UNITED STATES PATENT OFFICE.

ABRAHAM A. NEWMAN, OF CHICAGO, ILLINOIS.

WATCHMAN'S CLOCK.


To all whom it may concern:

Be it known that I, ABRAHAM A. NEWMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Watchman's Clocks, of which the improvement is a specification.

My invention relates to certain new and useful improvements in watchman's clocks which are fully described and explained in this specification and shown in the accompanying drawings, in which-

Figure 1 is a side elevation of my improved device, a portion of the case being broken away to show the interior construction and certain of the parts being shown in vertical section; Fig. 2 is a top plan of my improved clock, a portion of the case being broken away and the parts being shown in the section indicated by the line 2—2 in Fig. 1; Fig. 3 is a bottom plan of the clock, a portion of the case being broken away and certain of the parts being shown in horizontal section; and Fig. 4 is a perspective view of the key which I use with my improved device.

Referring to the drawings, A, is a suitable dial adapted to be carried by a clock mechanism (not shown in the drawings). This clock mechanism may be of any desired form, but as the same is common in various types of watchman's clocks I have not illustrated the same for, as far as my present invention is concerned, it may be of any form. At one side of the dial is journaled a cylinder, B, having engraved on its surface marking characters arranged in different series, preferably three series as illustrated. The cylinder, B, is mounted upon a shaft, b, which carries a gear-wheel, b', in mesh with a gear-wheel, c', on a shaft, c, journaled above the dial. The shaft c, carries a segment, C, adapted to be engaged by a projecting flange, d, carried by one of the registering keys, D. It will be understood in practice that a considerable number of such keys are used and the same are securely fastened in place at the various stations which the watchman must visit in his rounds. Each of the keys is provided with a character adapted to mesh with one of the characters on the cylinder, B, to cooperate therewith for the purpose of embossing a suitable character on the dial, A. These keys may be provided with a flange such as is shown in the drawings or with a larger flange such as is indicated in dotted lines in Fig. 1, or the flange may be omitted entirely, as will hereinafter be set forth.

In the use of the device the keys are inserted in a suitable opening in the case and pass into a rotatable key-guide, E. This guide is provided at one side with a projection, e, which is engaged by a spring pressed knob, F, so that as the key-guide is rotated the knob will first resist the rotation of the key-guide and subsequently assist it after the knob passes the projection, e. The key-guide is so positioned that if a key is inserted which has no projecting flange, d, the character on the key will spring down and register with the bottom line of figures on the cylinder, B. On the other hand, if a key is used having the flange such as is shown in the drawings, the key engages with the segment, C, rotates the shaft, c, and gear-wheel, c', thus causing rotation of the cylinder, B, and bringing the central series of characters into position to cooperate with the character upon the key. If a key with a still larger flange is used a greater degree of rotation is produced and the upper set of characters is brought into registration with the character on the key. By this means I am enabled in a small compass and without unduly increasing the size of the clock to accommodate a large number of characters, so that a single clock may be serviceable for a large number of watchman's stations. I also provide simple and efficient means whereby it is assured that the watchman shall make a deep impression upon the dial. This means consists obviously of the mechanism for first resisting and then assisting in the action of key and its form as herein shown and described is particularly simple and advantageous.

I realize that considerable variation is possible in the details of this construction without departing from the spirit of my invention; therefore, I do not intend to limit myself to the specific form herein shown and described.

I claim as new and desire to secure by Letters Patent:

1. The combination with a cylinder having three series of characters, of means engaging the cylinder and adapted to be engaged by a key and in the turning thereof to rotate said cylinder and bring the proper series of characters into position to be acted upon by the key.

2. The combination with a cylinder hav-
ing three series of characters, one series of said characters being normally in position to be engaged by the keys, and means engaging said cylinder and adapted to be engaged by a key and in the turning thereof to rotate said cylinder to bring the second series of characters into position to be operated upon by said keys and when acted upon by another set of keys to bring said third series of characters into position to be acted upon.

3. The combination with a cylinder having three series of characters one of which is normally in position to cooperate with a suitable key, of means engaging the cylinder and adapted to be engaged by certain of the keys as they are turned for rotating the cylinder to bring the second and third series of characters successively in position to be operated upon by the keys.

4. The combination with a cylinder having different series of characters, of a segment having means of engagement with the cylinder and adapted to be engaged by suitable keys as they are turned to rotate said cylinder to bring the proper series of characters in position to cooperate with the keys.

5. The combination with a cylinder having different series of characters and lying on one side of the position normally occupied by the dial of the device, of a segment lying to the opposite side of the normal position of the dial and having means of engagement with the cylinder whereby motion of the segment will rotate the cylinder, said segment being adapted to be engaged by a suitable key as it is turned and to rotate the cylinder and bring the proper series of characters into position to be acted upon.

6. The combination with a cylinder having different series of characters lying upon one side of the dial and a segment lying upon the opposite side thereof and in position to be engaged by a key in the turning thereof, of gears connecting said segment and cylinder whereby the operation of the key rotates said segment and cylinder to bring the proper series of characters into position.

ABRAHAM A. NEWMAN.

In presence of—

P. C. DYRENFORTH,
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