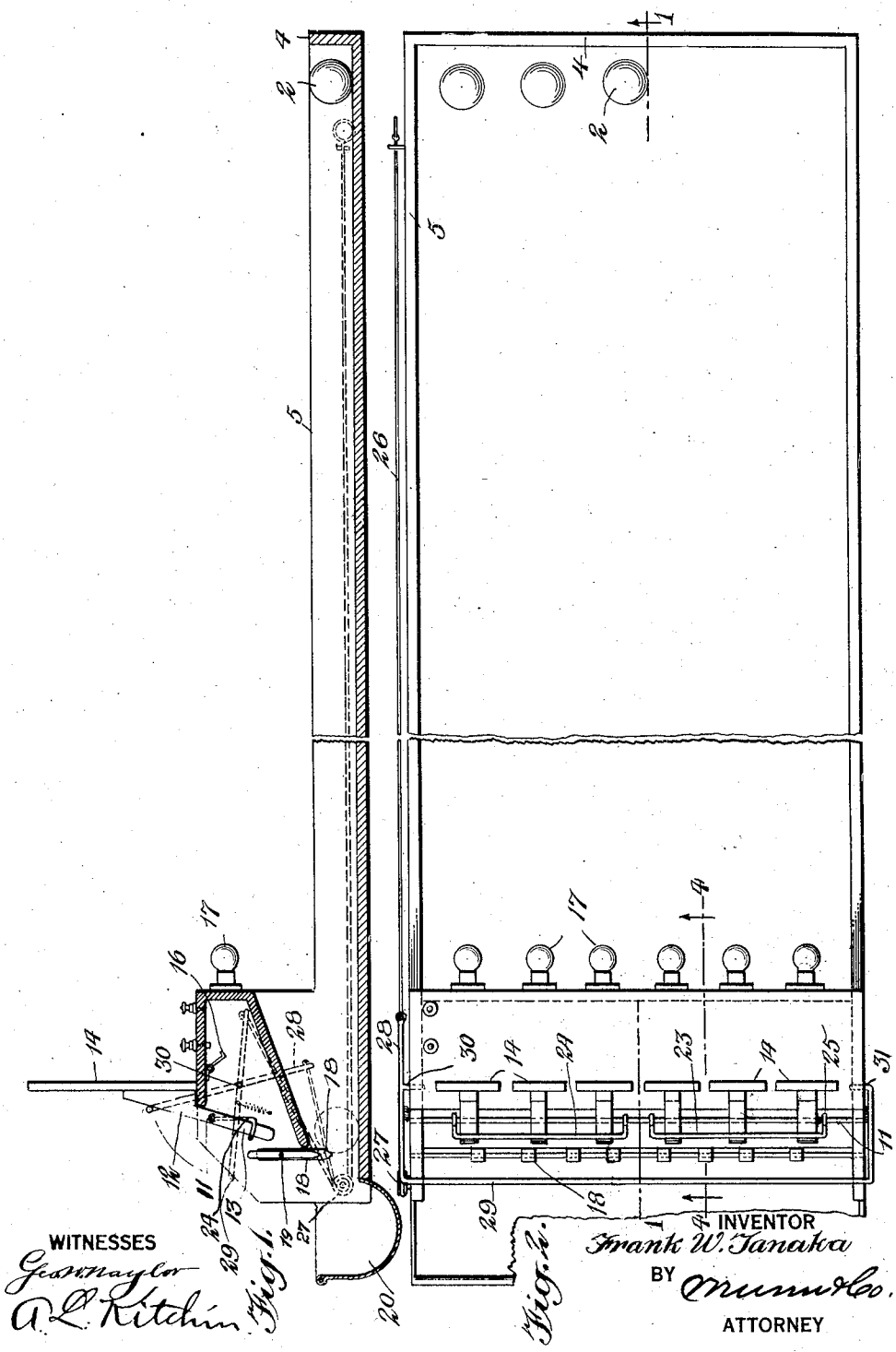
March 29, 1927. 1,622,981

F. W. TANAKA

AMUSEMENT DEVICE

Filed Oct. 26, 1926 2 Sheets-Sheet 1



WITNESSES

Geo. Maylor

A. L. Ritchin

Fig. 1.

