

(No Model.)

J. A. LAKIN.

TIME PIECE FOR OPERATING MECHANICAL DEVICES.

No. 298,988.

Patented May 20, 1884.

fig 1

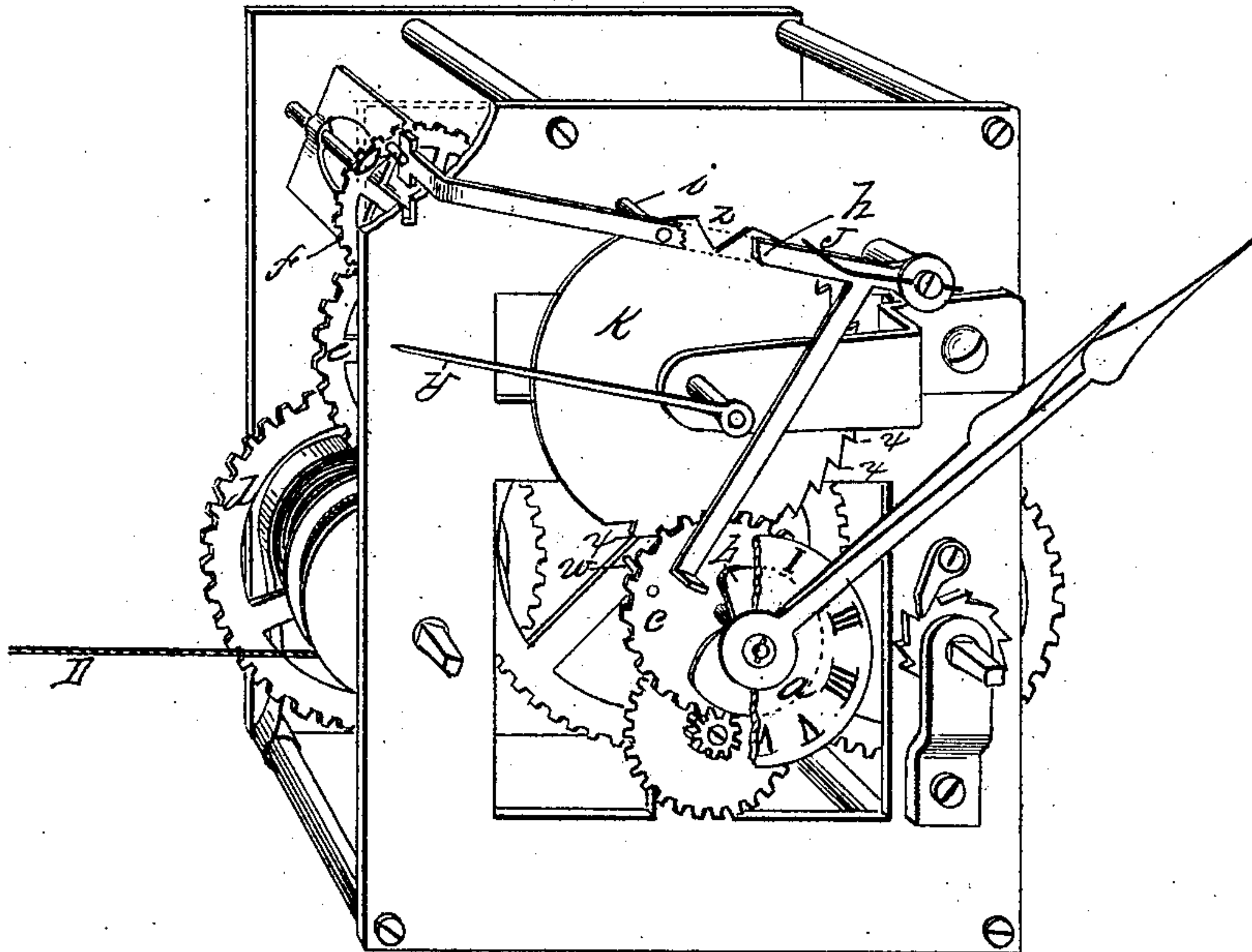
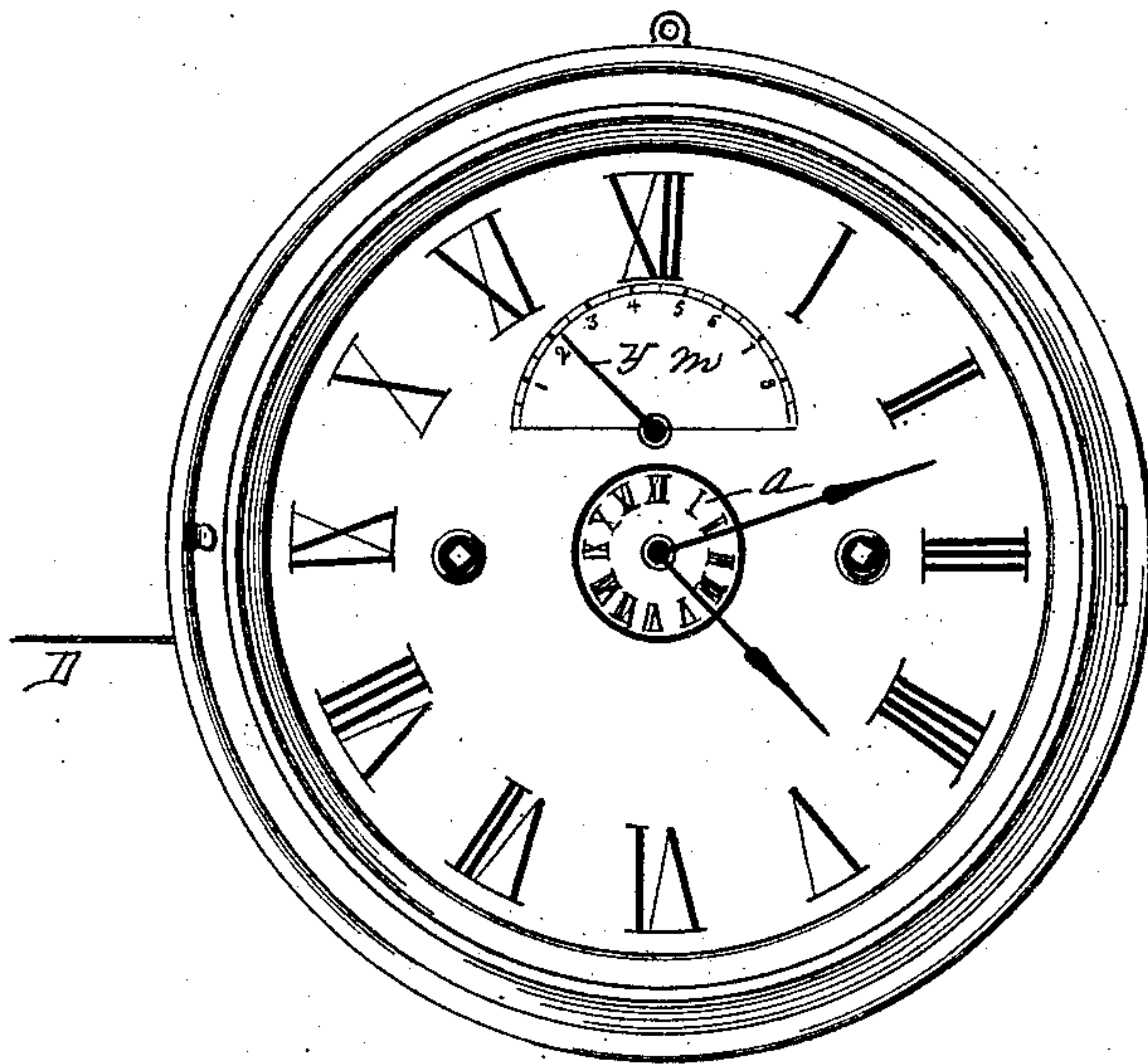


