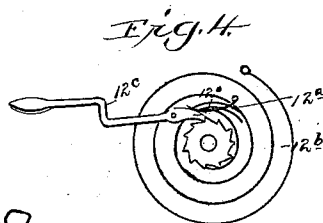
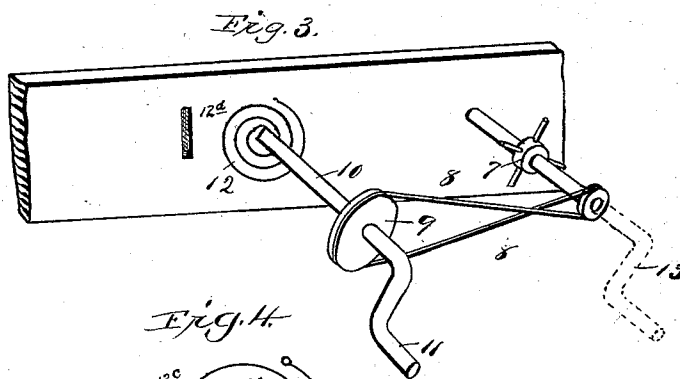
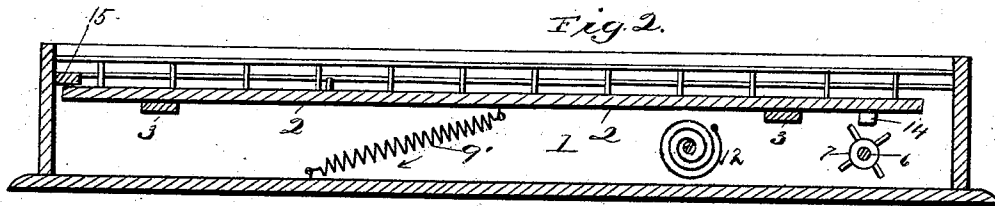
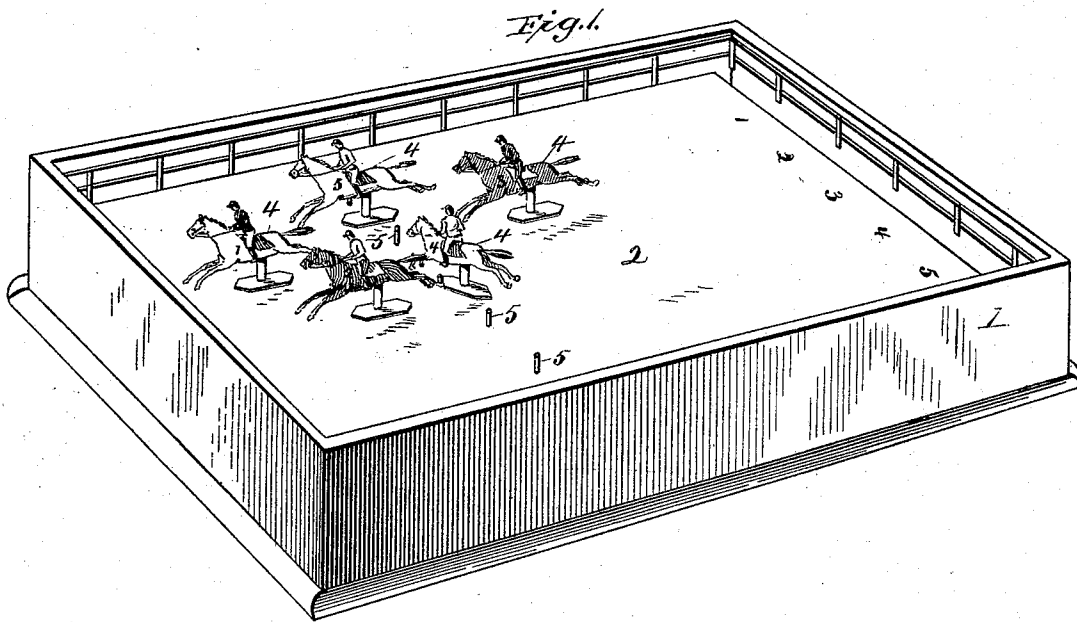


(No Model.)

J. GOODWIN.
TOY.

No. 539,807.

Patented May 28, 1895.



Witnesses:

J. M. Fidler Jr.
Geo. F. Blendenburg

Inventor:
John Goodwin,
By *Davis & Co.*
Attorneys.

UNITED STATES PATENT OFFICE.

JOHN GOODWIN, OF NEW YORK, N. Y.

TOY.

SPECIFICATION forming part of Letters Patent No. 539,807, dated May 28, 1895.

Application filed October 22, 1894. Serial No. 526,617. (No model.)

To all whom it may concern:

Be it known that I, JOHN GOODWIN, a subject of the Queen of Great Britain, residing at New York, in the county of New York and State of New York, have invented a certain new, useful, and valuable Improvement in Toys, of which the following is a full, clear, and exact description.

