H. GROTH
Toy-Motor.

No. 212,926. Patented Mar. 4, 1879.

Fig: 1.

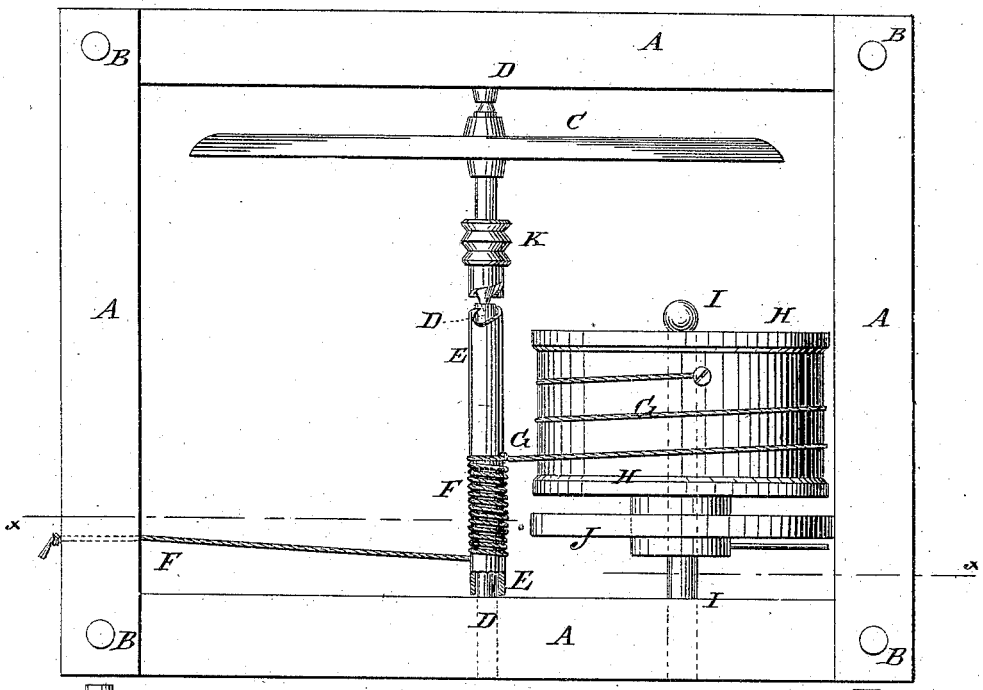
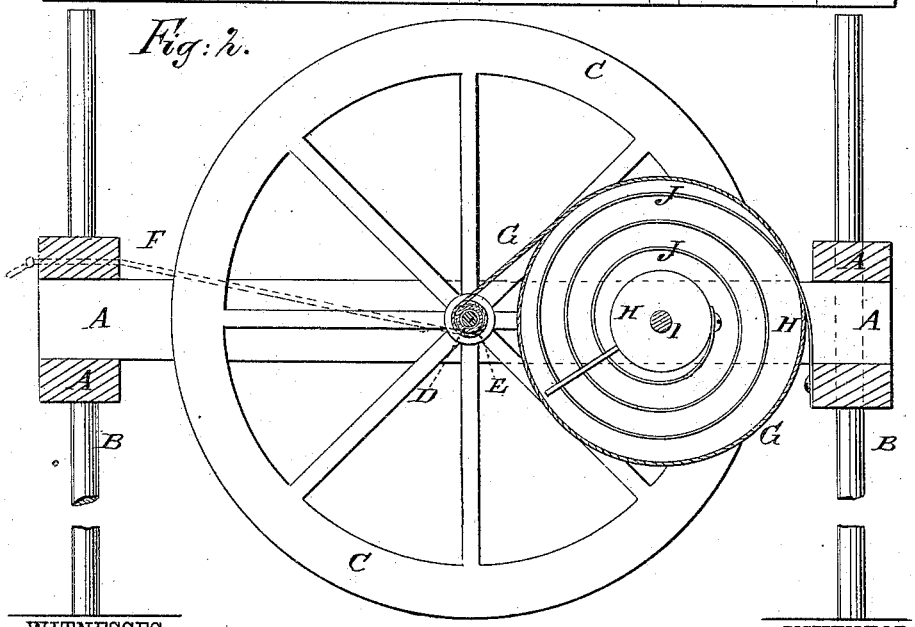


Fig: 2.



WITNESSES:
Chas. Nida.
C. Sedgwick

INVENTOR:
H. Groth
BY Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

HENRY GROTH, OF NEW YORK, N. Y.

IMPROVEMENT IN TOY MOTORS.

Specification forming part of Letters Patent No. **212,926**, dated March 4, 1879; application filed January 15, 1879.

To all whom it may concern:

Be it known that I, HENRY GROTH, of the city, county, and State of New York, have invented a new and useful Improvement in Toy Motive Power, of which the following is a specification:

Figure 1 is a top view of my improved device. Fig. 2 is a detail section of the same, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish a toy motive power for giving motion to dancing figures, toy hand-organs, and other mechanical toys, which shall be so constructed that the uncoiling of the impelling-cord will coil a spring, the uncoiling of which will recoil the impelling-cord, ready to be again used.

The invention consists in a toy motive power, formed by the combination of the fly-wheel its pins, the sleeve, the cords, the drum, and the coiled spring with each other and with the frame-work, as hereinafter fully described.

A represents a small frame, which is supported upon legs B, of any convenient length. C is a fly-wheel, the ends of the journals of which are pointed and revolve in the ends of two pins, D. One of the pins D is made long to receive a sleeve, E, upon the inner end of which are formed clutch-teeth, to engage with clutch-teeth formed upon the journal of the fly-wheel C. To the middle part of the sleeve E is secured the end of a cord, F, which is wound around the outer part of the said sleeve E. The free end of the cord F passes through a hole in a side bar of the frame A, which hole should be about opposite the middle of the outer half of the sleeve E, so that when the cord F is drawn upon to unwind it the first effect will be to slide the sleeve E, and cause the said sleeve to engage with the journal of the fly-wheel C, and carry the said fly-wheel C with it in its evolution. The position of the outer end of the cord F also causes the said cord to rewind itself upon the sleeve E evenly and smoothly.

To the middle part of the sleeve E is attached the end of the cord G, which is coiled around, and its other end is attached to a drum, H. The cords F G may be a single cord, secured at its middle part to the sleeve E.

The drum H revolves freely upon a pin, I, attached to the frame A, and to its hub is attached the inner end of a coiled spring, J, the outer end of which is attached to the frame A. The cord G is wound in such a direction around the drum H that the unwinding of the cord F from the sleeve E will wind the cord G upon the said sleeve and coil up the spring J, so that when the cord F is released the uncoiling of the spring J will rewind the cord G upon the drum H, and the cord F upon the sleeve E, ready to be again drawn upon to give another impulse to the fly-wheel C. To the hub of the fly-wheel C are attached one or more pulleys, K, to receive belts for giving motion to the desired toy or toys.

I am aware that it is not new to revolve a box by a chain on drum, and to rotate a fly-wheel in the same direction by a pawl within the box, said box (on the removal of pressure) being carried by a recoil of spring, that rewinds the chain upon the drum while the fly-wheel continues to revolve; but

What I claim as new, and of my invention, is—

A toy motive power formed by the combination of the fly-wheel C, its pins D, the sleeve E, the cords F G, the drum H, and the coiled spring J with each other and with the frame A B, substantially as herein shown and described.

HENRY GROTH.

Witnesses:

JAMES T. GRAHAM,

C. SEDGWICK.