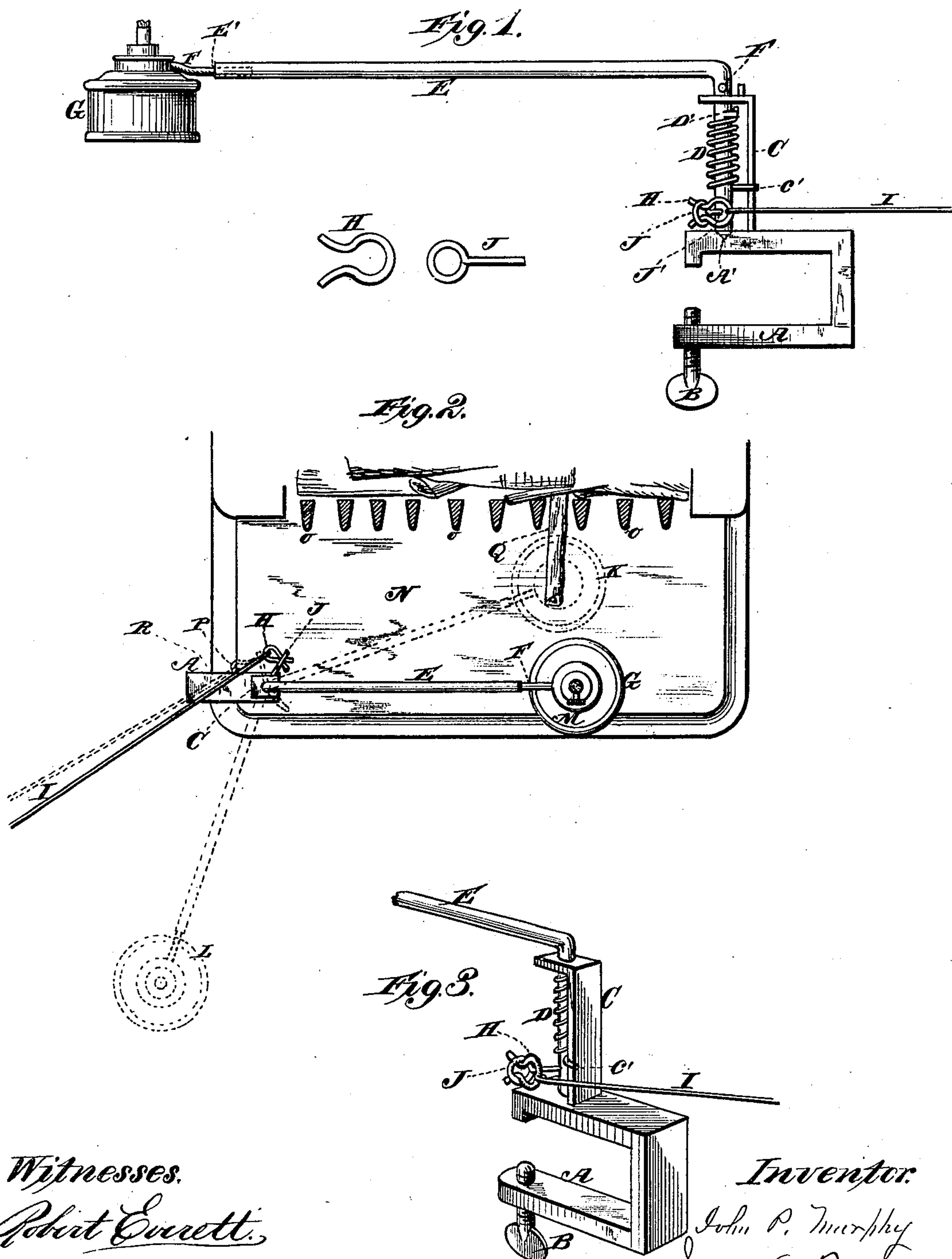


(No Model.)

J. P. MURPHY.
FIRE LIGHTER.

No. 246,627.

Patented Sept. 6, 1881.



Witnesses.
Robert Everett.
J. Wirt Forney.

Inventor.
John P. Murphy
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Atty.

UNITED STATES PATENT OFFICE.

JOHN P. MURPHY, OF SOMERVILLE, MASSACHUSETTS.

FIRE-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 246,627, dated September 6, 1881.

Application filed March 3, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. MURPHY, a citizen of the United States, residing at Somerville, Middlesex county, and State of Massachusetts, have invented a new and useful Improvement in Fire-Lighters, of which the following is a specification.

The object of my invention is to provide a fire-lighter which may be set to kindle a fire in a stove or other heating apparatus at any desired time, when used in connection with any ordinary alarm-clock, and which will remove itself out of danger from the fire enkindled after having done its work. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my machine; Fig. 2, a top view of the same, representing different positions occupied by my machine in performing its function; and Fig. 3 a perspective view.

Similar letters of reference represent identical parts in each figure.

A, Fig. 1, represents a clamp, made adjustable by means of the thumb-screw B.

C is an upright standard, inserted into the clamp A. The upper end of this standard is bent at right angles with that part which is inserted into the clamp A, and through this portion a hole is drilled, (seen in Fig. 3,) through which the arm E passes. This arm terminates in a pivot working in a socket made at A', which permits it to move in a horizontal direction around A' as a center.

D is a spiral spring, one end of which is attached to the arm E at the point D', and the other to the standard C at the point C' in such a manner that the arm E is held by its action in position L, Fig. 2.

G is a lamp of any suitable construction, to which the arm F is attached. The arm F slides into a hole at the point E', so that the lamp may be removed at will.

J is an eye-pin, fixed into the standard E at the point J'.

H is a metal spring, both ends of which, when compressed, may be inserted into the eye of the pin J, and which retains its place within the eye when pressure is removed.

I is a wire, one end of which is attached to the spring H and the other to the axle of an ordinary alarm-clock.

The action of my device is as follows: The lamp G is lighted and the alarm-clock set to spring at the desired hour. The clamp A is screwed to the stove-hearth N N N, Fig. 2, at any convenient place, as at R.

o o o represent the stove or other grate, which is previously charged with fuel. From between the bars of the grate a slip of some inflammable material has been arranged to project. The wire I is so connected with the axle of the alarm that it draws the arm E from position L and holds the lamp G in position M. At the desired time the alarm springs, the alarm-axle revolves and winds the connecting-wire I around it, drawing after it the spring H to position P, when the eye-pin J strikes the standard C, which prevents it from moving farther. The arm E has at the same time been drawn toward the grate, placing the lamp G in position K. The lamp is then in contact with the slip Q, which is ignited and communicates the fire to the fuel within the grate.

The lamp G is removed from the grate thus: In consequence of the eye-pin J striking the standard C, it prevents any further movement of the arm E toward the grate. The axle of the alarm, however, continues to wind up the connecting-wire I notwithstanding this stoppage, and in consequence the spring H is withdrawn from the eye-pin J. This releases the spiral spring D, which swings the lamp G around to position L and away from the grate.

I claim—

In a device for kindling fire at a fixed time, the arm E, provided with the spiral spring D, eye-pin J, and spring H, in combination with the clamp A, provided with the standard C, and the lamp G, as described, and for the purposes set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN PATRICK MURPHY.

Witnesses:

JOSEPH WM. PUTNAM,
SAMUEL LOUGEE.