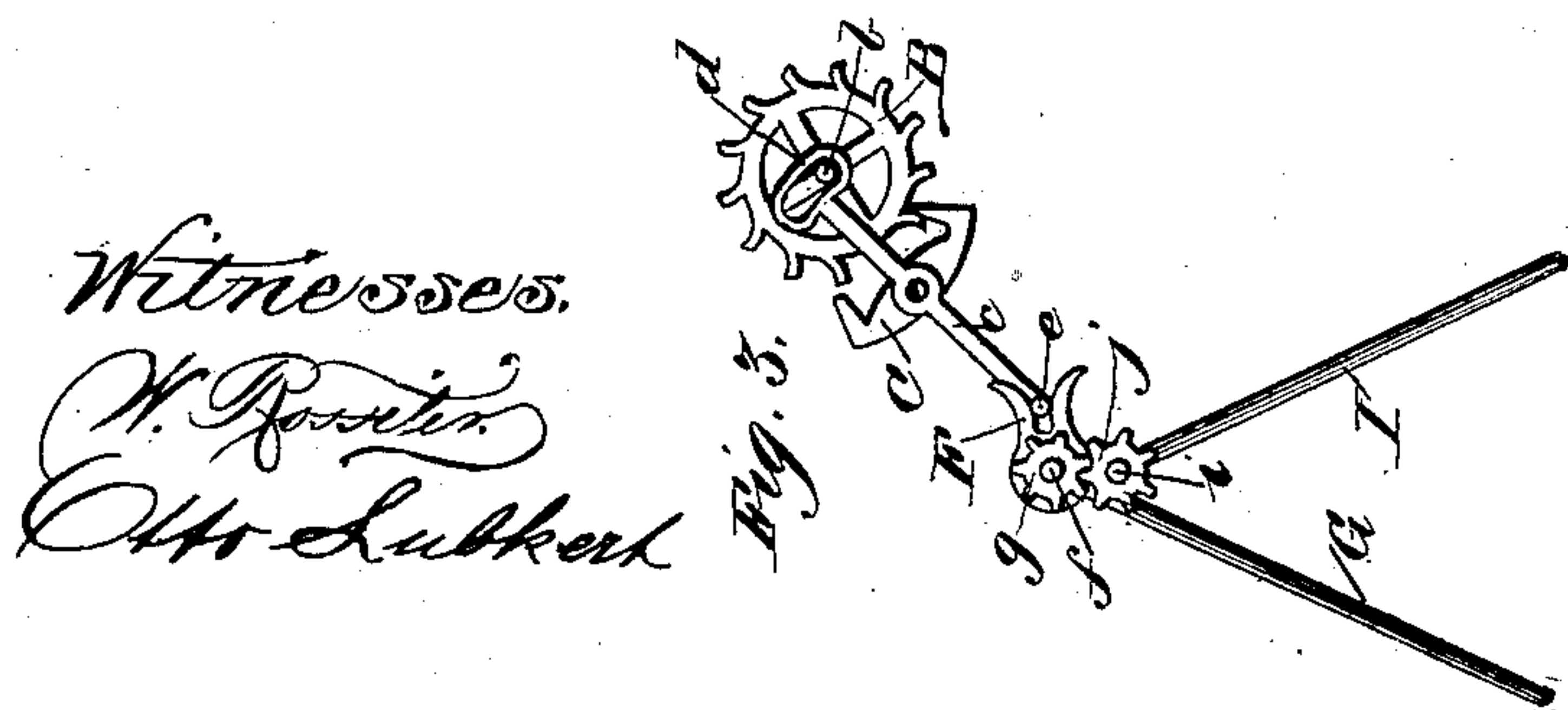
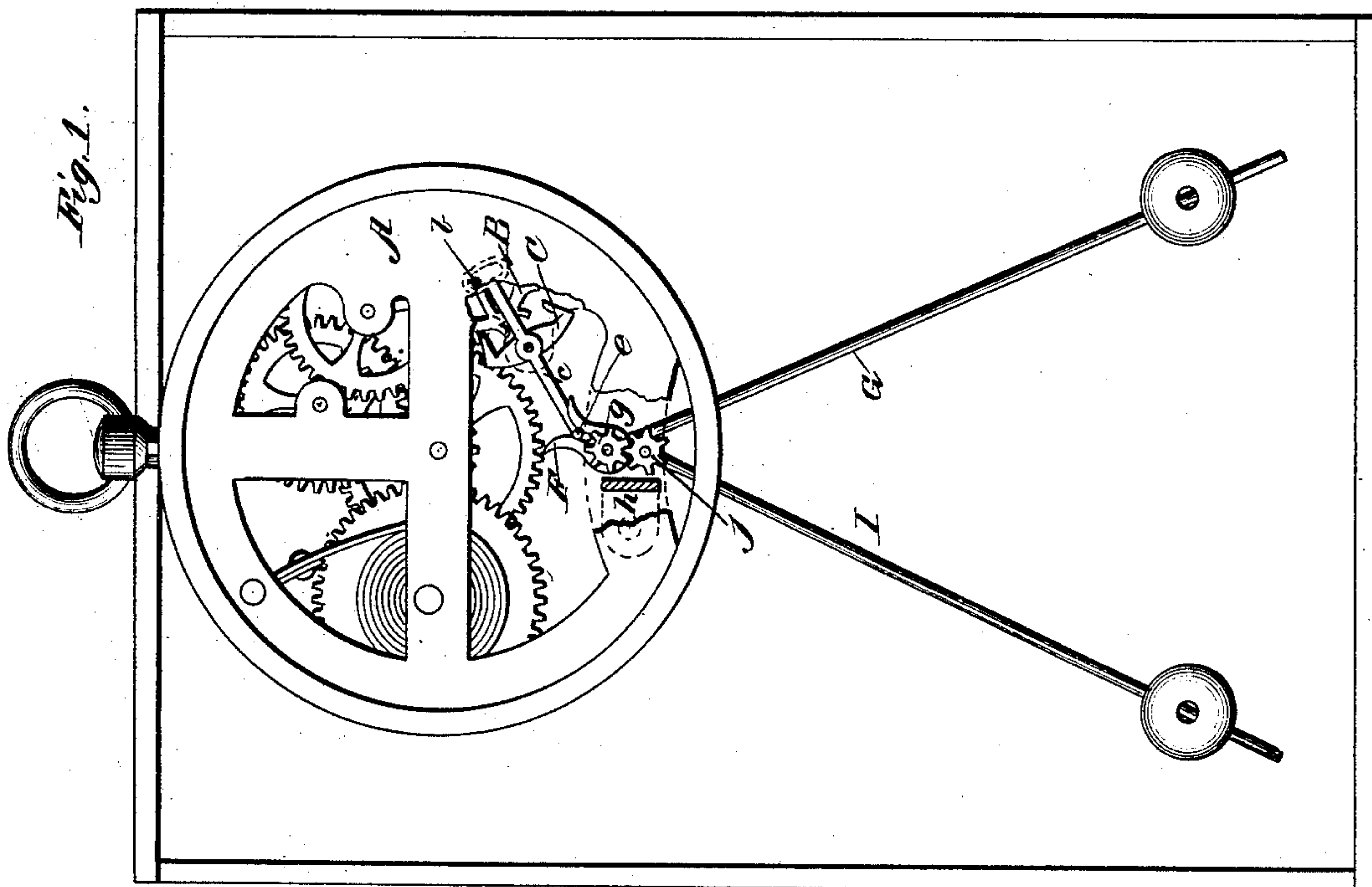
