

H. J. WENZEL.

Alarm Stop-Movements for Time-Pieces.

No. 148,636.

Patented March 17, 1874.

Fig. 1.

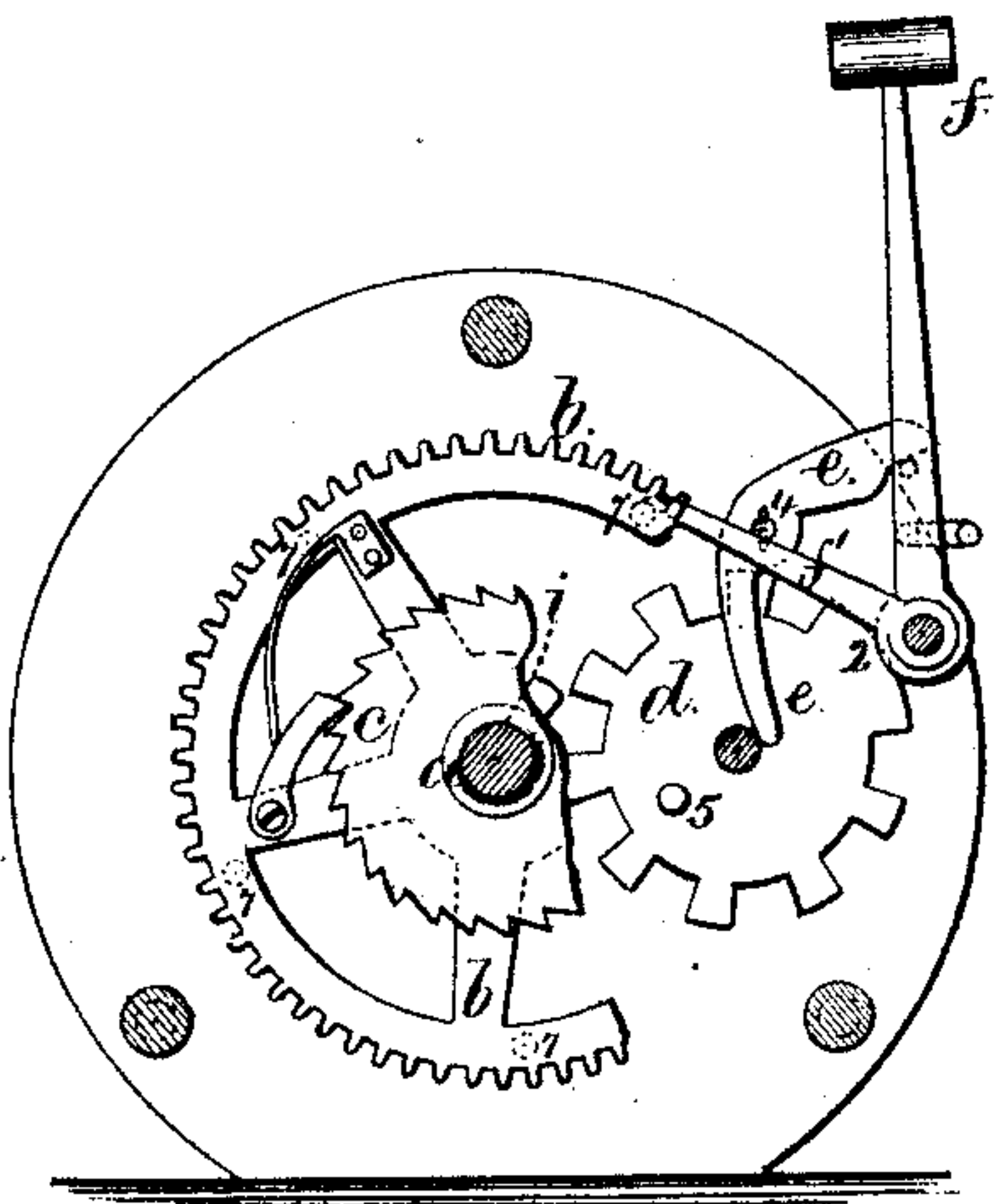


Fig. 2.

