

(No Model.)

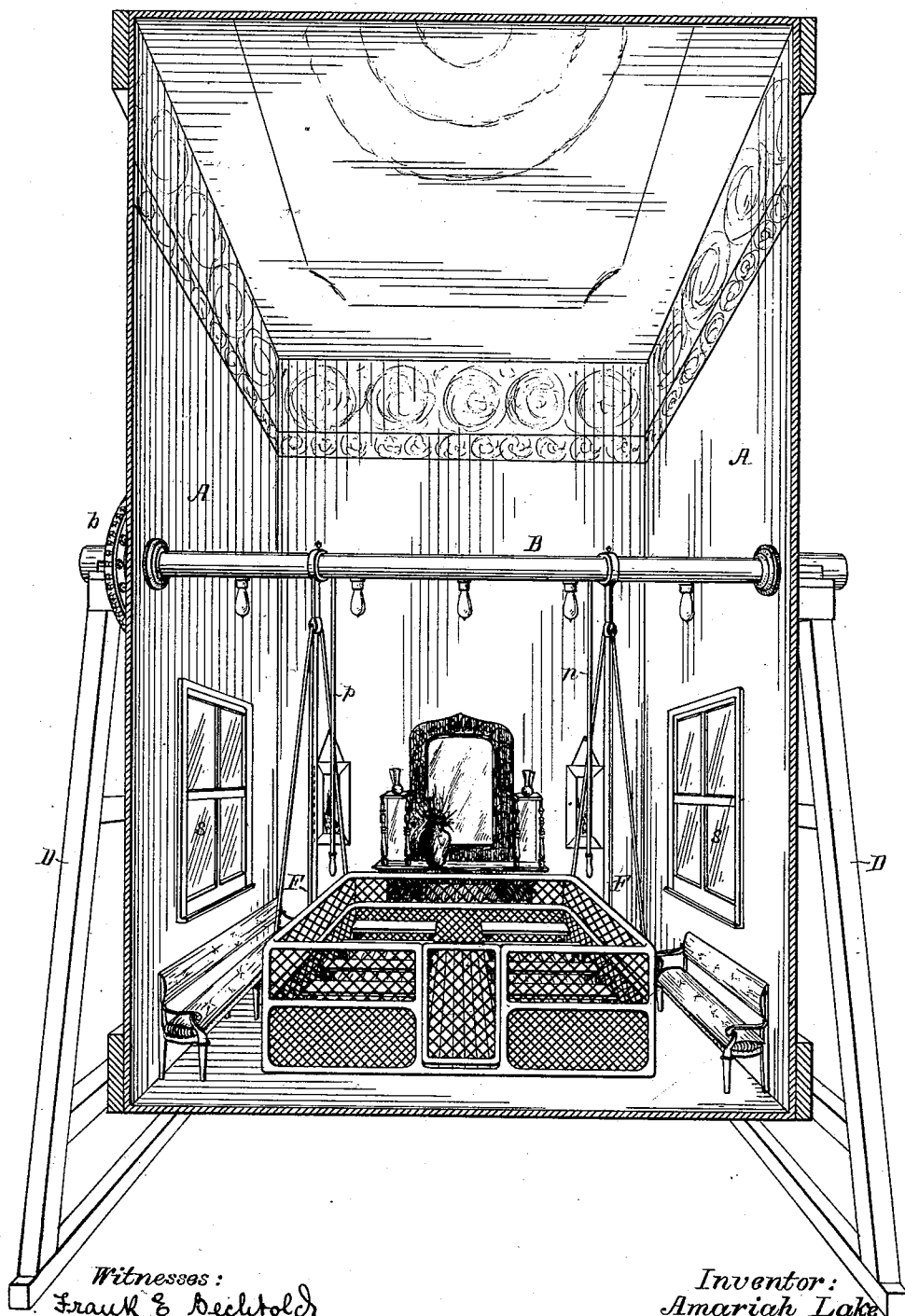
2 Sheets—Sheet 1.

