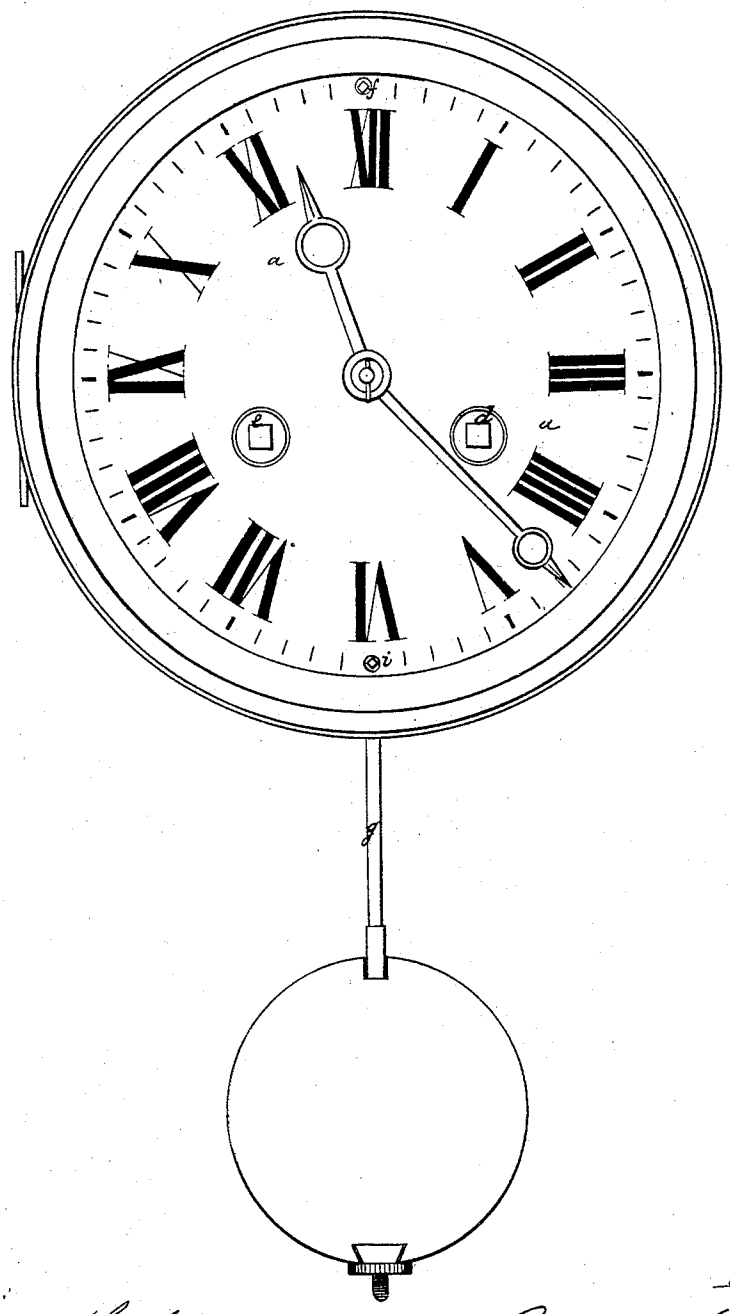
3 Sheets—Sheet 1.

# E. A. LOURDELET.

## DEVICE FOR STARTING PENDULUM CLOCKS.

No. 177,137. Patented May 9, 1876.

*Fig: 1*




Witnesses:

1 Robt. McHarper

2 Jean-Baptiste Rolland

Inventor:

