

(No Model.)

E. G. MOERSCH.
MECHANICAL TOY.

No. 574,557.

Patented Jan. 5, 1897.

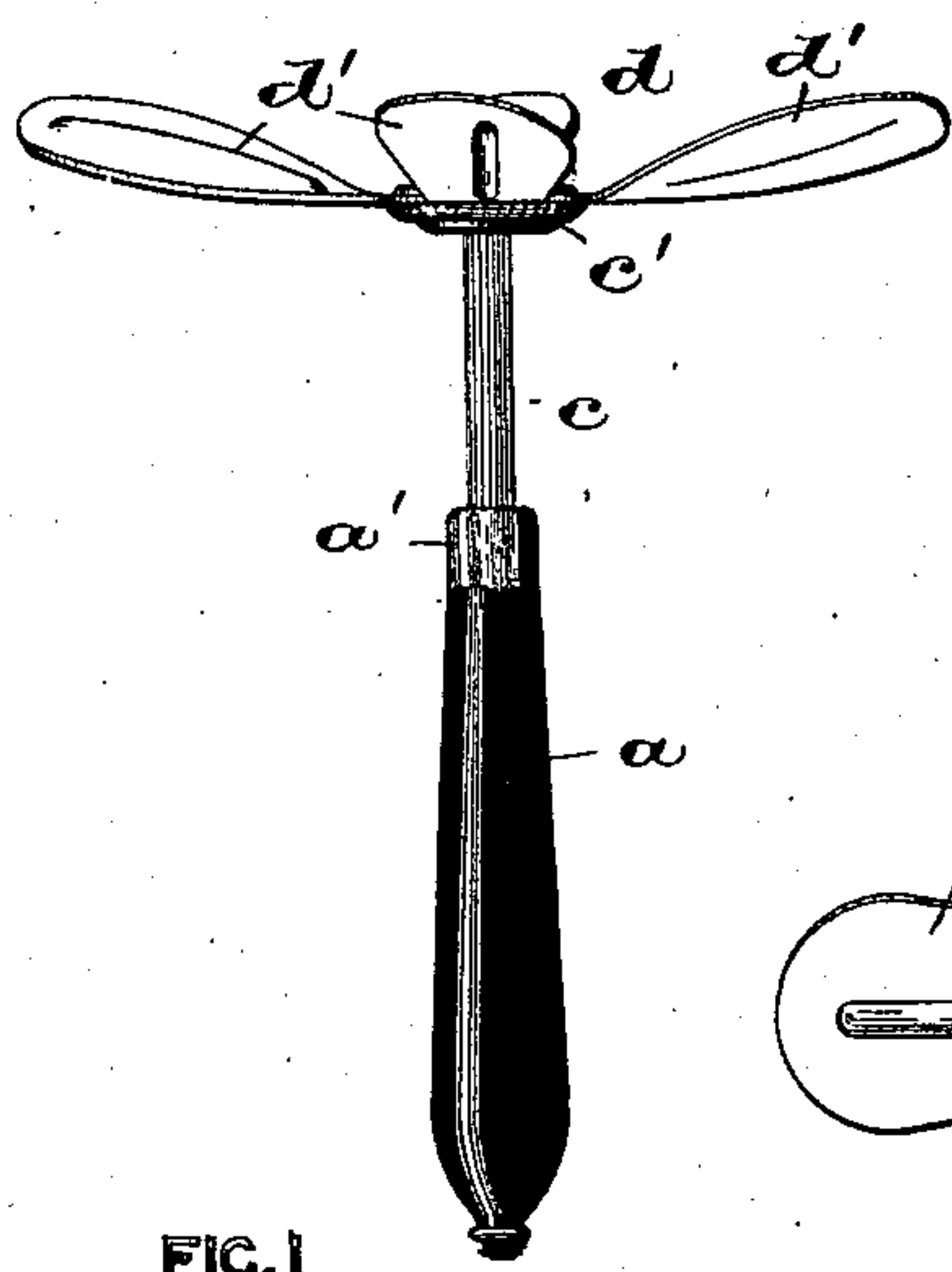


FIG. 1

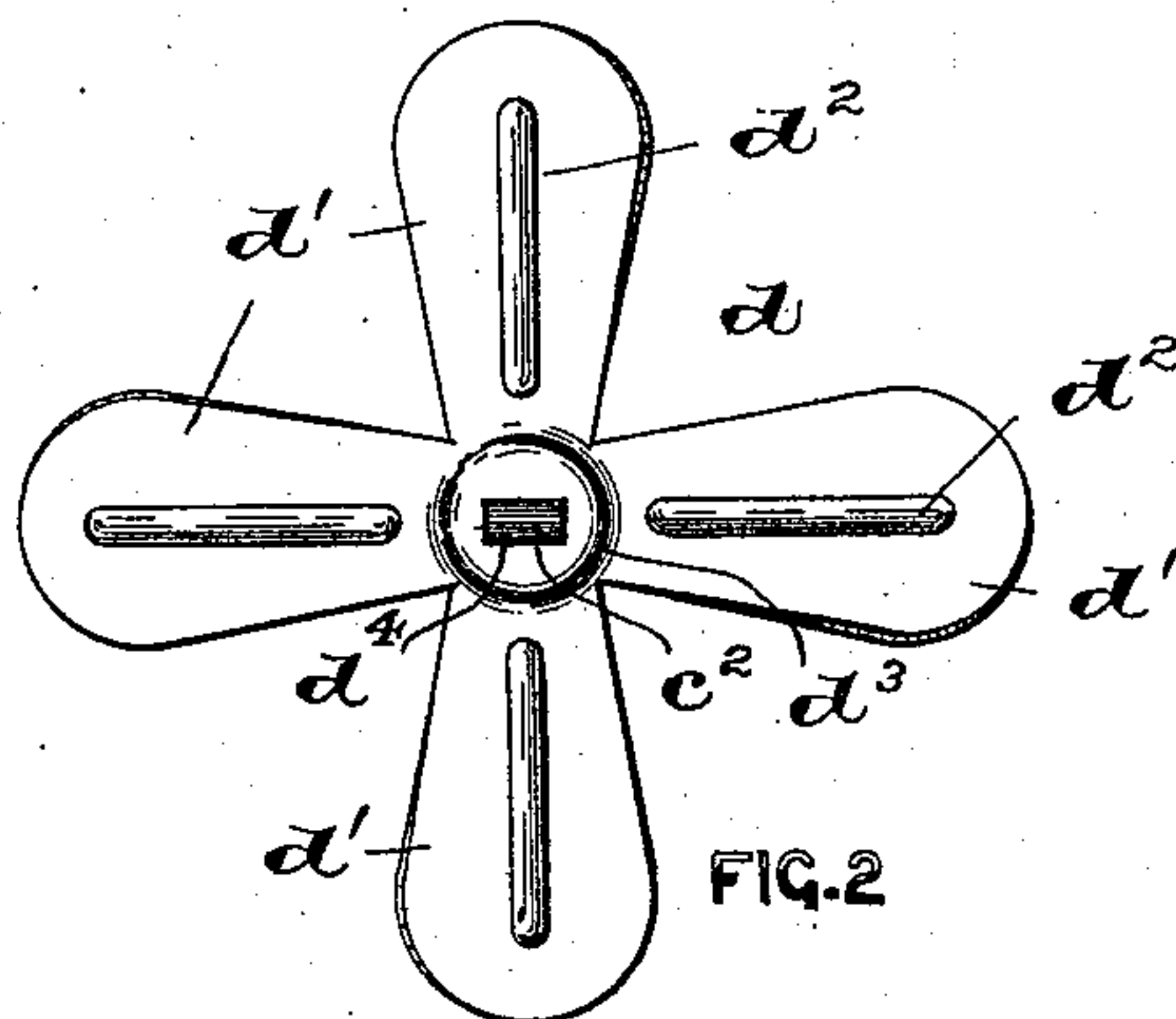