A. LAKE.
ILLUSION APPARATUS.

No. 508,227.

Patented Nov. 7, 1893.

FIG 1



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Hamilton D. Turner

Inventor:
Amariah Lake
by his Attorneys
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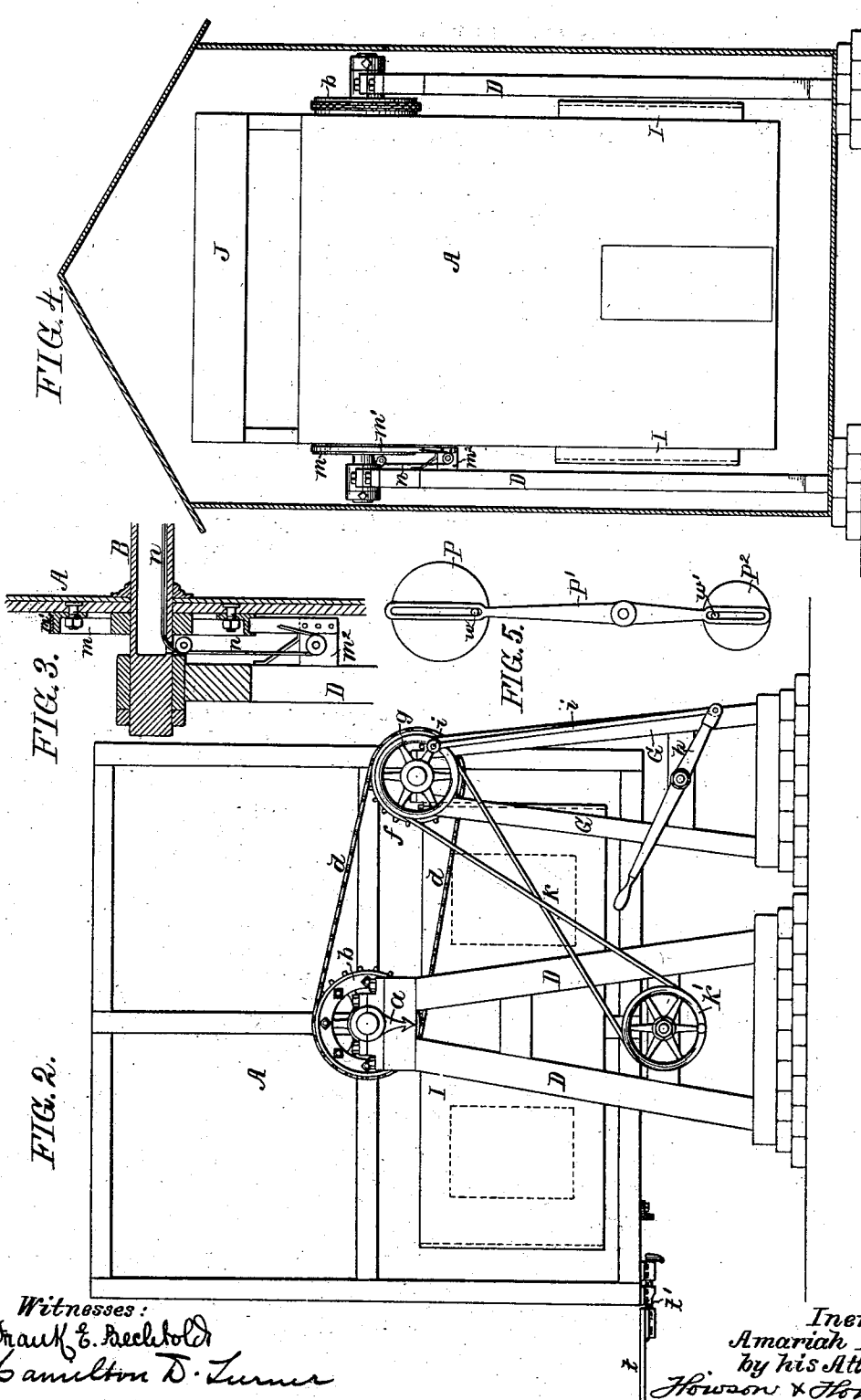
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Samuel D. Turner

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UNITED STATES PATENT OFFICE.