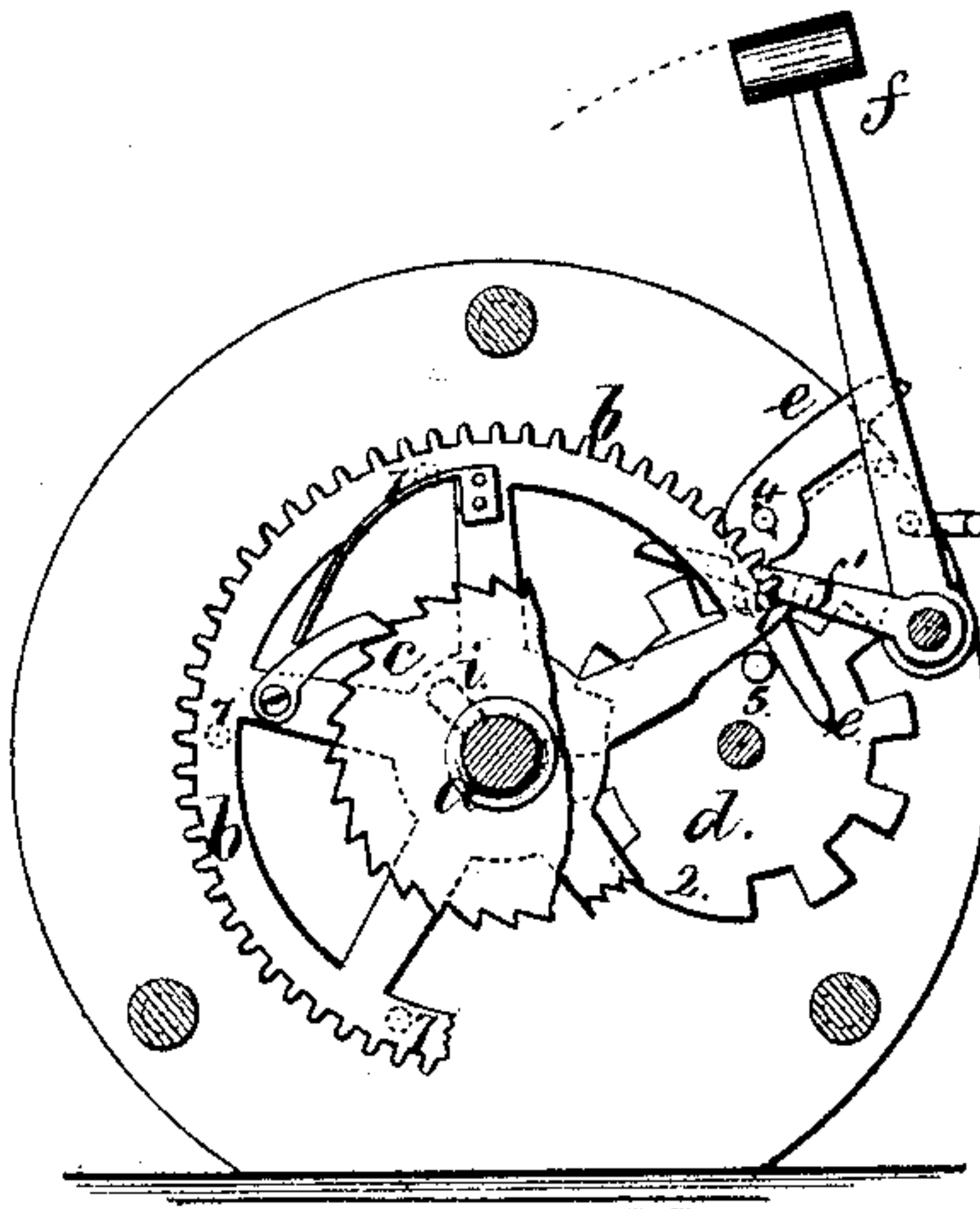
