G. SELDEN.

Cigar-Lighter.

No. 206,835. Patented Aug. 6, 1878.

Fig. 1.

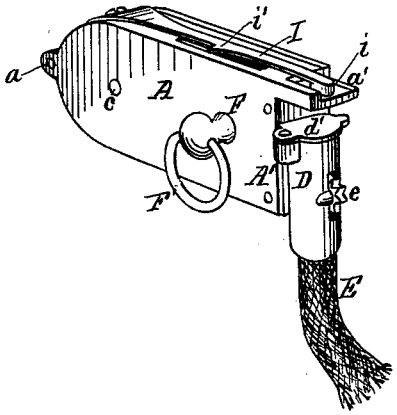


Fig. 2.

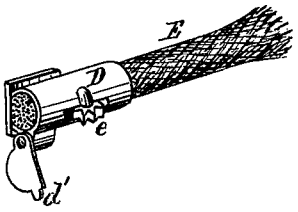


Fig. 3.

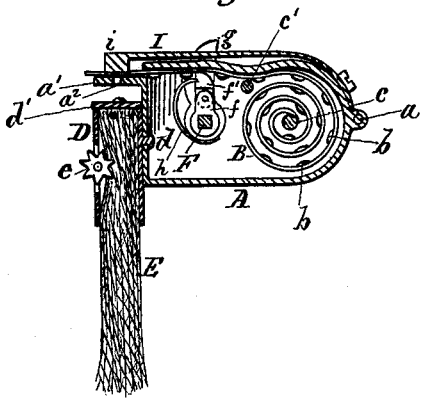
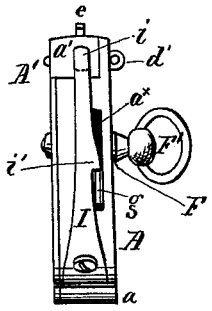


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE SELDEN, OF ERIE, PENNSYLVANIA.

IMPROVEMENT IN CIGAR-LIGHTERS.

Specification forming part of Letters Patent No. **206,835**, dated August 6, 1878; application filed August 19, 1876.

To all whom it may concern:

Be it known that I, GEORGE SELDEN, of Erie, county of Erie, State of Pennsylvania, have invented certain new and useful Improvements in Cigar-Lighters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved cigar-lighter. Fig. 2 is a perspective view of the wick-holder detached. Fig. 3 represents the lighter with the side plate removed for showing the arrangement of the working parts, and Fig. 4 is a plan or top view of the lighter.

Similar letters of reference denote corresponding parts in all the figures.

My invention relates to a device adapted to be carried in the pocket for convenience in lighting cigars, pipes, &c.; and consists, first, in a novel construction of case or lighter, combining a wick or tape to be ignited and a percussion arrangement for igniting said wick or tape, as hereinafter explained; second, in a novel arrangement of devices for exploding the percussion-pellets; and, third, in a novel manner of combining the wick tube or holder with the case containing the percussion-pellets, and to which the exploding mechanism is applied, whereby it is adapted to be turned from the position in which it is ignited or fired to a convenient position for lighting the cigar or other combustible article to which it may be applied.

In the accompanying drawing, A represents a metallic case or box of any suitable ornamental design or configuration, the slightly elongated form shown being a convenient one for the purpose. One side of this case is made in part removable, by being pivoted at *a*, for opening the semi-cylindrical end of the case, to permit the introduction of the coiled tape B, to which the percussion-pellets *b* are applied, said tape being coiled around a small central drum or roller, *c*, around which the tape passes in being fed outward, guided, and held in place against the upper wall of the case by a second pin or small roller, *c'*, as shown. The forward end A' of the case may be made in the squared or angular form shown, or it may be rounded upward on its lower face, and has the wick-tube D pivoted to it at *d*, (see Fig. 3,) a lip or extension of the upper wall of the case at *a'* overhanging said tube D and forming an apron, over which the percussion tapes or pellets are fed, said apron forming also the anvil upon which the pellets are exploded.

E represents the wick or flexible punk placed in the tube D and adapted to be fed forward or upward by a star-wheel, *e*, or other suitable device for that purpose. The upper end of the tube D is closed by a pivoted cap-plate, *d'*, which is removed or withdrawn when the wick is to be ignited, but which serves to extinguish the wick and to protect it when not in use.

