P. H. DUFFY.

Time Check.

No. 26,260. Patented Nov. 29, 1859.

Fig. 2.

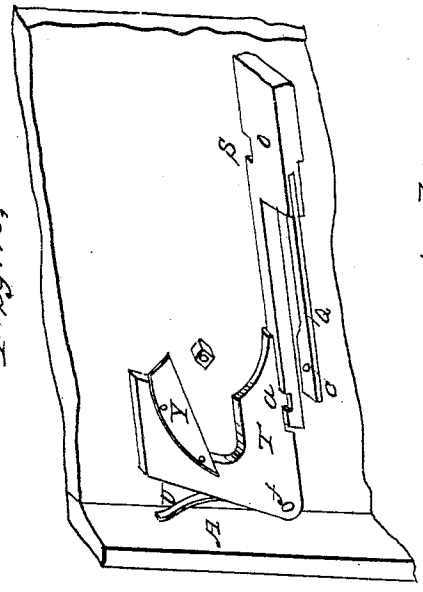


Fig. 3.

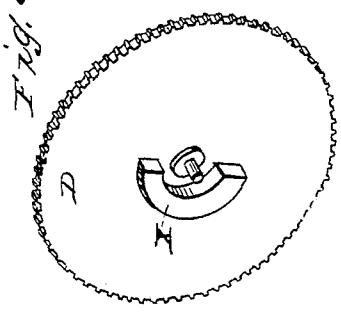
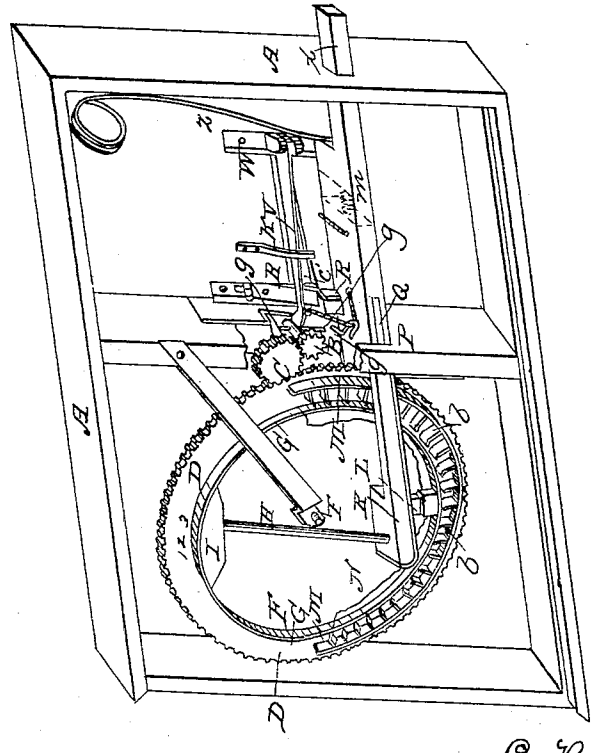


Fig. 1.



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UNITED STATES PATENT OFFICE.

PATRICK H. DUFFY, OF SOMERSET, OHIO.

DETECTIVE-REGISTER FOR WATCHMEN.

Specification of Letters Patent No. 26,260, dated November 29, 1859.

To all whom it may concern:

Be it known that I, PATRICK H. DUFFY, of Somerset, in the county of Perry and State of Ohio, have invented certain new and useful Improvements in an Apparatus for Indicating the Attendance of Operatives or Watchmen at Certain Hours; 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, in which—

Figure 1, represents a perspective view of said apparatus. Figs. 2, and 3, represent detached views hereafter to be referred to.

My invention relates to an apparatus which is driven by a clock work and in which the several devices are so arranged, that by pulling a trigger or rod, a ball is dropped into the cells of a revolving wheel, but that said trigger or rod can be pulled at such times only, at which the attendance of the operative or watchman is to be indicated.

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

A, represents a case or box which contains the entire apparatus; its front may be made of glass so that the attendant can see through it to observe the time on the dial in its interior.

B, represents a pinion which is secured to the shaft *a*, and which is driven by a common clock work, which is not represented in the drawings. The pinion B, drives the pinion C, and the latter meshes in the cogged wheel D, which turns on its shaft E.

