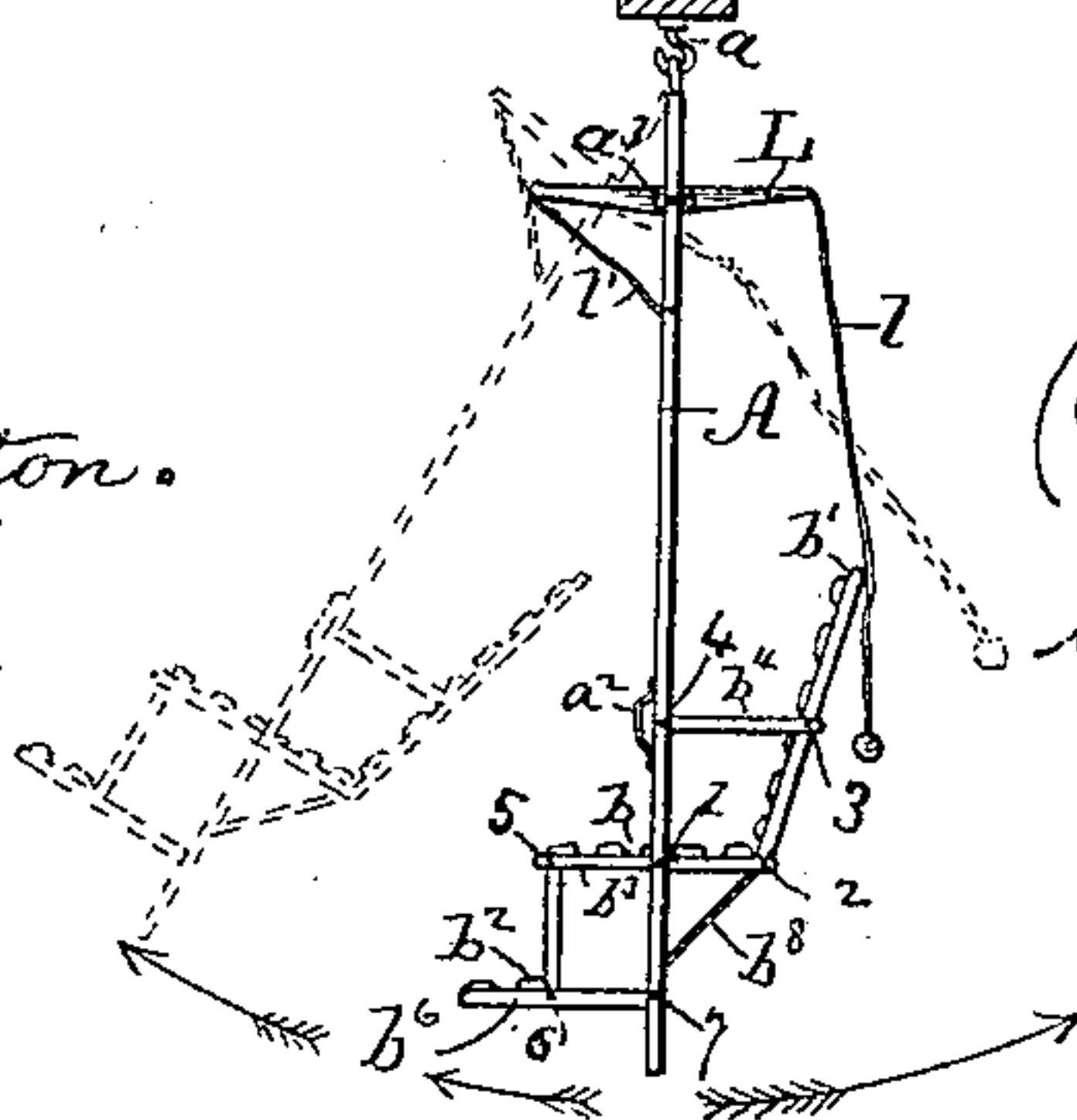
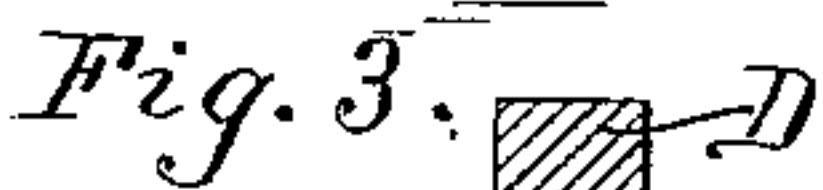
