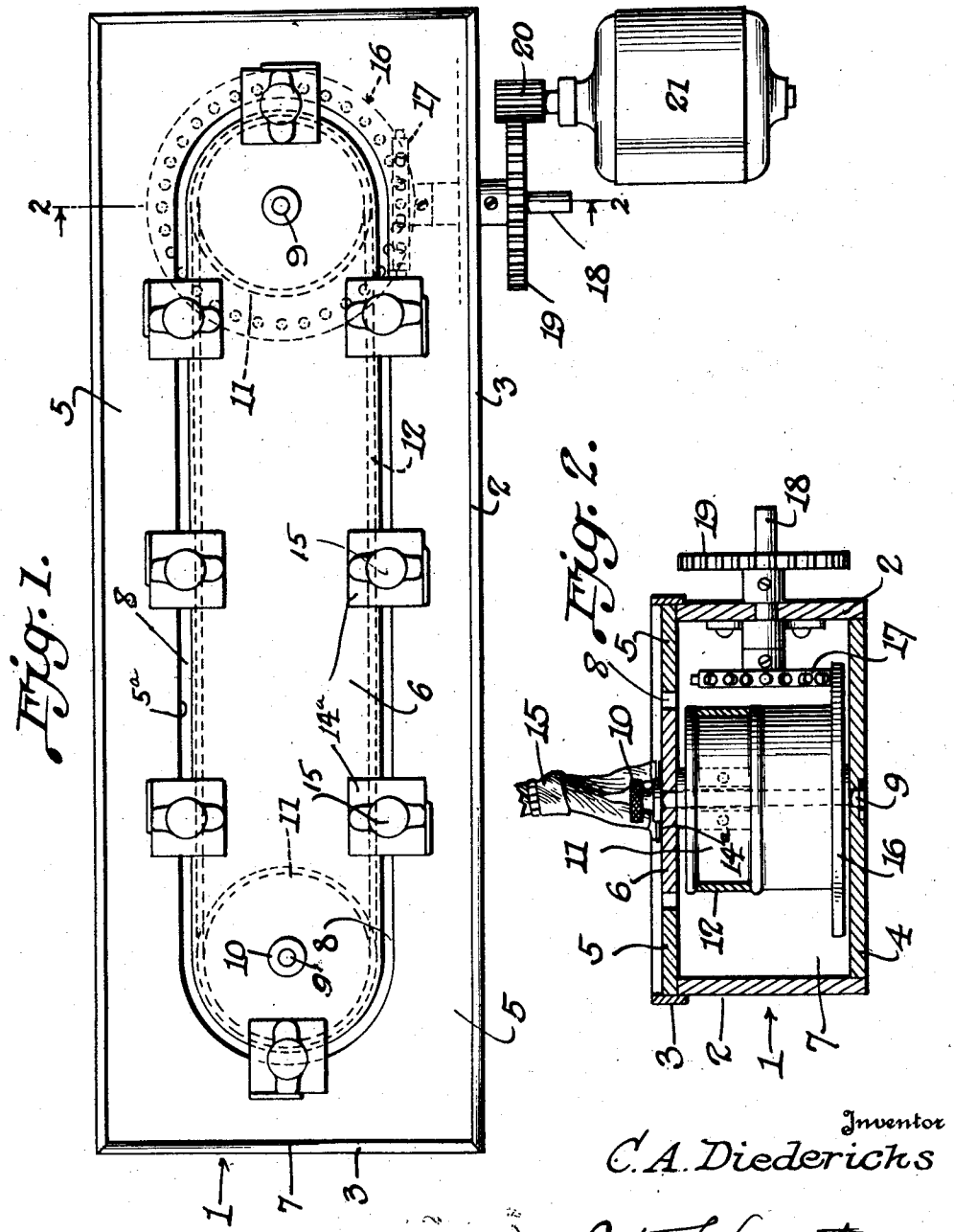
July 28, 1931. C. A. DIEDERICHS 1,816,471

