(No Model.)

S. BOWER.

WATCHMAN'S TIME REGISTER.

No. 575,799. Patented Jan. 26, 1897.

Fig. 1.

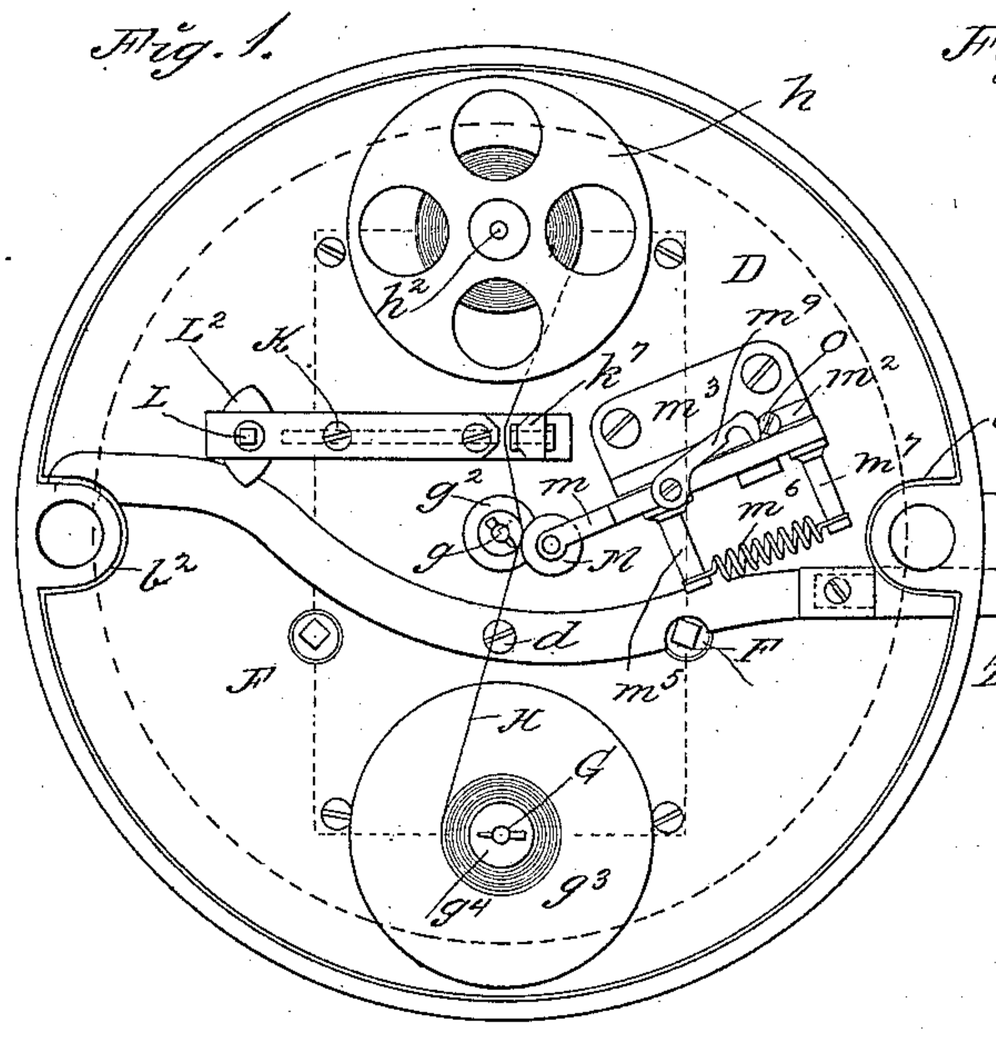


Fig. 2.

Fig. 3.

