F. H. LEWIS.

CIGAR LIGHTING APPLIANCE.

APPLICATION FILED MAR. 29, 1913.

1,069,621.

Patented Aug. 5, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

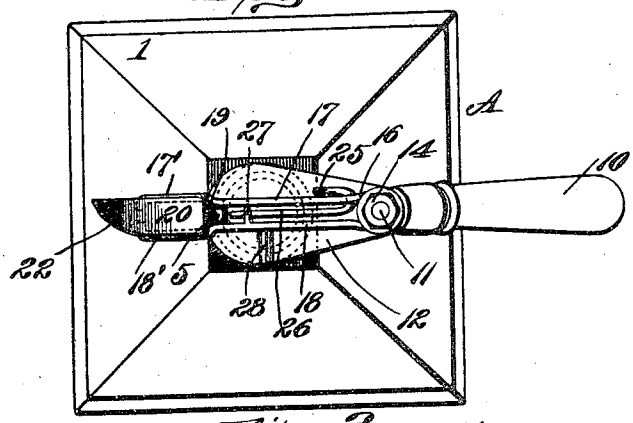


Fig. 2.

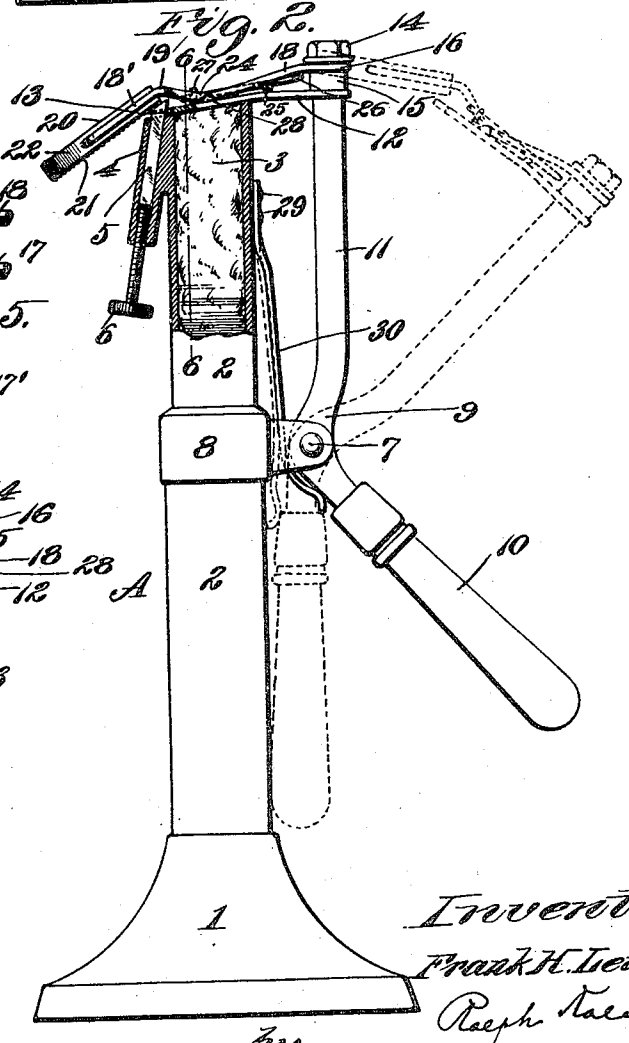


Fig. 3.

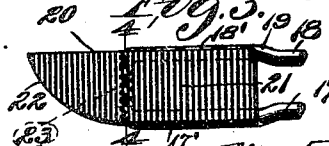
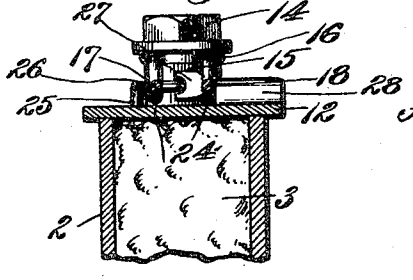


Fig. 4.

Fig. 5.

Fig. 6.



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2 SHEETS—SHEET 2.

Fig. 7.