AMARIAH LAKE, OF PLEASANTVILLE, NEW JERSEY.

ILLUSION APPARATUS.

SPECIFICATION forming part of Letters Patent No. 508,227, dated November 7, 1893.

Application filed April 22, 1893. Serial No. 471,505. (No model.)

To all whom it may concern:

Be it known that I, AMARIAH LAKE, a citizen of the United States, residing at Pleasantville, Atlantic county, New Jersey, have invented certain Improvements in Illusion Apparatus, of which the following is a specification.

The object of my invention is to provide an apparatus in the nature of a swing of such character that the occupants of the swing while moving slowly or even while perfectly stationary, will be subject to the illusion that they are swinging to an extreme height, or even that the swing is turning completely over, and this object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1, is a perspective view illustrating my invention. Fig. 2, is a side view on a small scale illustrating certain external mechanism not illustrated in Fig. 1. Fig. 3, is a sectional view illustrating a braking device which may be employed in connection with the apparatus. Fig. 4, is a view, partly in section, and partly in elevation, illustrating a modified form of the device; and Fig. 5, is a side view illustrating another modification.

In the apparatus illustrated in Figs. 1, 2 and 3 A represents a box which is furnished and decorated on the interior to represent a room in a building, and midway of this box is a transverse shaft B adapted at its opposite ends to bearings at the upper ends of vertical frames D which are suitably supported upon the outside of the box, the latter being so mounted upon said transverse shaft as to turn freely thereon. From the shaft B is suitably suspended the cage or basket F of the swing, which may, if desired, swing freely on the shaft, but which is preferably secured thereto so that as it swings the shaft itself will rock and indicate to an attendant on the outside of the box A by means of a pointer *a* at the end of the shaft, the speed and direction of movement of the swing. To one side of the box A is secured a sprocket wheel *b* to which is adapted an endless chain *d* and the latter being also adapted to a sprocket wheel *f*, of the shaft which turns in bearings on an upright frame G in the rear of one of the frames D. Secured to this shaft also is a pulley *g* having a crank pin *i* which is connected

by a rod *i'* to a lever *h* hung to the frame G. The pulley *g* is connected by means of a crossed belt *k* to a pulley *k'* hung to the frame D. Two means are thus provided for swinging or turning the box A upon the shaft B, the first of these means being the pulley *g* with its crank pin, connecting rod and operating lever, and the second being the pulley *k'* which is provided with a suitable crank handle whereby it can be readily turned, and either or both of these means may be employed for the purpose of swinging or turning the box A as desired.

On that side of the box A opposite the one which carries the sprocket wheel *b* is a grooved drum *m* to which is adapted a friction band *m'* secured at one end to a block *m''* projecting from one of the frames D and connected at the opposite end to a cord *n* which passes over suitable pulleys and thence through the shaft B which is preferably made hollow for the purpose, the inner end of the cord depending within easy reach of the attendant who is located inside the box and who has charge of the swing. Another cord *p* likewise within reach of the attendant extends out through the opposite end of the shaft B and serves to signal to the attendant who is outside of the box. In the opposite sides of the box are windows *s* and on the outside of the box throughout the space containing these windows is a hood I of which the inner side is visible through the windows and is painted or otherwise made to imitate clap boards, shingles, bricks or other representations of the walls of an adjacent building. The apparatus as thus constructed is intended to be erected within a suitable building so that it is entirely shielded from the view of observers on the outside, access to the interior of the box from a front room or apartment in said building being had by means of a suitable bridge *t* which, during the passage of persons into or from the room or apartment within the box, can be locked to the latter by means of a suitable bolt *t'*, the latter being withdrawn before attempting to swing the box.