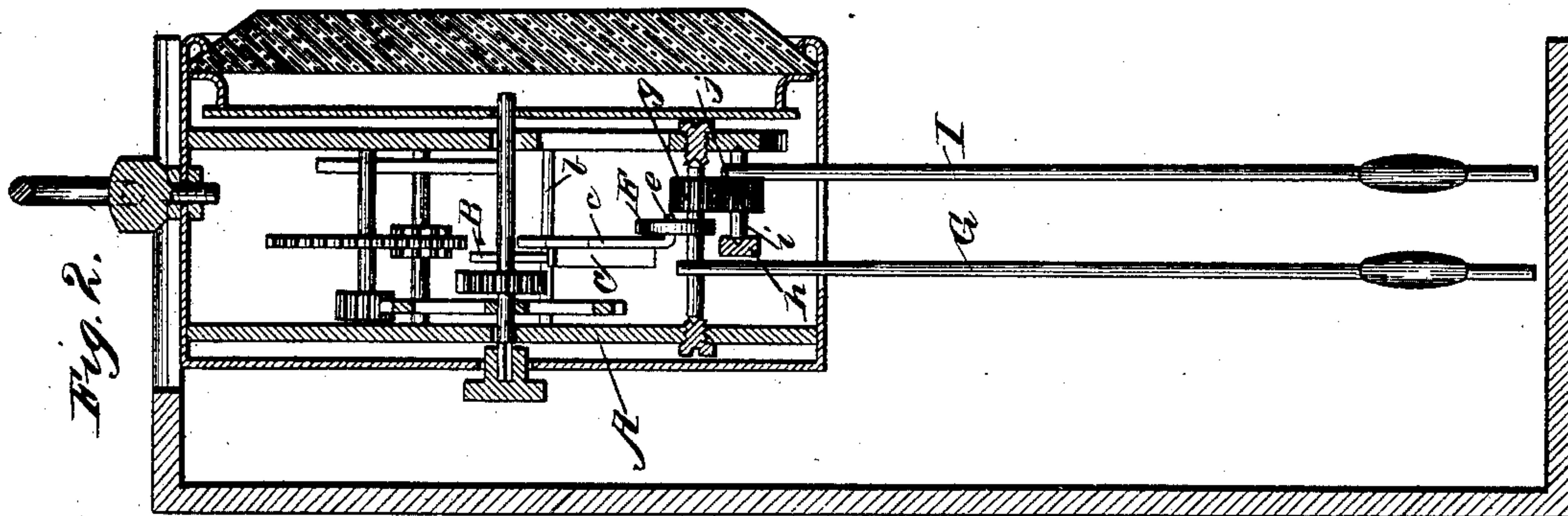


