B. ZSARNAY.

AUTOMATIC VEHICLE TOY.

APPLICATION FILED MAR. 27, 1920.

1,351,147.

Patented Aug. 31, 1920.

3 SHEETS—SHEET 1.

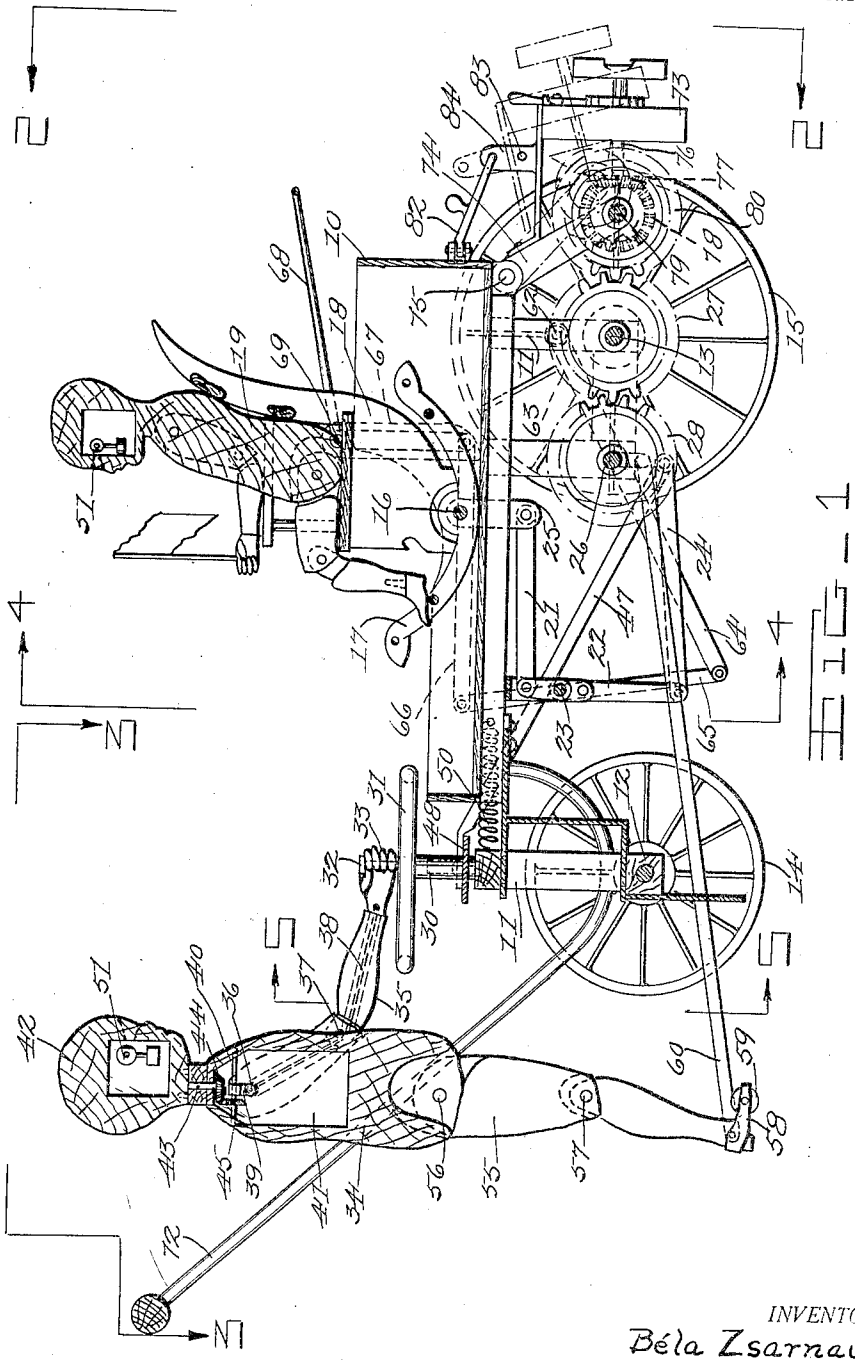


FIG. 1