F, represents a disk which is hung loosely on the shaft E, but does not turn with the same, it is provided with a rim G, and with a tube H, which latter communicates with a chamber I, into which a number of balls can be dropped through the holes 1, 2, 3. The other end of the tube H, communicates with a passage in the brace K, which in turn communicates with a tube L, at the end of which the rim G, is perforated by a hole through which the ball may escape.

The wheel D, is provided with a rim M, the partitions *b*, of which are nearly in contact with the outer circumference of the rim G, and which thus constitute the cells into which the balls are to be dropped; the rim M, and its cells may extend only partially around the rim G, as represented in the drawings for reasons hereafter to be explained.

N, is a glass represented in the drawings in green, which covers and effectually closes all the cells of the rim M, so that the balls in said cells may not be interfered with by the attendant, or that the latter may not be able to introduce any balls into the cells from the outside. The hours may be marked on said glass which then also serves the purpose of a dial.

O, represents a rod or bar which has its bearings in the partition P, and in one of the sides of the box, and which extends outside the box, as represented at *x*, so that the attendant may be enabled to pull it at certain times.

Q, is a slide which is secured to the bar O, and which is perforated by a hole *c*, through which the ball in the brace K, can drop when said slide is moved to its proper position, and whence it can escape into one of the cells *b*, while in its stationary position, the slide prevents said ball from escaping from the cell of the brace K. The bar O, is locked in its position by means of a hinged latch R, which is pressed into the notch S, of said bar by a spring *c'*, it is also locked in its position by means of the pivoted cam plate T, which can turn on the pivot *f*, and the projection *d*, of which is pressed into notch *e*, by the action of the spring U; the bar O, can therefore only be pulled, when it is released from the latch R, and from the cam plate T, simultaneously, and this is performed in the following manner.

g, represents two pins on the shaft *a*, which, as said shaft revolves, bear upon the cam shaped end *h*, of the spring lever V, this spring lever is pivoted at *i*, to a staple W, and can turn on said pivot, the spring *k*, retains the lever V, in contact with the hinged latch R, without pressing heavily on it, and as the pins *g*, revolve with the shaft *a*, they bear on the end *h*, of the lever V, which latter presses the latch R, down into its recess, and thus releases the bar O.

X, represents a cam, which is secured to the rear side of the wheel D, and which, when said wheel revolves, acts on the part Y, of the hinged cam plate T, turns the latter on its pivot *f*, thus raises the projection *d*, out of the notch *e*, and thereby releases the rod O.

The operation of the apparatus is as follows: Suppose the attendant or watchman shall have to prove his presence every half hour, then the apparatus is so adjusted

that the bar or rod O, shall be released from the latch R, and cam plate T, at that time for the duration of about one or two minutes, and then he is enabled to pull the rod O, only during that short time, to drop a ball into one of the cells *b;* if he neglects to pull the rod O, at said time, it is again locked in the above described manner. The attendant in pulling the rod O, at *x*, causes the ball to drop into one of the cells *b*, and as soon as he releases said rod, the spring Z, causes it to return to its former position. The apparatus may be so adjusted that at each consecutive half hour a ball may be dropped into each succeeding cell, and thus when the cells are arranged over one half only of a circumference as represented in the drawings they when arriving at the upper part of the rim G, will automatically discharge their balls into the chamber I, through the holes 1, 2, 3, which is done during the time in which the attendance of watchmen is not to be registered.

To prevent the attendant from stopping the clock work by pulling the rod O, in its locked position, the following device may be used, which is represented in red lines on the drawings. The rod O, may be cut apart and the ends of said cut may be connected to each other by a spring *m*, which is of sufficient tension to withstand the pull of the operator when said rod is released, but which will yield to the pull of the operator when the rod is locked, and thus, that part of the said rod which is in connection with the clock work or its gearing cannot be acted upon so as to interfere with the operation of the same.

Having thus fully described the nature of my invention, what I claim as new in the construction of tell tales or indicators and desire to secure by Letters Patent is—

1. Dropping the balls by which the action of the apparatus is indicated, into the cells of a revolving wheel by operating a rod O, and slide Q, substantially in the manner and for the purpose herein described.

2. I also claim locking and releasing the rod O, by devices substantially as herein described, whereby it can be pulled at certain times only to drop a ball into the cells of a revolving wheel, when constructed and operated, substantially in the manner, and for the purpose herein set forth.

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