M. McANENY.

CIGAR LIGHTER.

APPLICATION FILED MAR. 18, 1915.

1,167,089.

Patented Jan. 4, 1916.

Fig. 1.

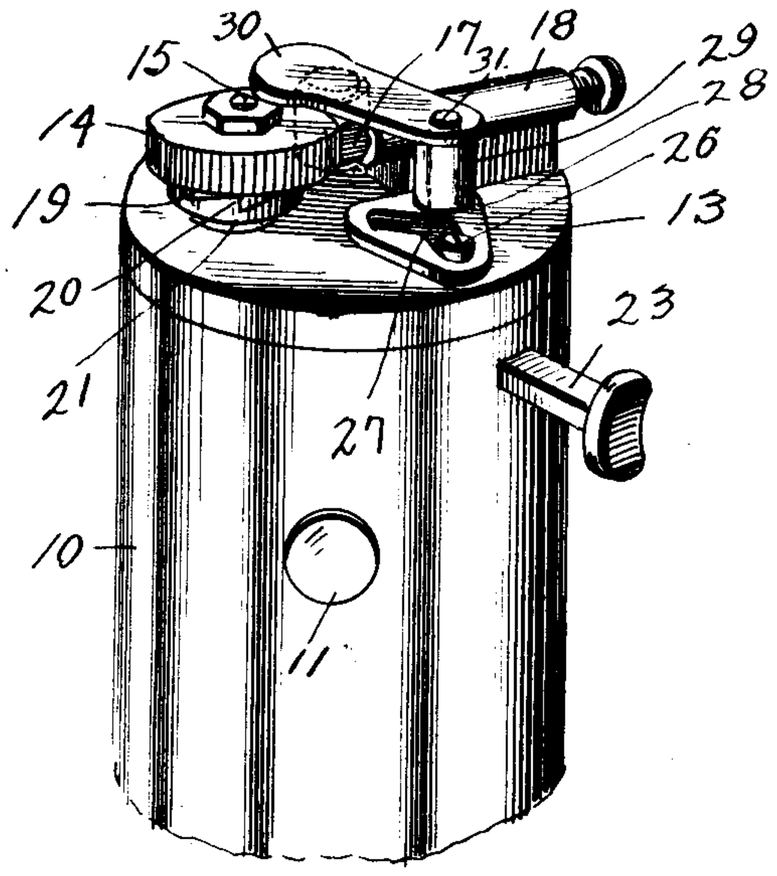



Fig. 2.

