

W. E. YOUNG.
 Watchman's Time-Check.

No. 198,962.

Patented Jan. 8, 1878.

Fig. 1.

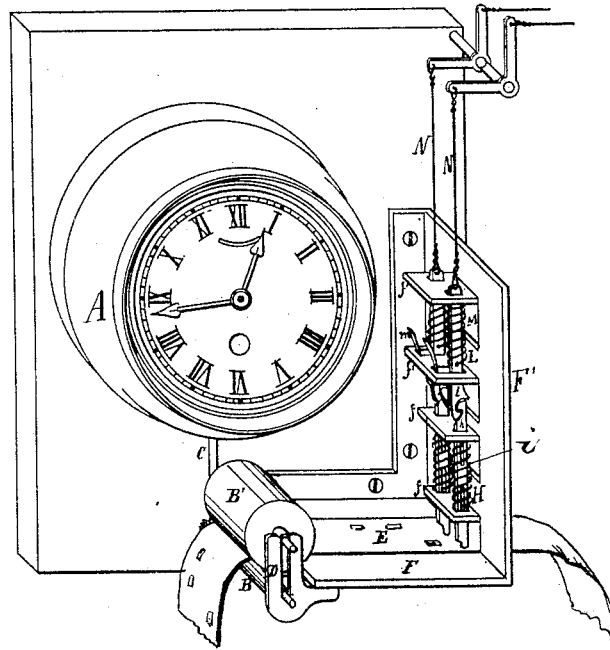


Fig. 2.

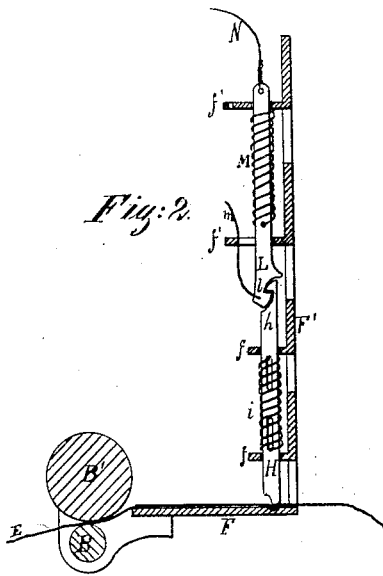
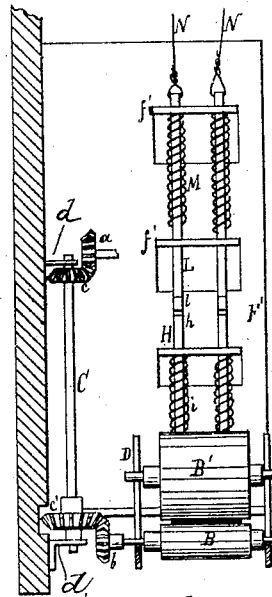


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM E. YOUNG, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS
RIGHT TO JAMES EARLY, OF SAME PLACE.

IMPROVEMENT IN WATCHMEN'S TIME-CHECKS.

Specification forming part of Letters Patent No. **198,962**, dated January 8, 1878; application filed
July 2, 1877.

To all whom it may concern:

Be it known that I, WILLIAM E. YOUNG, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Attachment to Clocks for Controlling the Watchman, of which the following is a full and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the clock, with attachments. Fig. 2 is a longitudinal sectional view of the attachments, and Fig. 3 is an end elevation of the same.

The nature of my invention relates to that class of clock attachments arranged for registering the time when the watchman has been at a certain part of the premises which are placed under his guard; and it consists of a pair of feed-rollers rotated by the clock movement and pulling a paper ribbon over a table, to which are attached a series of punches, arranged with recoil-springs and with self-coupling release-hooks connected by bell-wires to bell-pulls at or in different parts of the house, so that the watchman, in pulling the wire, will raise one of the punches, which will disengage on reaching a certain height, and, by recoiling, will make an impression into the paper-ribbon.