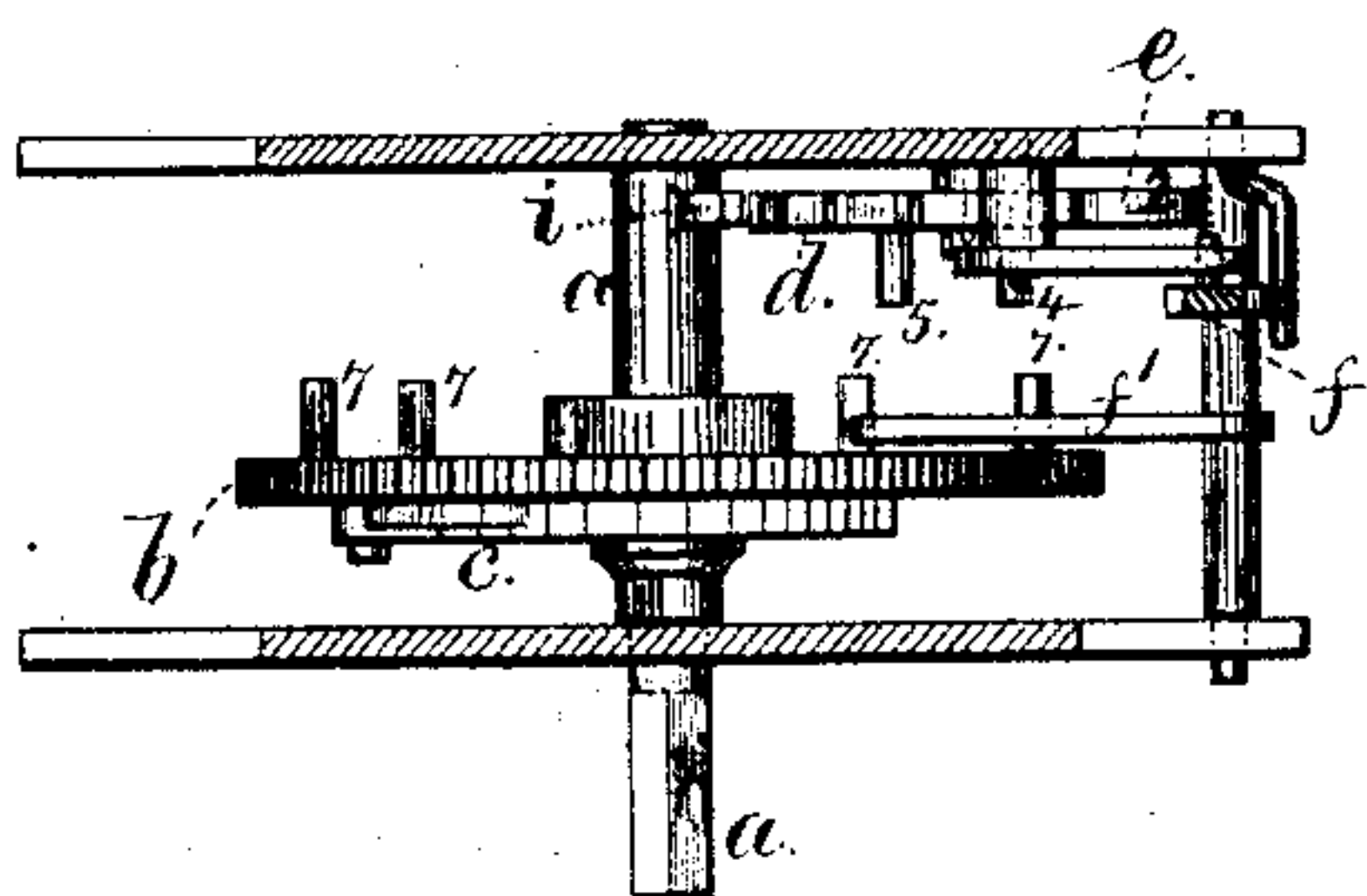