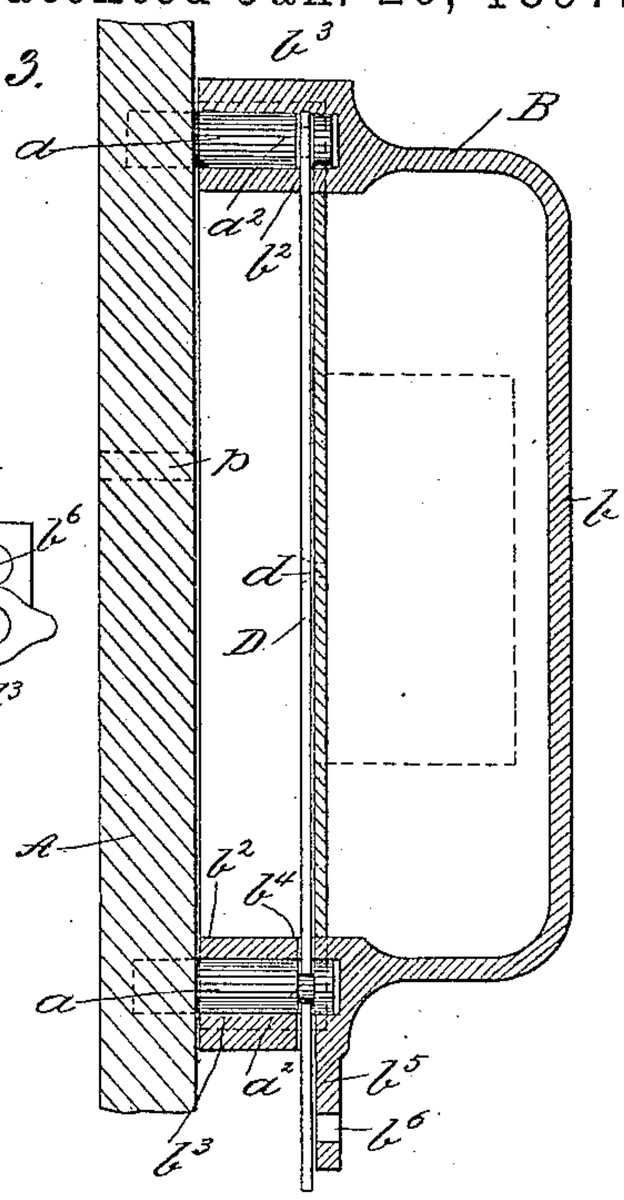
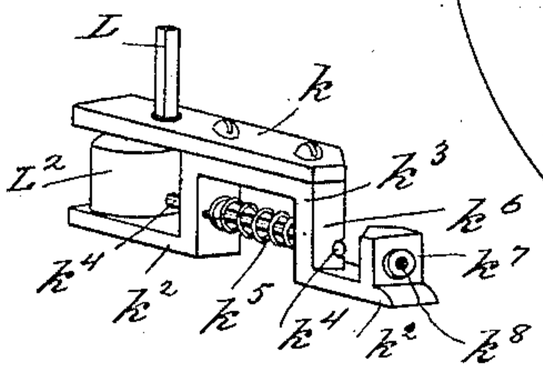


Fig. 4.