The lip or projection a^1 has a central perforation at a^2, over which the percussion-pellets rest when being exploded, and through which the fire is conveyed to the end of the wick resting in close proximity thereto. The means for feeding the percussion-pellets forward and firing the same are as follows: F represents a transverse shaft mounted in suitable bearings in the side walls of the case in front of the tape B, and squared between its bearings to adapt it to receive and impart motion to two arms, *f* and *g*, mounted thereon.

The arm *f* has a pivoted extension or pawl, *f'*, reaching to within close proximity with the upper wall of the case A, and pressing the tape B snugly against the same. This pawl is pivoted in such manner as to allow it a forward movement relative to its supporting-arm *f*, but is held against backward deflection by shoulders at the joint connecting it with said arm, a spring, *h*, serving to prevent the forward deflection of the pawl except to permit it to pass over the pellets *b* in its backward or return movement. The end of the pawl is rounded on its rear face to facilitate its backward movement over the percussion-pellets, as explained.

The arm *g* is made of sufficient length to pass through a slot, $a^\times$, in the upper wall of case, and is made in the form of a cam, adapting it to act on the hammer which explodes the percussion-pellets, as follows:

I represents a flat spring, rigidly secured at its rear end to the rear end of the case, said spring resting upon the upper wall of the case, and overhanging at its forward end the pro-

jecting lip or anvil a^1, where it is provided with the hammer i resting upon said anvil directly over the perforation a^2.

The spring I, about midway of its length, is provided with a lip or spur, i', which overhangs the slot a^x in which the arm g moves, said spur being inclined on its forward face to permit the arm g to crowd it to one side of the slot in the backward movement of said arm, the spring I yielding laterally to permit the passage of the arm by the lip or spur without raising the spring and hammer. The percussion-tape passes out of the case A through a slot at its upper front corner, directly over the anvil a^1 and underneath the hammer i, and is fed forward by the pawl f' resting against the rear face of one of the pellets, which thus acts as a tooth for propelling the tape forward, while the arm g, acting by the same movement on the lip i' of the spring I, lifts the hammer i out of frictional contact with the tape B, thus permitting the feeding movement of the tape.

By this arrangement the percussion-pellets are successively fed forward until they rest upon the lip or anvil directly over the perforation a^2, when the cam-arm g escapes from the lip i', and the hammer i is caused by the spring I to descend thereon with sufficient force to explode the pellet, the fire from which passes through the perforation a^2 and ignites the wick, as explained.

Motion is imparted to the arms f and g by means of a thumb-piece extension of the shaft F or a ring, F′, attached to a projecting end of said shaft, and adapted to fold out of the way against the side wall of the case A or within a socket or recess formed thereon. The wick-tube D, instead of being pivoted, as shown and described, may be hinged to the lower corner or face of the case in such way as to adapt it to fold from the position shown in Figs. 1 and 3 against the lower wall of the case. The wick or punk may be of any suitable material that is easily ignited and adapted to the purpose described.

The percussion-tape is placed in the case with the pellets on its inner or lower side, as shown, for facilitating feeding forward of the same and the escape of the fire through the perforation a^2, as explained, and in practice I prefer, in preparing the tape, to saturate it in transverse lines crossing the pellets of fulminate with a solution of saltpeter or some equivalent therefor, so that when one of the pellets is exploded the tape will burn across on said line, allowing the end to drop off.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a pocket lighting device, the combination of an adjustable tinder and an adjustable percussion-tape, ignited by any suitable mechanism.

2. In a pocket lighting device, a box or case having a hammer capable of operation from the exterior, a wick-duct or tube, means for feeding and exploding a pellet by the action of the hammer, and a wick-feeder.

3. The combination, with the lighter-case A, of the pivoted or hinged wick-tube D and tape B, provided with the pellets of fulminate, substantially as and for the purpose set forth.

4. The case A, provided with a perforated anvil, a^1, and the spring and hammer I, operating substantially as and for the purpose set forth.

5. The shaft F, provided with the arms f, f', and g, in combination with the tape having pellets of fulminate, and the hammer for exploding the same, substantially as described.

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