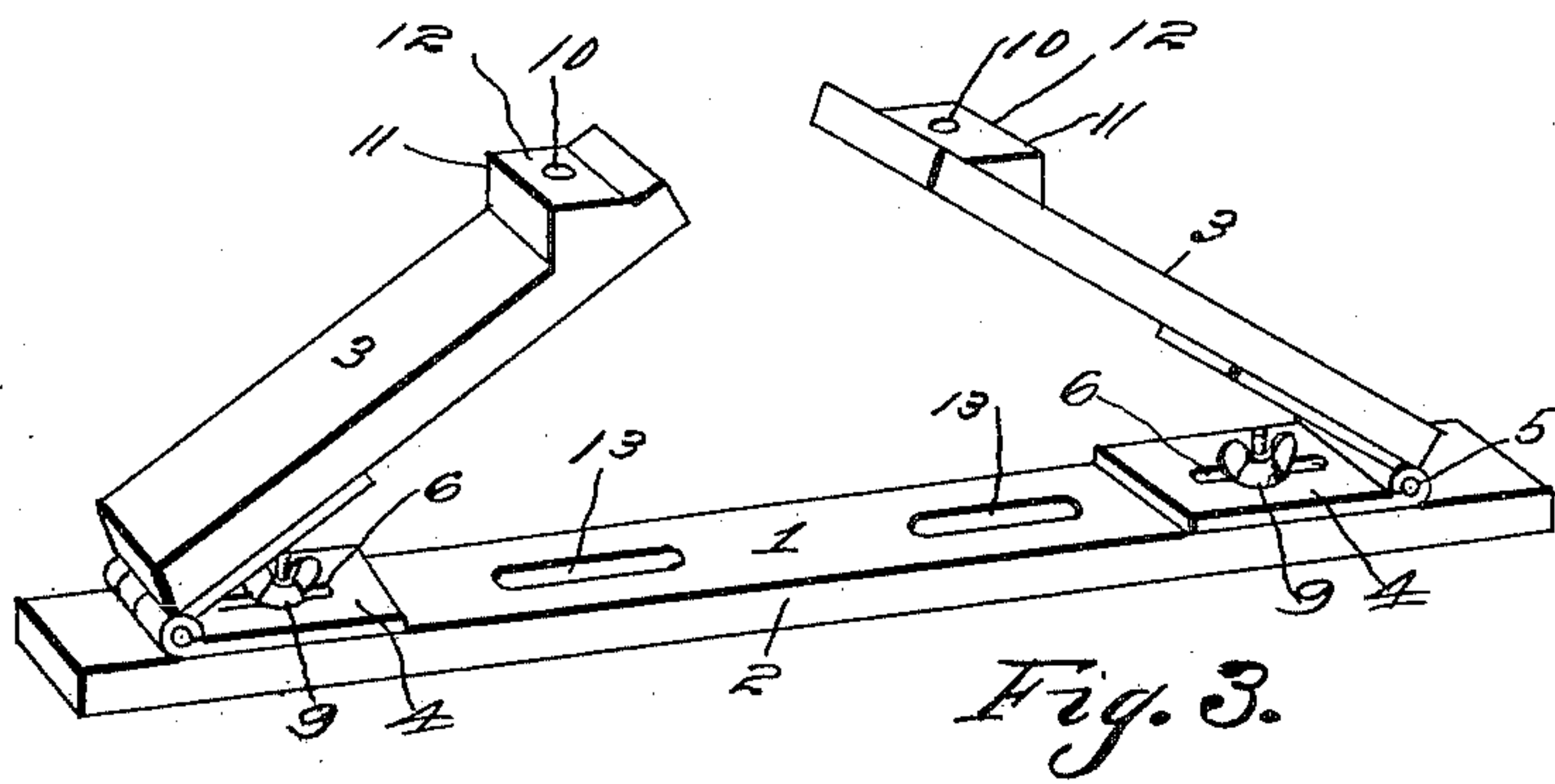