Supposing that the passengers have entered the room or apartment within the box A and have taken their seats within the cage or basket of the swing, and that the door through which they entered has been closed, the at-

tendant within the room or apartment starts the swing moving slowly and then takes his place upon the swing, at the same time signaling to the attendant outside, who there-
 5 upon commences to swing the box first slowly and through short spaces, and then faster and through gradually increasing portions of the arc of a circle until finally he causes it to turn completely over one or more times and then
 10 gradually reduces the extent of swing until he finally brings it again to a condition of rest.

The occupants of the swing have nothing to indicate that it is the surrounding room or apartment that is moving instead of the
 15 swing, and consequently they are completely subjected to the illusion that the excessive movements and final overturn are those of the swing itself, thus causing mystification and bewilderment.

20 Of course, it will be understood that all of the articles of furniture or decoration contained within the box A are securely fastened in position so that they are not likely to be displaced by the movement of the box.

25 The braking apparatus on the outside of the box provides the attendant on the inside of the same with means for checking the speed of movement of the box and of bringing the same to a stand still as quickly as possible
 30 when desired, while the pointer *a* serves to indicate to the attendant on the outside of the box the extent and direction of movement of the swing F so that in starting to move the box A he can govern such movements with
 35 reference to those of the swing, that is to say, when the swing is moving forward, he can turn the box backward and vice versa.

In case it is not desirable to provide for the complete overturn of the box A the shaft B
 40 may be in the upper part of said box, and the latter may be provided above with a box J as shown in Fig. 4 for containing a suitable counterbalance in which case the surrounding structure can be considerably reduced in
 45 height.

Fig. 5 illustrates a modified form of operating device which can also be used in some cases. This device comprises an upper disk P secured to the end of the shaft B which in
 50 this case carries the box A, said disk having a crank pin *w* adapted to the slotted upper end of a lever P' which is hung to the fixed frame outside of the box and is also slotted at the lower end for the reception of a crank
 55 pin *w'* on an operating disk *p*² so that by swinging or turning the latter, a swinging or turning movement in the reverse direction will be imparted to the disk P and to the parts connected therewith.

60 The cage F should be provided with a high

wire screen or casing in order to prevent the occupants of the same from jumping from the swing when excited, and the room or apartment represented by the interior of the box
 65 A may be lighted by gas burners or electric lamps, the gas pipes or electric light wires being run through the central pivot shaft B.

Having thus described my invention, I claim and desire to secure by Letters Patent—

70 1. The combination in an illusion apparatus, of a swing, a bar upon which said swing is mounted, and a box or casing inclosing said swing and mounted so as to be free to swing or to turn around said inclosed swing, substantially as specified.

2. The combination in an illusion apparatus, of a swing, a bar upon which said swing is mounted, a box or casing inclosing said swing and mounted so as to be free to swing
 80 or to turn around said inclosed swing, and gearing whereby such swinging or turning movement can be imparted to said box or casing, substantially as specified.

3. The combination in an illusion apparatus, of a swing, a box or casing inclosing said swing and mounted upon the pivot shaft of the same so as to be free to swing or turn thereon,
 85 and an indicating finger or pointer secured to said pivot shaft on the outside of said box or inclosure, substantially as specified.

4. The combination in an illusion apparatus, of a swing, a bar upon which said swing is mounted, a box or casing inclosing said swing and mounted so as to be free to swing
 95 or to turn around the same, a friction brake for retarding the movement of the box or casing, and an operating cord for said brake extending through the pivot shaft of the box or casing, substantially as specified.

5. The combination in an illusion apparatus, of a swing, a bar upon which said swing is mounted, and a box or casing inclosing said swing and mounted so as to be free to swing
 100 or to turn around the same, said box or inclosure having in the sides windows with external hoods, substantially as specified.

6. The combination in an illusion apparatus, of a swing, a bar upon which said swing is mounted, a box or casing inclosing said swing, and mounted so as to be free to swing
 110 or to turn around the same, a bridge leading to said box or casing, and means for locking the box and bridge together, substantially as specified.

AMARIAH LAKE.

Witnesses:

ALVIN P. RISLEY,
 JOSHUA LAKE.