Fig. 3.



Witnesses.

Chas. Smith.
Geo. C. Finckney.

Inventor

Hermann J. Wenzel,
per Lemuel W. Ferrell
att'y.

UNITED STATES PATENT OFFICE.

HERMANN J. WENZEL, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN ALARM STOP-MOVEMENTS FOR TIME-PIECES.

Specification forming part of Letters Patent No. **148,636**, dated March 17, 1874; application filed September 25, 1873.

To all whom it may concern:

Be it known that I, HERMANN JULIUS WENZEL, of San Francisco, in the State of California, have invented an Improvement in Alarm Stop-Movements for Time-Pieces, of which the following is a specification:

Stop-movements have been applied to spring-barrels and the winding mechanism in time-pieces of various characters. These have been made to prevent the spring or barrel being wound up too far, and also to stop the rotation of the barrel when the barrel has been unwound, and thereby stop the clock running down too far. It is usual to wind these time-pieces periodically, either weekly or monthly; and it frequently happens that the attendant forgets to wind the same at the proper time; hence such time-pieces will run eight or nine days or thirty-three or thirty-four days.

The object of my present invention is to sound an alarm periodically—say, every hour after the regular time for winding has passed—and which alarm is continued out of action or thrown out of action by the act of winding, so that it cannot sound the alarm except during the period elapsing after the winding ought to have taken place and before the clock finally stops.

In the drawing, Figure 1 is an elevation of the stop-works with the parts in their normal position and the hammer for the bell held back out of action; and Fig. 2 shows the same parts after the winding period has passed neglected and the hammer is freed for striking the alarm; and Fig. 3 is a plan of the parts.

The shaft *a* represents either the barrel-shaft, the spring-shaft, or a winding arbor acting upon the barrel or spring to wind the time-piece; and *b* is a wheel of the clock-work partially removed in Figs. 1 and 2, said wheel *b* and shaft *a* being connected by the ratchet and pawl *c*. Upon the shaft *a* is a tooth, *i*, that acts upon the stop-wheel *d* to move the

same progressively, the blank space 2 of such wheel forming a stop for the tooth when the clock is wound up, and also preventing further movement when the spring or weight is run down. These parts thus far may be of any usual character, and they are to be adapted to the clock with which they are to be used. The lever or detent *e* upon the fulcrum 4 forms a latch to hold the hammer *f* in the position shown in Fig. 1, so that the hammer cannot fall and strike a bell or give an alarm so long as the lever *e* is in the position shown in said Fig. 1, but so soon as the wheel *d* is brought around progressively by the tooth *i* as the clock runs down, so that the pin 5 upon said wheel *d* moves the lever-detent *e* the hammer is unlatched and the pins 7 upon the wheel *b* raise the hammer-tail *f'* periodically, and allow the hammer to fall and give the alarm; therefore, if the parts are properly constructed and positioned the alarm will only be sounded after the proper period for winding the clock has passed, and the alarm will be sounded hourly or at other intervals until the clock stops or is wound. When the winding takes place the pin 5 is withdrawn from contact with the lever *e*, leaving the same free to catch the hammer and hold it up when lifted by the pin 7 acting upon the hammer-tail *f'*.

I claim as my invention—

The detent *e*, forming a latch for the alarm *f*, to hold the same out of action until the time arrives for winding, in combination with the stop-wheel *d* and tooth *i* upon the winding-shaft, and pin 5, or its equivalent, to move said detent *e*, substantially as and for the purposes set forth.

Signed by me this 20th day of September, A. D. 1873.

HERMANN J. WENZEL.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.