

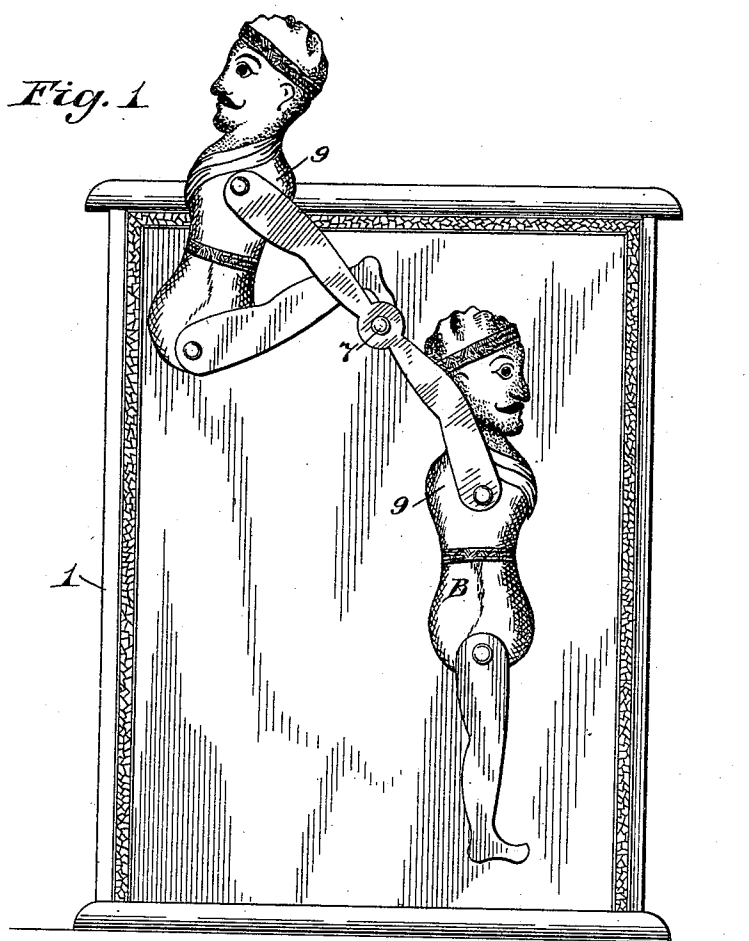
(No Model.)

2 Sheets—Sheet 1.

C. A. HOTCHKISS.
TOY ACROBATS.

No. 466,980.

Patented Jan. 12, 1892.



WITNESSES

E. M. Hallahan
M. A. Huggard

INVENTOR

Charles A. Hotchkiss
By *A. M. Wooster*
att'y.

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Fig. 2

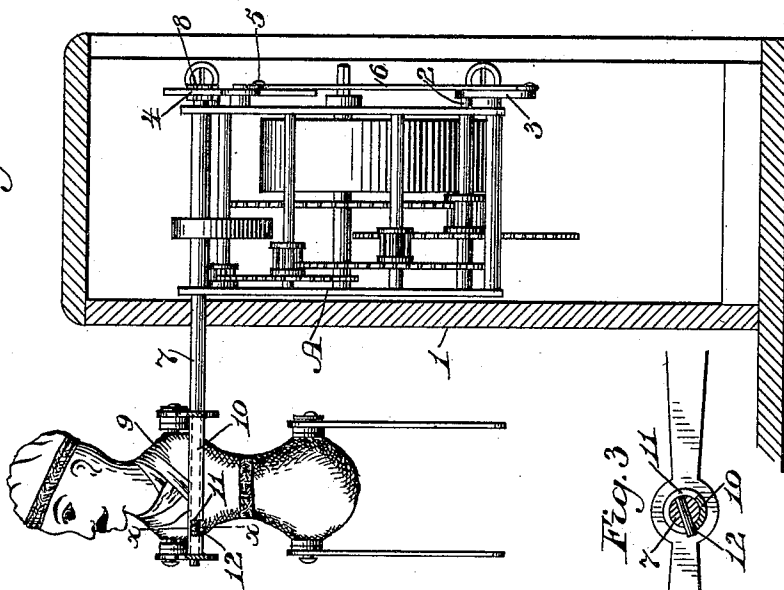
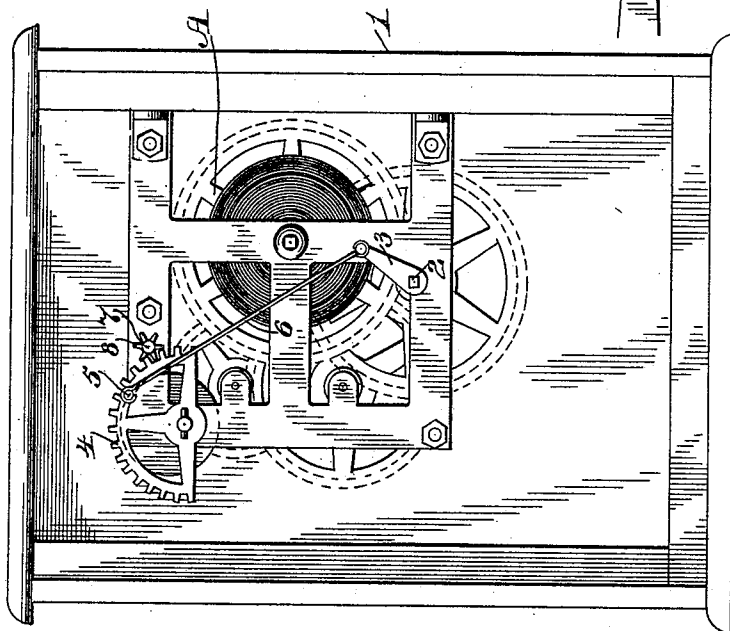