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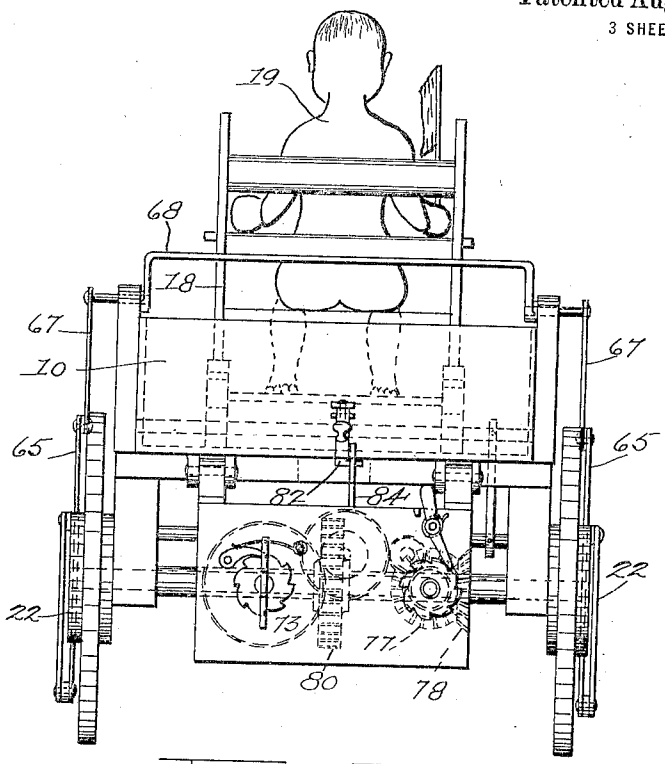


FIG. 2

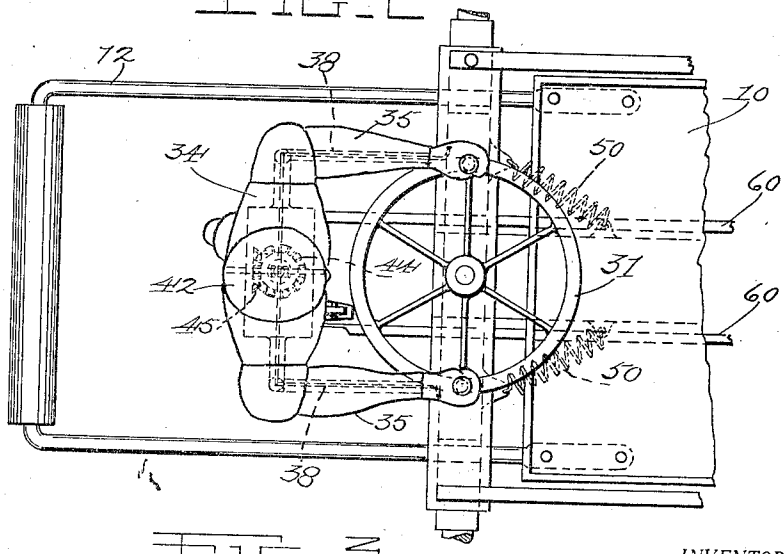


FIG. 3

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3 SHEETS—SHEET 3.