My present invention relates to toys, and particularly to that class of toys which simulate a race course and has for its object to provide an improved toy which is practical and economical of construction and which when used proves a great source of amusement.

To these ends my invention consists of the combination and arrangement of parts substantially as illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of my improved toy. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is an enlarged perspective view of the operating mechanism. Fig. 4 is a detail view of the spring-retaining ratchet-wheel and its pawl.

The containing box 1, may or may not be provided with a cover.

The race course 2 consists of a board adapted to be moved or vibrated horizontally upon the cleats 3 within the box 1. Upon this board are placed any number of movable objects 4 which may be of any desired form or shape but are preferably made to resemble, in miniature, a horse and jockey, and being preferably marked with figures to correspond with those transversely arranged and imprinted upon the board at the starting end. The pegs 5 are fastened transversely to the board at any desired point and serve to obstruct one or more of the horses in passing, so as to lend an additional interest and excitement to the game.

The shaft 6 carrying the spoke wheel 7 is driven by the cable 8 from the pulley 9 on the shaft 10 having the handle 11 which winds up any desirable form of spring, such as shown at 12, which latter when released is adapted to revolve shaft 6, through the medium of the cable 8, a great number of times. The spring 12, after being wound up is held against turning by means of a pawl 12^a, engaging with the teeth of a ratchet wheel 12^b. The

pawl is pivoted, preferably, to the side of the box 1, and has a laterally extending arm which is bent at 12°, said bent portion being passed through an opening 12^d in the side wall of the box, and its end so arranged that it can be pressed down by the finger, when it is desired to operate the device, such downward pressure serving to release the pawl from its engagement with the ratchet wheel. The pawl is normally held in contact with the ratchet wheel by means of a spring 12^c; or if desired the shaft 6 may be revolved direct by a handle such as shown at 13, thus dispensing with the shaft 10 and its auxiliaries, or co-operating parts.

The spokes of the wheel 7 successively engage the projection 14 placed upon the under side of the board 2. A spiral or other spring 9' is connected at one end to the bottom of the containing box 1 as shown, and at the other end to the board 2 so as to always exert a pull upon the same away from the spoked wheel 7, or in a contrary direction to the action of said spoked wheel 7.

The preferable mode of operating my device is substantially as follows: Place the horses or objects in position on the board 2 over the numbers 1 to 5, &c., so that their own numbers will correspond with those over which they are placed, and then revolve the shaft 7, in either of the ways described, so as to cause the spokes of the wheel 7 to successively knock against the projection or lug 14 and carry the board 2 slightly forward when the engaging spoke slips over and beyond said lug, whereupon the board or course is pulled suddenly backward by the spring 9, and upon the board being suddenly stopped by striking the rear end of the box, the figures, owing to their momentum acquired before the board is suddenly stopped, slide forward a distance approximating one-eighth of an inch, and as these movements are repeated in rapid succession the objects thus travel the entire length of the board in a comparatively short time, subject to interruption by the pegs, the horse reaching the goal or ledge 15 first being ascribed as the winner.

Many minor changes or modifications may be made without avoiding the spirit of my invention, and as one example I may so arrange the board 2 that it may slant downward from

the starting point; and as another example of contemplated changes I may so shape the center of the shaft 7 as to form a crank to engage the lug 14, and thus dispense with the 5 spoked wheel.

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

10 1. In a toy, the combination with a box or casing, of a board or course loosely mounted in said casing, figures resting freely upon the board, and means for imparting a longitudinal vibratory movement to said board or course, substantially as and for the purpose set forth.

15 2. In a toy the combination of a containing box or casing, a movable board or course therein, moving objects or horses thereupon, a spoke wheel adapted to engage the under side of the board an operating crank and 20 handle and a returning spring adapted to operate substantially as set forth.

25 3. In a toy, the combination with the box or casing, a board or course loosely supported within said box, moving objects placed upon the board, a resilient connection between the board and the box, obstructions rigidly secured to the board or course in the path of the moving objects, a spoke-wheel for moving

or vibrating said board, and means for operating the spoke-wheel, substantially as described. 30

4. In a toy, the combination with the containing box or casing, of a movable board or course mounted therein, a spoke-wheel adapted when revolved to engage the under side of 35 the board, means for operating the spoke-wheel, a spring for returning the board to its normal position after it has been moved by said spoke-wheel, moving objects resting freely upon the board, and a ledge adapted to 40 operate as a finishing point or line for the objects, substantially as set forth.

5. In a toy the combination with a yieldably mounted board or course, moving objects or horses thereon a spoke-wheel and a spring 45 adapted to be wound up and when released communicate motion to the spoke-wheel to shake or vibrate said board longitudinally, substantially as set forth.

In testimony whereof I affix my signature 50 in presence of two witnesses.

JOHN GOODWIN.

Witnesses:

OSCAR HERZBERG,
RICHARD D. WALLACE.