fig 2



WITNESSES:

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TIME-PIECE FOR OPERATING MECHANICAL DEVICES.

SPECIFICATION forming part of Letters Patent No. 298,988, dated May 20, 1884.

Application filed February 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. LAKIN, a citizen of the United States, residing at Westfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Clock Mechanism for Operating Mechanical Devices, of which the following is a specification.

This invention relates to improvements in clock mechanism for operating mechanical devices at certain predetermined periods of time, the object being to combine with a clock, and with an auxiliary train of clock-work capable of being set in motion by the usual alarm-clock devices, improved means for prolonging the time at the end of which said clock-work train will be set in motion.

In the drawings forming part of this specification, Figure 1 is a view of a clock, the dial being removed, having applied thereto a clock-work train and mechanism for setting said train in motion embodying my improvements. Fig. 2 is a front view of the clock with the dial and its pointers thereon.

In the drawings, *a* is the ordinary alarm-dial. *b* is the twelve-hour alarm-cam. *c* is the hour-hand wheel. *d e f* are the wheels composing said auxiliary train. *h* is a lever pivoted on the clock-frame, and having a pin, *i*, therein, one end of which lever is adapted to engage with the border of the cam *b*, and the other end to engage with the pin *o* in the wheel *f*. A spring, *J*, bears on lever *h*. A disk-wheel, *K*, is pivoted on the clock-frame above the hour-wheel, and in a portion of its periphery is formed a series of teeth, *x*, and the remainder of its border is plain, excepting that it is provided with a V-shaped notch, *z*. A pin, *w*, projecting from the rear side of the hour-wheel *c*, is adapted to engage with the teeth *x* on wheel *K*. A cord, *D*, winds around a drum on the wheel *d*, the latter being provided with a spring and the usual means for winding the latter, so that, when wheel *f* is free to rotate, the said train, of which the latter wheel is one, will be set in motion and draw in the cord *D*, for the purpose of actuating mechanism to which it may be attached. A pointer, *y*, is attached to the center pivot of the disk *K*, by which the latter

is turned to bring the teeth *x* into certain relations to the pin *w* on the wheel *c*. The pointer *y* is adapted to be turned by hand in front of a graduated scale-plate, *m*, on the dial of the clock, as shown in Fig. 2. The figures on the scale-plate *m*, set opposite the graduated marks thereon, indicate days, from one to eight.

The operation of my improvements is as follows: The train of wheels *d e f*, having been wound up, will not run down and draw up the cord *D* so long as the lever *h* is held in engagement with the pin *o* on wheel *f*, and lever *h* is so held by both the cam *b* and the disk *K* alternately, the pin *i* in the lever riding on the edge of the latter and holding the lever, as in Fig. 1, until the notch *z* comes under pin *i*, when the upper end of the lever will drop away from pin *o* and let the train run unless its lower end strikes the edge of cam *b*, and if it so strikes, the train will not be let off until the notch in the cam comes under the end of the lever. The hour at which it is desired that the train shall be let off is determined by turning the dial *a*, as in an ordinary alarm-clock.

The disk *K* is adapted to govern the action of the lever *h* for one or more days longer than the cam *b* is capable of. The pointer *y* is set in relation to the disk *K* and scale-plate *m*, so that when it points to the figure 1 the hour-wheel *c* must make one revolution before pin *w* will strike a tooth *x* on disk *K* and turn it, bringing the notch *z* under pin *i*, and letting the lower end of lever *h* rest on the cam *b*, which in due time will let the lever drop and free the train, as above set forth. If the train is to operate after two or three or more revolutions of wheel *c*, the pointer *y* is set accordingly over the plate *m*.

What I claim as my invention is—

1. The combination, with an actuating clock-train, substantially as described, and with a clock provided with the usual alarm-starting devices, of a lever having a pin projecting from its side, and adapted to have one end bear upon the alarm-cam, and to have its other end engage with one of the wheels of said train, the hour-wheel of the clock having a pin therein projecting from its face, and

a toothed disk having a notch in its periphery, and carrying a pointer to rotate over a scale-plate on the clock-dial, and adapted to rotate under the pin projecting from the side of said lever, substantially as set forth.

2. In combination, the lever *h*, having the pin *i* therein, the disk *K*, having teeth and the

notch *z* in its edge, the wheel *c*, and means, substantially as described, for engaging said wheel with said disk, substantially as set forth. 10
JAMES A. LAKIN.

Witnesses:

J. R. DUNBAR,
R. B. ROBINSON.