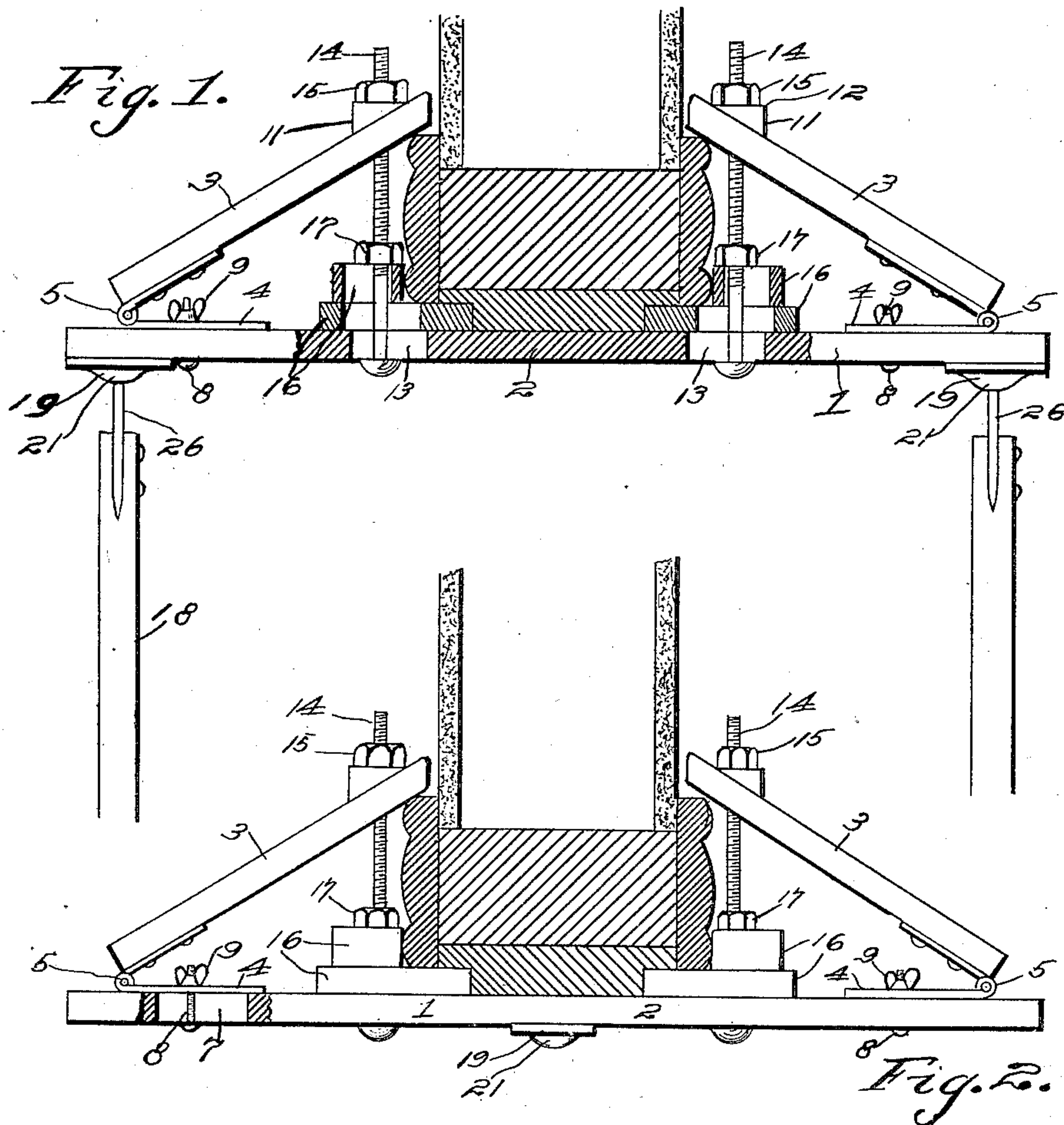


