

(No Model.)

H. F. LOSSIE.

CLOCK MECHANISM FOR OPERATING GAS COCKS.

No. 512,307.

Patented Jan. 9, 1894.

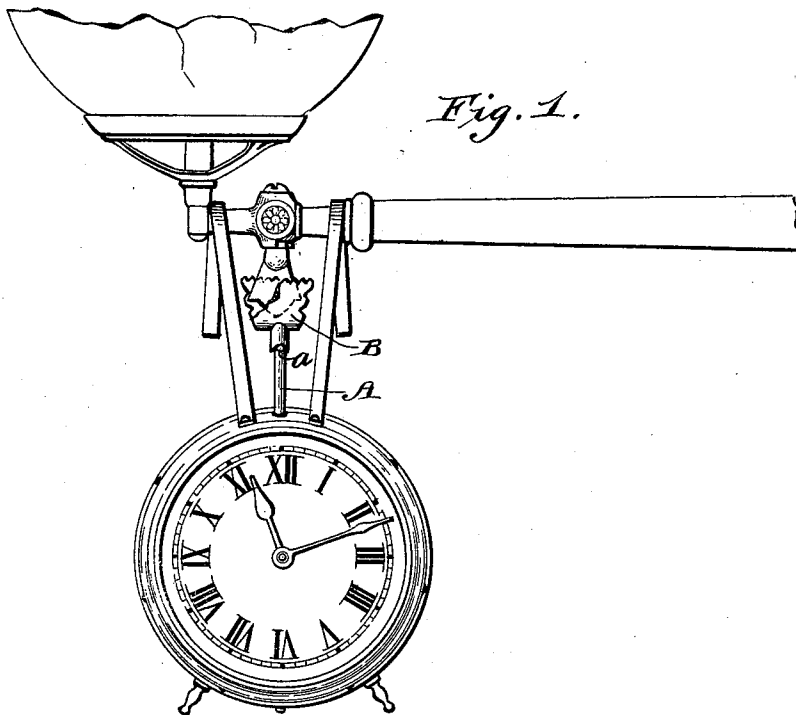


Fig. 1.

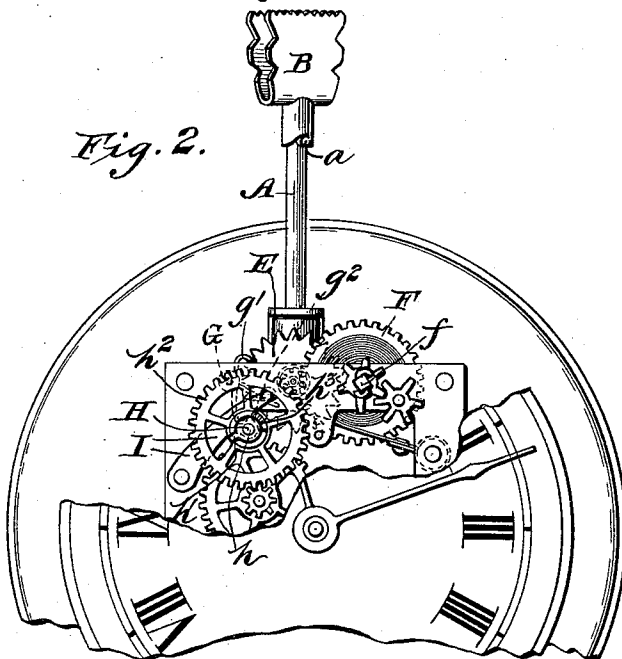


Fig. 2.

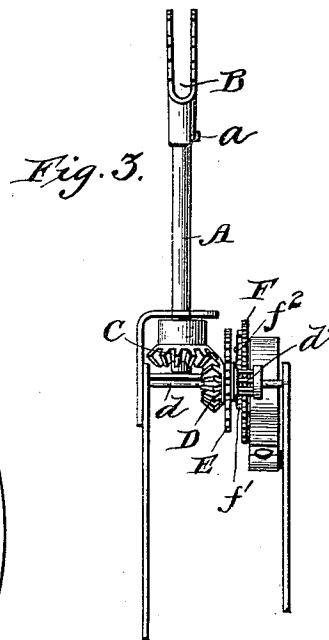


Fig. 3.

WITNESSES

Everance.
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UNITED STATES PATENT OFFICE.

HENRY F. LOSSIE, OF OWENSBOROUGH, KENTUCKY.

CLOCK MECHANISM FOR OPERATING GAS-COCKS.

SPECIFICATION forming part of Letters Patent No. 512,307, dated January 9, 1894.

Application filed March 10, 1893. Serial No. 465,444. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. LOSSIE, a citizen of the United States, residing at Owensborough, in the county of Daviess and State of Kentucky, have invented certain new and useful Improvements in Apparatus for Mechanically Operating Gas-Cocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an apparatus for mechanically operating a stop cock or key on a gas supply pipe at any desired time and thereby cutting off the supply of gas to a burner and extinguishing the flame, and it consists in combination with an ordinary clock mechanism of a novel gas cock operating mechanism as will be hereinafter described and claimed.