Ernest Alfred Lourdelet

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

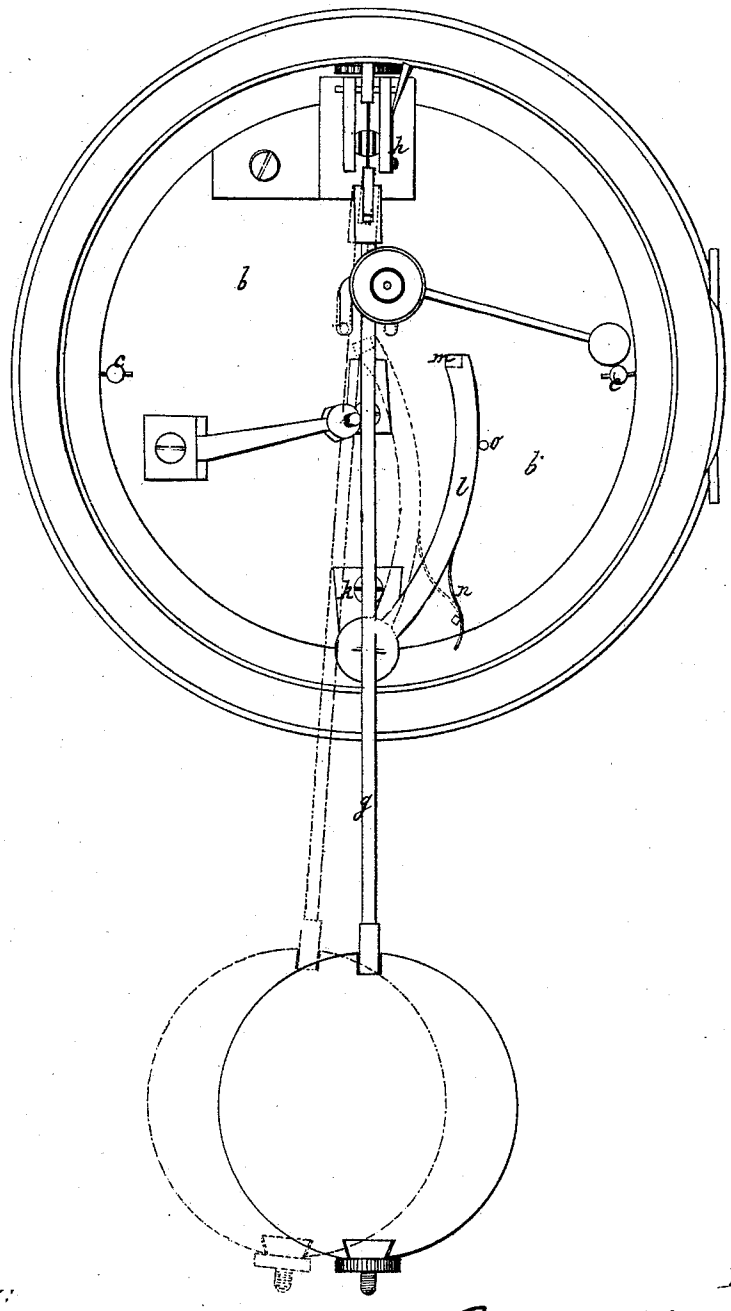
3 Sheets—Sheet 2.

# E. A. LOURDELET.

## DEVICE FOR STARTING PENDULUM CLOCKS.

No. 177,137. Patented May 9, 1876.

*Fig. 2*




Witnesses:

1 Robt. M. Harper

2 Jean Baptiste Rolland

Inventor:

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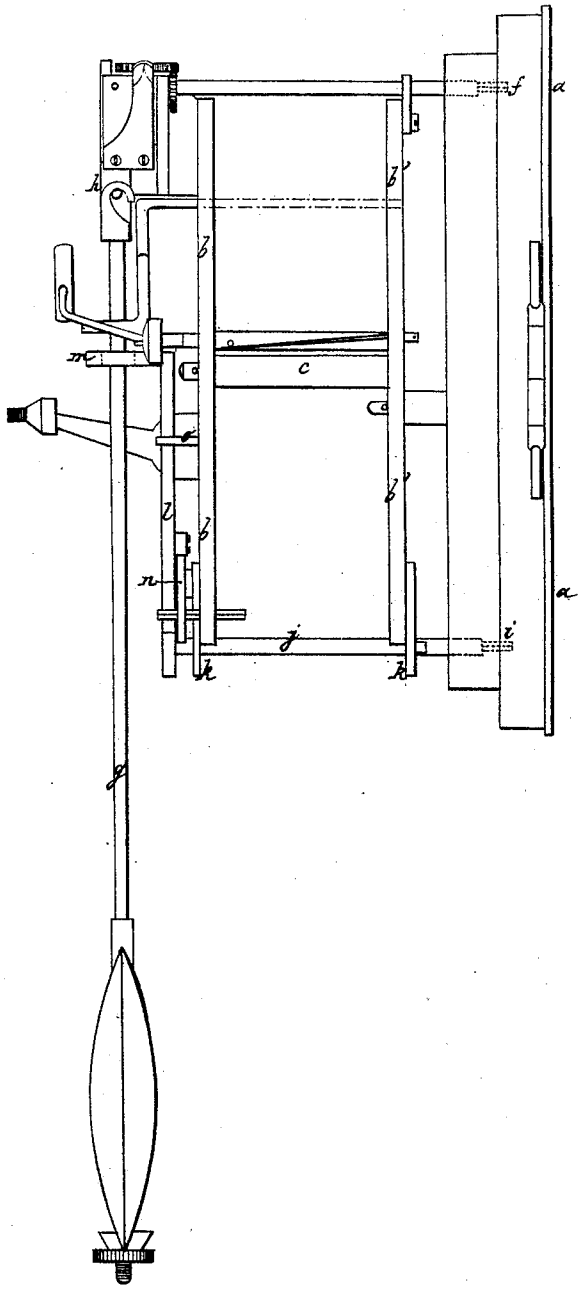
3 Sheets—Sheet 3.