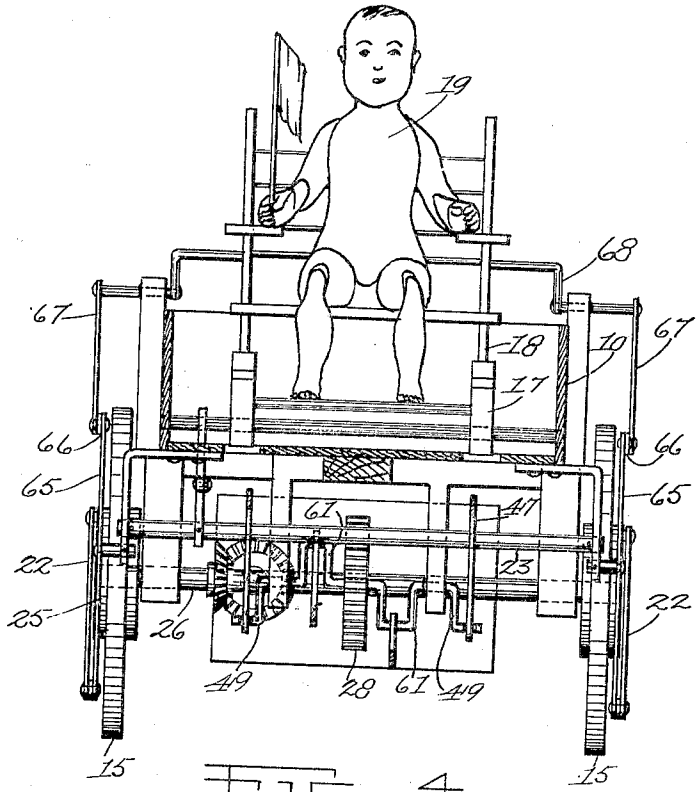


FIG. 4

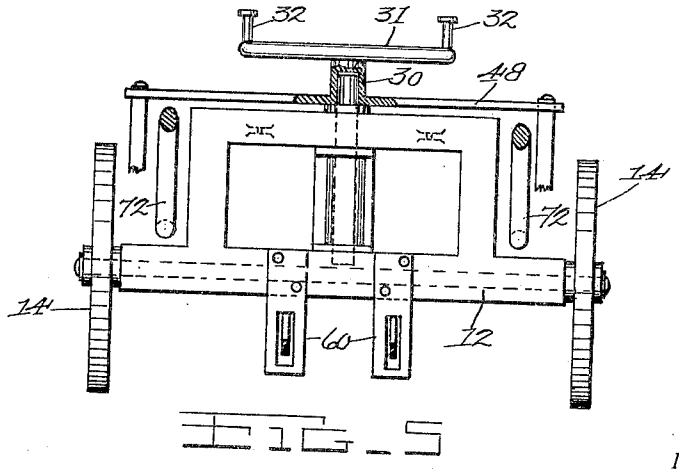


FIG. 5

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AUTOMATIC VEHICLE TOY.

1,351,147. Specification of Letters Patent. Patented Aug. 31, 1920.

Application filed March 27, 1920. Serial No. 369,174.

To all whom it may concern:

Be it known that I, BÉLA ZSARNAY, a citizen of Hungary, residing at Belleville, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Automatic Vehicle Toys, of which the following is a specification.

This invention relates to mechanical toys of the type adapted to cause a manikin or other figure to perform certain movements, having more particular reference to a toy in which said movements are caused by rolling a carriage on which the figures are mounted along a floor or other suitable surface.

The invention has for an object to provide a new and improved toy of this kind in which a pair of manikins have certain novel movements imparted thereto.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

Figure 1 of the drawings is a longitudinal section of a mechanical toy embodying the invention.

Fig. 2 is an end view looking in the direction of the arrows 2 in Fig. 1.

Fig. 3 is a plan view of the front portion of the toy.

Fig. 4 is a transverse section on the line 4—4 of Fig. 1.

Fig. 5 is a transverse section on the line 5—5 of Fig. 1.

As here shown my improved toy comprises a carriage having a box-like body 10 supported by struts 11 on front and rear axles 12 and 13 carrying wheels 14 and 15 the rear axle 13 being in the form of a rotatable shaft on which the wheels 15 are fixed.

Extending transversely in the body is a suitably journaled shaft 16 on which is fixed a pair of rockers 17 supporting a chair 18 having seated thereon, a manikin 19.

Fixed to one end of the shaft is a crank arm 20 the outer end of which is connected by a link 21 with one end of a rocker lever 22 fulcrumed between its ends on a transverse rod 23. The opposite end of this lever is eccentrically connected by a link 24 to a crank 25 on a transverse shaft 26 in front of the rear axle shaft 13 on which latter is fixed a gear 27 meshing with a gear 28 on the shaft 26.