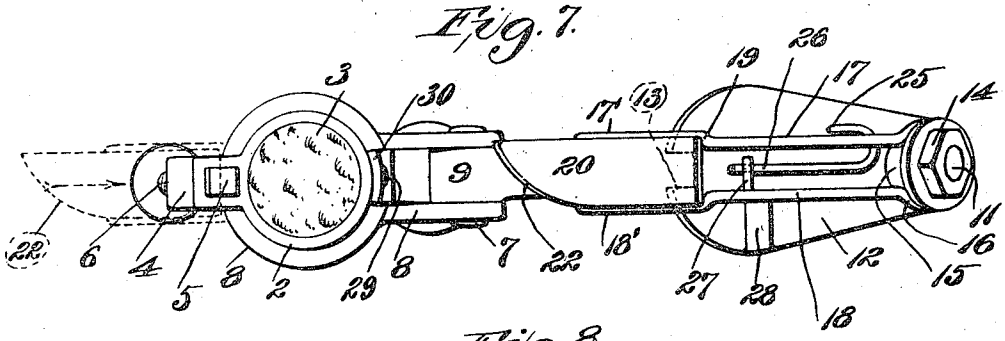


Fig. 8.

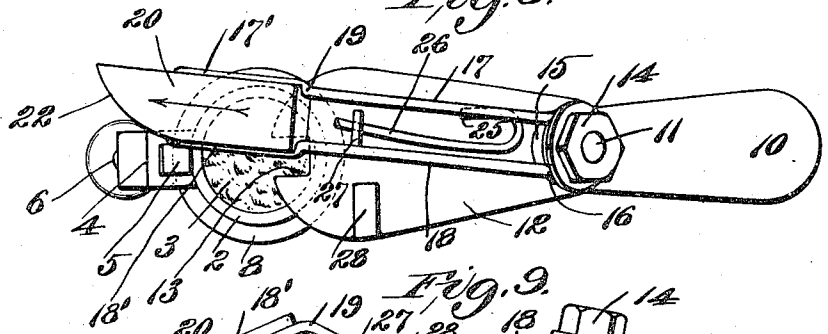
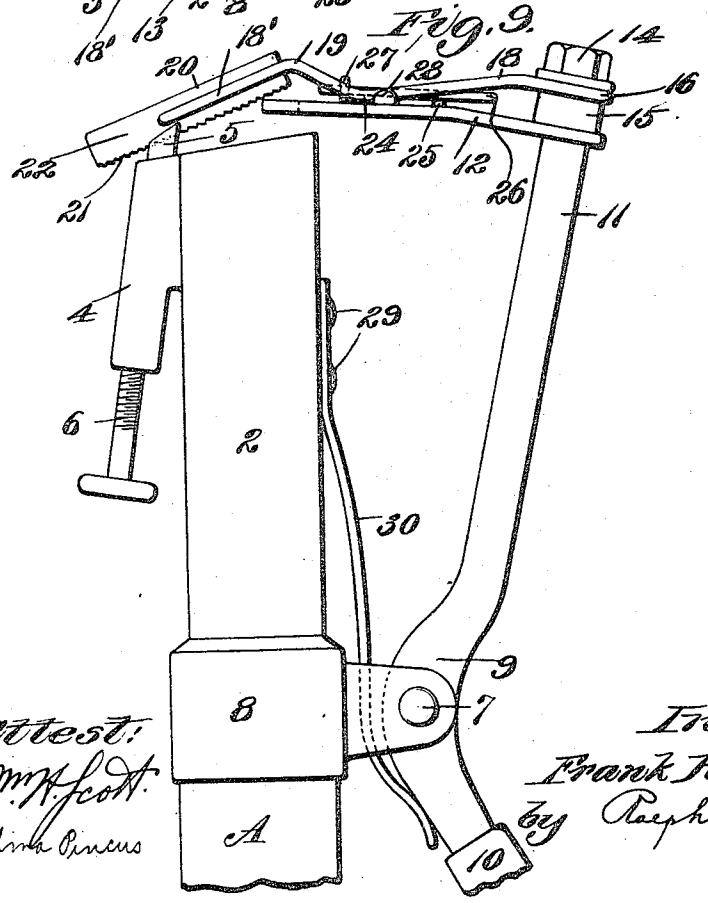


Fig. 9.



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UNITED STATES PATENT OFFICE.

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CIGAR-LIGHTING APPLIANCE.

1,069,621. Specification of Letters Patent. Patented Aug. 5, 1913.

Application filed March 28, 1913. Serial No. 757,568.