Fig. 2.

INVENTOR

Frank W. Tanaka

BY Munn & Co.

ATTORNEY

March 29, 1927. 1,622,981

F. W. TANAKA

AMUSEMENT DEVICE

Filed Oct. 26, 1926 2 Sheets-Sheet 2

Fig. 3.

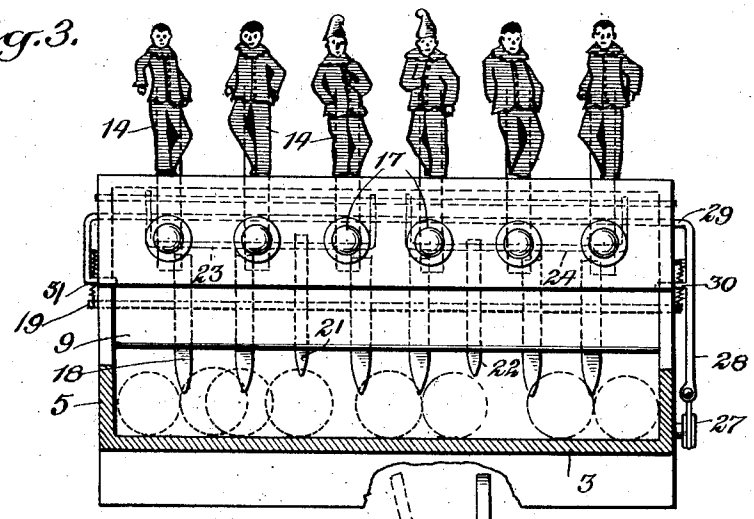
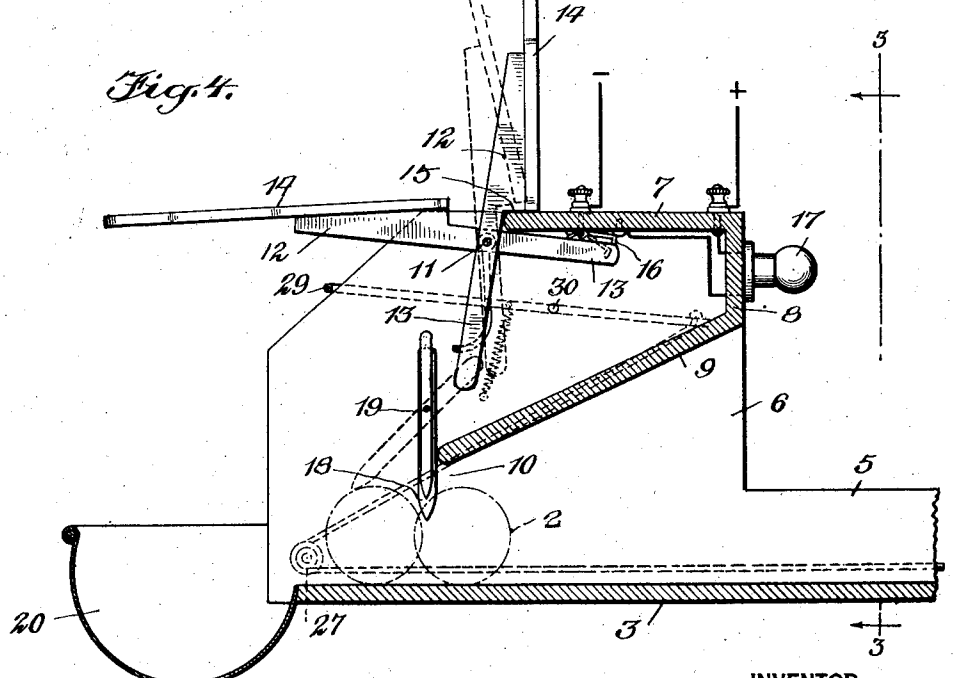


Fig. 4.



WITNESSES

George Naylor

A. L. Ritchie

INVENTOR

Frank W. Tanaka

BY Munn & Co.