G. S. KERR.
SWING.

(Application filed Mar. 12, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

Wm. E. Maynard.
Chas. S. Hoyer.

By *G. S. Kerr,* Inventor.
Chas. S. Hoyer.
Attorneys

G. S. KERR.
SWING.

(Application filed Mar. 12, 1901.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 4.

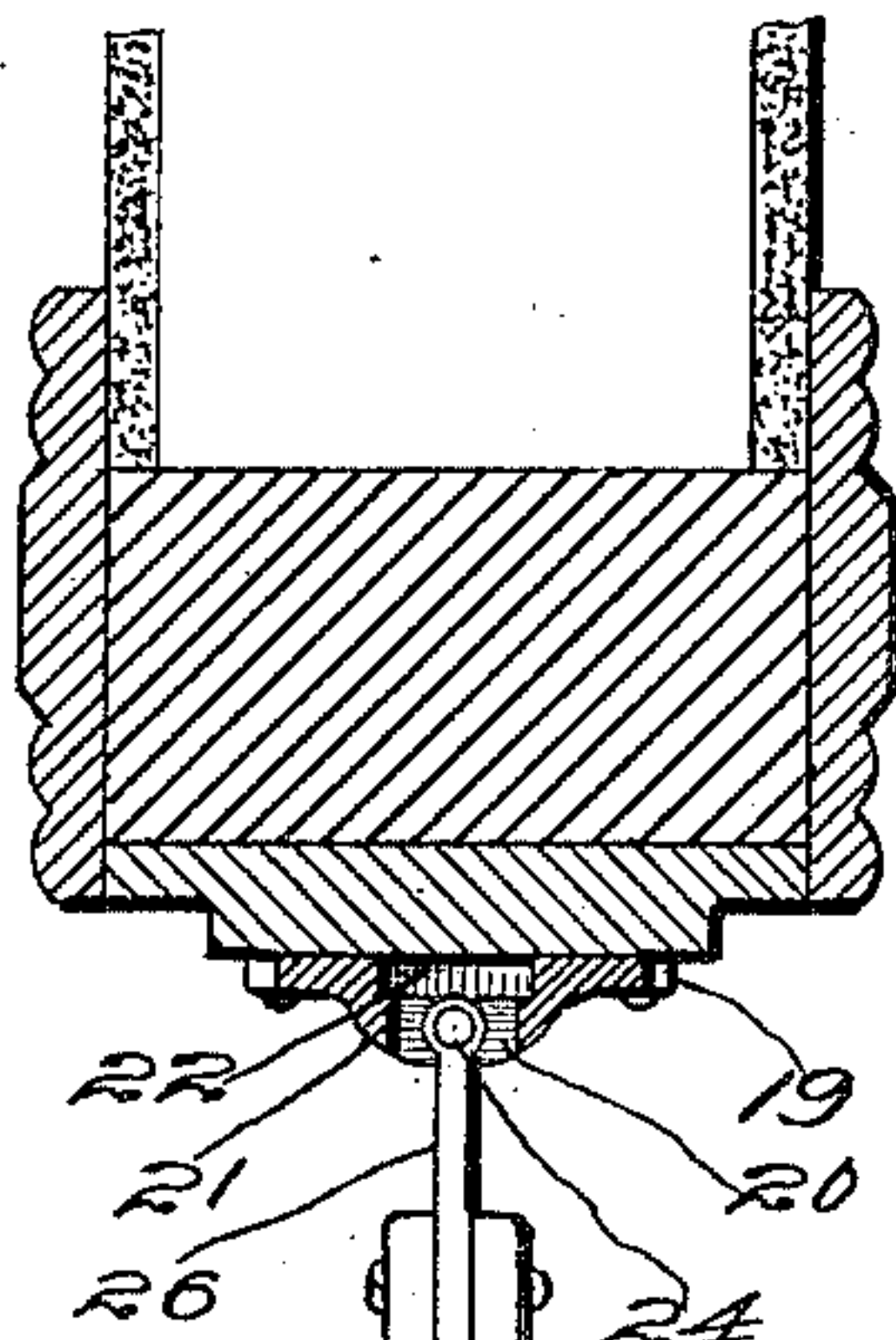


Fig. 5.