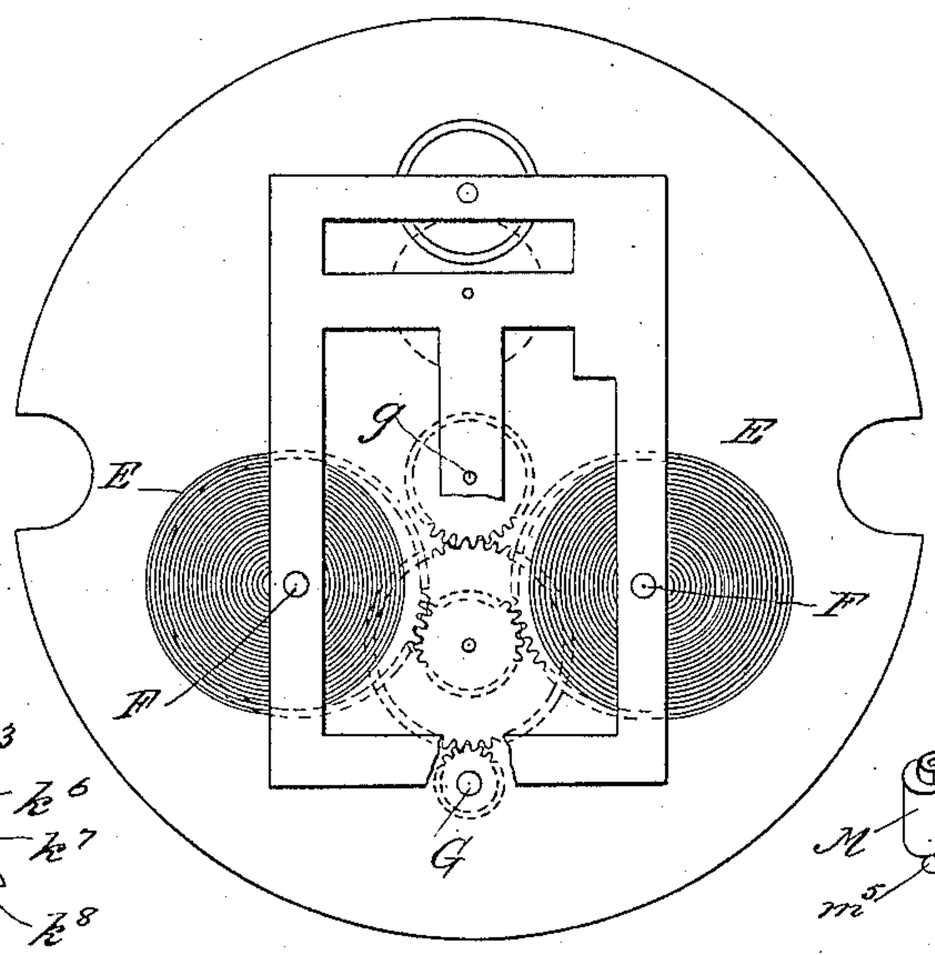
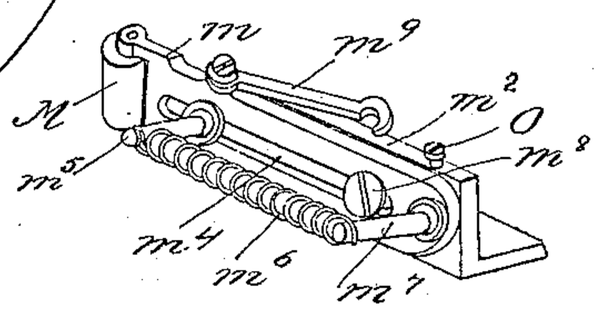


Fig. 5



WITNESSES

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WATCHMAN'S TIME-REGISTER.

SPECIFICATION forming part of Letters Patent No. 575,799, dated January 26, 1897.

Application filed May 15, 1896. Serial No. 591,658. (No model.)

To all whom it may concern:

Be it known that I, SIGMUND BOWER, a subject of the Emperor of Germany, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Watchmen's Time-Registers, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to time-recorders which are adapted for use in districts in cities and towns which are patrolled by watchmen, and which are designed to be secured to a door or to the inner side thereof, and whereby each round of the watchmen may be recorded and the time at which it was made.

The invention consists of a suitable casing, which is preferably circular in form and which is adapted to be secured to a door or other support, and in which is placed a partition-plate, on one side of which is placed a suitable clockwork mechanism, which is in operative connection with suitable time-recording devices on the opposite side. The casing is detachably connected with the door, and must be removed therefrom in order to wind the clockwork mechanism and to examine the time-record made by the watchman, and the time-recording devices are operated by means of a key in the possession of the watchman and which is passed through the door from the outside thereof.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a plan view of that side of the partition within the casing to which the time-recording devices are secured; Fig. 2, a plan view of the opposite side thereof, to which the clock mechanism is secured; Fig. 3, a transverse section of the casing, showing the method of connecting the same with a door or other support; and Figs. 4 and 5 perspective views of separate parts of the time-recording device.

In the drawings forming part of this specification, A represents a part of a door or other support, which is provided on its inner side with cylindrical posts a, each of which is provided near its outer end with a deep annular groove a^2, and in the practice of my invention I provide a casing B, which is preferably circular in form and closed at its outer side, as shown at b.

