

E. T. QUIMBY.

Clock Striker.

No. 24,433.

Patented June 14, 1859.

Fig. 2

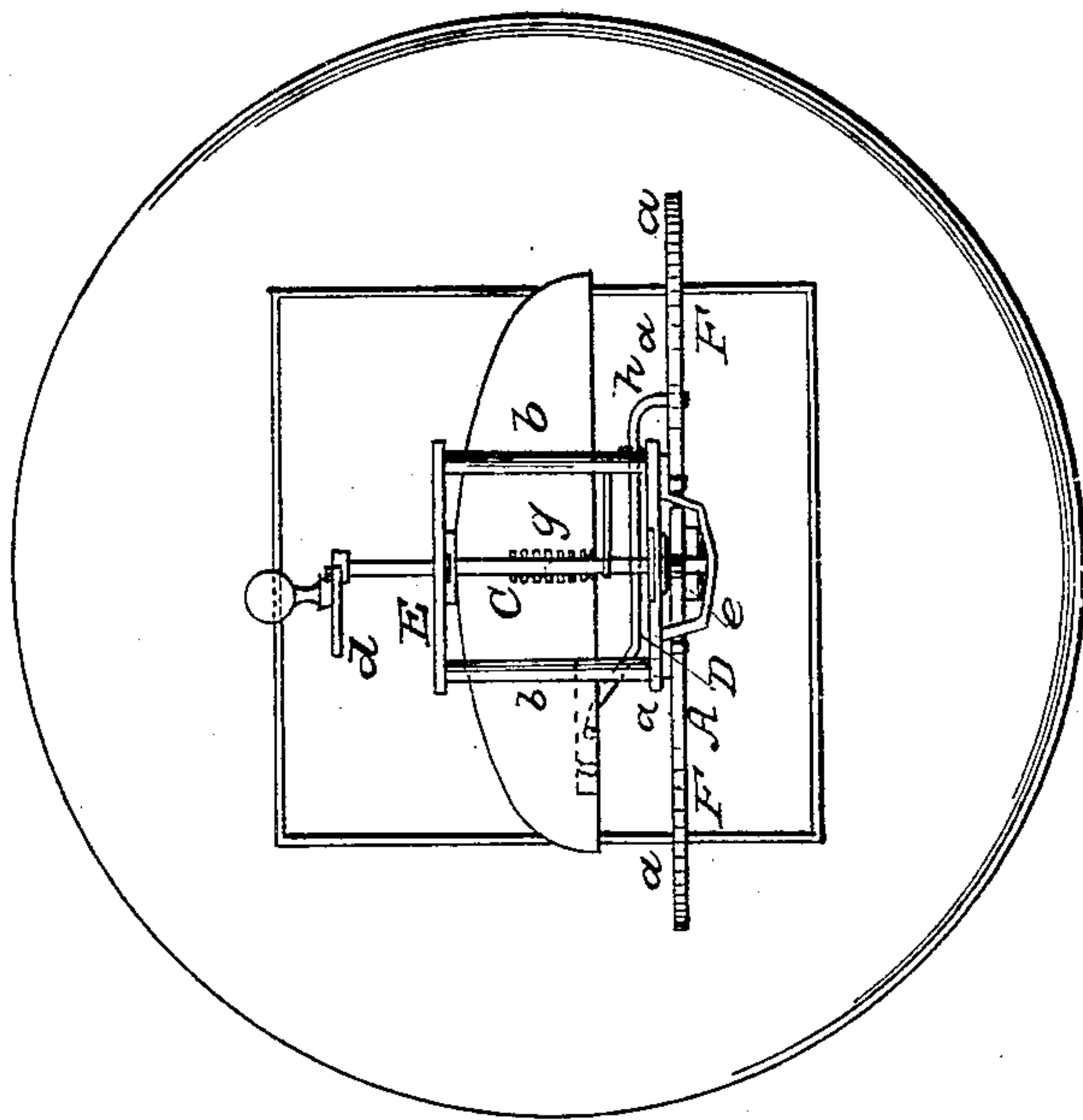
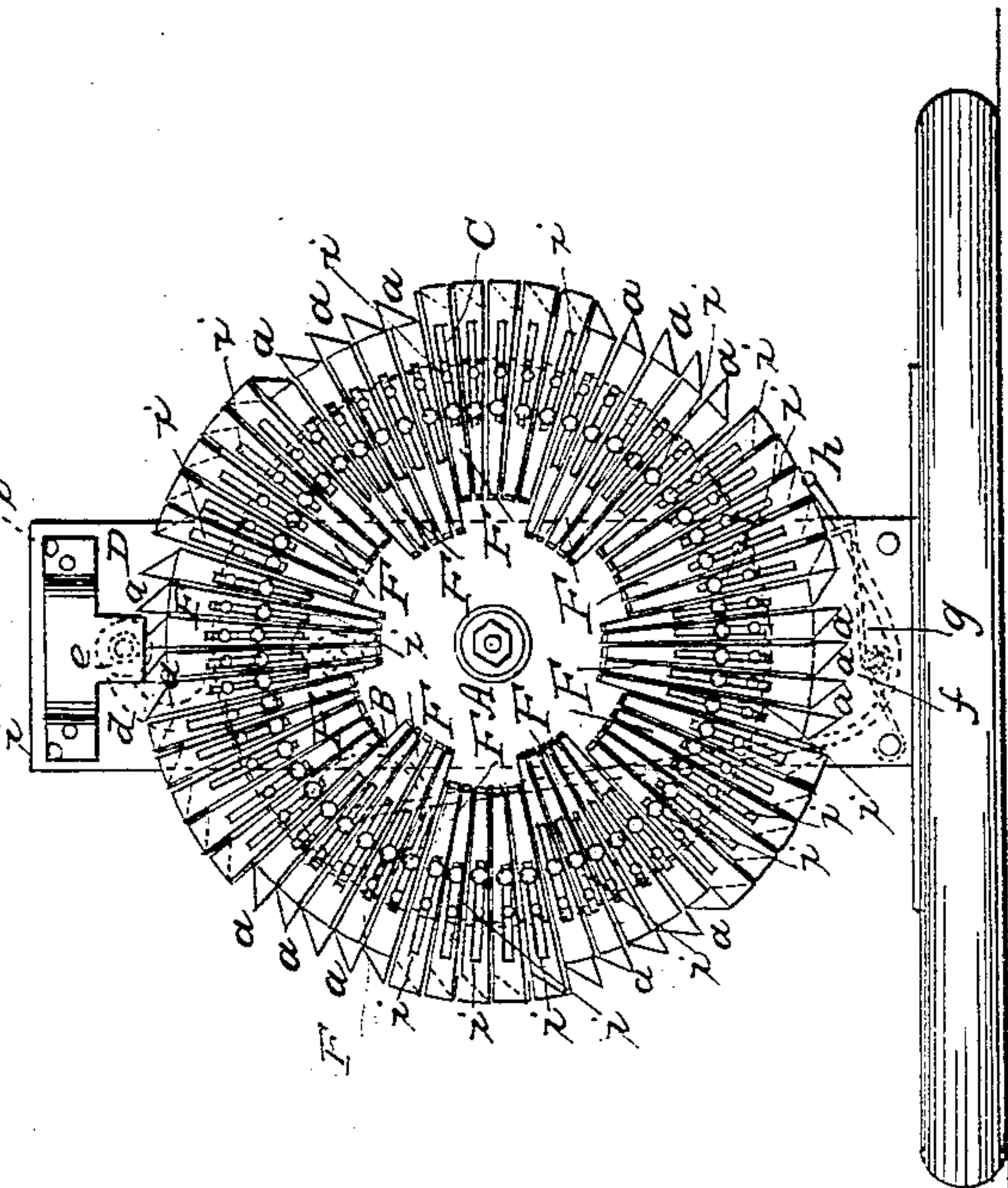


Fig. 1.



