M. L. GREENSTREET.

ROLLING TOY.

APPLICATION FILED MAY 31, 1919.

1,312,174.

Patented Aug. 5, 1919.

Fig. 1.

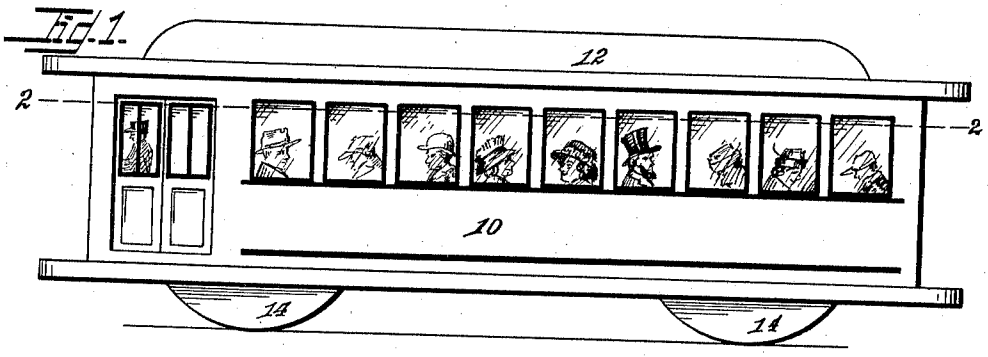


Fig. 2.

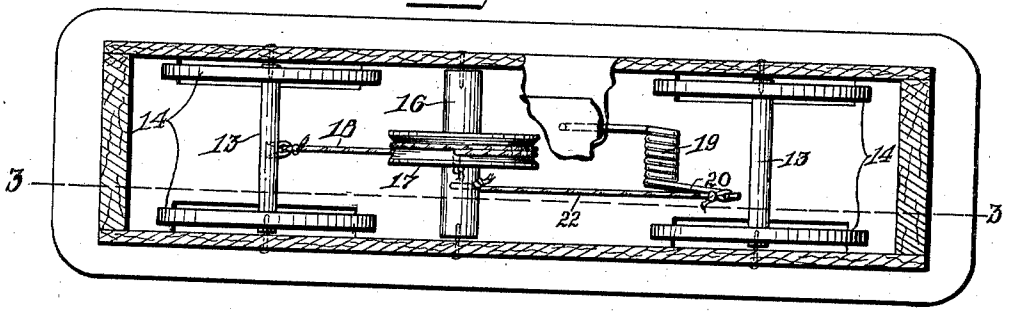
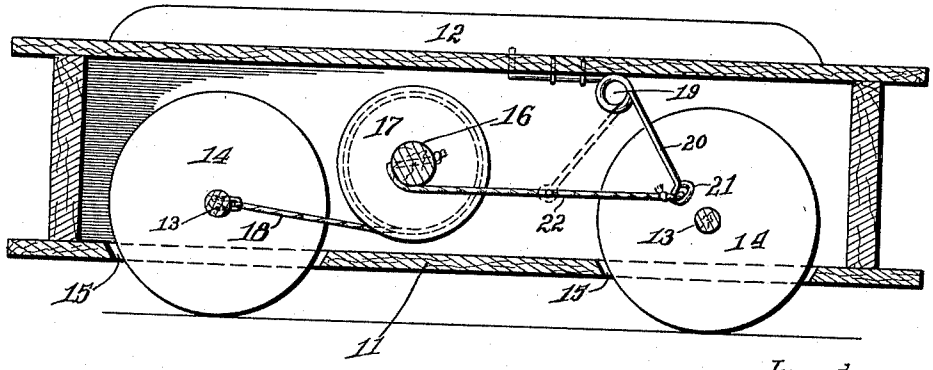


Fig. 3.



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UNITED STATES PATENT OFFICE.

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ROLLING TOY.

1,312,174. Specification of Letters Patent. Patented Aug. 5, 1919.

Application filed May 31, 1919. Serial No. 300,809.