The casing B is provided with a partition-plate D, to one side of which, and preferably the outer side, is pivoted a curved lever D′, the pivot or fulcrum point of which is shown at d.

The casing B is provided at its opposite sides with inwardly-directed shoulders or projections b^2, in which are formed cylindrical bores b^3, which are adapted to receive the posts a, and formed in the shoulders or projections b^2, adjacent to the plate D, are transverse slots b^4, through which the ends of the lever D′ pass in order to engage with the annular grooves a^2 in the posts a, and formed on one side of the casing B, adjacent to one of the posts a, is an outwardly-directed flange b^5, provided with a hole or opening b^6, and the lever D′ projects through a slot in the casing B, adjacent to the flange b^5, and in order to lock the casing to the door the lever is manipulated so that the ends thereof engage with the grooves a^2 in the posts a and is locked in this position by a suitable lock or fastening device which is passed through the opening b^6 in the flange b^5 and a similar opening d^3 in the projecting end of the lever D′.

The time-recording mechanism, as shown in Fig. 1, may be of any preferred construction and is provided with two spring-drums E, (shown in Fig. 2,) which are mounted on shafts F, which pass through the partition-plate D, and the clockwork mechanism is connected by suitable gearing with a shaft G, which also passes through said partition-plate, and with a central shaft g, which passes centrally through the plate D, and mounted on the outer end thereof is a friction-roll g^2, and mounted on the shaft G, which projects through the plate D, is a disk g^3, provided centrally with a drum g^4, through which said shaft G passes, and wound on said drum g^4 is a tape H, which may be composed of paper, cloth, or any desired material, and said tape is carried transversely across the plate and is wound on a drum h, which is mounted on a shaft h^2, which is secured to the plate D. Near the shaft g, on which the friction-roll g^2 is mounted, is secured a frame K, the con-

struction of which is shown in Fig. 4, and which consists of a top plate k and a bottom plate k^2, which is angular in form and provided with a yoke-shaped portion k^3, which is securely bolted to the top plate, and through which passes a spring-operated bolt k^4, on which is mounted a spring k^5, one end of which bears upon the side of the yoke k^3 at k^6 and the other end of which is secured to the bolt k^4, and passing transversely through the plates k and k^2 is a key-shaft L, on the lower end of which is mounted a cam-head L^2, which is adapted to operate the sliding bolt k^4 and to force it outwardly against the operation of the spring k^5, and secured to an extension of the plate k^2 or formed thereon is an upwardly-directed shoulder or projection k^7, through which passes a tubular die k^8, into which the outer end of the rod k^4 is adapted to enter when operated upon by the cam-head L^2 of the key-shaft L, and the tape H is passed between the shoulder or projection k^7 and the end of the yoke k^3, as clearly shown in Fig. 1.

I also employ a friction-roll M, which is adapted to operate in connection with the friction-roll g^2 and which is supported by a sliding plate m, which is mounted on a vertical rod m^2, which is secured to the plate D by a base-flange m^3, and the sliding plate m is provided with a longitudinal slot m^4, through which passes a bolt m^5, which is secured to the plate m, and to which is secured a spiral spring m^6, the opposite end of which is secured to a post m^7, which is secured to the outer end of the plate m, and a set or guide screw m^8 is also passed through the slot m^4 and into the plate m, and pivotally connected with the plate m is an arm m^9, which is provided with a yoke at its outer end, which is adapted to engage with a screw or post O, which is secured to the outer end of the plate m.

In the normal position of the parts the friction-rolls m and g^2 are pressed together by the spring m^6, and the tape H is fed between said rolls by the shaft G, which is in connection with the clockwork mechanism, and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof.