(No Model.)

H. O. DEUSS.
PENDULUM CLOCK.

No. 373,727.

Patented Nov. 22, 1887.



Witnesses:
W. Rosier
O. Lubker

Inventor:
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Atty.

UNITED STATES PATENT OFFICE.

HUGO O. DEUSS, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE NEW HAVEN
CLOCK COMPANY, OF NEW HAVEN, CONNECTICUT.

PENDULUM CLOCK.

SPECIFICATION forming part of Letters Patent No. 373,727, dated November 22, 1887.

Application filed June 18, 1887. Serial No. 241,787. (No model.)

To all whom it may concern:

Be it known that I, HUGO O. DEUSS, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Pendulum Clocks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to pendulum clocks, having for its object the attachment of an auxiliary pendulum so connected with the regular pendulum that it will swing in opposite direction to the same, whereby the two pendulums thus swinging past each other will not only mutually assist in controlling the speed of the clock-movement, but at the same time the motion is pleasing and attractive to the spectator, who, by optical delusion, imagines that the pendulums strike against each other and then recoil from each other; and with the above object in view my invention consists of the novel devices and combinations of devices, hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 represents a front elevation of the clock-movement having my improvements; Fig. 2, a sectional side view of the same; and Fig. 3, an elevation of the escapement-wheel, anchor, and pendulums detached.

Corresponding letters in the several figures of the drawings designate like parts.

A denotes the frame for the clock-movement, that may be of any shape and suitable construction to accommodate and form bearings for the arbors or axles of the several wheels and other parts, constituting a clock-movement that may be of any well-known construction, and therefore I shall only describe such parts of the movement in direct connection with my improvements.

B is the escape-wheel, mounted upon spindle *b*, and C is the anchor, the pallets of which alternately engage the teeth of the escape-wheel, and that has a radial stem, *c*, the upper end of which forms a segmental loop, *d*, placed over the axle, for limiting the vibration of the anchor, while its lower end has a sidewardly-projecting pin, *e*, moving between the prongs

of a bifurcated cam, F, mounted upon a short shaft, *f*, to which shaft *f* the pendulum G is suspended, being rigid therewith. Thus arranged, each reciprocation of the pendulum G will allow the wheel B to rotate the pitch of one tooth.

Upon shaft *f*, I mount a pinion, *g*, and below such shaft *f*, to be parallel therewith, I pivot, between the frame A and a suitable bracket, *h*, another shaft, *i*, integral with auxiliary pendulum I, and upon such shaft *i*, I mount a pinion, *j*, of same size with pinion *g*. The teeth of both pinions *g* and *j* meshing each other, the movement of one pendulum in one direction will transmit the reverse movement to the other pendulum in a manner that both pendulums will swing simultaneously in opposite directions.

On account of the short angular swinging movement of the pendulums segmental gears may be used in place of pinions *g* and *j*, or other connections may be formed between the two shafts *f* and *i* that will transmit a reverse movement from one to the other, and therefore I do not desire to be restricted to the exact construction herein shown and described.

What I claim is—

1. In a clock-movement, two pendulums, G and I, suspended on trunnions vertically in line and connected together by pinions or other suitable means, transmitting a reverse oscillating movement from one to the other, and one of the pendulums connected with the anchor C of the escape-movement, substantially as and for the purpose set forth.

2. In a clock-movement, in combination with wheel B, anchor C, having stem *c*, with pin *e*, and with shaft *f*, carrying bifurcated cam F, and pendulum G of shaft *i*, carrying pendulum I, and being connected with shaft *f* by suitable means for transmitting a reverse oscillating movement, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HUGO O. DEUSS.

Witnesses:

WILLIAM H. LOTZ,
OTTO SUBKERT.