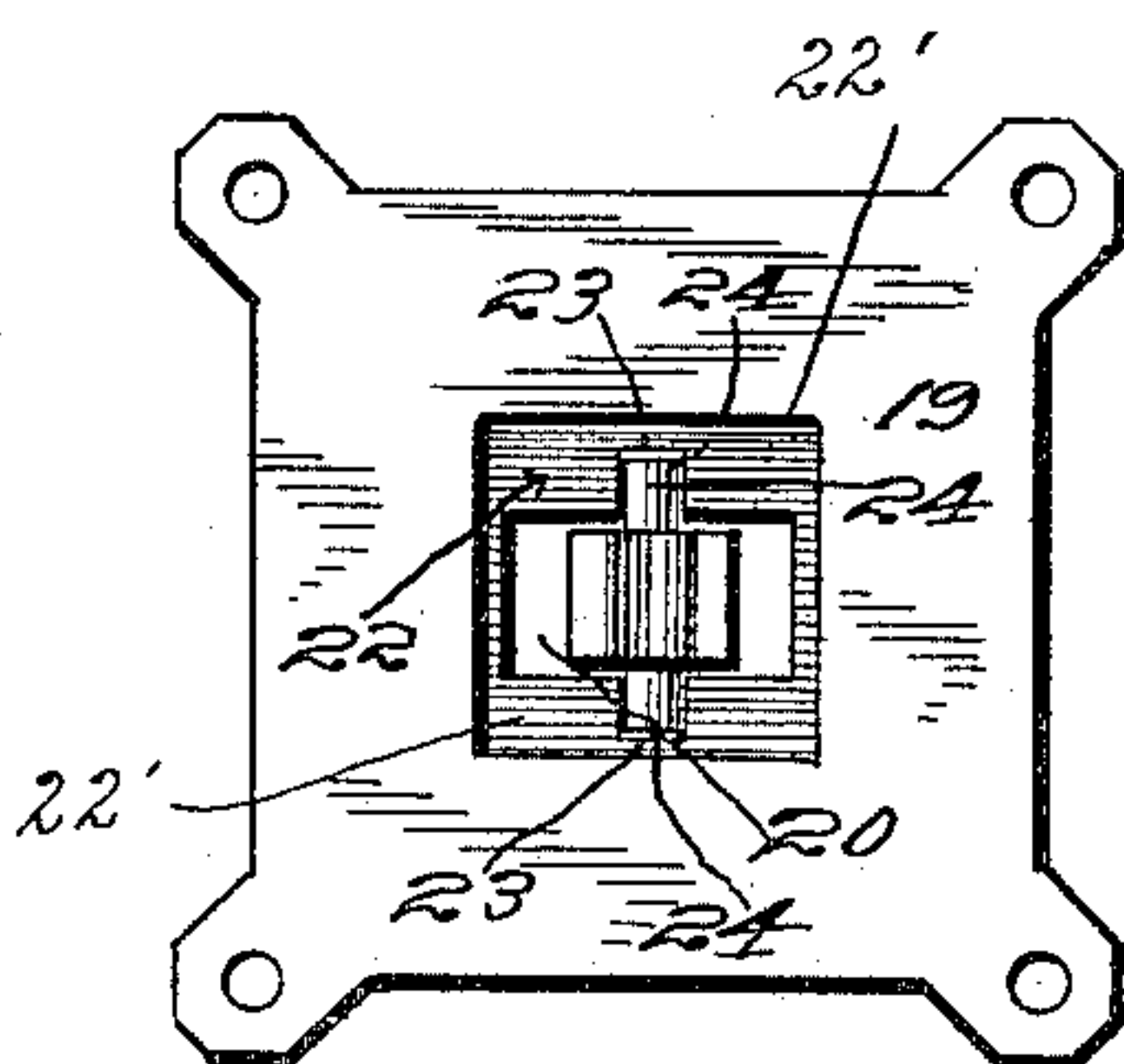
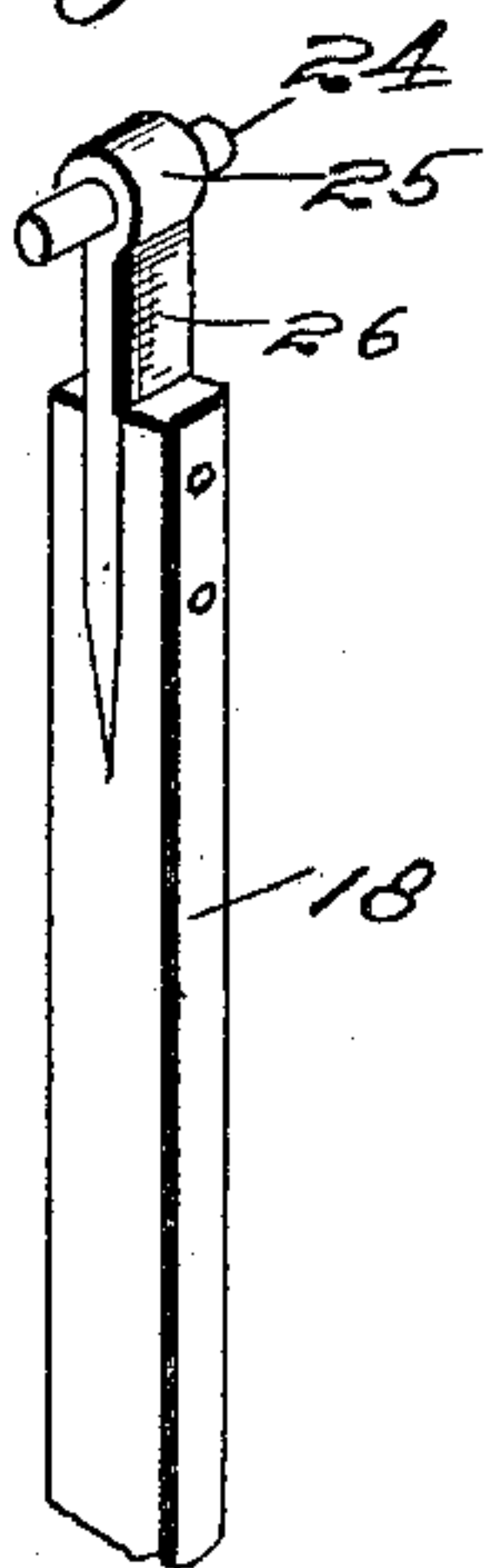