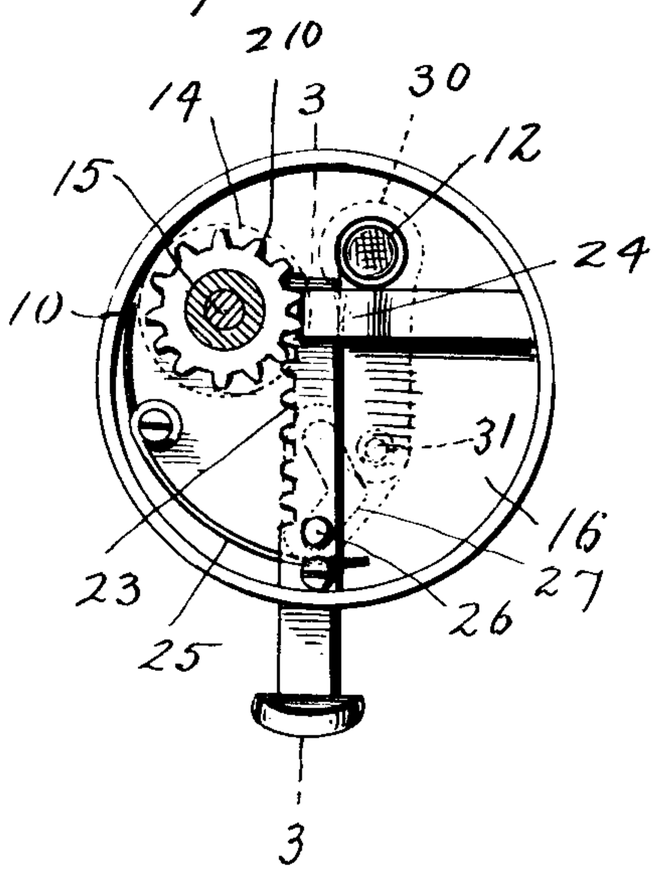
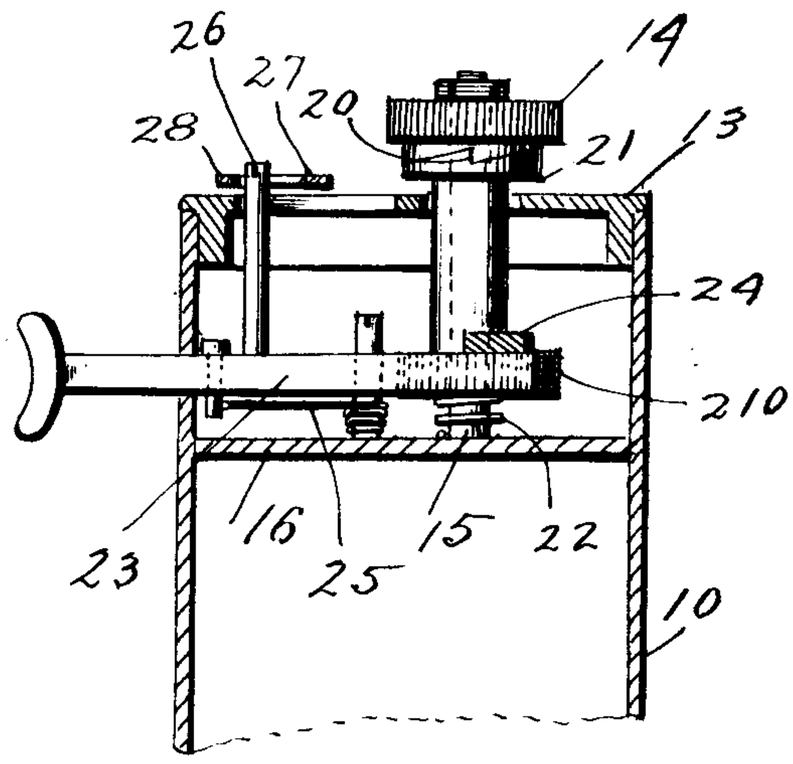



Fig. 3.




Witnesses

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# UNITED STATES PATENT OFFICE.

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## CIGAR-LIGHTER.

1,167,089. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed March 18, 1915. Serial No. 15,310.

*To all whom it may concern:*

Be it known that I, MICHAEL MCANENY, a citizen of the United States, and resident of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Cigar-Lighters, and do hereby declare that the following is a full, clear, and exact description thereof.

The object of my invention is to provide a self-contained frame-producing device especially adapted for cigar lighting of the type having a spark-producing mechanism in the form of a rotary abrading disk and a body of pyrophorous alloy, or other spark-producing medium, which will be of simple and compact construction so that it will take up but little room and will be certain in its action.

Other objects and advantages of my invention will appear hereinafter when the construction shown in the drawings embodying my invention is explained.

In the accompanying drawings—Figure 1 is a perspective view of a cigar lighter embodying my invention; Fig. 2 is a top plan view with the casing top removed, parts being shown in section for better illustration; Fig. 3 a detail view in vertical section on the line 3—3 of Fig. 2.

In its simplest and most compact form the mechanism embodying my invention is contained in a casing 10 of cylindrical, or tubular form that may be attached at its lower end to any desirable form of support, such as a tray, for example, so that its general shape, or appearance would be that of a candle and a candle stick. Below, but near the top of the tubular casing, is a horizontal diaphragm, or partition which provides below it a receptacle for some readily inflammable fluid, such as alcohol, or gasolene, a filling opening closed with a removable plug 11 being provided, and above such diaphragm is a chamber that contains the operating mechanism, and through such chamber passes a wick tube 12 that emerges above the top, or cover 13 of the casing.