FIG. 2

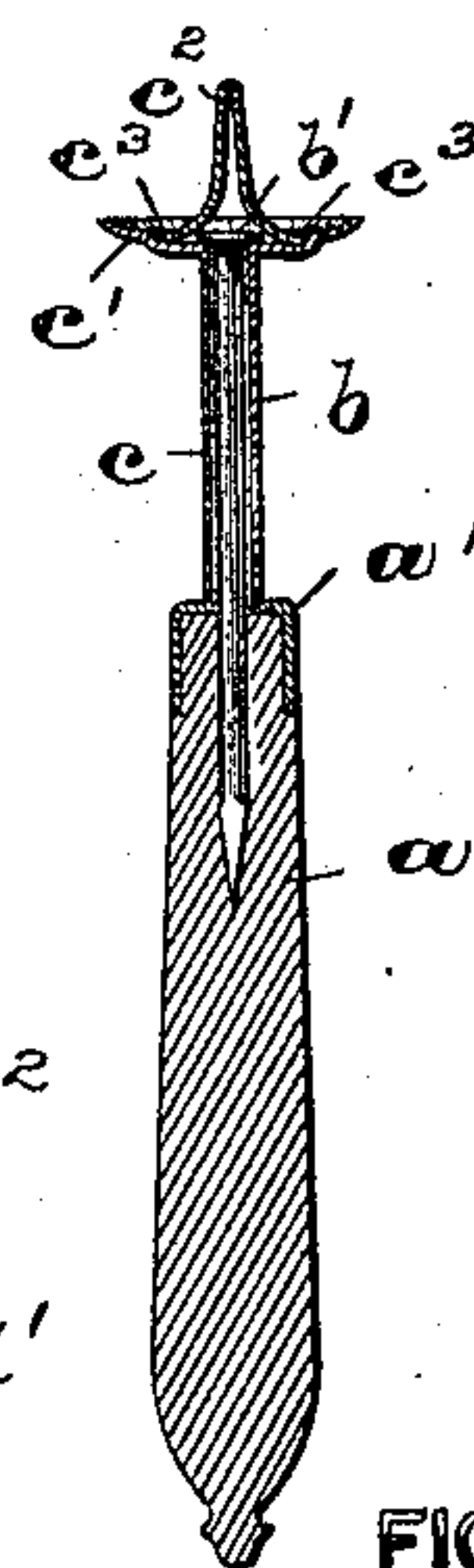


FIG. 3

WITNESSES:

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MECHANICAL TOY.