Fig. 6.

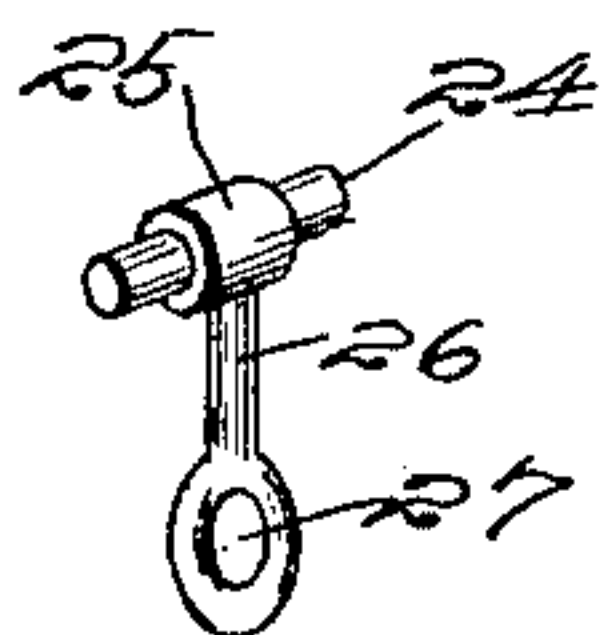
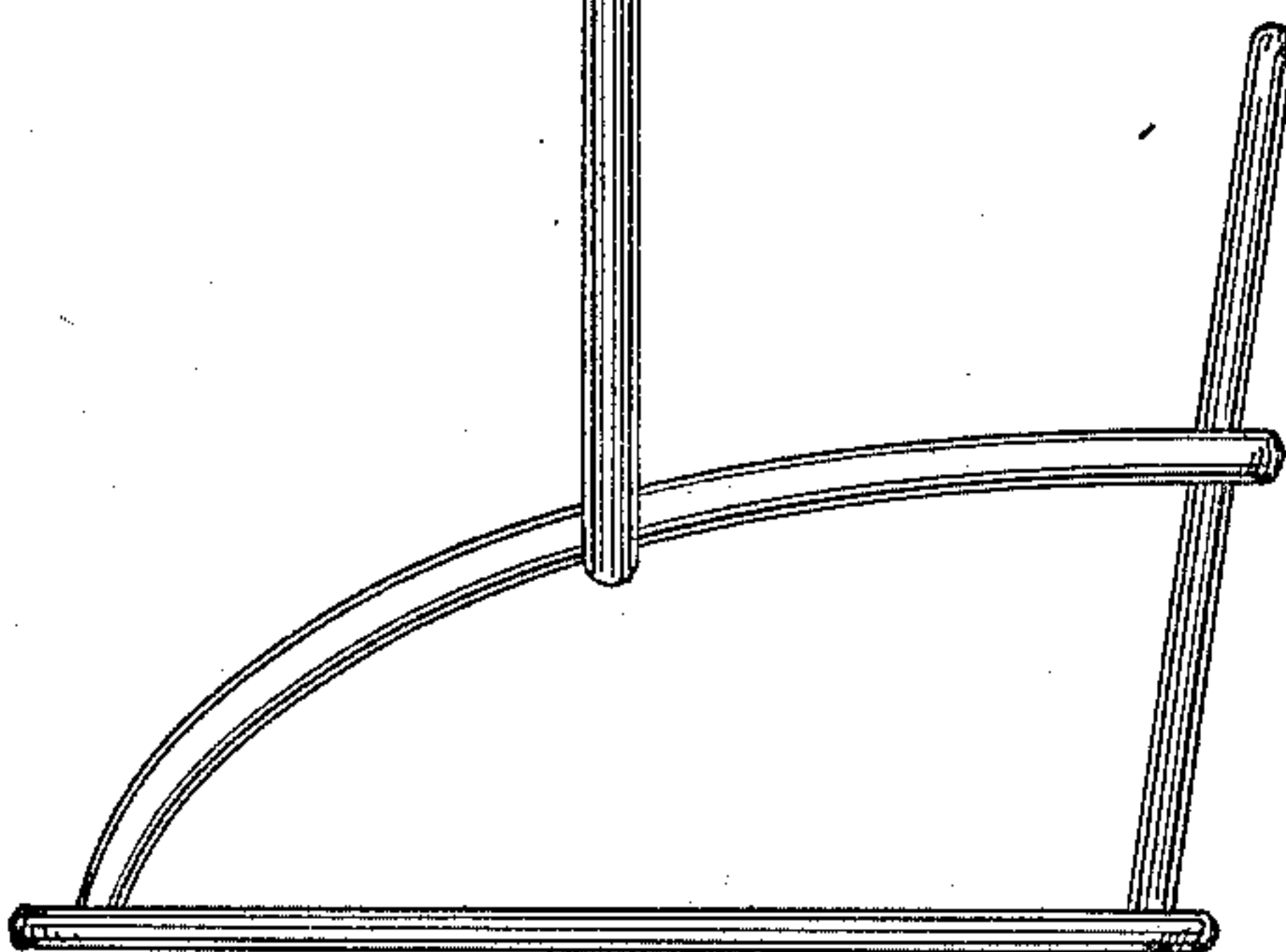