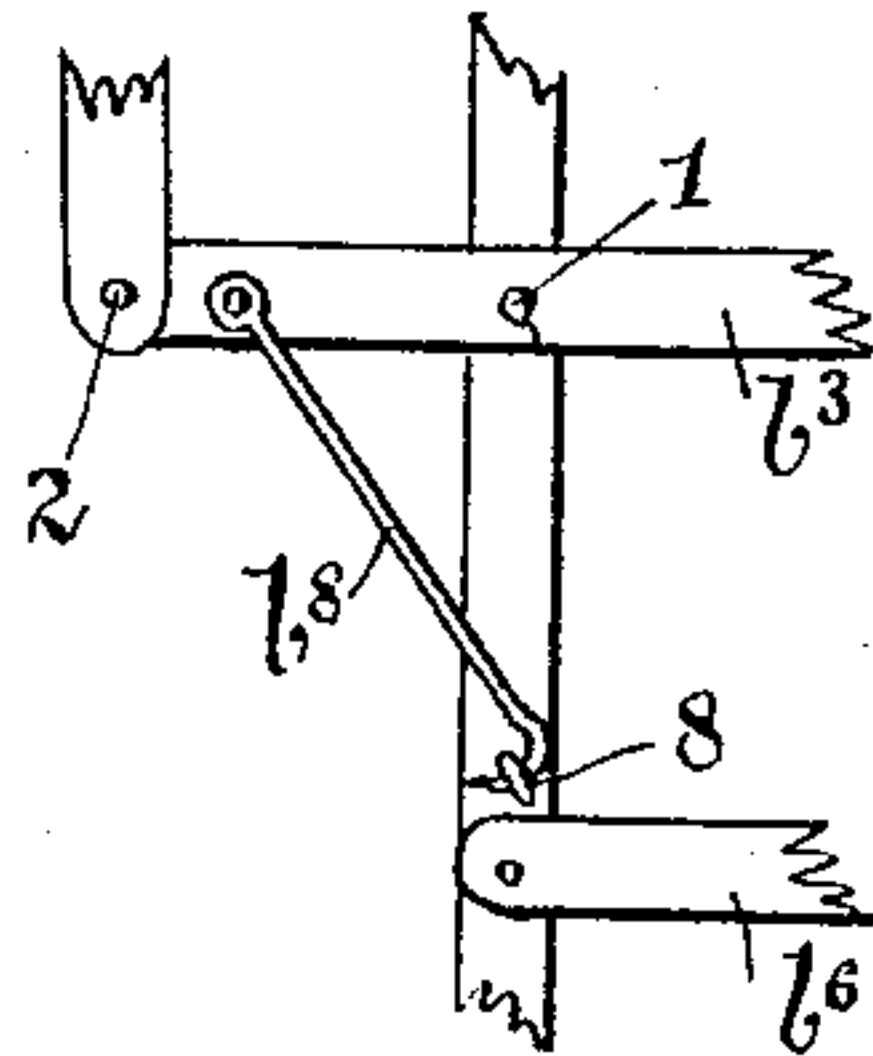
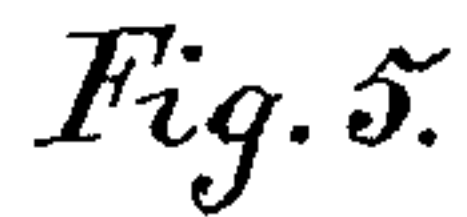
