

(Model.)

J. BLANSHAN.
CLOCK ESCAPEMENT.

No. 283,957.

Patented Aug. 28, 1883.

Fig. 1.

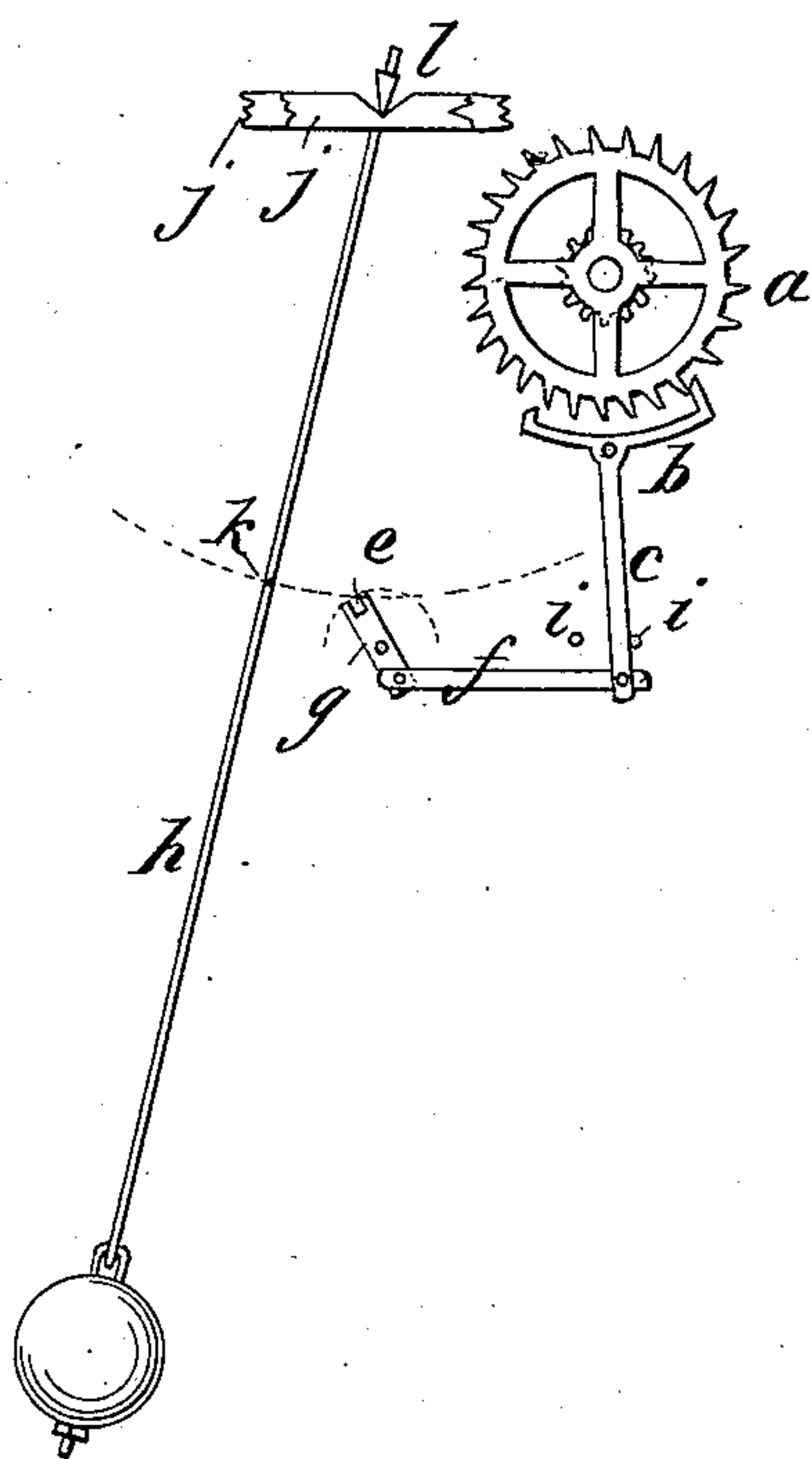
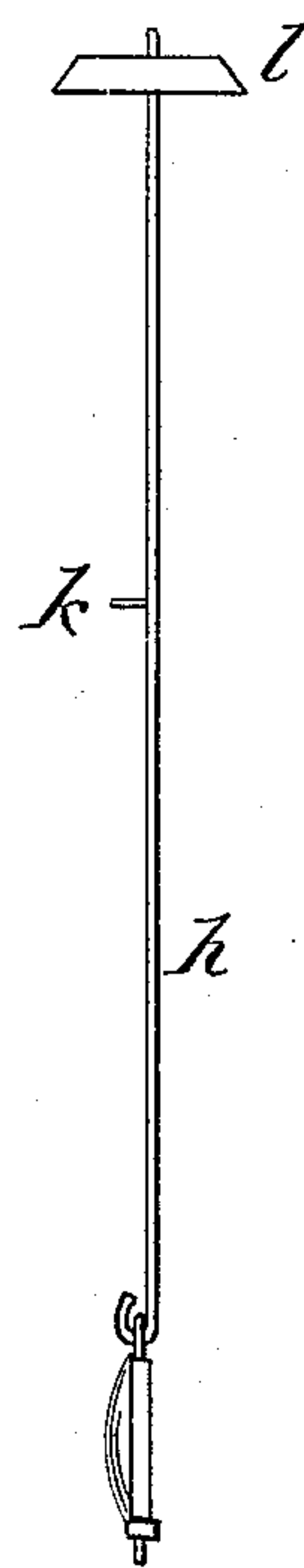