Fig. 3



Fig. 4



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES A. HOTCHKISS, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE
IVES, BLAKESLEE & WILLIAMS COMPANY, OF SAME PLACE.

TOY ACROBAT.

SPECIFICATION forming part of Letters Patent No. 466,980, dated January 12, 1892.

Application filed July 8, 1891. Serial No. 398,748. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. HOTCHKISS, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Toy Acrobats; 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.

My invention relates to the class of mechanical toys operated by a clock-movement, and has for its object to produce a tumbling toy—as, for instance, a monkey or an acrobat, or preferably two acrobats, as shown in the drawings—which will go through various movements on the horizontal bar when the movement is wound.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation of my novel toy. In this instance I have illustrated two acrobats tumbling upon a horizontal bar; Fig. 2, a vertical section through the case, showing the shaft and sleeve in elevation; Fig. 3, a detail cross-section on an enlarged scale, the line of the section being indicated at *x* in Fig. 2; and Fig. 4 is a rear elevation thereof showing the clock-movement.

1 denotes a case, which may be of any ordinary or preferred construction. A is a clock-movement within said case, the object of said movement being to rotate a shaft 2, at the end of which is a crank 3.

4 denotes a segment-disk having a pin 5, and 6 a rod connecting said pin with the crank, so that the rotary movement of the crank will impart an oscillatory movement to the segment-disk.

7 denotes a shaft extending through the front of the case and provided at its inner end with a pinion 8, which meshes with the segment-gear, so that the oscillatory movement of the segment-gear is communicated to shaft 7.

9 denotes tumbling toys, the arms of which are rigidly secured to a sleeve 10 loose upon shaft 7. I have shown the arms of the two toys as made in continuous pieces—that is to say, the right arm of one toy and the left arm

of the other toy are made in a single piece, the center of said piece being rigidly secured to sleeve 10. The sleeve is provided with a slot 11, which is engaged by a pin 12, extending outward from shaft 7. One of the toys is weighted, as at B, so as to insure that gravity will act at all times to carry the weighted toy downward as soon as the arms carrying it pass the center at the top or the movement of the shaft is reversed.

The operation of the toy is as follows: It will be seen that the relative proportions of pinion 8 and the segment-disk are such that shaft 7 may be given several rotations—two or three, for instance—in one direction before the movement is reversed. Suppose now that the top of shaft 7, as seen in Fig. 3, in moving toward the left, when pin 12 engages the end of slot 11 it is obvious that the sleeve, and with it the arms of the toys, will be carried around by it, the pin carrying the sleeve around with the shaft until the pin has passed the top, when the weight and leverage of the weighted acrobat will cause the sleeve to move faster than the pin for an instant, causing the acrobats to make quick tumbling movements. After one or two movements of this sort, through the operation of the crank, segment-disk, and pinion 8, shaft 7 will be rotated in the opposite direction, which of course changes the movements of the acrobats, the alternate rotation in opposite directions of the shaft, in connection with the slotted sleeve, which is loose on the shaft and is carried by a pin engaging the ends of the slot, insuring an almost endless variety of movements of the acrobats upon shaft 7, which represents a horizontal bar. The movements of the toy acrobats, in fact, are so varied that it is practically impossible to place both of them a second time in any given position.

Having thus described my invention, I claim—

In a mechanical toy, the combination, with a clock-movement, of a rotating shaft 2, operated thereby and provided with a crank 3, a geared segment 4, provided with a pin 5, a rod 6, connecting said pin with said crank, a shaft 7, extending through the front of the case containing the clock-movement and provided with a pinion 8, meshing with said geared

segment and with a pin 12, a sleeve 10, loose
upon said shaft and provided with a slot 11,
which is entered by said pin, and toy acrobats
placed opposite each other and having arms
5 formed of continuous pieces rigidly secured
to said sleeve, one of said acrobats being
weighted, substantially as described.

In testimony whereof I affix my signature in
presence of two witnesses.

CHARLES A. HOTCHKISS.

Witnesses:

A. M. WOOSTER,
M. A. HUGGARD.