates.

5. A swing, comprising a trackway, a wheeled frame thereon, a carrying-frame formed with tracks which rest upon the wheels of said frame, one or more seats upon the carrying-frame, and means to limit each journey or movement of the wheeled frame and give it an impetus toward opposite movement.

6. A swing, comprising a trackway, consisting of connected side bars provided externally with tracks, a frame wider than said tracks and provided internally with tracks in the vertical plane of the first-named tracks, and provided also with one or more seats, and a wheeled frame bridging the space between the side bars of the trackway and provided externally of said side bars with wheels engaging the tracks thereof and of the seat-carrying frame, and having a tongue-and-groove relation with said tracks.

7. A swing, comprising a trackway, consisting of two sets of tracks, a wheeled frame

bridging the space between said sets of tracks, and having one of its wheels on each track, a carrying-frame having downwardly-disposed tracks, corresponding to the first-named
5 tracks and resting upon the wheels of the wheeled frame, and means to simultaneously arrest the wheeled frame and carrying-frame at the end of each journey or movement and

give the wheeled frame an impetus toward opposite movement.

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

JOSIAH S. TUTTLE.

Witnesses:

H. C. RODGERS,
G. Y. THORPE.