To all whom it may concern:

Be it known that I, MILFRED L. GREENSTREET, a citizen of the United States, residing at Maplewood, Missouri, have invented a certain new and useful Improvement in Rolling Toys, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a rolling toy and has for its object the provision of a relatively simple and inexpensive toy that is provided with wheels whereby it may be rolled upon relatively smooth surfaces such as a floor or pavement and said toy being equipped with mechanism including a spring which is effective in causing the toy to roll backward or in a reverse direction after it has been rolled forwardly or away from the operator for a considerable distance, and which latter action, it will be understood, is accomplished through impetus given to the toy as the result of a sudden pushing or shoving movement.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts, hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevational view of a rolling toy of my improved construction.

Fig. 2 is a horizontal section taken approximately on the line 2—2 of Fig. 1.

Fig. 3 is a vertical section taken approximately on the line 3—3 of Fig. 2.

Referring by numerals to the accompanying drawings, which illustrate a practical embodiment of my invention, 10 designates the body of the toy which, in this instance, is designed to represent a street car, although it will be understood that said body can take various forms, for instance, it can be designed to represent a railway car, a locomotive, a motor vehicle, an air-ship, or a vessel.

Where this body is designed to represent a street car or railway car, the side walls of the body can be painted or stenciled so as to represent windows and doors and with representations of the passengers within the car, or sections of paper or the like may be printed with such representations and pasted on the walls of said body.

The body is made hollow or box-like, and in addition to the side and end walls, includes a bottom 11 and a top 12. Suitably journaled in the side walls of the body and preferably near the ends thereof are axles 13, each of which carries a pair of wheels 14, the latter projecting through openings 15 formed in the bottom 11. Journaled in suitable bearings on the side walls of the body at a point between the axles 13 is a shaft 16 which carries a grooved or flanged drum 17 and secured thereto and adapted to wind thereupon is one end of a flexible member 18 such as a cord or small cable. The other end of this cord is secured in any suitable manner to one of the shafts 13.

Secured to the body 10 and preferably to the top 12 thereof is one end of a torsional coil spring 19, the other end of which extends downward to form an arm 20, the same terminating in a hook or eye 21. Secured to this hook or eye is one end of a flexible member 22, either a cord or small cable, the other end of which is secured to shaft 16.

A toy of this construction is placed on a relatively smooth surface, such as a floor or pavement, and when given a sudden forward movement, will roll for a considerable distance forwardly from the operator, and during this forward movement, the cord or cable 18 will unwind from the drum 17 and wind onto the axle 13 to which said cord or cable is attached. This movement will necessarily wind a part of cord or cable 22 onto the shaft 16, thereby pulling the end of arm 20 toward said shaft, and consequently storing power in spring 19.

When the force of the impetus given to the toy has spent itself and said toy ceases to move forwardly, the power stored in spring 19 will act to cause said toy to roll in a reverse direction, thereby returning to the point from which it was started, and during this return movement, the arm 20 will gradually return to its normal position, thereby unwinding the cord or cable 22 from axle 16 and the rotary movement thus imparted to drum 17 will rewind the cord or cable 18 thereonto and unwind said last mentioned cord or cable from the axle to

which it is attached, thereby imparting rotary movement to the latter and to the wheels carried thereby.

I have demonstrated in practice that by properly proportioning the weight of the toy, the tension of the spring, and the relative sizes of the shaft 16, drum 17, and axle 13 to which cord 18 is connected, the toy will move forward and backward three or four times after having been given the starting impetus.

A toy of my improved construction is comparatively simple, can be easily and cheaply manufactured, and provides a particularly interesting and amusing plaything for children.

It will be readily understood that minor changes in the size, form and construction of the various parts of my improved toy can be made and substituted for those herein shown and described, without departing from the spirit of my invention, the scope of which is set forth in the appended claims.

What I claim is:

1. In a toy of the class described, a body, wheel carrying axles supporting said body, a shaft journaled in the body, a winding drum carried by said shaft, a flexible member secured to said winding drum and to one of the axles, a spring carried by said body, and a cable secured to said spring and to said shaft.

2. In a toy of the class described, a body, a pair of wheel carrying axles journaled in said body, a shaft journaled in the body between said axles, a drum carried by said shaft, a flexible member secured to said drum and one of the axles, a spring arranged in the body adjacent to the shaft and drum, one end of said spring being extended to form an arm, and a flexible member secured to the end of said arm and to said shaft.

In testimony whereof I hereunto affix my signature this 26th day of May, 1919.

MILFRED L. GREENSTREET.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."