

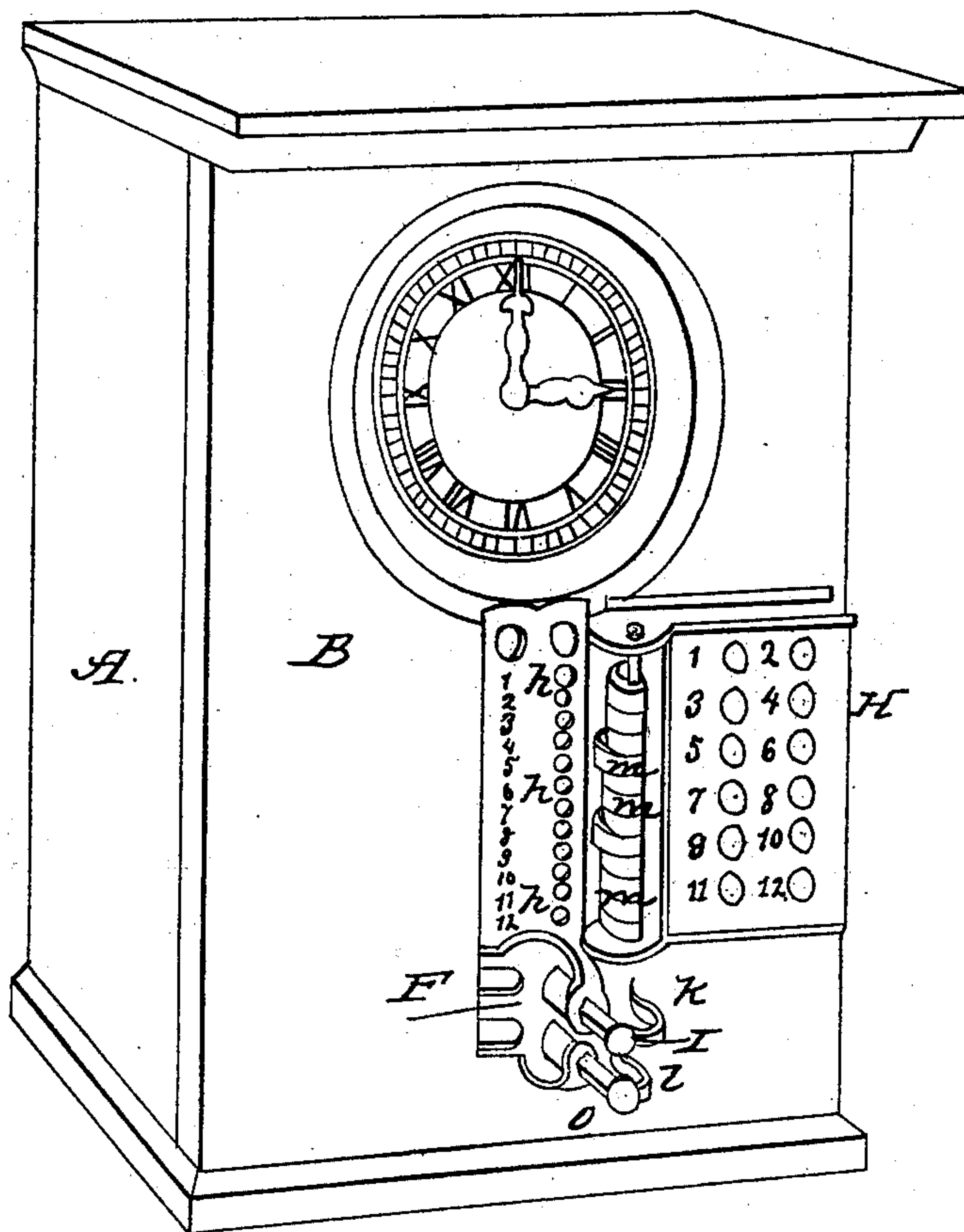
Time Register.

3 Sheets—Sheet 1.

No. 17,997.

Patented Aug. 11, 1857.