The clock mechanism employed is first wound in the usual manner by applying a suitable key to the shafts F, after which, the tape H being suitably mounted and passed between the friction-rolls m and g^2, the casing is secured to the door or other support A, as hereinbefore described. The tape H is provided with the numerals from "1" to "12," inclusive, which are arranged at regular intervals thereon and which are repeated throughout the length thereof, and said numerals are designed to represent the hours of the night, and one of said numerals will pass between the friction-rolls m and g^2 at each hour of the night, and the watchman during his rounds or at each time that he passes the building to which the time-recorder is secured inserts a key through a keyhole in the door, which is indicated at p in Fig. 3, and said key engages with the key-shaft L, and by turning said shaft with the key the cam-head L^2 is caused to force the rod k^4 through the tape, and thus the time at which the rounds of the watchman are made will be indicated by said tape.

The tape H may be composed of any desired material, and the hours of the night and the fractions thereof may be arranged in any suitable manner thereon, and in order to tell the exact time at which the watchman's rounds were made it is only necessary to remove the casing and to examine said tape.

In order to place the tape between the rolls m and g^2 or to remove it therefrom, the sliding plate m is moved outwardly and held in the outermost position by the arm m^9, operating in connection with the screw or post O, and said arm may be released, as will be readily understood, so that the roll M will press upon the roll g^2 after the tape has again been placed in position.

This device is simple in construction and operation and is perfectly adapted to accomplish the result for which it is intended; and it is evident that changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages, and I reserve the right to make all such alterations therein and modifications thereof as fairly come within the scope of the invention.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The herein-described time-recording device, which consists of a suitable casing, on one side of which is placed a clock mechanism, and on the other suitable time-recording devices, said casing being provided on its opposite sides, with suitable holes or sockets, which are adapted to receive posts, secured to a door or other support, said casing being also provided with a pivoted lever, which is adapted to engage with the inner ends of said posts, and which is adapted to be locked in connection therewith, substantially as shown and described.

2. The herein-described time-recording device, which consists of a suitable casing, on one side of which is placed a clock mechanism, and on the other suitable time-recording devices, said casing being provided on its opposite sides with suitable holes or sockets, which are adapted to receive posts, secured to a door or other support, said casing being also provided with a pivoted lever, which is adapted to engage with the inner ends of said posts, and which is adapted to be locked in connection therewith, said clock mechanism and said time-recording devices being located on opposite sides of a partition-plate, to which a lever is pivoted, and said mechanism and

said devices being in operative connection, substantially as shown and described.

3. The herein-described time-recording device, which consists of a suitable casing, on one side of which is placed a clock mechanism, and on the other suitable time-recording devices, said casing being provided on its opposite sides with suitable holes or sockets, which are adapted to receive posts, secured to a door or other support, said casing being also provided with a pivoted lever, which is adapted to engage with the inner ends of said posts, and which is adapted to be locked in connection therewith, said clock mechanism and said time-recording devices being located on opposite sides of a partition-plate, to which the lever is pivoted, and said mechanism and said devices being in operative connection, and said time-recording devices being also provided with a tape, which is mounted on a drum at one side of said casing, and on a shaft at the other side, which is operated by the clock mechanism, and said recording devices being also provided with suitable means for puncturing said tape, which are adapted to be operated by a key inserted through the door, substantially as shown and described.

4. In a time-recording device, the combination with a suitable casing, provided with a partition-plate, of a clock mechanism mounted on one side of said plate, and in operative connection with time-recording devices on the opposite side, said time-recording devices comprising a suitable tape, and which is mounted on a suitable drum, and adapted to be wound on a shaft connected with the clock mechanism, and which passes through friction-rolls, one of which is mounted on a shaft connected with the clock mechanism, and the other on a spring-operated sliding plate or bar, substantially as shown and described.

5. In a time-recording device, the combination with a suitable casing, provided with a partition-plate, of a clock mechanism mounted on one side of said plate, and in operative connection with time-recording devices, on the opposite side, said time-recording devices comprising a suitable tape, and which is mounted on a suitable drum, and adapted to be wound on a shaft connected with the clock mechanism, and which passes through friction-rolls, one of which is mounted on a shaft connected with the clock mechanism, and the other on a spring-operated sliding plate or bar, and devices which are adapted to be operated, by a key inserted through the door or support for puncturing said tape, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 14th day of May, 1896.

SIGMUND BOWER.

Witnesses:
C. GERST,
C. G. MILLIN.