Fig. 7.



Witnesses

Prof. Maynard.
Chas. S. Hoyer.

By G. S. Kerr, Inventor.
C. A. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

GEORGE SMILEY KERR, OF MORTON, PENNSYLVANIA.

SWING.

SPECIFICATION forming part of Letters Patent No. 701,354, dated June 3, 1902.

Application filed March 12, 1901. Serial No. 50,820. (No model.)

To all whom it may concern:

Be it known that I, GEORGE SMILEY KERR, a citizen of the United States, residing at Morton, in the county of Delaware and State of Pennsylvania, have invented a new and useful Swing, of which the following is a specification.

This invention relates to swings; and the object in view is to provide simple and effective means for applying a swing in operative position to a door-frame in such manner that it can be operated through the door-opening or so that a swing may be readily set up in operative position in conjunction with any other device, whether indoors or outside, and to provide for attaching a swing having one or more attaching or suspending bars without defacing or injuring the frame or other supporting device and at the same time obtain a strong and durable structure that can be used with perfect safety and afford amusement as well as exercise to the occupant.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a sectional view of a portion of a door-frame and adjacent wall, showing a supporting-bridge embodying a portion of the invention applied thereto and illustrated in sectional elevation and as having two suspending-bars. Fig. 2 is a sectional view of a portion of a door-frame and adjacent wall, showing the improved bridge applied thereto in sectional elevation and provided with means for supporting a single suspending-bar. Fig. 3 is a detail perspective view of the main portion of the bridge. Fig. 4 is a sectional elevation of a portion of a door-frame and adjacent wall and a single-bar swing, the bar shown as attached by a particular form of fulcrum connection also forming part of the invention. Fig. 5 is a detail perspective view of the upper extremity of one of the suspending-bars. Fig. 6 is a top plan view of the fulcrum plate or socket. Fig. 7 is a detail perspective view of a rope or cable attaching head with a structure similar to that of the bar shown by Fig. 5 and for use with the plate or socket shown by Fig. 6.

