

J. STRASZER.
Match-Lighters.

No. 153,628.

Patented July 28, 1874.

FIG. 1.

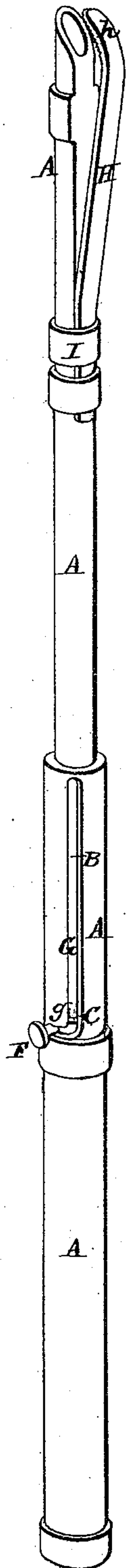
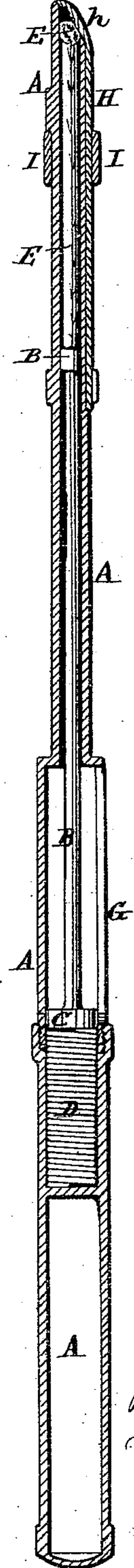


FIG. 2.



ATTEST:

Robert Burns.
Henry Tanner.

INVENTOR:

John Straszer
By Knight Bros.
Atty.

UNITED STATES PATENT OFFICE.

JOHN STRASZER, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN MATCH-LIGHTERS.

Specification forming part of Letters Patent No. **153,628**, dated July 28, 1874; application filed June 20, 1874.

To all whom it may concern:

Be it known that I, JOHN STRASZER, of St. Louis, St. Louis county, Missouri, have invented an Improvement in Match-Lighters, of which the following is a specification:

This improvement consists in a tube, into the end of which the match is dropped, and which contains a plunger forced outward by a spiral spring. To the plunger is attached a knob, which works in a longitudinal slot in the case, and which, by turning, is made to enter a notch at one side of the slot to hold the plunger in its retracted position, so as to admit the match into the end of the tube. The point of the tube is beveled, and carries a spring, whose end is bent over to fit the point of the tube, and forms a cover to it, when it is drawn inward, which is done by a slip-ring. The over-bent end of the spring is roughened upon the inner side to cause the ignition of issuing match by friction.

In the drawings, Figure 1 is a perspective view of the device. Fig. 2 is an axial section of the same.

A is the tube. B is the plunger, having a button, C, resting upon the spiral spring D, which tends to force the plunger outward to eject the match E. Extending outwardly from the button C is a thumb-knob, F, which extends through a slot, G, of the tube, and by which the plunger may be drawn back to depress the spring, and to admit the match into the end of the tube, as shown in Fig. 2. The slot G has at the lower end, as shown, a side notch or catch, *g*, into which the knob F is turned to hold the plunger in its retracted position. H is a spring having an inwardly-roughened end, *h*, which, when the spring is held inward, covers the orifice from which the match issues. I is a sliding ring, giving the means for holding in the spring H, in position shown in Fig. 2.

The instrument is intended more especially for lighting lamps that are out of easy reach of the hands. Of these two classes may be mentioned: First, when the burner is inclosed in a case, such as that of a locomotive "head-light," where it is impossible to get the hand in proximity to the burner without troublesome manipulation; and, second, where the

burner is at such a distance as to be out of reach of the hand.

The operation is as follows: After use, the instrument will have the burnt stump of the match held by the point *h* of the spring H, and with the end of the plunger against the inner end of the stump. To charge the instrument with a fresh match, the slip-ring I is drawn down into position shown in Fig. 1, which allows the spring to move outward and release the stump, which then drops out. The plunger is then drawn down by the knob F, which is then engaged in the catch or notch *g* to hold the plunger in this position. The match is then dropped into the open end of the tube A and the slip-ring forced up into the position shown in Fig. 2, to hold the spring H in its inner position. The instrument is now charged, and by turning the knob F out of the catch-notch *g*, the plunger is relieved and forced forward by the spiral spring D, and forces out the match against the roughened end *h* of the spring H, thus igniting the match.

For use in locomotive head-lights, or in similar situations, a small hole may be made in the case sufficient to admit the tube, or one of the air-holes may be used for this purpose.

My device may be varied somewhat without changing the essential features of its construction or action; also, other holding device may be substituted for knob F and notch *g*.

I am aware that match-lighters have before been made with a sliding piston operated by a spring to throw out a match between a pair of spring-jaws having an igniting-surface.

The combination of my spring-sleeve I with the spring-jaw H is of great utility in admitting of opening said jaw, so that no separate opening is needed for the introduction of the matches. It also affords means for varying the pressure of the jaw.

I claim as my invention—

The slotted tube A, plunger B, and operating-spring D, in combination with the spring H, igniting-surface *h*, and adjustable sliding ring I, as and for the purposes set forth.

JOHN STRASZER.

Witnesses:

SAML. KNIGHT,
ROBERT BURNS.