

B. T. HARRIS.
TIME REGISTER AND INDICATOR.

No. 23,918.

Patented May 10, 1859.

Fig. 1.

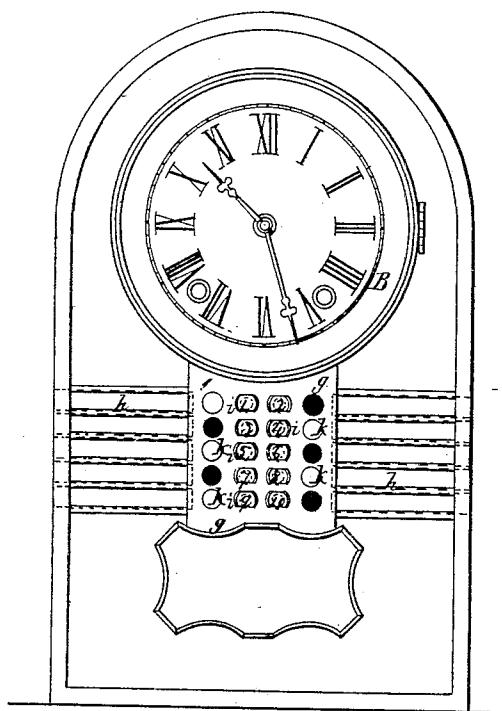


Fig. 2.

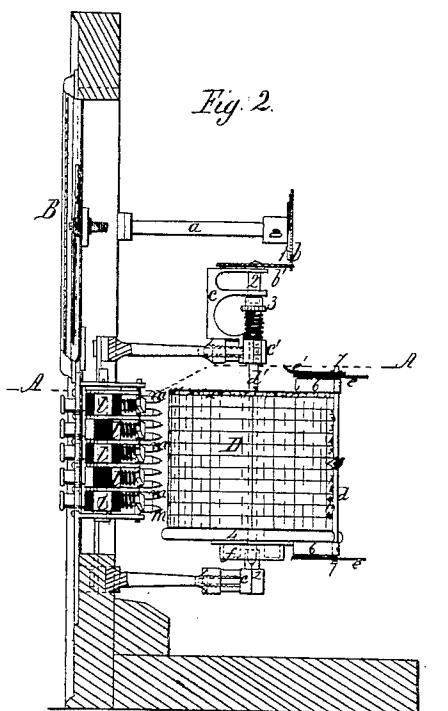
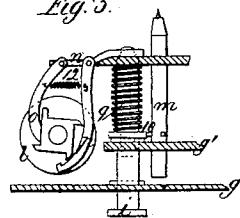


Fig. 5.



Witnesses:

Lemuel W. Ferrell

(Signature)
(Thomas G. Harrel)

Fig. 3.

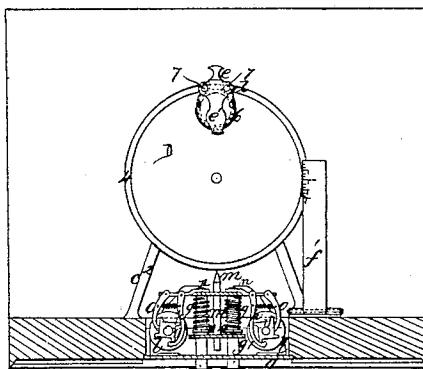
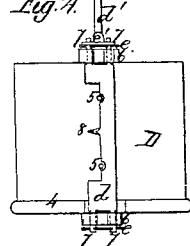


Fig. 4.



Inventor:

Benj. T. Harris

UNITED STATES PATENT OFFICE.

BENJAMIN T. HARRIS, OF BROOKLYN, NEW YORK.

MECHANISM BY WHICH EMPLOYEES REGISTER THEIR TIME.

Specification of Letters Patent No. 23,918, dated May 10, 1859.

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, made, and applied to use certain new and useful Improvements in Registers or Time-Indicators for Denoting the Presence or Absence of Employees or Workmen and Registering Their Time of Arrival and Departure; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1, is a front view of my register. Fig. 2, is a side view of the same with a portion of the case removed and Fig. 3, is a plan of the parts below the line A, A, of Fig. 2.

Similar marks of reference denote the same parts.

My said invention is an improvement upon Letters Patent granted to me on the same subject August 11th, 1857, and consists in a revolving cylinder, carrying a sheet of paper, onto which an impression is made by the workman or employee in such a position that the time of making such a register is accurately marked, thus denoting the time of leaving or arriving at work. I also make use of a peculiar indicator by which the presence of the workman or employee, upon the premises, can be indicated by inspection.