Contiguous to the wick tube above the casing top is an igniting, or spark-producing device in the form of an abrading or file wheel 14 mounted to turn freely on the upper end of a stud shaft, or post 15 extending upward through the chamber from the partition 16, and protruding above the casing cover. The periphery of the file wheel is engaged by a block or plug 17, of the well known pyrophorous alloy, which is contained in a tube 18 attached to and supported on the top of the casing cover and which, as customary, contains a spring whose tension may be adjusted by a screw for forcing the block, or plug in proper frictional contact with the file wheel. On its underside the file disk has ratchet teeth 19 adapted to be engaged by ratchet teeth 20 on a collar 21, slidably and rotatably mounted on the stud shaft and pressed yieldingly upward into engagement with the ratchet teeth on the underside of the disk by a coil spring 22, so that when the collar is revolved in one direction it will revolve the file wheel, and when revolved in the opposite direction the teeth will slip out of engagement with the ratchet teeth on the file wheel. The collar in fact is a pinion, the teeth 210 of which mesh with a rack bar 23, slidably mounted in said chamber passing therefrom to the outside of the casing through a hole which forms one guide for it and within the chamber engaging a guide lug 24 on the inside of the casing. The rack bar has a head or shape for engagement by the thumb so by pressing inward thereon the rack bar will be moved inward and the pinion revolved with the result that thereby the file wheel will be revolved with the desired degree of rapidity to produce the spark. It will thus be seen that the revolution of the file wheel to cause the spark is produced by the direct action of the thumb-pressed rack bar. I have found that it is possible to thus get the desired rotation of the file wheel without the employment of a spring, such as heretofore has been considered necessary. A light spring 25 is provided to return the rack bar to its outwardly projected position after a spark-producing operation. The rack bar within the chamber has a vertically extending stud, or projection 26 upon its upper side which fits in a radially extending slot in the casing cover, and by engagement with a V-shape cam slot 27 in a plate 28 that is connected to a hollow shaft 29 rocks the latter, and thereby swings a snuffer plate 30 to uncover or cover the wick, in one case allowing the ignition of the latter and in the other case to extinguish it. The hollow shaft 29 is mounted on a stud 31 projecting from the top of the casing.

By the elimination of the spring as a result of the direct operation of the file wheel with the rack bar, the structure is simplified in respect to the number of its parts and the noise from the action of a spring and wear of the ratchet teeth due to their violent contact from the spring action, are eliminated.

It will be seen that my device besides its utility as a cigar lighter may be used as an illuminating device, and if desired a detent or dog may be provided to engage with the push device to hold it in its light-producing position and thereby prevent the automatic snuffing of the light.

Having thus described my invention what I claim is—

1. In a light-producing device, the combination of an elongated casing, spark-producing members supported by said casing at one end thereof, a wick contiguous to the spark-producing members, said spark-producing members including a file wheel, a collar concentric with the file wheel, a clutch device to connect the collar and the file wheel, a pinion on the collar, a reciprocable push bar adapted to actuate said pinion and extending transversely of the casing and protruding to the outside thereof near the casing end where the spark-producing members and the wick are located and in position for finger contact of the hand grasping the elongated casing, a snuffer plate pivoted to the casing on an axis parallel with the file wheel axis and adapted to swing laterally to cover and uncover the wick, a pin and slot connection between the push bar and the snuffer plate, and a spring acting upon said bar to press and hold it yieldingly outward and normally to hold the snuffer plate over the wick.

2. In a light-producing device, the combination of a portable casing adapted to be held in the hand, spark-producing members situated on the outer end of the casing, a wick contiguous to the spark-producing members, a snuffer plate pivoted upon the outer end of the casing and adapted to swing laterally to cover and uncover the wick, an operating push bar extending within the casing, means for connecting the portion of the said bar within the casing operatively with one of said spark-producing members, a pin and slot connection between said bar and said snuffer plate, and a spring within the casing acting upon said bar to press and hold it yieldingly outward.

3. In a light-producing device, the combination of an elongated casing, spark-producing members supported by said casing at one end thereof, a wick contiguous to the spark-producing members, said spark-producing members including a file wheel, a collar concentric with the file wheel, a clutch device to connect the collar and the file wheel, a pinion on the collar, a post upon which said collar, pinion, and file wheel are mounted to revolve, a reciprocable push bar having rack teeth meshing with the pinion and extending transversely of the casing and protruding to the outside thereof near the casing end where the spark-producing members and the wick are located and in position for finger contact of the hand grasping the elongated casing, and a movable snuffer plate actuated by said reciprocable push bar.

In testimony that I claim the foregoing I have hereunto set my hand.

MICHAEL McANENY.

Witnesses:
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