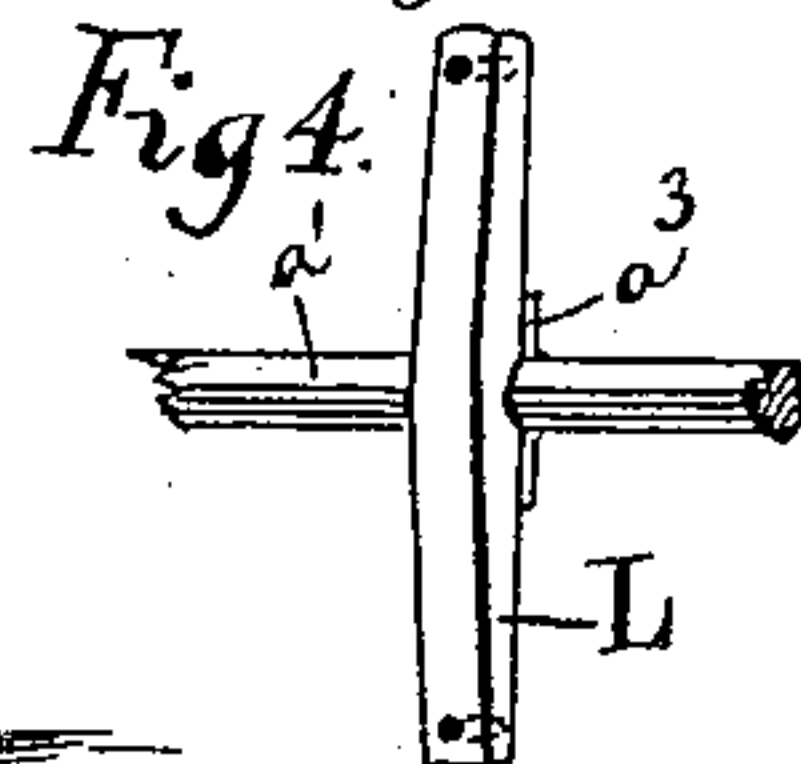
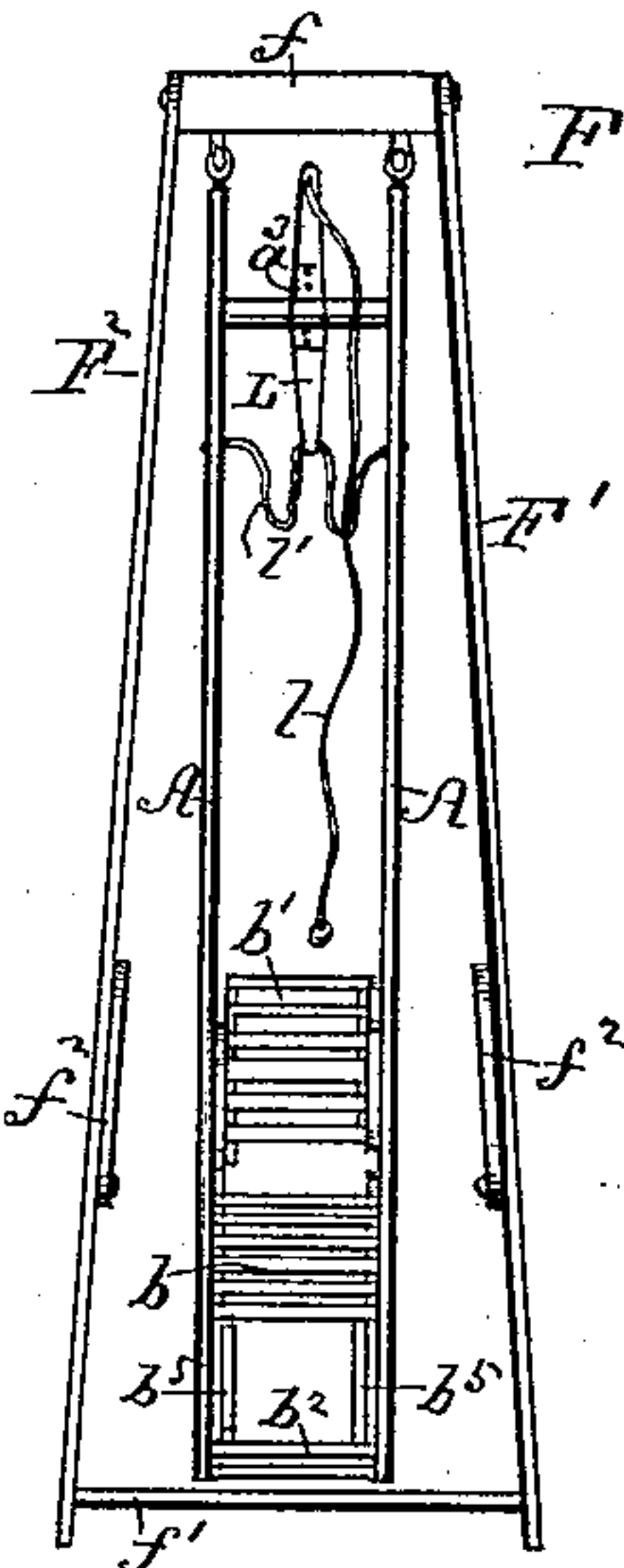