In the drawing a suitable case receives any proper clockwork and face B.

a, is a shaft acted on by the clockwork so that it will be revolved every twelve hours, or other allotted space of time, and regulate the motion of the recording cylinder D. b, b' are level gearing between the shaft a and said cylinder D, fitted with a pawl and fine ratchet wheel, so that the cylinder D, can be revolved in putting on the paper as hereafter shown, and also in winding up a spring barrel f that is attached to the lower end of the said cylinder D, and the center of this spring (f) is retained by a square stud on the frame c², so that by winding up the said spring the clockwork is relieved from the power that would otherwise be required to revolve the cylinder, leaving the clockwork only to regulate the motion. In order to remove the cylinder

when necessary, its shaft d', is set in a clasp joint c', of the frame c, and a sliding coupling 3, permits the disconnection from the shaft 2, of the wheel b. The surface of the cylinder, D, should be covered with india rubber or other elastic material, and receive a sheet of paper around its surface that rests at its lower edge on the flange 4, and the correct position of the end of the sheet is determined by gage pins 5, and said sheet may be attached by gum or otherwise although I prefer and use the binding plate d that is provided with two pins 7, 7 at each end thereof from which rubber bands pass so as to draw the plate toward the paper, the pins 7, 7 set in open notches in plates e, e, attached to the cylinder D, and e', is a lever fastened to said pins 7, 7, so that by moving the lever in one direction one edge of the plate d is removed from the cylinder so that the paper can be entered beneath, and then wrapped around the cylinder, when on moving the lever e', the other way the end of the paper can be passed beneath the other side of the clamping plate d, and be securely held by the point 8, 8. The paper with which the cylinder D, is covered is to be ruled in horizontal columns corresponding to the position and number of the registering devices hereafter set forth, and also in vertical columns of such a width that one column will equal the travel of the cylinder in one hour; each column may have finer lines to denote the quarter hours, and each column is to be numbered with the hour. After the paper is on the cylinder as aforesaid the same is to be revolved until the spring (f) is wound up with the necessary power, and the registering surface corresponds to the time denoted by the clock; i. e. the cylinder revolved until so positioned that a mark made with the register hereafter set forth would be on the column allotted to the given hour, and in the position crosswise of the column corresponding to the time that it may be past the given hour; and to aid in setting the cylinder I provide a hinged gage, f', that can be turned up by the operator against the side of said cylinder as seen in Fig. 3, and serves to denote the hour or other divisions, say three hours before or after the point at which the registration takes place.

g is a face plate, beneath the clock face,

at the sides of which are slides to receive cards or slips with the names of the workmen, as seen at *h*, *h*.

i, *i*, are slides passing through the face 5 plate *g*, and sliding also in the inner frame *g'*, and fitted with a key or feather to keep them from turning, and *I*, are springs around said slides tending to keep them forward. From the slides *i*, *i*, arms 10, 10, extend 10 to the impression slides *m*, that are pointed at their ends next the cylinder *D*, and stand in a vertical range of any suitable number corresponding to the number of divisions provided on the paper that surrounds 15 the cylinder *D*, the same being of any suitable length according to the number of workmen, so that whenever a workman presses on one of the slides allotted to his name or number an impression is made on 20 the said registering paper in the horizontal line allotted to the said number, and in the vertical column corresponding to the time at which the impression is made. By this means the actual working time is registered, 25 in consequence of each workman or employee being required to press in his allotted number on arriving or leaving the premises. This same device may be used for denoting the time of passing a given point such as for 30 a night watchman, or for any similar purpose wherever available.

From the ends of the slides *i*, *i*, arms *n*, *n*, extend horizontally onto which hooked and pressing pawls *o*, *p*, are attached by pins, 35 and 12, is a spring to each pair of pawls tending to keep their ends toward a four pointed ratchet 11, on the roller *l*. (See Fig. 5.) Each slide *i*, being thus fitted, and the rollers *l*, corresponding in number and 40 position with said slides *i*, are seen through openings in the case plate as at *k*, *k*, and the rollers *l*, are revolved once for each four

times the slides *i* are pressed in, and being painted on their surfaces alternately black and red or other dissimilar colors said colors 45 appear through the openings *k*, and indicate on inspection whether the workman or employee is in or not, the black color appearing when he presses the slide upon leaving, and then the other color appearing when he returns and again presses his slide. 50

Having thus described my said invention I do not herein claim the indication of the presence or absence of employees or workmen by the exhibition of dissimilar surfaces 55 behind an opening, that being secured by the aforesaid patent, neither do I claim the cylinder *D* in itself upon which a registration is effected but being also found in the said patent, but

What I claim as my invention and desire to secure by Letters Patent is—

1. The manner of mounting the cylinder *D*, on the spring barrel *f*, and with the connecting coupling 3, for the purposes and as 60 specified.

2. I claim the binding plate *d*, fitted and acting as specified to retain the ends of the paper to the cylinder *D* for the purposes and as set forth.

3. I claim the arrangement and manner of constructing the slides *i*, *i*, and impression points *m*, *m*, for the purposes specified.

4. I claim the rollers *l*, and their pawls *o* and *p*, in connection with the slides *i*, and 70 openings (*k*) in the front plate (*g*) for the purposes set forth.

In witness whereof I have hereunto set my signature this twenty ninth day of March, 1859.

BENJ. T. HARRIS.

Witnesses:

LEMUEL W. SERRELL,
THOMAS G. HAROLD.