ATTORNEY

Patented Mar. 29, 1927. 1,622,981

UNITED STATES PATENT OFFICE.

FRANK WASUKE TANAKA, OF NEW YORK, N. Y.

AMUSEMENT DEVICE.

Application filed October 26, 1926. Serial No. 144,309.

This invention relates to an amusement device and has for an object to provide an improved construction wherein a series of tiltable figures are presented and rolling members are used in co-operation therewith for causing a tilting action of the tiltable members during the actuation of the device.

Another object in view is to provide an amusement apparatus wherein a number of tiltable figures are presented capable of being knocked down by a ball, the arrangement being such that extreme skill must be used for knocking down more than one figure at a time.

A still further object of the invention is to provide an amusement device wherein figures are presented capable of being swung to an out of the way position when a projectile used in the device functions properly, the figures being associated with suitable restoring mechanism for simultaneously restoring one or all of the figures.

In the accompanying drawings—

Figure 1 is a longitudinal vertical sectional view through Figure 2 on line 1—1.

Figure 2 is a top plan view of an amusement device disclosing a preferred embodiment of the invention.

Figure 3 is a sectional view through Figure 4 on line 3—3.

Figure 4 is an enlarged fragmentary sectional view through Figure 2 on line 4—4.

Referring to the accompanying drawings by numerals, 1 indicates a ball runway over which any of the balls 2 may be rolled during the operation of the device. The runway 1 is provided with a bottom 3 made from wood or other material, a front wall 4 and suitable side walls 5. The side walls 5 at the rear are formed with enlargements 6 on which the top plate 7 is mounted. The front plate 8 is formed integral with plate 7 or rigidly secured thereto in any desired manner. An inclined plate 9 extends from plate 8, said plate 9 acting with the bottom 3 to produce a restricted opening 10 through which the various balls 2 are adapted to pass. A pivotal pin or shaft 11 is arranged back of plate 7 and a little below the same, said shaft being preferably carried by the end members 6. On this shaft is pivotally mounted a number of arms 12 having downwardly extending sections 13. A figure 14 is secured to each of the arms 12 and when said arms are in substantially vertical position as shown in Figure 4, the figures 14 will also be in a substantially vertical position so as to be readily seen from the end rail or board 4. Each of the arms 12 is provided with an offset or shoulder 15 which rest on the plate 7 and by reason of the weight of the members 14, remain in this position until positively moved to a substantially horizontal position.

When the section 13 is struck or moved toward the front, the arm 12 and figure 14 will move substantially to the dotted position shown in Figure 4 and by reason of the weight of the upper part of arm 12 and figure 14, will automatically, under the action of gravity, move downwardly to an almost horizontal position so that the lower end portion of section 13 will strike the switch 16 and force the same to a closed position whereupon the lamp 17 will be lighted as the circuit for this lamp will be closed. The circuit of lamp 17 may be of any desired kind and is normally open at switch 16 but is closed when this switch has been moved closed by the end of section 13.

Associated with each of the arms 12 is a pivotally mounted member 18, said members 18 being pivotally mounted on a shaft 19, said shaft being nearer the top than the bottom of these members so that these members will normally remain in a vertical position. These members are arranged in back of the sections 13 but are so positioned that when the lower ends of any of these members are swung toward the ball receiving trough 20, the upper end will strike section 13 and cause the same to be swung over to a lower position. Also, the lower ends of the members 18 are tapered and somewhat rounded so that if a ball passes exactly midway between the first two, the second two or the third two, the ball will cause the members engaged to swing over to the dotted position shown in Figure 4 and, consequently, to throw down two of the figures 14. Between the end members 18 and the end walls 5, the ball may readily pass so that none of the figures will be molested. Midway between the first and second pairs of

