F. A. LANE
Pendulum.

No. 207,609. Patented Sept. 3, 1878.

Attest.

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UNITED STATES PATENT OFFICE.

FREDERIC A. LANE, OF NEW HAVEN, CONNECTICUT, ASSIGNOR OF ONE-HALF HIS RIGHT TO PASCHAL CONVERSE, OF SAME PLACE.

IMPROVEMENT IN PENDULUMS.

Specification forming part of Letters Patent No. **207,609**, dated September 3, 1878; application filed August 19, 1878.

To all whom it may concern:

Be it known that I, FREDERIC A. LANE, of the city and county of New Haven, and State of Connecticut, have invented a new and useful Improvement in Pendulums, of which the following is a specification:

My invention consists in a pendulum made of two or more parts, said parts being securely connected by a spiral spring.

In the accompanying drawing is shown, at *a*, the spiral spring, at *b* a flattened portion for attaching to the usual slotted stud or supporting-arm, and at *c* the hook for holding the pendulum-weight.

Heretofore pendulums have usually been made by flattening the wire or rod commonly used at or near its upper or rigid end to form a spring or elastic portion, which aids its vibration, and therefore permits a clock or other mechanism to work more effectively.

The objections to this kind of pendulum are numerous.

In rolling the rods or wires to obtain the elasticity required, a great many are spoiled by being too rigid, while others are left so slender as to be of no value. Much loss is thus occasioned, even when the most skilled labor is employed, as pendulums of this kind are not adjustable. If these wires or rods become twisted, an irregular motion, commonly called "wabbling," is produced, which tends to impair the efficiency of the mechanism with which they are connected.

The object of my invention is to provide a pendulum that is uniform, durable, elastic, and easily adjustable.

As the uniform motion of a clock or other machine employing a pendulum depends greatly upon the proper elasticity of its pendulum, it will be readily seen that in this particular my invention is valuable, because a pendulum so constructed can be rendered more or less elastic, as required by stretching or contracting the spiral spring which forms a part of it.

It is hardly possible for this pendulum to become so bent or twisted as to produce an irregular motion, and it can be readily straightened without the danger of breaking that so often occurs in the ordinary pendulum.

Owing to the superior elasticity of a pendulum constructed as shown by my invention, less power is required to keep a clock-train or other mechanism in motion.

Having thus described my invention, what I claim is—

A pendulum made in two or more parts, connected by a spiral spring, substantially as shown and described.

FREDERIC A. LANE.

Witnesses:

EDWIN C. DOW,

L. B. TUTTLE.