Rotatably mounted on the front end of the carriage is a post 30 on the upper end of which is fixed a wheel 31 having pins 32 on the rim thereof engaged by the hands 33 of a manikin 34 disposed in standing position in front of the carriage and facing rearwardly toward the latter. The arms 35 of this manikin are pivotally attached thereto at the shoulder as at 36 and jointed at the elbow as at 37. These arms are hollow and a cord 38 extends through the same and connects to an arm 39 on a shaft 40 in a recess 41 in the body of the manikin. The head 42 of the manikin is pivoted on the body by being fixed on the upper end of a vertical stub shaft 43 which extends into the recess 41 and has a bevel gear 44 fixed on its lower end meshing with a like gear 45 on the shaft 43. When the wheel 31 is oscillated the consequent movement of the arms 39 rocks shaft 40 through cords 38, and the latter causes the head to turn from side to side. Oscillatory motion is imparted to the wheel 31 by a pair of links 47 connected at one end to an arm 48 rigid with the post and at opposite ends to a pair of crank arms 49 on the shaft 26. A coiled tension spring returns the wheel 50 to central position. The manikin 19 and 34 may be provided with the well known sleeping eyes indicated at 51.

The legs 55 of the manikin 34 are preferably hinged at the hip as at 56 and jointed at the knee as at 57 and the feet 58 are provided with rollers 59. An oscillating motion is imparted to these legs to give the manikin the appearance of walking backward by means of links 60 extending backward therefrom and connected to a second pair of cranks 61 on the shaft 26.

Eccentrically connected as at 62 to disks 63 on the rear axle 13 are links 64 whose opposite ends connect to the lower end of rocking levers 65 the upper ends of which are connected by links 66 with arms 67 adapted to rock a bail-like rod 68 pivoted as at 69 on the sides of the carriage body.

The carriage may have a handle 72 extending forwardly and upwardly therefrom to permit of its being drawn by hand or it may be mechanically propelled by means of a clock spring mechanism 73 of ordinary type mounted on a bracket 74 hinged as at 75 to the carriage body, the shaft 76 of this mechanism carrying a bevel gear 77 in en-

gagement with a like gear 78 on a transverse shaft 79 on the outer end of said bracket, this shaft having fixed thereon a gear 80 meshing with the gear 27 on the axle 13. The bracket 74 may be supported in its raised position, indicated in dotted lines in Fig. 1, in which position the gear 80 is moved away from engagement with the gear 27, or in its lowered position with these gears engaging. To this end a hook 82 is pivoted to the rear of the body and is adapted to engage in either one of a pair of perforations 83 in an ear 84 on the bracket.

The operation is as follows—When the carriage is moving the rotation of axle rocks the chair 18 through parts 20, 21, 22 and 24. As the chair rocks backward the bail 68 is swung upward over the back of the chair and engages the head of the manikin 19 causing the body to move away from the back of the chair. As will be apparent the links 60 operate the legs 55 of the manikin 34 while the links 47 rock wheel 31 and, as previously set forth turn the head 42 of this manikin from side to side.

It will be understood that in principle my invention can just as well be applied to baby carriages in which case the spring 50 will tend to regulate and compensate or counterbalance the irregularities in the force employed by a person for pushing the carriage so that the carriage will at all times travel a straight course whether the force used to pushing the carriage is greater on the right side than on the left side or vice versa.

It will also be understood that the chair 18 in such a case can be occupied by a child in place of the manikin 19 illustrated in the drawing.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is as follows—

1. A mechanical toy comprising a wheeled carriage, a rocking chair on said carriage manikin seated in said chair, and means whereby rotation of the carriage wheels rocks said chair, and means for causing the body of the manikin to move oppositely to the movement of the chair.

2. A mechanical toy comprising a wheeled carriage, a rocking chair on said carriage manikin seated in said chair, and means whereby rotation of the carriage wheels rocks said chair, and means for causing the body of the manikin to move oppositely to the movement of the chair, said means including a bail-like rod adapted to swing over the back of the chair and engage the head of the manikin.

In testimony whereof I have affixed my signature.

BÉLA ZSARNAY.