ENDLESS CIRCUIT TOY GAME

Filed July 10, 1930 2 Sheets-Sheet 1



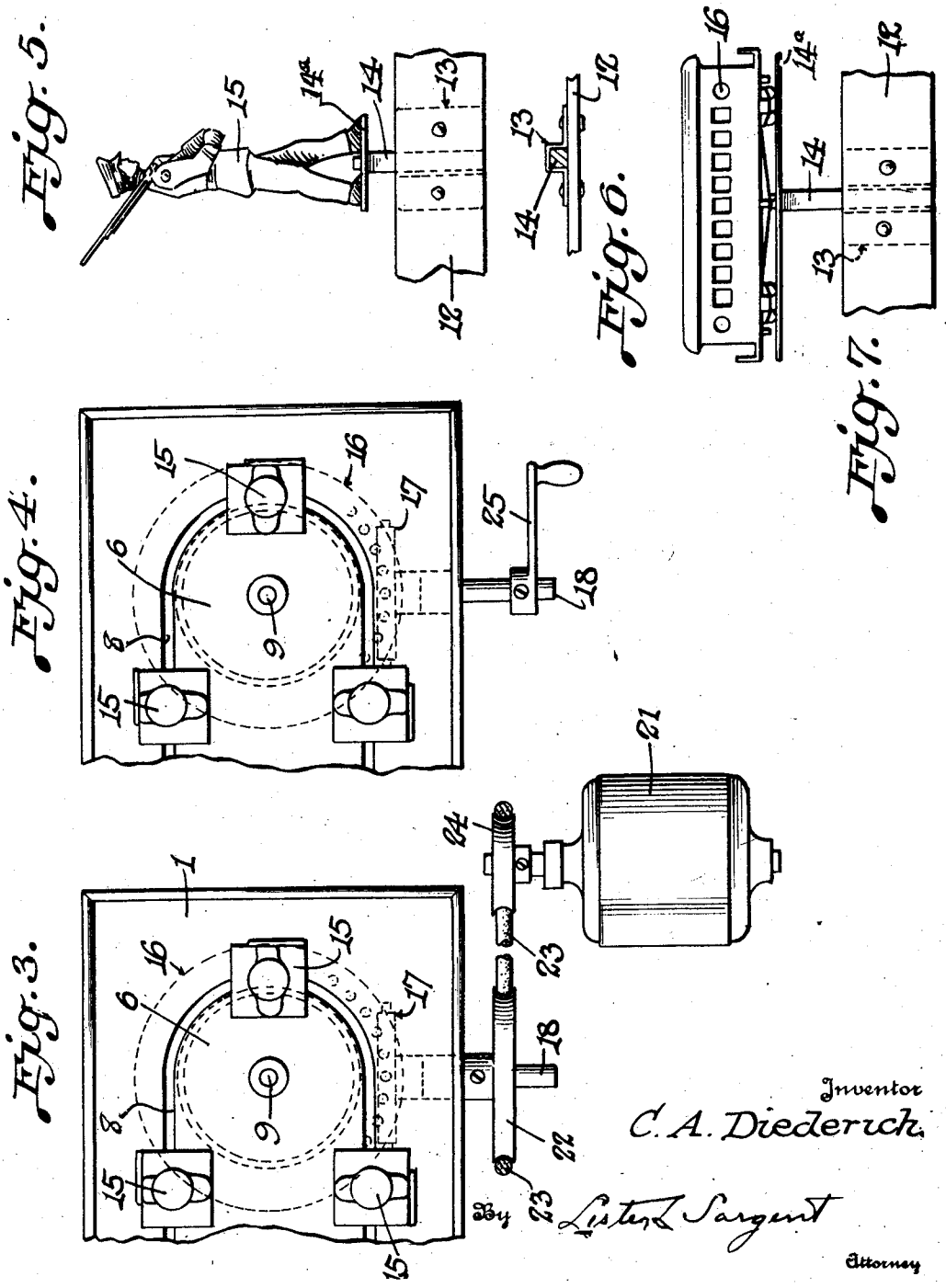
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UNITED STATES PATENT OFFICE

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ENDLESS CIRCUIT TOY GAME

Application filed July 10, 1930. Serial No. 467,085.

The object of my invention is to provide an improved novel and interesting game for children which may be operated either manually or by electricity or other power means, and which provides an endless circuit over which either mannequin figures or other toys, such as trains or vehicles, may be operated; which provides novel means for easily and quickly attaching or removing these toy figures from the propelling mechanism; and to provide a game of this character which can be manufactured at reasonable cost and which involves a comparatively small number of parts and also to provide a plaything of this character which can be readily assembled and disassembled, and which cannot easily be gotten out of order.

I attain these and other objects of my invention by the apparatus illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of the invention;

Fig. 2 is section on line 2—2 of Fig. 1;

Fig. 3 is a detailed top plan view of a modified form of the invention having a different driving means;

Fig. 4 is a similar view of the invention arranged to be driven manually by a crank;

Fig. 5 is a detailed view of a portion of the endless belt 12, showing a means for releasably mounting the removable toy on same;

Fig. 6 is a top or edge plan view of same with the member 14 shown in section; and

Fig. 7 is a view similar to Fig. 5 but with a toy figure illustrated in place of a mannequin figure.

Like numerals designate like parts in each of the several views.

