

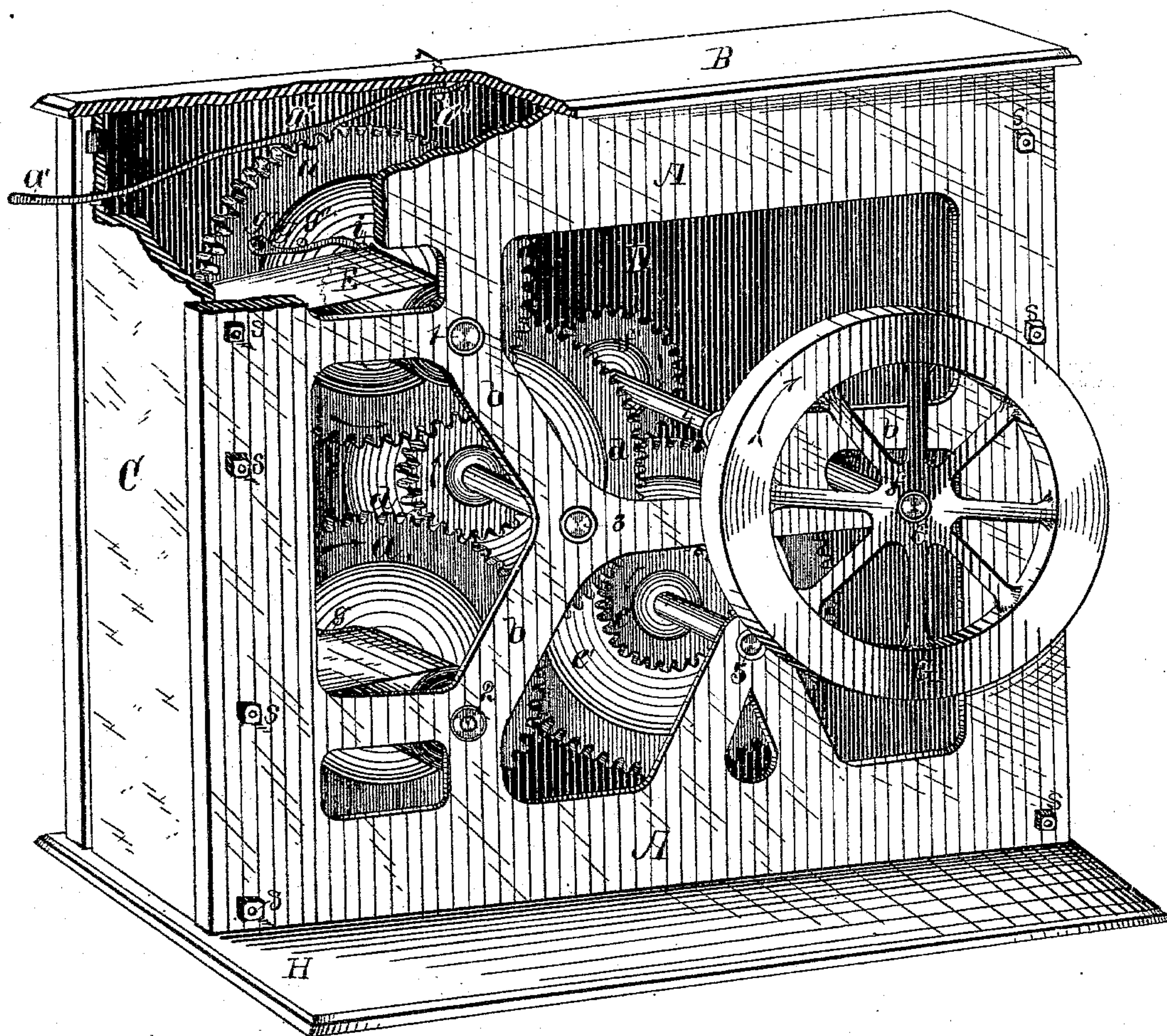
(No Model.)

W. H. NEFF.

SPRING MOTOR.

No. 283,642.

Patented Aug. 21, 1883.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

WILLIAM H. NEFF, OF COWAN, INDIANA.

## SPRING-MOTOR.

SPECIFICATION forming part of Letters Patent No. 283,642, dated August 21, 1883.

Application filed July 14, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. NEFF, a citizen of the United States, residing at Cowan, in the county of Delaware and State of Indiana, have invented a new and useful Improvement in Spring-Motors, of which the following is a specification.

My invention consists in constructing a spring-motor with an iron box or frame, in which are secured two coil-springs, so that they may be wound up and their power converted together on a series of gearing in the said box, to which suitable machinery may be attached as desired, the said gearing having a balance-wheel, and a lever is secured over one of the drive-wheels, for starting and stopping the motion.

The objects of my invention are to construct a cheap and durable spring-motor for operating small machinery, &c. I attain these objects by the mechanism illustrated by the accompanying perspective view of my invention.

The frame or box in which my invention is secured consists of a base-plate, H, open front A, top B, back D, and end plates, C, all as shown in the drawing. The open front A has several bars, *b*, running in various directions, in which one end of the several journals are secured. The shafts 1 and 2 pass through the drive-wheels *a a*, which have heavy cogs on their outer rims and ratchet-wheel around their inner part, which the shafts pass through. Around these shafts the springs E are wound, one end of each being secured to the said shafts and the other to the end C. The pawl *g*, which is made thin in the center, is secured to the rim of the drive-wheel by a bolt, *g'*, and the said pawl is made to press against the drive-wheel by a pin, *g''*, being secured above it, all as shown in the drawing. Two pawls

of this kind are secured to each of the drive-wheels *a a*, and the said wheels work against the small cog-wheel, *c*, as shown. The large cog-wheel *d* is secured on the shaft 3 and works against the wheel *e* on the shaft 5, and on the said shaft is secured a large cog-wheel, *e'*, which operates cog-wheels *f* and *f'*, all as shown. The balance-wheel G is secured on the shaft 6, and the wheel *f'* is secured to the shaft 4, to each end of which a belt or chain wheel may be attached to connect the power to other machinery. The springs are wound up by a crank applied to the back ends of the journals 1 and 2, where they pass through the back D.

Wheels or cranks may be attached to any of the various shafts, according to the speed required. The iron frame or box is firmly held together by the bolts S, which pass through each end of the box, as shown.

More than two springs may be applied, when necessary.

The lever *a* is secured to the inside of the top B by a bolt and clip, *a'''*, all as shown. The under side of the lever is provided with cogs *a''*, which correspond with the cogs in the wheel *a*. The said lever is used to start and stop the motor by raising it up or down, as required.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In a spring-motor, the frame A B C D, journals 1 2 3 4 5 6, carrying the wheels *a a c d e e' f f' G*, springs E, ratchets *i*, pawls *g g'*, and lever *a' a'' a'''*, all for the purposes set forth.

WILLIAM H. NEFF.

Witnesses:

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