

No. 665,850.

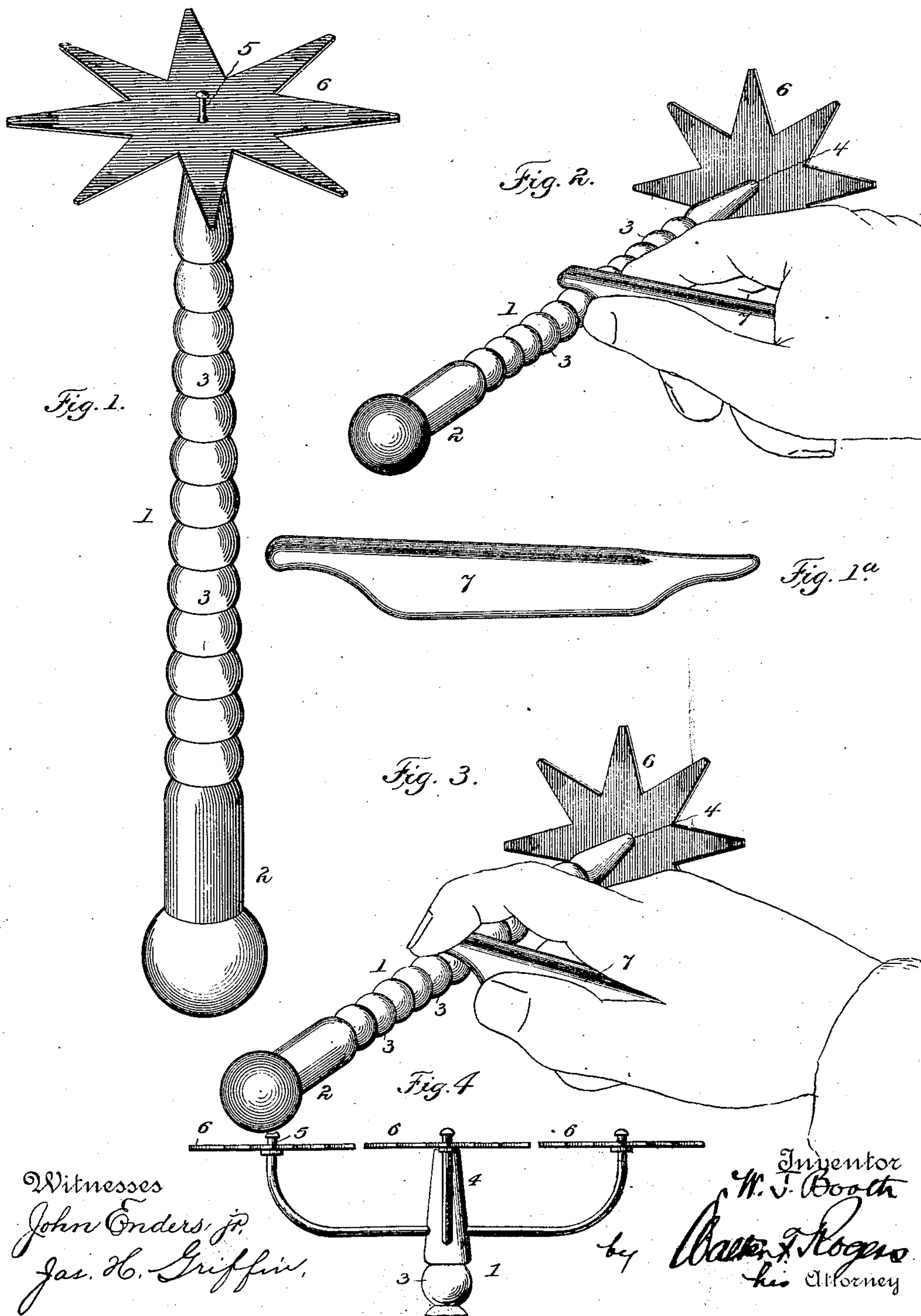
Patented Jan. 8, 1901.

W. J. BOOTH.

PIN WHEEL.

(Application filed Feb. 15, 1897.)

(No Model.)



UNITED STATES PATENT OFFICE.

WILLIAM JAMES BOOTH, OF WILMINGTON, DELAWARE, ASSIGNOR TO
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PIN-WHEEL.

SPECIFICATION forming part of Letters Patent No. 665,850, dated January 8, 1901.