Referring to the accompanying drawings, I provide a box 1, comprising the sides 2, and the bottom 4. I provide a top 5 having side strips 3 which extend downwardly over the upper edges of the box sides 2 to hold the tray top on the box. These sides may, if desired, be extended upwardly to form flanges 2 above the plane of the upper surface of top 5. Top 5 is provided with a suitable large central aperture 5*a* of any desired shape. I further provide a correspondingly shaped but smaller suitable strip or table 6 seated in this aperture but spaced from it by a narrow channel 8, as shown in Fig. 1. The strip or table 6 is mounted on the shafts 9 and may be suitably and removably fastened in place by any suitable means such as nuts or thumb nuts 10. The upper surface of strip 6 and the upper surface of top 5 are on the same plane and provide a support for the base 14*a* of the movable toy, which may be the mannequin figure 15 or a miniature vehicle 16. The top 5 is preferably fastened to the box 1 by screws (not shown) to provide a more rigid support for the toy figures. The box as a whole is of suitable small size to be handled readily by children, for whom the device is intended, as set out hereinbefore in the statement of objects of the invention.

Mounted on the shafts 9, I provide drums 11, over which travels the endless belt 12. Mounted on this endless belt 12 at spaced intervals are belt socket strips 13 which are suitably shaped, as shown in Fig. 6. I provide thin depending shafts 14 affixed to base plates 14*a* to which in turn are affixed the desired toys, such as the mannequin figures 15 (such as soldiers or sailors), or a suitable wheeled vehicle, such as the car 16. Affixed to the base of the drum 11 is a gear 16 having spaced apertures in its upper surface to receive the teeth of a toothed wheel 17 which is affixed to the driving shaft 18, as shown in Figs. 1 and 2.

Shaft 18 may be driven either manually or by power means. In Figs. 1 and 2 there is illustrated a gear 19 affixed to shaft 18, said gear 19 meshing with a smaller gear 20 which is affixed to the shaft of an electric motor 21 which motor may be electrically connected with a lighting socket or any other source of current.

Referring to Fig. 3, there is illustrated another driving means consisting of the grooved wheel 22 affixed to the shaft 18 and connected by a cord belt 23 with a grooved driving wheel 24 affixed to the driving shaft of the electric motor 21.

I do not desire to designate either Figs. 1 and 2, or Fig. 3 as a preferred form as either may be used.

In Fig. 4 there is illustrated a means for manually operating the toy, consisting of a hand crank 25 which may be affixed to the shaft 18 by any suitable means. Shaft 18 may, if desired, be threaded for a threaded engagement of either the gear 19, grooved wheel 22 or crank 25, or may be unthreaded as shown.

In operation the shaft 14 (which is attached to the base 14*a* carrying the desired toy), is inserted through the channel 8 between strip 6 and top 5 of the box and into one of the belt socket strips 13. The endless belt 12 is caused to travel continuously as it is mounted on the drums 11 which in turn are mounted on the shafts 9 and affixed to the gear wheel 16 which in turn is driven by the toothed wheel 17 affixed to the driving shaft 18, the latter being driven either from a source of power such as the motor 21 and either of the means shown in Figs. 1 and 2, or 3; or mechanically driven as by the crank 25, as shown in Fig. 4.

It is within the contemplation of my invention to make the shaft 14 and the socket 13 of any suitable shape. It is also within the contemplation of my invention to provide either a series of mannequin figures such as soldiers, sailors, or the like, or to provide one or more vehicle toys, such as a train of cars, having the base members 14*a* and the depending shafts 14 by which the toys are operatively connected with the endless belt 12, as shown in Figs. 5, 6 and 7. The toy is one that can be driven by power means continuously if desired and it will be noted that it consists of relatively few parts and it is capable of operating the moving figures at considerable speed. The mannequin figures or other toys also may be detachably secured on the base 14*a* if such construction is preferred.

What I claim is:

1. In an endless circuit toy game, the combination of a box of suitable size for use as a toy by children, a removable top on the box, a central strip, the upper surface of the central strip and of the top being on the same plane, the box having a slot or channel between the central strip and the encircling portion of the top, vertical shafts to which the central strip is affixed, drums mounted on said shafts, an endless belt mounted on said drums, toys having base members, depending shafts upon said base members, socket strips affixed to spaced portions of the endless belt to releasably receive the depending shafts, means for actuating one of the rollers whereby to operate the endless belt and thereby propel the toys.

2. In combination with the device defined in claim 1, the aforesaid actuating means comprising a gear wheel having spaced openings on the upper surface thereof, a toothed wheel meshing with said openings, a driving shaft on which said toothed wheel is mounted, and means for actuating said driving shaft.

CARL A. DIEDERICHS.