Fig. 2.



WITNESSES:

Donn Twitchell.
C. Sedgwick

INVENTOR:

J. Blanshan
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN BLANSHAN, OF LE FEVER FALLS, NEW YORK.

CLOCK-ESCAPEMENT.

SPECIFICATION forming part of Letters Patent No. 283,957, dated August 28, 1883.

Application filed January 10, 1883. (Model.)

To all whom it may concern:

Be it known that I, JOHN BLANSHAN, of Le Fever Falls, in the county of Ulster and State of New York, have invented certain new and
5 useful Improvements in Clock-Escapements, of which the following is a full, clear, and exact description.

The object of this invention is to lessen the friction in the pendulum action of clocks; and
10 it consists, principally, of such construction and arrangement of the escapement mechanism that it will apply the maintaining force to the pendulum-rod only during a very short space in its vibration.

15 The invention also consists in suspending the pendulum upon a knife-edge.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate
20 corresponding parts in both the figures.

Figure 1 is a front elevation of my new and improved escapement and pendulum; and Fig. 2 is a side view of the pendulum and its knife-edge.

25 *a* represents the escapement-wheel; *b*, the verge; *c*, the verge rod or wire, which is connected by the rod *f* to the lower end of the pivoted notched lever *g*.

h represents the pendulum-rod, and *l* represents the knife-edge by which it is suspended
30 from the bars *j j*. The pendulum-rod is provided with the pin or stud *k*, and this pin and the notched lever *g* are so arranged with reference to each other and the plane of vibration of the pendulum that the notch *e* of the
35 lever will stand exactly in the path of the pin, so that the pin will strike in the notch as the pendulum passes the lever in both directions, and thus operate the verge and at the same
40 time receive from the escapement-wheel, through the verge-rod *f* and lever *g*, its modicum of maintaining-force.

i i are stop-pins, which limit in both directions the movement of the verge rod or wire *c*.

Constructed in this manner it will be seen 45 that the pendulum swings almost entirely free of all pressure or friction (except the friction of the knife-edge *l*, which is the minimum) through the greater part of its vibration, that it remains in contact with the lever *g* only an
50 instant, and is then immediately detached entirely from the escapement, and that the action is positive, rendering the movement perfectly uniform, accurate, and reliable.

Having thus fully described my invention, 55 I claim as new and desire to secure by Letters Patent—

1. In a clock, the combination, with the pendulum-rod and the escapement-wheel, of the notched lever adapted to be moved back 60 and forth at its upper end by the action of said rod, while by a similar movement of its lower end the verge is caused to operate the escapement-wheel, substantially as and for the purpose set forth. 65

2. The pendulum-rod *h*, provided with the pin *k* and suspended by the knife-edge *l*, in combination with the lever *g*, having the notch *e*, connecting-rod *f*, verge-rod *c*, verge *b*, and escapement-wheel *a*, substantially as and for 70 the purposes set forth.

3. The combination, with the escapement-wheel *a*, verge *b*, and verge-rod *c*, of the pendulum-rod *h*, lever *g*, and rod *f*, the pendulum-rod being provided with the pin *k*, as and for 75 the purposes set forth.

4. The pendulum-rod *h*, provided with the pin *k*, and suspended by the knife-edge *l*, in combination with the lever *g*, connecting-rod *f*, verge-rod *c*, verge *b*, and escapement-wheel 80 *a*, as and for the purposes set forth.

JOHN BLANSHAN.

Witnesses:

CORNELIUS I. LEFEVER,
WALTER BODLEY.