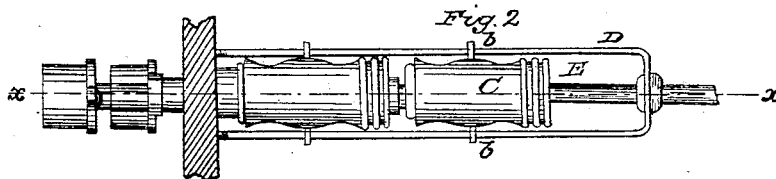
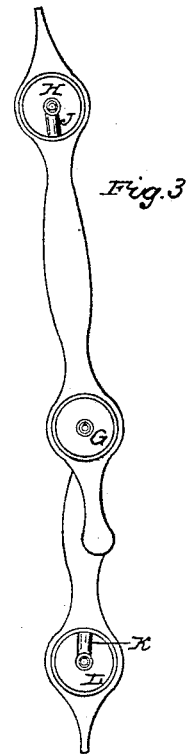
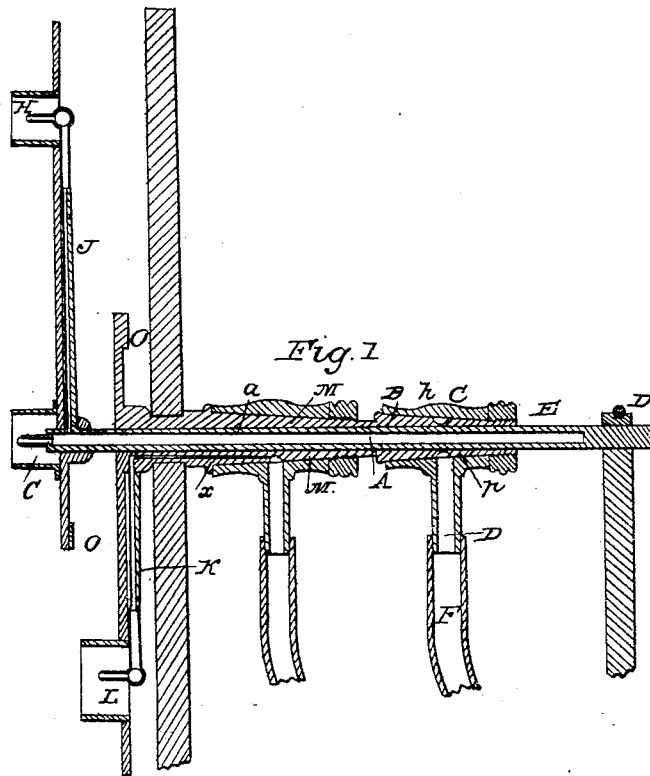


T. I. BAILEY.
Illuminating Public Clock.

No. 51,411.

Patented Dec. 12, 1865.



Witnesses
H. Dean Overell
H. Busch

Inventor
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Attorneys.

UNITED STATES PATENT OFFICE.

THOMAS IVES BAILEY, OF NASHVILLE, TENNESSEE.

IMPROVEMENT IN ILLUMINATING PUBLIC CLOCKS.

Specification forming part of Letters Patent No. 51,411, dated December 12, 1865.

To all whom it may concern:

Be it known that I, THOMAS IVES BAILEY, of Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Improvement in Illuminating Public Clocks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal section of my improvement, taken in the line *x x*, Fig. 2; Fig. 2, an external view of the same; Fig. 3, a front view of the hands or pointers of a clock provided with my improvement.

Similar letters of reference indicate corresponding parts.

My invention consists in a new method of illuminating public clocks, by which, among others, the following advantages are obtained: First, the time may be seen at a distance far greater than by the present mode, consequently their efficiency will be largely increased; second, their original cost will be much reduced, no expensive glass dials being needed; third, a great saving is effected in the consumption of gas; and, fourth, an entire freedom from the danger of explosion, the gas being consumed only on the outside of the building.

My invention consists in placing lights upon the hands or pointers of a clock, instead of behind the dials, as heretofore, and which I accomplish by making the spindles and sockets that carry the hands in part hollow, so that a stream of gas may be conveyed through said spindles and sockets to the center, and also to near the extremity of each hand, and terminating in small burners or jets. These jets I protect by means of a lantern or covering, glazed with talc, horn, glass, or other suitable material, the center one being stained to show a closed light, so that it may be distinguished from the others, and the respective portions of the hand or pointer lights readily seen, so as to indicate the time.

In order to facilitate the cleaning or repairing of said lamps or jets, and also to provide for the freedom or inshake necessary in clock-machinery, I construct some portion of the

tubes that convey the gas of india-rubber or other flexible material.

A represents the minute-hand spindle of a turret-clock, leading off from the center work to the hands in the usual manner, but in part made hollow, as shown at *a*, and upon which a conical plug, B, is fitted and secured so as to turn with it. This plug is made precisely similar to those used by gas-fitters in an ordinary swing-joint, having an annular space, *p p*, for the passage of gas, and opening into the pipe or spindle A.

C is a boss surrounding the plug B, and to which it is accurately ground. This boss receives the end of the supply-pipe D, and is prevented from turning with the plug by means of projections or ears *b*, fixed to its exterior at opposite sides, and resting upon a bracket, D^x, or other fixture. The plug B and boss C together form an air-tight joint, and are kept together by the nut E.

To insure the lateral freedom or inshake necessary for the minute-hand spindle and its connections with the clock-machinery, the pipe D is connected with the common service-pipe by means of the flexible tube F.

The action of this much of the apparatus is as follows: The plug B revolves with the spindle A, and, by means of the annular space and openings *p p*, permits an uninterrupted flow of gas to pass in the direction of the arrows to the central burner, G, and the minute-hand burner H.

In order to provide for cleaning or repairs to lamps or burners, I make a part of the tubes J and K, leading from the center to the burners H and L, of india-rubber or other flexible material, so they can readily be removed and operated upon through an opening in the dial provided for that purpose.

The hour-hand is carried by the socket M M, formed in every respect similar to the plug B and its connections C D E F, except that it is separate from the spindle A, but revolves around it, and is provided with a space or chamber, *x*, connecting the flexible-pipe K with the annular space and service-pipe, and through which gas will flow to the hour-hand burner L.

O O are counterpoises.

It is manifest that instead of ground joints, stuffing-boxes may be employed for packing the spindles within the bosses C.

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

1. The combination of the tubular hands J K, tubular spindle A, and flexible tubes F, arranged to operate substantially as and for the purpose set forth.

2. The plugs B and M and bosses C, when

used in the manner and for the purpose set forth.

3. The chamber *x*, formed in the hour-hand socket, the ears *b* on the bosses C, and the bracket or fixture D*, for the purpose specified.

THOMAS IVES BAILEY.

Witnesses:

EUGENE G. MAINE,
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