Similar numerals of reference are employed

to indicate corresponding parts in the several views.

Referring to Figs. 1, 2, and 3; the numeral 1 designates a bridge, which comprises a horizontally-disposed supporting-bar 2 of suitable length and thickness and of any preferred material. To the upper portion of the opposite extremities of the said supporting-bar clamping-bars 3 are hinged, and through one leaf 4 of each hinge 5 for connecting the said clamping-bars slots 6 are formed and coincide with similar slots 7 in the extremities of the bar 2, and through the said slots set-bolts 8 extend and are held in adjusted position by clamping-nuts 9, whereby the clamping-bars 3 may be adjusted to compensate for various thicknesses of door-frames or other structures to which the bridge may be applied, and thus obtain a stable securement, as well as provide simple means for regulating the dimensions of the bridge to the structure to which it is intended to secure the same. The free ends of the clamping-bars are formed with vertical apertures 10, one in each, and said apertures preferably pass through bosses 11, each having an upper horizontal face 12 to form a seat for a clamping-nut. The bar 2 also has inner slots 13 there-through, extending longitudinally, said slots being on opposite sides of the center of the bar to adjustably receive clamping bolts or rods 14, which have their unscrew-threaded headed extremities in engagement with the said slots and their upper threaded ends or extremities passed through the apertures 10 to receive clamping-nuts 15 to hold the bars 3 in closer removable engagement with the molding or trimming or other projecting portions of a door-frame or other structure to which the bridge is applied, to thereby firmly hold the bridge in fixed applied position and prevent accidental disengagement thereof and render the attachment perfectly safe and reliable. Slotted stop-blocks 16 are disposed on the supporting-bar 2 over the slots 13, through which the clamping-bolts 14 also extend, and the threads are continued over the said bolts for a greater portion of the length of the same, so as to accommodate intermediate clamping-nuts 17 to bear on the uppermost of the blocks at each side. The lower

blocks 16 are longer than the uppermost ones rested thereon and are adapted to fit in and compensate for recesses or grooves in the door-frame or other structure to which the bridge 5 is applied to provide a firm bearing for the bar 2, and, furthermore, the said blocks prevent the bar 2 from having a longitudinal slipping movement or any displacement from its applied position, and it is obvious that 10 similar devices might be added to those shown to render the bridge conformable to the different types of trimmings or moldings employed on door-frames and other like structures.

15 The bridge set forth may be readily applied or detached and when disconnected can be reduced in bulk or extent for storage or transportation. The bridge is also adapted to have one or two or more suspending-bars 18 at- 20 tached thereto or, in some instances, ordinary ropes or cables may be used to replace the suspending-bars, and in the use of either form of suspending device the upper ends of the same will be movably or otherwise at- 25 tached to the bar 2. It is preferred, however, that the suspending device in either form should be removably applied to the bar 2, and to accomplish this mode of attachment particular means have been devised which also 30 have a general application, but are specially useful in connection with the bridge set forth. This attaching means consists of a fulcrum or socket-plate 19, which is fastened at the corners or other portions closely against the 35 under side of the bar 2. In the central lower portion of the said plate or socket is a slot 20, formed in a slightly-depending boss or enlargement 21, the said slot communicating with a socket 22 above the same in the said 40 plate. The slot 20 is materially longer than it is wide, and in the centers of the side walls thereof trunnion-seats 23 are formed to movably or pivotally receive aligned trunnions 24, carried by a head 25 on the upper end of a 45 shank 26, which is firmly secured in the upper end of each suspending-bar. The trunnions have a lateral extent slightly less than the length of the slot 20, but greater than the width of said slot, so that they may be pushed 50 upwardly through the slot in one position and turned or unitedly rotated in a plane at right angles in the socket 22 to fit in the trunnion-seats 23. In detaching the trunnions they are elevated into the socket 22, then turned, 55 and drawn downwardly through the slot 20. The slot 20, being of less width than the socket 22, provides horizontal shoulders 22' adjacent to the sides of the said slot, so as to give the trunnions room for rotation in applying them 60 to their seats and removing them from the latter and the socket. As many of the plates 19 will be employed as there are bars 18 or analogous suspending devices, and where ropes or cables are employed the same fasten- 65 ing means may be utilized and the same form of head 25, trunnions 24 projecting therefrom, and shank 26 are employed, as shown by Fig.

