

A. SCHMIDT.
CLOCK-STRIKING MECHANISM.

No. 171,583.

Patented Dec. 28, 1875.

Fig. 3.

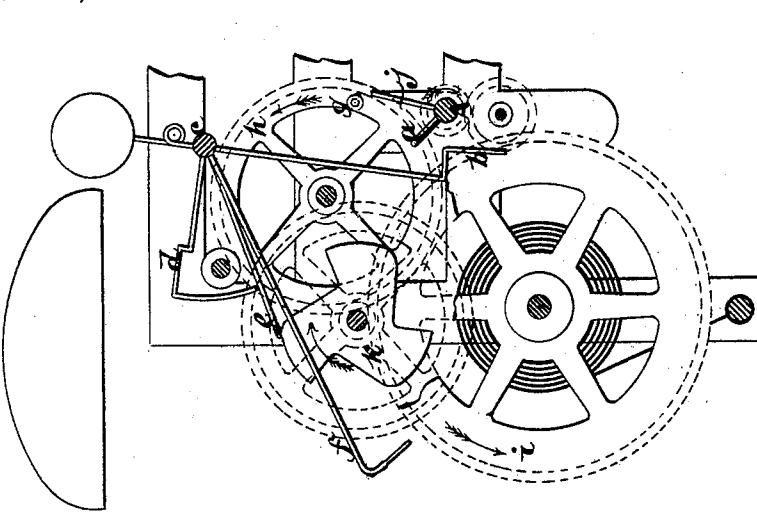
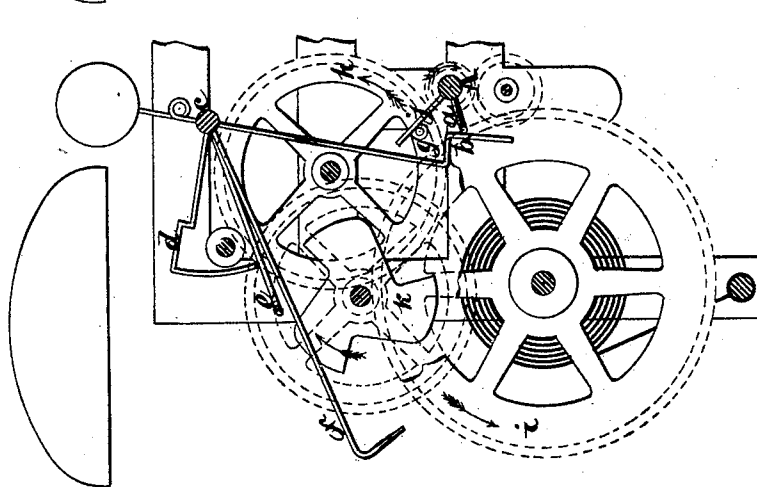


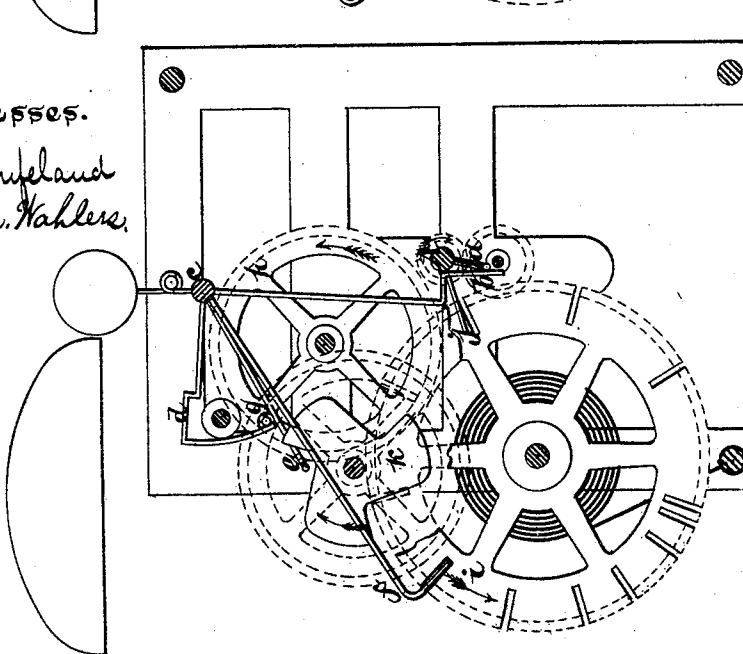
Fig. 2.



