L. ALTHOF & H. THOMASS.

Automatic Toys.

No. 150,998. Patented May 19, 1874.

Fig: 1.

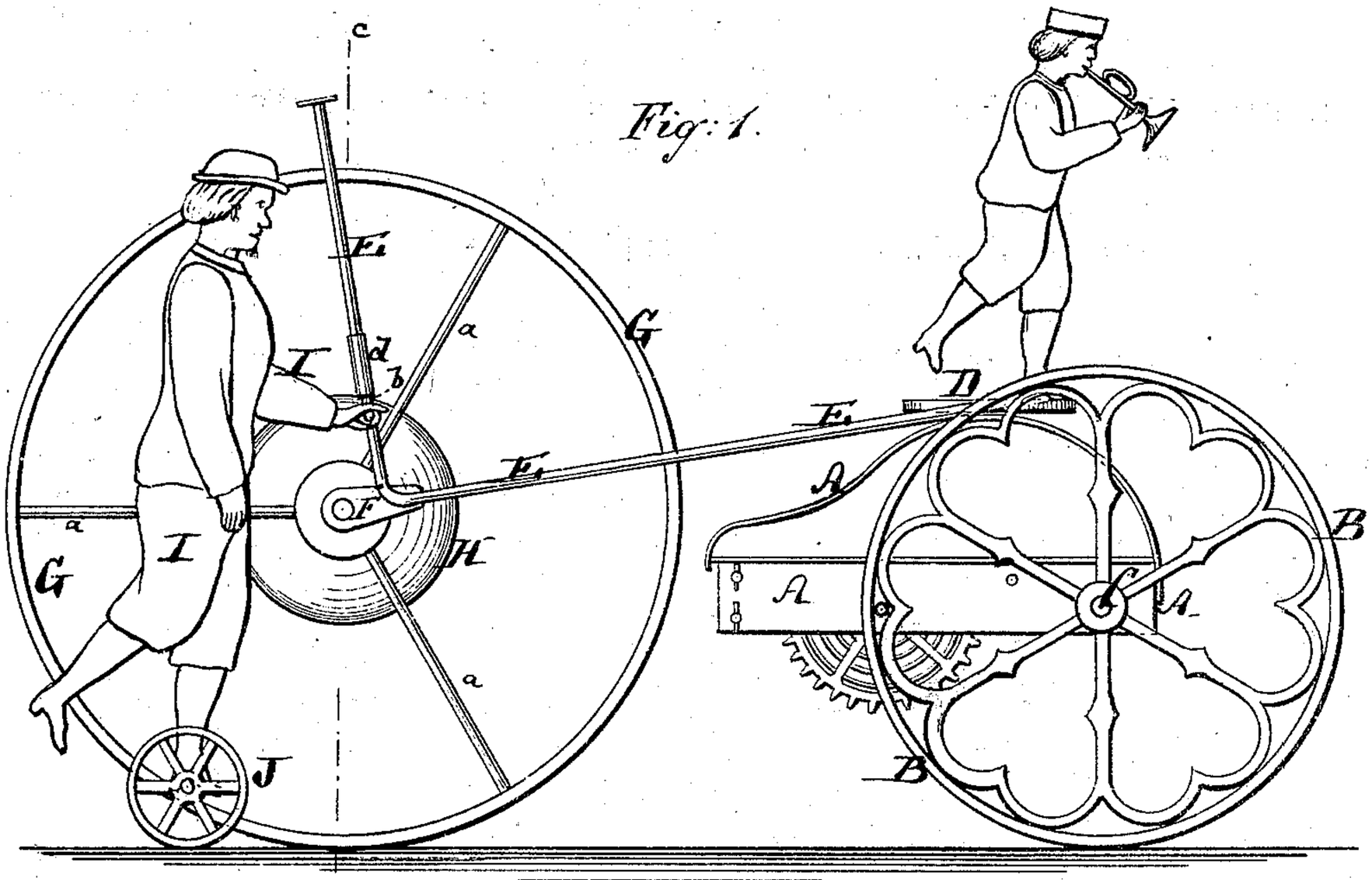


Fig: 3

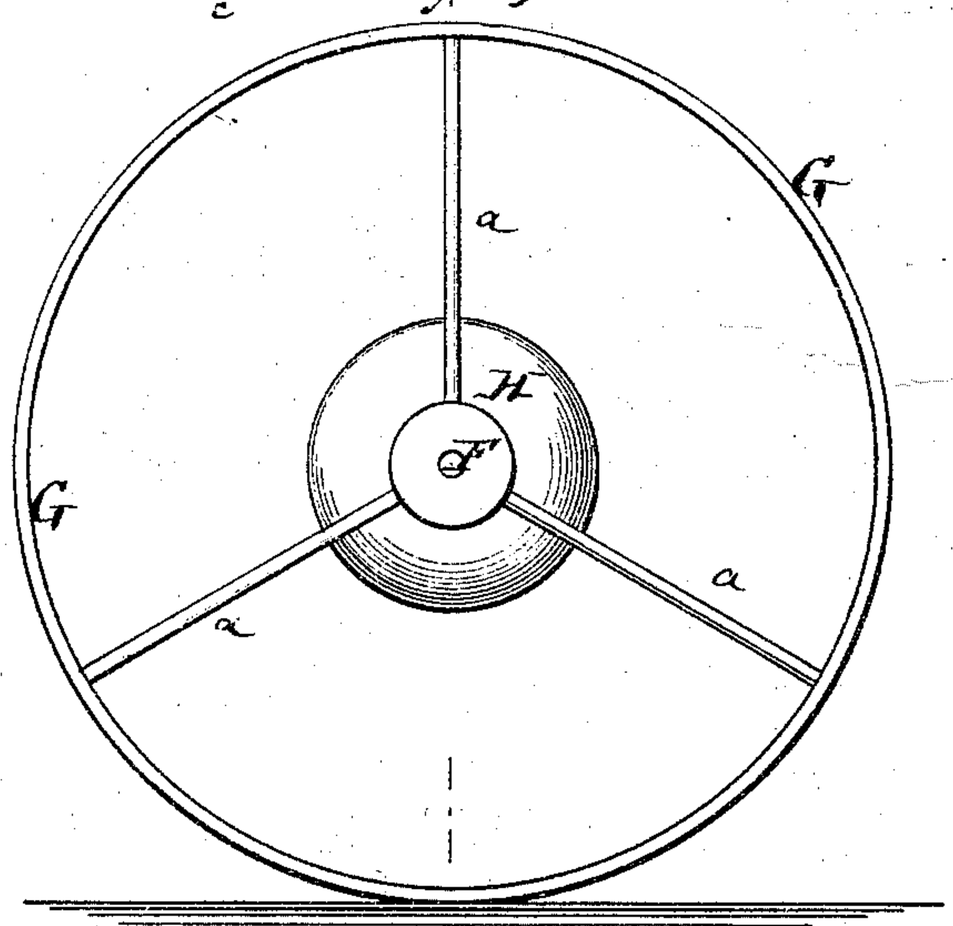
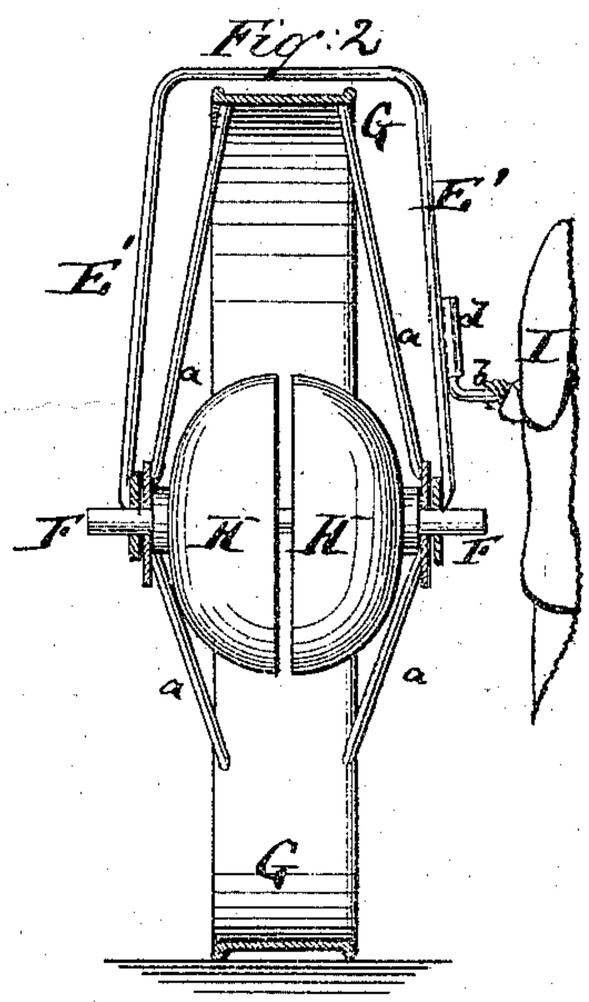


Fig: 2



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UNITED STATES PATENT OFFICE.

LOUIS ALTHOF, OF HOBOKEN, NEW JERSEY, AND HERMANN THOMASS, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN AUTOMATIC TOYS.

