W. A. P. LA GROVE.

Automatic Toys.

No. 154,554. Patented Sept. 1, 1874.

Fig. 1.

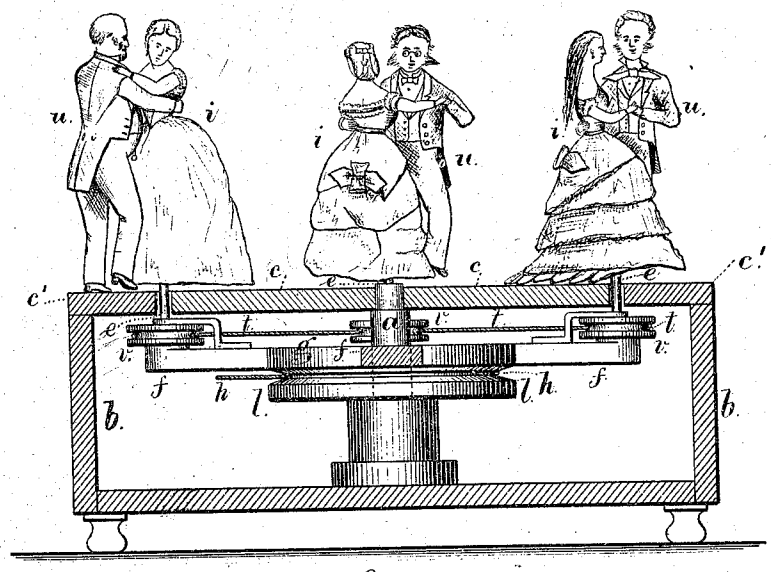
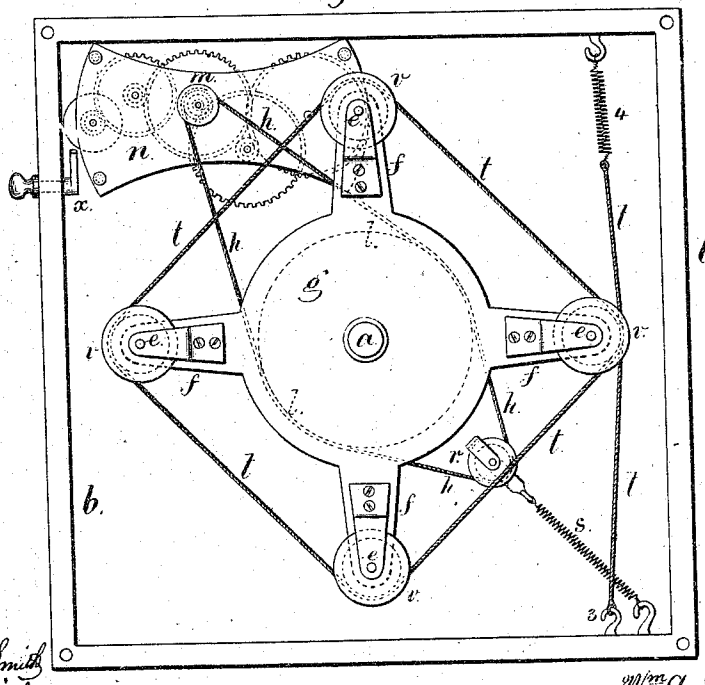



Fig. 2.




Witnesses

Chas. H. Smith

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# UNITED STATES PATENT OFFICE.

WILLIAM A. P. LA GROVE, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND HENRY H. WEBB, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN AUTOMATIC TOYS.

Specification forming part of Letters Patent No. **154,554**, dated September 1, 1874; application filed February 14, 1874.

*To all whom it may concern:*

Be it known that I, WILLIAM A. P. LA GROVE, of the city and State of New York, have invented an Improvement in Toy Dancers, of which the following is a specification:

This toy dancer is made with arms that are revolved by clock-work below a platform; and at the ends of the arms are vertical spindles, passing up through a circular slot in the platform and receiving figures, and the figures and spindles are revolved as they are carried around by means of a standing cord provided with a spring, and placed in the grooves of pulleys upon the spindles. This construction and arrangement cause the figures to move around, as in waltzing, and the parts, being simple, are cheap and durable.

In the drawing, Figure 1 is an elevation of the apparatus, the base being in section; and Fig. 2 is a plan with the top of the base forming the platform removed.

A vertical stud, *a*, is secured centrally within the box *b*, forming the base of the dancer, and *c* is a circular platform secured to and supported by this stud *a;* and this is within a circular opening in the top *c'* of the box, the surfaces of *c* and *c'* forming the imitation dancing-platform. There is a sufficient space between *c* and *c'* to form a circular slot, through which the vertical spindles *e* project, and can be revolved freely. These spindles *e* are in bearings at the ends of the arms *f*, that are united with a hub, *g*, surrounding the stud *a*, and the arms and hub are revolved by the cord *h*, that passes around the wheel *l* from the small pulley *m* of the clock-movement or train of gearing *n*. This clock-movement or train is of any desired character, a spring being used as a motor, and a balance or fly wheel or flier being used to regulate the speed. The sheave *r* and tightener-spring *s* serve to keep the proper tension on the cord *h*, and by these means the dancers *i* and *u* are moved around bodily; but, in order that *u* and *i* may waltz, each spindle *e* is provided with a grooved pulley, *v*, around which the standing cord *t* is passed, one end being attached at 3, and the other end connected to the spring 4, that preserves the proper tension. As the arms *f* carry the spindles around in a circle, said spindles are revolved by their grooved pulleys *v* rolling against the cord *t*, to make the figures *u* and *i* waltz.

A stop, *x*, shifted by hand, is used to check the revolution of the clock-work, when desired.

A music-box may be placed in the base.

The stud *a* may be extended up and receive an ornament, such as a bunch of artificial flowers.

I claim as my invention—

The arms *f*, revolved around the stud *a* by the cord *h* and train of gearing, and carrying the spindles *e*, that extend up through a circular slot in the platform and carry the dancing figures *u* and *i*, in combination with the grooved pulleys *v* and standing cord *t*, substantially as set forth.

Signed by me this 10th day of February, A. D. 1874.

WM. A. P. LA GROVE.

Witnesses:

GEO. T. PINCKNEY,

CHAS H. SMITH.