Fig. 1



WITNESSES

Witnessed
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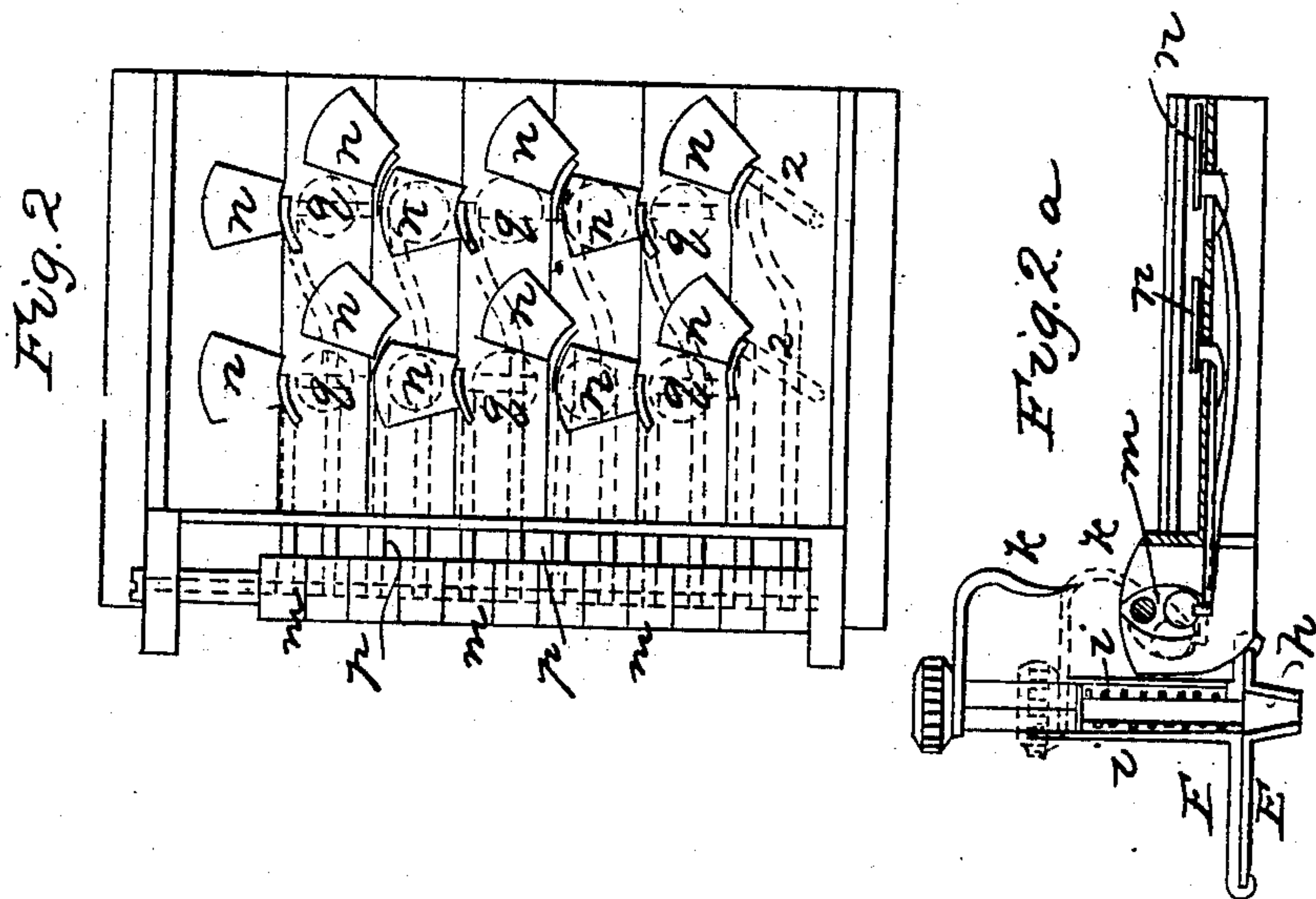