Specification forming part of Letters Patent No. **150,998**, dated May 19, 1874; application filed March 10, 1874.

To all whom it may concern:

Be it known that we, LOUIS ALTHOF, of Hoboken, in the county of Hudson and State of New Jersey, and HERMANN THOMASS, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Automatic Toy, of which the following is a specification:

Figure 1 is a side view of our automatic toy; Fig. 2, a vertical transverse section of the same on the line *c c*, Fig. 1; and Fig. 3, a side view of a modification of the invention.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates to a new arrangement of the parts constituting a mechanical toy; and has for its object to make the same self-controlling in its movements, and in every respect more amusing for children.

In the accompanying drawing, the letter A represents a toy truck, which is supported by wheels B B, which are hung upon an axle, C, having its bearings in the truck A, the said truck being provided with suitable clock-work for imparting rotary motion to the axle C, and thereby propelling the toy. D is a swivel-plate, pivoted upon the truck A, and connected, by projecting arms E E, with the axle F of a hoop, G, which hoop follows in the rear of the truck A, as shown, or may be arranged to be in the front of the same, as may be desired. Suitable toy figures may be mounted upon the truck A, and upon the swivel-plate D, and arranged within the rim of the hoop G; but their disposition is only a matter of taste, and does not form part of the mechanical invention herein described. When the truck A is propelled by its clock-work the hoop G will follow, and when the truck is caused to move in a curve or circle the hoop G will stand at an angle to the truck, adapting itself to the direction of the latter. The variation of the angle is automatically obtained by the pivot of the swivel-plate D. We have found that, in a toy of this kind, however, the hoop would be apt to topple over when standing at an angle to the truck smaller than one hundred and seventy degrees; and, to avoid this, we have mounted upon the axle of the truck two semi-spherical shells, H H, as shown in Figs. 1 and 2. These shells give steadiness and weight to the hoop G, and serve to hold the same upright, even while the toy is moving in a small circle; but they also serve the additional useful purpose in a toy of constituting the gongs for small clappers arranged within them, so that a ringing sound will be produced as the toy is moved forward, and the hoop, with its shells H H, revolved. This attachment of semi-spherical, or nearly semi-spherical, shells H H, containing bells and balancing the same hoop, may be applied to the hoop G, when the same constitutes part of an automatic toy, as shown, but also to a hoop which is entirely disconnected from a truck or other automatic propelling mechanism, as is indicated in Fig. 3; such single hoop being also steadied and balanced by the weight in its center, and more properly adapted to its service of amusing children, and of being kept in motion for a longer time. The shells H H, if used, are mounted upon the axle F between the spokes *a* of the hoop, as shown, and serve, therefore, also to keep the spokes properly apart; and, if desired, also to support the inner ends of the same. I is a toy figure, supported on a small wheel, J, and carrying in its hand, or at any other part, a projecting pin, *b*, which enters a tube, *d*, that is fastened to the frame E. On the pin *b*, which is nearly or entirely vertical, the figure I may be turned and vary its angle to the hoop G, the effect being that, when the automatic toy is in motion, the figure I will conform itself to the variation of the circle in which the toy may move, standing at a larger angle to the hoop when a smaller circle is described, and at a smaller angle—that is, more parallel to the hoop—when a larger circle is described; and thus such figure I, running on the wheel G, will steady the hoop also, even when the same does not have the shells H, and will, during motion, look like a self-adjusting steering man, who directs the toy and keeps it up. The amusing effect of the toy is greatly increased by the use of this figure, as shown, and its usefulness thereby enhanced. This figure I may also be applied to a single hoop, as in Fig. 2, when the

same is not connected with a truck, A, or made to move automatically, and will then also follow the hoop and cause it to remain in an upright position. In this case, however, a yoke, E′, is, with its ends, connected with the axle F in such manner that the axle may readily and freely turn in the ends of the yoke, allowing the latter to remain in its position relative to the ground and to the pin *b*.

We claim as our invention—

1. The toy hoop G, containing between its spokes the semi-spherical shells H H, which balance the same and serve as bells, substantially as specified.

2. The figure I, mounted upon the wheel J, and provided with the projecting arm *b*, combined with a tube, *d*, on the yoke E′ or frame E, that connects with the axle F of the hoop G, substantially as herein specified.

3. The combination of the self-moving truck A and swivel-plate D with the frame E, hoop G, and steering figure I, all arranged as described.

4. The combination of the self-moving truck A and swivel-plate D with the frame E, hoop G, and balancing-shells H H, which are mounted upon the axle F of the hoops, as herein shown and described.

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