7, except that the shank is rounded and has a lower terminal eye 27 for securement of the rope or cable terminal thereto. 70

It will be seen that the socket 22 is above the seat structure for the trunnions carried by the head 25 and that the dimensions of the socket 22 are such as to permit the combined projection of the trunnions from the head 25 75 to be free in rotative movement thereof in order to apply the trunnions to or withdraw them from the socket as an entirety, the socket 22 having its upper portion closed when the plate 19 is applied. 80

As before stated, it is proposed to use one or more suspending-bars 18 and thereto will be attached any suitable or preferred form of seat-basket, one example being shown by Fig. 4, or a platform of selected form having two 85 seats or provided with any other device or devices for supporting children or grown persons may be employed, or a number of different kinds of swings or swaying devices may be independently supported from a sin- 90 gle bridge, and thus afford amusement and exercise for a number of different children or grown persons at a time from the single supporting-bridge. The character of the devices which may be attached to the suspending bar 95 or bars are subject to a wide range of modification to adapt them to the particular operation desired, and therefore no specially desirable form has been shown, and it will be under- stood that it is intended to use any form of 100 such device applicable for the purpose. As shown by Fig. 4, the plate 19 may be applied directly to the frame of a door or other structure, and from this showing it will be under- stood that the improved form of connecting 105 means for the suspending bars or ropes has a general application as well as the particular advantage gained by its use with the bridge set forth.

Many other changes will present them- 110 selves from time to time aside from those noted, and it is intended also to change the form, size, proportions, and minor details of the several parts without departing from the spirit of the invention. 115

Having thus described the invention, what is claimed as new is—

1. A bridge for a swing comprising a horizontal supporting-bar, clamping-bars movably attached to the upper side of the opposite 120 end portions of said supporting-bar, hinges adjustably attached to the opposite end portions of the supporting-bar and the lower outer ends of the clamping-bars, and clamping-bolts extending through the supporting-bar and the 125 free terminals of the clamping-bars.

2. A bridge for a swing comprising a horizontal supporting-bar, movable clamping-bars connected to said supporting-bar adjacent to opposite extremities thereof, both bars 130 being wholly located above the upper side of said supporting-bar, clamping means engaging the latter bar and the free extremities of the clamping-bars, hinges for connecting the

clamping-bars, each having the leaf thereof resting on the supporting-bar formed with a slot, said supporting-bar also having slots to coincide with those of the hinge-leaves, and
5 means for connecting the said slotted hinge-leaves to the bar.

3. A supporting means for a swing comprising a horizontally-disposed plate with a lower depending socket portion at the center thereof
10 having a rectangular slot opening out from the bottom and an upper enlarged recess of square form to provide horizontal shoulders adjacent to the long sides of the rectangular slot, the
15 diametrically opposite points in planes at right angles to the slot in the bottom of the socket trunnion-seats, in the form of recesses, and a vertically-depending shank for attachment to a swing-supporting means and having an
20 upper head of a transverse extent less than the width of the said rectangular slot and provided with laterally-projecting trunnions of equal length in alinement with each other and having a combined extent from the shank

slightly less than the transverse extent of the 25 said upper square recess and less than the length of the said slot, the shank being rotatable in the slot and the trunnions in the square recess for the purpose of detaching and seating the said trunnions. 30

4. A bridge for a swing comprising a supporting-bar, clamping-bars hinged thereto, and clamping-bolts extending through the supporting-bar and the free terminals of the clamping-bars. 35

5. A bridge for a swing comprising a supporting-bar, clamping-bars movably connected to the same, stop-blocks on the supporting-bar, and clamping-bolts extending through the supporting-bar and the free terminals of 40 the clamping-bars.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE SMILEY KERR.

Witnesses:

RICHARD YOUNG,
HARRY P. YOUNG.