A is a clock, of any suitable design. B and B' are two rollers, the lower one, B, of which being rotated from the movement of the clock by an upright shaft, C, having bevel-gears *c* and *c'*, one of which matches with a suitable wheel, *a*, attached to the main clock-spindle and wheel *c'*, engages with wheel *b*, secured upon the end of spindle of roller B. Said shaft C is pivoted in two bracket bearings, *d*. The two rollers B and B' are journaled in a suitable housing, D, which permits of a sufficient vertical movement to the roller B' to accommodate itself to any uneven thickness of the paper ribbon E.

The roller B is to be made of or covered with any suitable elastic material for insuring a uniform friction to the paper ribbon E, to which is imparted a slow but steady movement longitudinally by passing between the rollers B and B'. Said ribbon E is pulled

over a table, F, which is a rectangular continuation of a vertical bracket, F', slotted on its junction with the table for the paper ribbon to enter upon said table.

To said bracket F' are fixed a series of guides, *f* and *f'* for the punches H and the punch-operating hooks L.

The punches H are placed on a line transverse to the line of the paper ribbon, each having a somewhat sharpened or pointed end, which corresponds with a recess in table F, and which said punch end enters when operated, thereby making a heavy impression into the paper ribbon.

Each punch-bar, H, is slotted in two places, and into these slots are turned the ends of a spiral spring, *i*, so that said spring cannot expand beyond the end of either slot, and said spring *i* being of such length that it will take up the exact space between the guides *f* of the punch-bar. It will be double-acting, and will hold the punch-bar at such a position while at rest that its point will clear the paper ribbon; but if pulled up and suddenly released, the momentum of the punch-bar will cause a recoil of the spring, and the punch-bar will strike a blow upon the table, thereby making a mark into the paper.

The upper end of each punch-bar, H, is shaped to a pointed hook, *h*, into which matches a similar-shaped hook, *l*, of bar L, vertically moving in two guides, *f'*, the lower one of which is cut out, so as to permit a lateral motion to the lower end of the bar, which lateral motion is controlled by a leaf-spring, *m*, secured to the hook *l*. A spiral spring, M, surrounds the bar L, the upper end of which abuts against the lower side of the uppermost guide *f'*, while its lower end enters a hole drilled into the said bar L. This spring will force the bar L downward again after being lifted.

A wire, N, is attached to the upper end of each of the bars L, which connects with a bell-wire placed through the house in the usual manner, and is connected to a bell-knob at any desired part of the house, which, in being pulled, will lift the bar L, the hook *l* of

which, being engaged with the hook *h* of punch-bar H, will lift said punch-bar with it, until the bar L is lifted so high that the spring *m* will release the hook *l* from its lateral pressure, when it will release the punch-bar H, which will shoot down upon the paper ribbon; and now, by releasing the bell-wire, the spring M will push the bar L downward again, when the spring *m* will cause the hooks *h* and *l* to re-engage.

The self-coupling release-hooks *l* and *h* are not necessarily to be in close proximity to the clock, but may be separated from the punches and placed at any point on the line of the bell-wire; and the device herein described and shown of transmitting motion from the clock to the feed-rollers may be varied without changing the result of my invention.

The number of punches to be attached will vary with the size of the building or the extension of the premises.

The paper ribbon may be cross-lined for

hours and fractions thereof, in accordance with the velocity of the feed-motion for the same, so that the punch-marks will indicate the intervals of time between the watchman's attendance.

What I claim as my invention is—

1. The rollers B and B', if rotated by the movement of a clock, for feeding a paper ribbon, in combination with the punches H, having springs *i*, and being operated by bell-wire N and hooks *l* and *h*, substantially in the manner herein described, for the purpose specified.

2. The punch-bar H, having guides *f*, spring *i*, and hook *h*, in combination with the bar L, having guides *f'*, springs M and *m*, hook *l*, and bell-wire N, if attached to a clock, having rollers B and B', all constructed, arranged, and operating substantially as herein set forth.

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Witnesses:

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