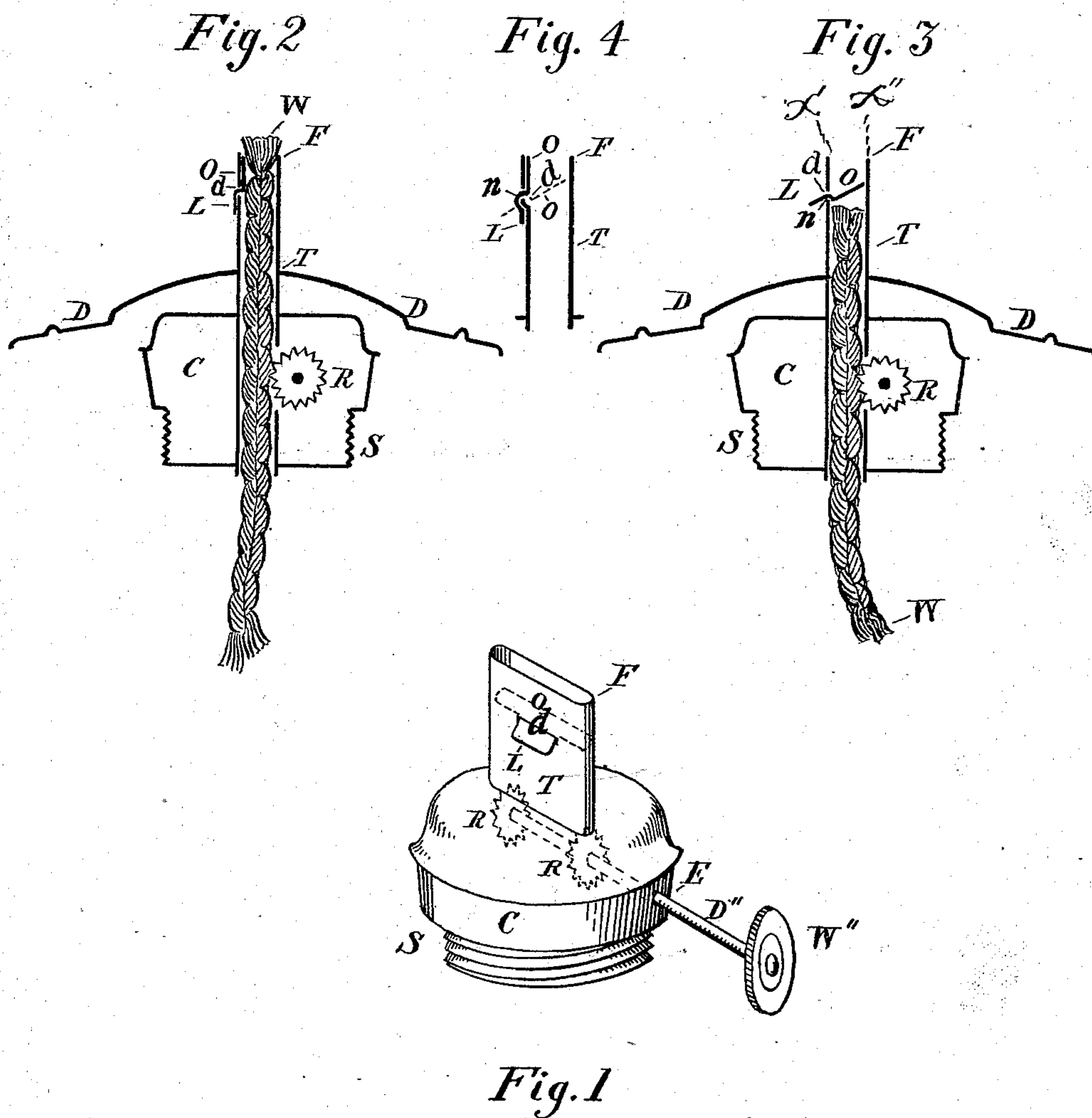


J. H. FERRISS.
Automatic Lamp-Extinguisher.

No. 227,971.

Patented May 25, 1880.



Witnesses
J. S. Duxon
Charles S. Brintnall

Inventor
James Henry Ferriss
by W. C. Hagan
his attorney

UNITED STATES PATENT OFFICE.

JAMES H. FERRISS, OF WEST TROY, NEW YORK.

AUTOMATIC LAMP-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 227,971, dated May 25, 1880.

Application filed February 25, 1880.

To all whom it may concern:

Be it known that I, JAMES HENRY FERRISS, of the village of West Troy, county of Albany, and State of New York, have invented a new and useful Improvement in Automatic Lamp-Extinguishers, of which the following is a specification.