The object of my invention is to mechanically extinguish the gas flame of a burner at any desired time and the invention will be found of great utility in banking and mercantile houses where the gas is allowed to burn all night as by its use the flame can be mechanically extinguished at daylight and the needless expenditure of gas between that time and the time for opening the bank or store avoided.

In the accompanying drawings, Figure 1 is a plan view of the general arrangement of the clock and the gas key operating mechanism with respect to a gas supply pipe and key. Fig. 2 is a front elevation partly in section of a portion of a clock and gas key operating mechanism, and Fig. 3 is a vertical transverse section through the clock frame showing more clearly the gas key operating mechanism.

The mechanism which I employ for operating the gas cock or key can be applied to clocks now in use without in the least altering the construction and arrangement of the clock operating mechanism and dial or interfering with the utility of the clock as an indicator of the correct time but simply takes the place of a bell alarm on the clock, the construction and arrangement being such that a continuous rotary motion in a single direction is imparted to the key operating shaft, as will now be described. I have not shown a complete clock operating mechanism

because no claim is made to the same and any suitable known construction may be employed.

A represents a vertically arranged revoluble gas key operating shaft which is provided on its upper end with a key seat B which latter is provided on its lower end with a notch which is adapted to fit over a pin *a* on the key shaft A so that when the shaft revolves the key seat will revolve with it, turn the gas key and extinguish the flame. The lower end of the shaft A is provided with a horizontally arranged bevel cog wheel C which meshes with a vertically arranged bevel cog wheel D which is fast on the revoluble shaft *d*. This shaft *d* carries a fixed vertical escapement wheel E and a very small cog gear *d'*, which latter meshes with a large vertically arranged toothed wheel F on the winding shaft *f*. This winding shaft *f* is also provided with a coil spring and a small fixed cog wheel *f'* and a spring actuated dog *f*², which latter allows the wheel *f'* to revolve in only one direction when the wheel F is locked by means of the vibrating rock shaft G and the interposed train of wheels. This vibrating rock shaft is of ordinary construction and provided with a dog *g'* and a projecting pin or arm *g*². The shaft is held from vibrating when it is desired to wind up the gas cock operating mechanism by means of the setting mechanism H by which the gas cock mechanism can be set to operate at any time desired. This setting mechanism is precisely the same as that employed in well known makes of clocks for setting the alarm, and in fact I do not set up any claim to the clock mechanism described except the arrangement of the beveled cog wheels C and D and the operating gas cock shaft A.

The setting mechanism H consists of an operating shaft *h* provided with a pin *h'* and carrying a loose toothed wheel *h*² having a hub or collar provided with a beveled notch *h*³ so that when the indicator on the back of the clock is set at the time it is desired the gas should be turned off, the wheel *h*² which is in gear with the train of wheels which operate the hands of the clock revolves and as it does so the pin *h'* on the shaft *h* rides up on the beveled notched portion of the hub of said wheel *h*², by which means the said wheel

is pushed inward against a flat spring I, which spring is tending to force the wheel outward. As soon as the pin *h'* comes opposite the notch in the hub the wheel can spring outward. The spring is made L-shaped and when it is forced inward by the wheel *h*² its outer free end is in contact with the projecting pin on the vibrating rock shaft G which prevents the latter from turning and holds the escapement wheel while the gas cock operating mechanism is being wound up.

The hangers or brackets can be varied to suit any gas fixture no matter where located and arranged.

I have shown my invention applied to a gas fixture and used for extinguishing a flame, but I contemplate employing the invention at any place where it is desired to mechanically operate cocks at any premeditated time.

What I claim as my invention is—

1. In an apparatus for operating gas cocks, the combination of a time keeping device, a vertically arranged gas cock operating shaft provided at its upper end with a key seat and at its lower end with a toothed wheel C, a toothed wheel D meshing with the wheel C, whereby a rotary movement is imparted to

the wheel C and the shaft connected therewith, means for setting the shaft to operate at a desired future time and means for causing the shaft to operate at such time, substantially as described.

2. In an apparatus for operating gas cocks, the combination of a time keeping device, a vertically arranged gas cock operating shaft provided at its upper end with a transversely arranged pin and a key seat B provided with a notch, which latter fits over the pin, the shaft being also provided at its lower end with a horizontally arranged bevel gear wheel C, a vertically arranged bevel gear wheel D which meshes with the wheel C, whereby a rotary movement is imparted to the shaft A, means for setting the shaft to operate at any desired future time and means for causing the shaft to operate at such time, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

HENRY F. LOSSIE.

Witnesses:

C. C. WATKINS,
BRANSFORD CLARKE.