T. FOLKS.  
SWING.

Patented Oct. 9, 1888.



Thos. Houghton.

Thos. Houghton  
Saml. H. Jacobson,

Inventor  
Thomas Folkes,  
by Lewis Abraham  
Attorney.



# UNITED STATES PATENT OFFICE.

THOMAS FOLKS, OF WASHINGTON, DISTRICT OF COLUMBIA.

## SWING.

SPECIFICATION forming part of Letters Patent No. 390,851, dated October 9, 1888.

Application filed April 20, 1888. Serial No. 271,306. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS FOLKS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented a new and useful Improvement in Swings, of which the following is a specification.

The object of my invention is to provide a portable swing that can be compactly folded in a small compass and that can be conveniently used either indoors or outdoors, all as hereinafter particularly described, illustrated in the drawings, and specifically set forth in the claims.

Referring to the accompanying drawings, wherein like letters of reference point out similar parts on each figure, Figure 1 is a perspective view of my improved swing hung within a folding frame. Fig. 2 is a front elevation thereof on a smaller scale, showing the device folded up. Fig. 3 is a side elevation of the swing suspended from the lintel of a door-frame, the action being indicated in dotted lines, the operating-lever being in a position reversed to that shown in Fig. 1. Fig. 4 is a detail view of the swinging lever. Fig. 5 is a detail view of braces that hold the chair in position when unfolded.

In the drawings, A A represent vertical bars or uprights that carry a folding chair connected thereto. They are supplied at their ends with screw-eyes or staples *a*, which take into hooks or any suitable meshing device attached to the lintel of a door-casing, as D, Fig. 3, or to the transverse bar *f* of a folding frame, F. The uprights A are kept a required distance apart near their upper ends by a cross-rod, *a'*, rigidly connected thereto, which cross-rod also serves as an axial bearing for the swinging lever strapped thereon, while they are separated near their lower ends by the folding chair, as presently more particularly set forth.

B is a folding chair consisting, essentially, of a seat, *b*, back *b'*, and foot-rest *b<sup>2</sup>*. The seat is introduced transversely between the vertical uprights A. Said seat is of the same width as the length of the cross-rod *a'*, and these two members of the device, secured to and between the vertical bars A A, always maintain them in parallel alignment a suitable distance apart. The side rails, *b<sup>3</sup>*, of the seat-frame are each pivotally connected to the uprights A at a

point about midway of the length of said rails, (see indicating-numeral 1,) by which said seat is adapted to be moved into a horizontal or vertical plane and by such movements carry the connected members of the chair into proper position. The back *b'* is pivoted to the rear ends of the seat side rails, *b<sup>3</sup>*, at 2.

*b<sup>4</sup>* are arm-rests pivoted at 3 to the side posts of the chair-back and at their opposite ends at 4 to the uprights A. Said arm-rests, when the chair is unfolded, extend horizontally rearwardly from the uprights to the chair-back. Pivoted at 5 to the front of the seat *b* are links *b<sup>5</sup>*, their lower ends being pivoted at 6 to bars or slats *b<sup>6</sup>*, the rear ends of which slats are pivoted at 7 to the uprights A. The links *b<sup>5</sup>* are pivoted to the bars *b<sup>6</sup>* a slight distance from the forward ends of said bars, the extension thereof having attached thereto transverse slats to form a foot-rest, *b<sup>2</sup>*, which foot-rest is always maintained in alignment with the plane of the seat *b*.

*b<sup>8</sup>* are adjustable brace-rods pivoted at their upper ends to the rear of the side rails of the seat-frame, their opposite ends being finished as a hook or the like to mesh with a staple or detent, as 8, or any suitable fastening device, by which means the chair, when unfolded, as illustrated, is rigidly held in position and kept from tilting forwardly or backwardly. Upon the front of the uprights A are staples *a<sup>2</sup>*, to receive a removable bar, (not shown in the drawings,) which bar, when confined within said staples, serves as a guard to prevent the occupant of the chair from falling out forwardly.