Application filed February 16, 1897. Serial No. 623,438. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM JAMES BOOTH, a citizen of the United States, residing at Wilmington, in the county of New Castle and State of Delaware, have invented a new and useful Pin-Wheel, of which the following is a specification.

This invention relates to the class of toys or puzzles in which a whirling motion is given to a wheel or similar body.

The object of the invention is to produce such a toy or puzzle in which the revolution is imparted in a new manner and by novel means, the force for causing the revolution being produced primarily by the rubbing of one body upon another.

In the drawings, Figure 1 is a perspective view of the support or handle and a revolving body. Fig. 1^a is a view of a rubber used in imparting power to cause the revolution of the body carried by the support or handle. Fig. 2 illustrates a preferred mode of holding the device and applying the rubber to revolve the body from right to left. Fig. 3 is an illustration of an application of the rubber to cause a revolution of the body from left to right, and Fig. 4 is a modification illustrating a multiplication of revolving bodies.

1 designates a support or handle formed, preferably, with a part 2 to be grasped to hold the support or handle, a part 3, having beads or corrugations, and a part 4, adapted to receive a pin or other axis 5 upon which the revolving body 6 may turn.

7 illustrates a rubber, preferably a piece of hard wood.

The rubber is shown with cut-away portions having curved surfaces as a convenient form of rubber to be used.

If the support or handle 1 be grasped, as illustrated in Fig. 2, and the rubber be held as there shown and drawn back and forth upon the beads or corrugations while the finger of the hand holding the rubber presses upon the side of the support or handle, the body on the axis at the end of the support or handle will revolve from right to left, while, on the other hand, if the rubber be applied as shown in Fig. 3, with the finger of the hand holding the rubber pressing upon the left-hand side of the support or handle, the body will revolve from left to right. A partial rev-

olution may be had without the auxiliary rubber by a like manipulation of two fingers. I have also caused changes in rotation by using the rubber alone first on one side and then on the other. I have also caused all the disks or other bodies in as many of the toys as can be held by a hand to revolve by merely rubbing one of the handles.

There are, in fact, within the scope of my invention many interesting variations of this novel application of force, so that my invention in addition to being an interesting toy for young people presents a difficult problem for adults. It may be used as a puzzle by deftly manipulating the rubber and then asking one unfamiliar with the device to produce the same effect. In such a case it may be well to cause one revolution by using the right hand and the next revolution by using the left hand, the fingers passing upon opposite sides of the support or handle in the different experiments or illustrations.

It is obvious that the handle may be modified in various ways—as, for example, by using some such design as an alligator or other animal with roughened back or in any manner that fancy or skill may suggest. I may also use as a revolving body a chromoscope, Maltese cross, or any of the optical illusions or common devices generally used in revolving toys, and I may multiply the number of disks upon the pin or axis 5 or place disks upon branches 8, as shown in Fig. 4, in which construction all the bodies or disks will revolve when the handle is rubbed.

I have supposed that the revolution of the body is produced by the resultant of opposing vibrations acting through the axis upon the body, delivering repeated strokes with great rapidity; but I do not state this theory of operation as conclusive or as being any feature of the invention herein described and claimed.

Having fully described my invention, what I desire to secure by Letters Patent is—

1. The combination with a support or handle of a body adapted to revolve upon the support or handle, and means comprising a rubber for imparting vibrations to the support or handle to cause the body to revolve, substantially as described.

2. The combination of a support or handle

having salient points upon its surface, a body adapted to revolve upon the support or handle, and means comprising a rubber adapted to be reciprocated upon the support or handle, to cause the body to revolve, substantially as described.

3. The combination of a support or handle having beads or corrugations, a body adapted to revolve upon the support or handle, and means adapted to strike the several beads or corrugations, to cause the body to revolve, substantially as described.

4. The combination of a support or handle, a body adapted to revolve upon the support or handle, a rubber of comparatively hard material adapted to be rubbed upon the support or handle to cause the body to revolve, substantially as described.

5. In a toy pin-wheel, the combination of a handle having corrugations, a pin in one end of the handle, a wheel bearing loosely on the pin, and a rubber adapted to be reciprocated over the corrugations of the handle, substantially as described.

6. In a toy pin-wheel, the combination of a handle having a series of parallel grooves forming intermediate beads, a wheel, a pin in one end of the handle forming a free axis for the wheel, and a rubber adapted to act upon the beads to cause the wheel to revolve, substantially as described.

WILLIAM JAMES BOOTH.

Witnesses:

WM. JOHNSON,
A. T. STEPTOE.