# E. A. LOURDELET.

## DEVICE FOR STARTING PENDULUM CLOCKS.

No. 177,137. Patented May 9, 1876.

Fig. 3




Witnesses:

1 Robt. M. Cooper

2 Jean-Baptiste Rolland

Inventor.

Ernest Alfred Lourdelet

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

ERNEST A. LOURDELET, OF PARIS, FRANCE.

## IMPROVEMENT IN DEVICES FOR STARTING PENDULUM-CLOCKS.

Specification forming part of Letters Patent No. **177,137**, dated May 9, 1876; application filed March 27, 1876.

*To all whom it may concern:*

Be it known that I, ERNEST ALFRED LOURDELET, of Paris, France, have invented an Improved Device for Starting Pendulum-Clocks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed sheets of drawing, making a part of the same.

My invention relates to a device applied to pendulum-clocks, of the ordinary drawing-room or mantel-shelf kind, for starting the pendulum when the clock is set going again after having stopped. The said device, which I call "pendulum-starter" or "pendulum-impulser," may also be used for stopping the clock whenever required—as, for instance, when it goes too fast and it is desired to set it at the proper time without turning the hands several times round the dial. The common way of setting such clocks going, after being rewound, is to tilt or move the whole stand or pedestal of the clock, which is inconvenient when the pedestal is large and heavy.

My invention consists in the application of an additional axis in any convenient position in the clock-dial or its pedestal, which axis is squared at the end to receive a key or its equivalent, and carries a lever-arm whose extremity is made by partly rotating the axis to bear against the pendulum-rod and set the latter oscillating. It is preferred to apply this device so that the axis projects through a hole in the lowest point of the dial, and the lever is so arranged as not to interfere with the mechanism of the clock, and the device may therefore be applied indifferently to clocks already made or in new ones.

In order that the invention may be more readily understood, I have illustrated one example of it in the annexed drawing, in which Figure 1 shows a face view, Fig. 2 a back view, and Fig. 3 a side view, of the clock movement.

*a*, dial; *b b'*, back and front plates, connected by pillars *c*, in which the parts of the movements are mounted; *d*, axis of the working part; *e*, axis of the striking part; *f*, axis for adjusting the length of the pendulum; *g*, pendulum-rod and *h* its suspension; *j*, axis of my pendulum-starting device, and *i* its squared end. This axis turns in holes in two small plates, *k*, fixed to *b b'*, and at its rear end there is keyed the lever-arm *l*, having an elbow or crank *m* at its upper extremity, which comes in contact with and pushes the pendulum-rod, when the axis *j* is turned, by means of a key applied to the squared end *i*. The dotted lines show the device in the act of setting the pendulum in motion. *n* is a spring which returns the lever, after it has performed its office, back to its first position against the stop *o*, where it remains out of the way of the pendulum.

I claim—

1. The combination, with the pendulum of a clock, of a rock-shaft carrying an arm for the purpose of starting or stopping the pendulum, as described.

2. The shaft *j*, having squared end *i*, and arm *l*, with elbow *m*, in combination with spring *n*, stop-pin *o*, and the pendulum, as and for the purpose described.

ERNEST ALFRED LOURDELET.

Witnesses:

ROBT. M. HOOPER,

JEAN BAPTISTE ROLLAND.