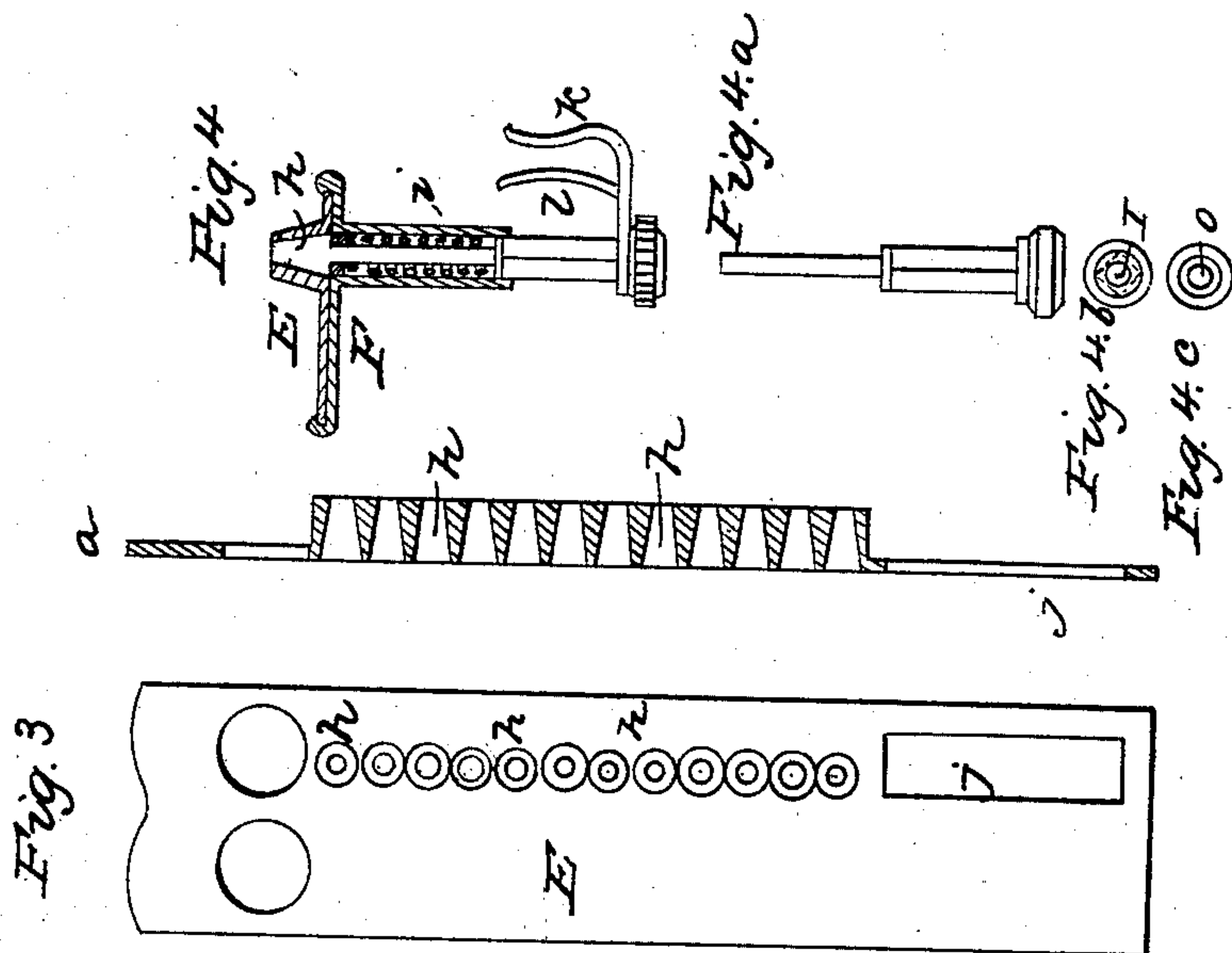
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Time Register.