Witnesses.

Otto Hufeland
Chas. Wählers.

Fig. 1.



Inventor.
Albert Schmidt
by Vandenberg & Hauff
his attys.

UNITED STATES PATENT OFFICE.

ALBERT SCHMIDT, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN CLOCK STRIKING MECHANISMS.

Specification forming part of Letters Patent No. **171,583**, dated December 28, 1875; application filed December 1, 1875.

To all whom it may concern:

Be it known that I, ALBERT SCHMIDT, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Striking-Clocks, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents my striking mechanism when at rest. Fig. 2 shows the same after "warning." Fig. 3 shows the same when released.

Similar letters indicate corresponding parts.

This invention consists in the combination of a stop-pin secured in one of the wheels or arbors of the hand-movement with the stop-pin of the striking-movement of a clock, and with a single rock-shaft, from which extend the releasing-lever, the stop-hook, the cam-plate lever, and the counting-wheel lever, so that the construction of the clock is simplified, and that between the time of warning and the time of striking the power of the spring of the striking-movement acts on the hand-movement in the direction in which the hands move.

In the drawing, the letter A designates the arbor of the minute-hand, which receives its motion from the ordinary clock-movement, and which revolves in the direction of the arrow marked near it in the several figures. From this arbor extends a pin, *a*, which acts on the releasing-lever *b* of the striking-movement. This lever extends from a rock-shaft, *c*, and from the same rock-shaft also extend the stop-hook *d*, the cam-plate lever *e*, and the counting-wheel lever *f*. The stop-pin *g* is secured in the wheel *h*, which receives its motion from the spring or weight of the striking-movement. The cam-plate *k* and the counting-wheel *i* are of the ordinary construction, and they form parts of the striking-movement, the parts of which are moved in the direction of the arrows marked thereon in the several figures.

In the arbor A, or in any of the wheels connected to this arbor, is secured a pin, *j*, which forms the stop for the striking-movement between the time of warning and striking.

When the striking-movement is at rest the stop-pin *g* of the wheel *h* rests against the hook *d*. (See Fig. 1.) As the arbor A revolves, the pin *a* comes in contact with the releasing-lever *b*, and by its action on this

lever the rock-shaft *c* is turned and the hook *d* is raised, so as to release the stop pin *g*, and allow the wheel *h* to make a partial revolution until the pin *g* is caught by the pin *j*. (See Fig. 2.) This motion is what is termed "warning." At the same time the cam-plate lever *e* and the counting-wheel lever *f* are both raised, so that the striking-movement will be free to move as soon as the pin *j* releases the stop-pin *g*.

By referring to Fig. 2 it will be seen that during that portion of the revolution of the arbor A, which is required to release the stop-pin *g*, this pin bears on the pin *j*, so that the motive power of the striking-movement acts on the arbor A in the same direction in which this arbor is caused to move by the main clock-movement, and the uniform motion of the hands is not interfered with, while in clocks as heretofore constructed the stop-pin *g*, between the time of warning and striking, acts on the arbor A in a direction opposite to its motion, and therefore the correct motion of the clock is disturbed.

As soon as the pin *j* releases the stop-pin *g*, (see Fig. 3,) the striking-movement is free to move, and the number of strokes of the hammer is determined by the counting-wheel *i*, in the ordinary manner.

What I claim as new, and desire to secure by Letters Patent, is—

1. In the striking-movement of a clock, the combination of a pin, *j*, secured in one of the arbors or wheels of the hand-movement, with the stop-pin *g*, the releasing-pin *a*, and with levers *b d e f*, substantially as shown and described, whereby the motive power of the striking-movement, between the time of warning and striking, acts on the hand-movement in the direction of the motion of the hands.

2. In the striking-movement of a clock, the combination of the levers *b d e f*, all emanating from one and the same rock-shaft *c*, with the pins *a j g* and wheels or plates *h k i*, all constructed and operating substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

ALBERT SCHMIDT. [L. S.]

Witnesses:

JOHN JOCHUM,
W. HAUFF.