Upon the cross-bar *a'*, and fastened by a strap, *a<sup>3</sup>*, axially thereon and at right angles thereto, is a reversible lever, L. Said strap loosely surrounds the cross-bar *a'* midway thereof, enabling the lever to turn thereon, as hereinafter set forth. An operating-cord, *l*, passes across the top of the lever L. A length of said cord is extended downwardly, the free end of which is normally within reach of the occupant of the chair. The cord *l* is continued over the lever L, and a short length thereof is continued downwardly beyond the lever, and is fastened to the transverse yoke-cord *l'*, the latter being connected at each end to an upright, A. I prefer that the cord *l* should pass through eyes or orifices at each end of the



lever to prevent entanglement or lateral displacement. When, as before described, the free length of the cord  $l$  is loosely hanging forwardly, it is within reach of the occupant of the chair; but as the lever  $L$  is so adjusted to the transverse bar  $a'$  that its strap is practically a movable axial bearing mounted on a shaft, by this construction the lever can be turned completely over, (see Fig. 3,) transferring the free length of the cord  $l$  rearwardly, by which the chair can be swung to and fro by an attendant without any operation of the occupant.

It will be seen that by journaling the bar  $L$  upon the upper cross-bar,  $a'$ , I provide a double-ended lever, which can be reversed at will to enable the pull-cord to be operated from front or rear. By connection of the pull-cord to the yoke-cord, which yoke at its opposite ends is fastened to the uprights, I provide means whereby the swing can be operated immediately upon being hooked in suspension without connection of the operative cord to any separate structure, which is necessary in all similar devices known to me. The use of the yoke-cord is also important, as it allows the lever  $L$  to be folded into the same plane as the uprights when the swing is packed for shipping.

From the foregoing description, in connection with the drawings, the nature and object of my invention will be readily understood. Its operation is as follows: When the swing is closed for storage purpose or for transportation, the chair is extended and lies flat between the uprights  $A$ , and the lever  $L$  is turned to a vertical position, as fully illustrated in Fig. 2, wherein it will be seen that all the members of the device are on one vertical aligning plane. When it is desired to use the swing, it is hung in position and the chair unfolded, as seen in Fig. 1, and securely locked in such position by means of the rear braces,  $b^8$ . The chair is now ready for occupancy, and can be swung to and fro by simply pulling the free end of the cord  $l$ , whether it hangs loosely to the front or rear. The cross-yoke cord  $l'$  pulls against the uprights  $A$  (the yoke providing a limit to the movement) of the lever  $L$  and swings the chair backwardly, the weight of the occupant returning it in the opposite direction.

I have thus far limited my description to the main swinging device; but I also contem-

plate the use of the uprights and their connections with a detachable folding frame,  $F$ . Said frame consists of pairs of front and rear braces,  $F'$   $F^2$ , each pair being independently pivoted to the opposite ends of a cross-beam,  $f$ , the respective pairs of braces  $F'$   $F^2$  being separated at their lower ends by rigidly attached cross-bars  $f'$   $f''$ . The forward and rear pairs of braces are respectively connected near their lower ends, at opposite sides of the frame, with a folding and interlocking cross-brace,  $f^3$ , which, when the braces  $F'$   $F^2$  are opened, as shown in Fig. 1, keeps them rigidly distended, thereby composing a scaffold-frame upon which the uprights  $A$  can be suspended.

The cross-braces  $f^2$  have each midway of their length a stop-joint hinge,  $f^3$ , that enables them to be folded upon themselves upwardly, as seen in Fig. 2, but limits their downward extension to a horizontal right line. (See Fig. 1.) As before set forth, the uprights  $A$ , with their connections, can be suspended either from the lintel of a door-frame or from the cross-beam  $f$  of a folding scaffold, as shown.

Having thus described my invention, what I claim is—

1. The combination of the uprights  $A$  with a folding chair consisting of a seat,  $b$ , having a back,  $b'$ , pivoted thereto, links  $b''$ , pivoted at one end to the forward part of said seat and at their opposite end to a bar,  $b^6$ , which bar is pivotally connected to uprights, said chair being pivotally connected to the uprights  $A$  by links, forming arm-rests  $b^4$ , side rails,  $b^3$ , of the chair-seat, and forwardly-extending bars,  $b^5$ , carrying foot-rest  $b^2$ , said seat being supplied with adjustable locking-braces  $b^8$ , all arranged as described, whereby said chair can be folded up vertically between said uprights, substantially as described.

2. A portable swing provided with a folding chair pivotally connected to and between two uprights, and a reversible swinging lever loosely mounted on a transverse bar rigidly connected to and extending between said uprights, in combination with a pull-cord,  $l$ , having one end free and fastened at its opposite end to a limiting-yoke cord,  $l'$ , said limiting-yoke being permanently attached to said uprights, substantially as described.

THOMAS FOLKS.

Witnesses:

SAML. H. JACOBSON,  
ANSON S. TAYLOR.