SPECIFICATION forming part of Letters Patent No. 574,557, dated January 5, 1897.

Application filed March 5, 1896. Serial No. 581,913. (No model.)

To all whom it may concern:

Be it known that I, ERNST GOTTFR. MOERSCH, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Mechanical Toys; and I do hereby declare the following to be a full, clear, and exact description of the invention, 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, and to letters of reference marked thereon, which form a part of this specification.

This invention has reference to improvements in mechanical toys, and has for its primary object to provide a simple device which will afford great amusement to children.

The said invention consists, essentially, in the arrangement and combination of a handle, a stationary post secured to one end of said handle, a spindle or shaft rotatively held on said post, provided with a suitable cup-shaped disk forming a support for a spinning or flying piece, which has a perforation or hole for loosely fitting it over a suitable projection or post on said cup-shaped disk, said parts being constructed in such a manner that when a string is wound upon the spindle or shaft and then rapidly pulled at one end to produce a quick rotary motion of said spindle and its disk said spinning or flying piece will at first turn with said disk, but owing to the construction of its wings will immediately ascend to a great height into the air.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my toy. Fig. 2 is a top view of the same, and Fig. 3 is a vertical section of the parts with the spinning or flying piece removed.

Similar letters of reference are employed in all of the above-described views to indicate like parts.

Referring to Figs. 1, 2, and 3 of the drawings, *a* indicates a suitably-constructed handle, of wood or other material, which may be provided with a ferrule *a'*. Into the end of said handle *a* and through a hole in the ferrule *a'* is driven a suitable pin *b*, provided with a head *b'*, which may be flat, as indicated

in Fig. 3. Loosely and rotatively arranged on said pin *b*, between the ferrule *a'* and the head *b'* of said pin, is a tubular spindle or shaft *c*, provided at or near its upper end with a cup-shaped disk *c'*. On said disk I have secured a flat post *c²*, which is made of sheet metal, being formed as clearly illustrated in Fig. 3, and having its ends *c³* soldered fast or otherwise secured on the said disk *c'*. Loosely fitted over said post *c²* is a spinning or flying piece *d*, comprising therein a suitable number of upwardly-curved wings *d'*, preferably provided with the longitudinal ribs *d²* and a circular rib *d³* to produce strength and rigidity, and provided also with a centrally-arranged opening *d⁴*, which is rectangular in shape to correspond with the outline of said post *c²*, whereby said spinning or flying piece is loosely and operatively arranged on the top of said disk *c'*.

To work the toy, all that is required is to take a string and wind it around the spindle or shaft *c*, place the spinning or flying piece *d* in position on the disk *c'*, take the handle *a* in one hand, and with the other hand give a quick pull on the free end of the string. The spindle or shaft *c* and its disk *c'* and the post *c²* thereon will be caused to rotate very rapidly, at the same time carrying the spinning or flying piece *d*. However, as the speed of rotation is rapidly increased, the curvature of the wings *d'* will cause said spinning or flying piece *d* to rise rapidly into the air, thereby producing the appearance of a flying bird.

From the above description and the arrangement of the angular post *c²* illustrated in Figs. 2 and 3 it will be evident that as soon as the disk *c'* turns the spinning or flying piece *d* is compelled to turn with it until it has risen high enough to become disengaged from said posts *c²* or *c⁴* and sails off gracefully to a great height into the air.

My improvement provides a simple mechanical toy for the amusement of children, which can be easily manipulated and in which the spinning or flying piece can be made to ascend to a great height into the air, thereby producing the appearance of a flying bird.

Having thus described my invention, what I claim is—

1. A mechanical toy, consisting of a han-

dle, a pin b secured to the end thereof, and having a head b' , a tubular spindle c rotatively arranged on said pin, a cup-shaped disk c' on said spindle, and a flat post c^2 on
 5 said spindle having its ends c^3 secured thereto, and a spinning or flying piece, having wings, and a centrally-arranged and rectangularly-formed opening d^4 adapted to be fitted over said post c^2 on said disk c' , substantially as and for the purposes set forth.
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2. A mechanical toy, consisting of a handle, a pin b secured to the end thereof, and having a head b' , a tubular spindle c rotatively arranged on said pin, a cup-shaped

disk c' on said spindle, and a flat post c^2 on 15 said disk having its ends c^3 secured thereto, and a spinning or flying piece d , having wings d' , ribs d^2 and d^3 , a centrally-arranged opening d^4 corresponding in shape to the cross-section of said post c^2 on said disk c' , substantially as and for the purposes set forth. 20

In testimony that I claim the invention set forth above I have hereunto set my hand this 3d day of March, 1896.

ERNST GOTTFR. MOERSCH.

Witnesses:

FREDK. C. FRAENTZEL,
 WM. H. CAMFIELD, Jr.