WITNESSES
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E. T. QUINBY, OF NEW IPSWICH, NEW HAMPSHIRE, ASSIGNOR TO HIMSELF
AND NEWTON BROOKS, OF SAME PLACE.

IMPROVED ATTACHMENT FOR ALARM-CLOCKS.

Specification forming part of Letters Patent No. **24,433**, dated June 14, 1859.

To all whom it may concern:

Be it known that I, E. T. QUINBY, of New Ipswich, in the county of Hillsborough and State of New Hampshire, have invented a new and Improved Time-Indicator; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a face view of my improvement. Fig. 2 is a plan or top view of the same.

Similar letters of reference in both views indicate corresponding parts.

The object of this invention is to arrange a clock in such a manner that it can be adjusted to give a warning at certain given intervals; and this invention consists in connecting the clock-work with a wheel which is provided with a series of projections, which agitate a hammer as they pass at regular intervals when all of them are left free to act on the hammer, but which are so arranged that they can be covered up or removed, so that they have no effect on the hammer, or that some can be removed or covered and the others left to act on the hammer, whereby the intervals at which the hammer is to strike can be adjusted at pleasure; and this invention further consists in arranging this wheel with a series of slides, which serve to cover up the projections when pushed out, and which leave the projections free to agitate the hammer when drawn in.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents a wheel with a number of projections, *a*, on its circumference, which, as the wheel revolves, raise a hammer, B, and cause it to strike against a bell, C. These projections may be made in the shape of regular teeth, as represented in the drawings, or simple pins may be inserted in the wheel in such a position that the same agitate the hammer when the wheel revolves.

In order to better represent the operation of this wheel I have attached it to a standard, D, which connects by means of cross-bars *b* with another standard, E, to which the bell C is secured. These standards serve as bear-

ings for an arbor, *c*, which is rotated by a handle, *d*, and which turns the wheel A by means of a pinion, *e*.

The hammer turns on a pivot, *f*, and it is subjected to the action of a spring, *g*, and the end of the handle *h* of the hammer is bent over at right angles, so as to be in the proper position for the teeth or projections *a*.

Secured to the face of the wheel A is a series of slides, F, the number of which corresponds to the number of teeth or projections *a*, and these slides can be drawn in and out by means of slots *i* and by guide-pins *j*. When pushed out these slides cover the spaces between the teeth or projections *a*, and the end of the handle *h* slides on the edge of the slides without causing the hammer to strike. Where pins are used instead of the teeth *a*, if these pins are made movable, the slides F can be dispensed with altogether, and instead of covering up the projection it is only necessary to remove the pins, in which case they, of course, can have no effect on the hammer.

The operation is as follows: The wheel A is attached to a clock in such a manner that it rotates with a certain known velocity—say once in an hour—and if the number of projections *a* be sixty the hammer B will be caused to strike every minute. If it should now be desired to arrange the wheel so that the hammer gives a warning every five minutes, it is only necessary to push up four succeeding slides, leaving each fifth one down, or, where pins are used, to remove four succeeding ones and leave each fifth pin standing, and in the same manner the wheel can be arranged so as to give a warning at any desired interval.

This invention is of particular advantage for schools where the teacher wants to give each of the scholars an equal share of his attention, or where he has to teach several classes in succeeding hours, and when it is desirable that the teacher should have something to remind him of the lapse of time. It may, however, be used with equal advantage on railroad-stations or in legislative halls or halls for other assemblies, where each speaker is generally limited to a certain time; and from the foregoing description it will readily be under-

stood that by enlarging the wheel A and the number of projections on the same, or by using two or more such wheels, the intervals at which the hammer strikes can be adjusted to any given lapse of time.

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

1. The wheel A, or its equivalent, having a series of projections, *a*, which, or some of which, can be covered up or removed, and op-

erating in combination with the hammer B, substantially as and for the purpose described.

2. The arrangement of the slides F, to operate in combination with the wheel A and with the hammer B, substantially in the manner and for the purpose specified.

E. T. QUINBY.

Witnesses:

C. A. WHITNEY,
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