This invention relates to an improvement in that class of lamp-extinguishers having a hinged plate or flap constructed to fall by gravity, a wick being arranged to be moved up and down within the wick-tube.

Heretofore a lamp-extinguisher has been constructed with a flap pivoted upon the wick-tube by hinge-connections at opposite ends, and provided with a tail-piece projecting below its pivotal point, which is acted upon by a spring, so as to exert a pressure thereon, as shown in Letters Patent No. 217,816, dated July 22, 1879.

The object of my invention is to simplify the construction, dispense with unnecessary members or parts, and to cheapen the manufacture of the lamp-extinguisher.

Therefore my improvement consists in the construction of a wick-tube made in one piece, having in one of its sides an elongated slot or slit adapted to receive the tail or tongue of an extinguishing-plate in such a manner that the extinguishing-plate can be turned up vertically and rest alongside of the inner wall of the wick-tube while the wick is raised to a lighting position, and will fall by gravity upon the burning end or edge of the wick, to extinguish the wick-flame in the process of turning down the wick within the wick-tube, as will be hereinafter more fully set forth, and pointed out in the claim.

Figure 1 shows, in perspective, the screw-cap of a lamp and the wick-tube, with the perforated chimney-holder removed. It also shows the position of the extinguishing-plate within the tube (by means of a dotted line) when turned down with the wick below it. This illustration also exhibits the usual serrated wick-wheels and their connection for moving the wick up and down. Fig. 2 shows a section taken at right angles to the flat face of the wick-tube, with the wick raised and extinguishing-plate turned up against the tube side to which it is suspended. Fig. 3 illustrates a section taken in the same manner

as that shown in Fig. 2, with the exception that the lighting end of the wick is below the extinguishing-plate and the latter turned down over it in the tube. Fig. 4 shows, in vertical section, a manner of making the wick-tube wider at the top and side above the inside extinguishing-plate, so that when the latter is forced up by the rising wick the turned-up plate will be vertically in the same plane with that part of the tube which is below it.

In the manufacture of my lamp-extinguisher one of the side walls of the wick-tube is formed with an elongated slit or slot, *d*, near its upper end, and the extinguishing-plate *O* is formed with the tongue or tail *L* and bent or "jogged" portion *n* by means of dies. These parts are now brought together so as to form an operative combination by passing the tongue or tail *L* of the extinguishing-plate through the slit or slot *d* of the wick-tube, so that the jogged or bent portion of the extinguishing-plate will rest or lodge in the wall of the wick-tube, substantially as indicated in the drawings. In other words, the extinguishing-plate *O* is suspended or lodged in the slit of the wick-tube, with a bearing formed by the wall above and below, in such a manner as to permit the extinguishing-plate to assume within the wick-tube a vertical position as the wick is raised by the lifting mechanism for lighting purposes, (see Fig. 2,) and fall by gravity when the wick is drawn down by the mechanism to exclude the air and extinguish the wick-flame. (See Fig. 3.)

The flat sides of the wick-tube *T* are indicated by the letters *x'* *x''*, with which the extinguishing-plate *O* is combined to operate, it being suspended to the flat side *x'* of the tube, so that when the plate falls by gravity as the wick is turned down it will impinge upon the interior of the other flat side, *x''*, of the wick-tube, to close the tube and extinguish the wick-flame.

An extinguishing-plate thus arranged is not interfered with in its operation by the crusting of the tube-top and wick, and, having its hinging connection away from the immediate influence of the flame heat, works promptly and efficiently.

It will also be observed by reference to the drawings that the wick-tube is made of one piece of metal, and that the tail or tongue of

the extinguishing-plate rests on the outside of the tube to prevent any possible contact with the wick.

5 The letter C represents the lamp-cap, screw-threaded at S, within which are arranged the usual serrated wick-wheels R R, mounted on the shaft D'', having grasping-wheel W'', for raising and lowering the wick within the tube; and the letter D represents a chimney-holder.

10 What I claim as new, and desire to secure by Letters Patent, is—

The improved automatic lamp-extinguisher hereinbefore described, consisting of two parts,

to wit: the wick-tube, made of one piece, having in one of its side walls, near its upper end, 15 the elongated slit *d*, and the extinguishing-plate, formed with a tongue and a bent or jogged portion, arranged to operate in the manner as described.

Signed at Troy, New York, this 21st day of 20 February, A. D. 1880.

JAMES HENRY FERRISS.

Witnesses:

GEO. S. DEXTER,

CHARLES S. BRINTNALL.