members 18 and also midway between the second and third pairs of members 18, are provided members 21 and 22. These members are shorter than members 18 and they are not opposite any of the sections 13 but when struck and swung by a ball, will strike either rod 23 or rod 24 according to which of the members 21 or 22 is actuated. Rods 23 and 24 are each provided with looped ends 25 having an encircling member encircling the shaft 11. It will thus be seen that when either of the rods 23 or 24 is actuated, three figures 14 will be depressed. The space on each side of the respective members 21 and 22 is sufficiently great to allow the ball to pass therethrough without striking either of the members 21 or 22 or any of the members 18. The lower ends of the members 21 and 22 are sufficiently near the floor 3 to be engaged by any of the balls when the same are accurately rolled. It will thus be seen that if the balls are rolled carelessly, they may pass outside of each of the end members 18 or may pass by either of the members 21 and 22 and accomplish no results. If some skill is used, one of the members 18 may be depressed and if a greater skill is used, two of the members 18 may be depressed by one ball. It takes high skill or most accurate rolling for one ball to strike either of the members 21 or 22 and when this is done, three of the figures 14 will be simultaneously lowered.

Usually in playing the game, three balls are allowed for each player and after these have been played, whether there is one or all of the figures 14 depressed or lowered, the cable 26 will be pulled. This cable passes over a pulley 27 and is connected to arm 28. This arm merges into a transverse bar 29 and also into a pivotal pin 30. Bar 29 at the opposite end to arm 28 is provided with a bent portion having an extension 31 acting as a pivotal pin. Bar 29 is so positioned that when the cable 26 is pulled it will engage the various arms 12 and quickly raise the same to a substantially vertical position. As the arms are restored, the switch 16 automatically opens under the action of a spring so that the device is ready for a second player.

What I claim is:

1. An amusement device comprising a runway, a series of pivotally mounted figures arranged adjacent one end of the runway, a series of pivotally mounted members co-acting with said figures so that when said members are swung in a certain direction they will swing said figures to an inoperative position, a signalling device provided with an electric circuit, and a switch normally holding said circuit open, said switch being positioned so as to be engaged and closed by said figures as they are moved to a lowered position.

2. An amusement device comprising a runway, a plurality of figures having a pivotally mounted arm connected with each of said figures, each of said arms having an extension, a pivotally mounted member co-acting with each of said extensions and projecting to a point near the bottom of said runway, said last mentioned members being spaced apart and arranged in groups of two so that a ball properly rolled over the runway in a given direction will strike one member and swing the same for lowering one of said figures and when rolled a second way will strike two of said members to cause two of the figures to be lowered.

3. An amusement device comprising a runway, a plurality of figures, a pivotally mounted arm connected with each of said figures and acting to normally hold the figures in a substantially vertical position, each of said arms having a depending portion or extension, a pivotally mounted member arranged adjacent each of said extensions, a bar extending across groups of said extensions, a pivotally mounted member positioned to strike said bars and move the same for lowering said arms and figures when the member has been swung to a given position by a ball passing over said runway, said first mentioned pivotally mounted members acting to lower a single figure when a ball passing over said runway strikes the same.

4. An amusement device comprising means forming a runway, balls adapted to roll over said runway, a plurality of pivotally mounted members adapted to be engaged and swung by said balls as they move over the runway, certain of said members being shorter than the others, a plurality of figures, a pivotally mounted arm connected to each of said figures and extending to a position to be engaged and swung to an out of the way position when any of said members have been swung by any of said balls, and a plurality of bars arranged in back of certain groups of arms, said member which is shorter than the remaining members acting on the respective bars so that when said shorter pivotally mounted member is swung a group of said figures will be swung downwardly.

5. An amusement device comprising means presenting a runway, a plurality of balls adapted to be rolled over said runway, a plurality of pivotally mounted members adapted to be engaged by said balls as the balls are moved over the runway, said balls acting to swing said pivotally mounted members a given distance, said pivotally mounted members being formed of different lengths, those of one length being arranged in groups of two and those of a second length being arranged singly and positioned between the respective groups of two, a fig-

ure for each of said pivotally mounted members, a pivotally mounted arm connected to each of said figures and extending to points opposite the longer of said pivotally mounted members so as to be engaged and swung thereby when said pivotally mounted members have been swung by said balls, and a plurality of pivotally mounted bars, said bars extending across certain of said arms for grouping the same, said shorter pivotally mounted members acting on the respective bars for moving the same and the group of arms and figures associated therewith.

FRANK WASUKE TANAKA.