3 Sheets—Sheet 2.

No. 17,997.

Patented Aug. 11, 1857.



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Fig. 5

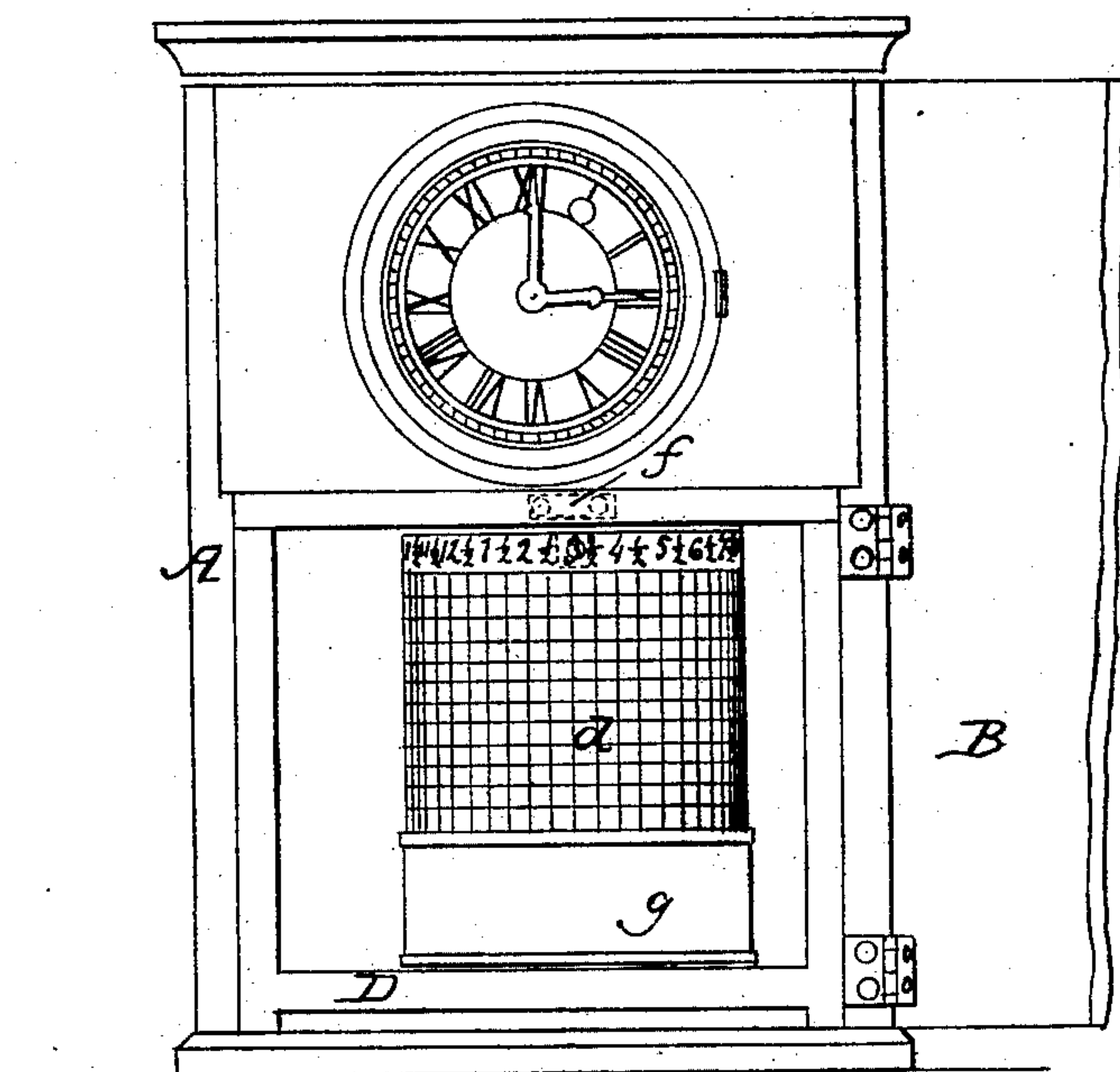


Fig. 6.

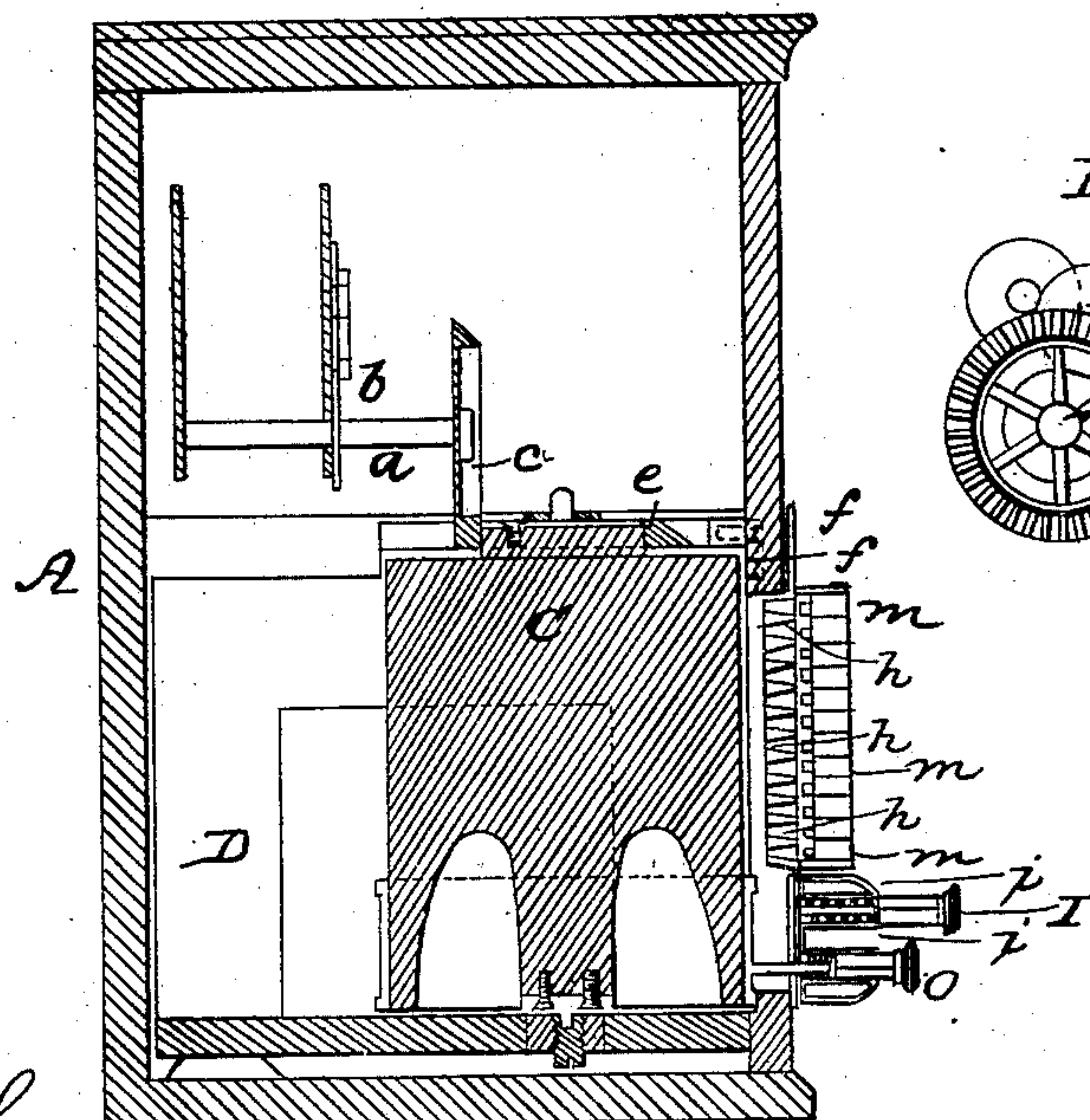


Fig. 6 a

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BENJAMIN T. HARRIS, OF BROOKLYN, NEW YORK, ASSIGNOR TO JOHN
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IMPROVEMENT IN MACHINES FOR MARKING TIME OF ATTENDANCE OF WORKMEN.

Specification forming part of Letters Patent No. 17,997, dated August 11, 1857.

To all whom it may concern:

Be it known that I, BENJAMIN T. HARRIS, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Time-Registers for Registering the Time of the Arrival and Departure of Workmen, which I have described in the following specification and illustrated in the accompanying drawings with sufficient clearness to enable others of competent skill to make and use my invention.

My invention consists in, first, the combination of a registering-surface operated by clock-work with two movable markers, one of which indicates the arrival and the other the departure of the workman, as hereinafter more fully set forth; second, in combining with these markers a set of slides or indicators which indicate the presence or absence of the workman, the slides and markers being so constructed and arranged in combination that the slides shall be operated by the act of sliding in the markers, as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a perspective view of my improved machine. Fig. 2 is a detail elevation of the slides which indicate the presence or absence of the workman. Fig. 2^a is a plan of the same. Fig. 3 is a detail elevation of the plate which forms the gage for the markers. Fig. 3^a is an edge elevation of the same plate. Fig. 4 is a plan in section of the same thing with the markers and the slide which carries them attached. Fig. 4^a is a plan of one of the markers. Fig. 4^b is an end elevation of the marker which indicates the arrival of the workman. Fig. 4^c is an end elevation of the marker which indicates the departure of the workman. Fig. 5 is a front elevation of the machine with the door opened and part of it removed. Fig. 6 is a vertical transverse sectional elevation of those parts of the machine that lie at the right-hand side of a plane passing through the center of the machine from front to back. Fig. 6^a is a detail elevation showing how the cylinder that carries the paper is connected to the gearing of a common clock.

A is the outside case of the machine.

B is the door.

In the upper part of the case A a common clock is placed, having nothing to distinguish

from those in every-day use, except the addition of the shaft *a*, with the pinion *b* and the bevel-wheel *c* upon it. The shaft *a* receives motion from the hour-wheel of the clock, working into the pinion *b*.

C is a cylinder upon which the paper *d*, upon which the time is to be registered, is placed. Each sheet is sufficiently large for registering a day's work, is check-ruled, and has the hours marked, as shown in Fig. 5, the ruling and marking corresponding with the motion of the cylinder and the hours of the day, said cylinder receiving motion from the bevel-wheel *c*, gearing into the bevel-wheel *e* upon the cylinder. The cylinder C is hung in the case or frame D, which may be inserted in the case A or removed at pleasure. It is removed by drawing it forward. A piece of metal *f* with three pins in it (the lower one pointed) is used to keep the cylinder from turning after it is disengaged from the clock-work by being attached at the time of removal, the two upper pins entering the frame and the lower one piercing the paper.

g is the inking-pad, which surrounds the lower part of the cylinder C for inking the type or markers.

A plate E is bolted to the door B, and upon this plate the frame F, in which the markers are hung, freely slides up and down. The plate E is pierced with holes *h*, opposite each of which a number is placed corresponding with its place in the row. These holes *h* are conical and serve to guide the markers as they are thrust through the plate E to mark upon the paper the time of entrance and departure of the workman.

The operation of this part of the machine is as follows: The paper having been properly put on and the cylinder and all parts of the machine arranged in order, a workman on entering the shop in the morning approaches the machine, and after pressing the upper marker I through the slot *j* against the ink-pad raises it till it is opposite his number, and then presses it against the paper on the cylinder. This prints the letter I upon the paper opposite his number or name, which should be printed on the left-hand margin of the sheet, at the same height of his number on the door. As these markers cannot be moved to the right or left, it is easy to see that this impression upon the

paper must indicate with certainty the precise time at which it was made. When the workman leaves the shop he goes to the register, as before, and in the same manner makes an impression opposite his number with the marker O, which registers the time of leaving. By this device each workman is made to keep his own time, and that, too, without being able to keep a fraudulent account, the number of holes in the plate E being of course as great as the number of workmen employed, and the length of the cylinder and of the paper upon it being made to correspond with the distance occupied by the holes *h*. The markers are thrown out after being operated by spiral springs *i*. There are two arms *k l*, (one attached to each of the markers,) which as the marker is pushed in to make an impression upon the paper presses against one of the cams *m* by which the slides or indicators *n* are operated, the cams *m* being connected to the indicators *n* by the connecting-rods *p*. (Shown in red lines in Fig. 2.) These indicators *n* are hung upon short arms *q*, as indicated by dotted lines in Fig. 2. The indicators *n* are alternately white and black and the bed which they cover is striped with white and black alternately, as represented in Fig. 2. They are seen through the holes in the plate

II, as represented in Fig. 1, the black indicators covering the holes and the white not covering them before they are operated by the workman on entering the shop. As the workman pushes in the marker I to mark the time of his arrival upon the paper, the arm *k* turns the cam which operates the indicator opposite his number and shows a white surface through the hole opposite his number in the plate II. When the marker O is pushed in by the workman to indicate the time of leaving, the arm *l* operates the cam in the opposite direction and shows the black surface, as before.

Having thus fully described my invention, I claim—

1. The combination of the registering-surface operated by clock-work with the movable markers, when the latter are arranged as herein set forth.

2. The combination of the movable markers and their arms *k* and *l* with the indicators *n* and their concomitant parts, as herein set forth.

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