To all whom it may concern:

Be it known that I, FRANK H. LEWIS, a citizen of the United States, residing at Hillsboro, county of Montgomery, and State of Illinois, have invented certain new and useful Improvements in Cigar-Lighting Appliances, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to certain new and useful improvements in appliances particularly adapted for lighting cigars, cigarettes, and the like, the objects of my invention being to provide a lighting appliance for the purposes stated comprising a suitable sparking alloy or metal, an ignitible element or wick in proximity thereto, and a movable scratching-member or element adapted to be frictionally drawn over, and thereby spark, the sparking-alloy or metal, the sparks so produced falling upon and igniting the ignitible element or wick; to provide a lighting appliance of the kind stated of safe, reliable, and comparatively simple construction; to provide a lighting appliance of the kind stated in which the wick or ignitible element may be quickly and easily ignited and afterward automatically extinguished; to provide a lighting appliance of the kind stated in which the ignitible element or wick is normally covered and protected from the surrounding atmosphere and oxidation thereof, and also evaporation of its combustible fuel, prevented or retarded; to provide a lighting appliance of the kind stated in which there is an economical use of the sparking-alloy or metal, waste thereof being obviated; and to improve generally upon lighting appliances of the kind described.

With these and other objects in view, my invention resides in certain novel features of construction, arrangement and combination of parts, all as will hereinafter be described and afterward pointed out in the claims.

In the accompanying drawings Figure 1 is a top plan view of my new cigar lighting appliance; Fig. 2 is a side elevational view of the same, partly in section; Fig. 3 is an enlarged bottom plan view of the sparking-metal scratching element, showing also a portion of its holder or carrier; Fig. 4 is a detail sectional view of the scratching element on approximately line 4—4, Fig. 3; Fig. 5 is a rear end view of the scratching element; Fig. 6 is a detail sectional view, somewhat enlarged, on approximately line 6—6, Fig. 2; Fig. 7 is an enlarged plan view of my new cigar lighting appliance, showing the scratching element and its associate parts in outermost position, the scratching element having frictionally passed over or scratched the spark-producing alloy or metal to ignite the ignitible element or wick; Fig. 8 is an enlarged plan view of my new cigar lighting apparatus, showing the scratching element and its associate parts as when returning to normal or closed position; and Fig. 9 is an enlarged side elevational view of my new cigar lighting apparatus, similarly showing the scratching element and its associate parts as when returning to normal or closed position.

In the said drawings, A indicates the body-portion of my new lighting appliance, which is preferably of any suitable metallic material and comprises a base portion 1 adapted to rest upon and, if desired, to be fixed to, any suitable supporting surface, and an upstanding preferably tubular casing or shell 2 open and somewhat obliquely cut away forwardly at its upper end and in which is normally contained a suitable quantity of any suitable combustible fluid or liquid hydro-carbon, such as gasolene, benzin, alcohol, or the like, and a suitable ignitible element, or wick, such as absorbent cotton or the like 3, as shown particularly in Fig. 2. At its upper end, as shown particularly in Figs. 2 and 9, shell or casing 2 is suitably provided with a somewhat obliquely downwardly and outwardly extending sparking metal casing or holder 4 adapted to receive and slidably support a renewable stick or piece of any suitable spark-producing alloy or metal 5. Threaded into holder or casing 4 at its lower end, is an adjusting screw 6 adapted to slidably adjust or push metal stick 5 in holder 4 to project its upper end outwardly thereof and in proximity to wick or cotton 3.

Pivoted, as by means of a rivet, bolt, or the like 7, upon an eared-collar or the like 8 suitably fixed upon shell 2 preferably midway its length, as shown in Figs. 2 and 9, is a double lever 9 comprising a preferably obliquely rearwardly extending arm or op-

erating handle 10 and an upwardly-disposed arm 11.

Preferably fixed at its rear end upon lever arm 11 adjacent the upper end thereof, is a forwardly disposed or projecting member or plate 12 preferably enlarged and downwardly inclined at its forward end and being adapted, when in normal position, to flatwise extend over and close the open upper end of shell 2, as shown particularly in Fig. 2, plate 12 being centrally provided at its forward end with a cut-out portion or recess, as at 13, adapted to receive the projecting end of metal-stick 5 when in such normal position. Loosely fitting upon the upper end of lever arm 11 above plate 12 and suitably secured thereon, as by means of a threaded nut or the like 14, is a collar 15.

Formed preferably of a single strip or piece of spring wire doubled or looped midway its ends around, and soldered or otherwise suitably fixed to, collar 15, is a member or carrier 16 having its end portions presented forwardly and forming a pair of coöperating arms 17 and 18. Arms 17 and 18 are of such a length as to extend normally some distance forwardly beyond holder 4 and its supported metal stick 5 and, at a point, as at 19, lying approximately immediately above metal stick 5 when arms 17 and 18 are in normal position, are bent to provide obliquely downwardly-disposed end portions 17′ and 18′, respectively. Engaged preferably at its sides and carried by said arm portions 17′ and 18′, is an elongated sparking-metal scratching member or element 20 preferably of steel or other hard metal and provided transversely on its under face with a series of file or saw teeth or serrations 21. At its forward end, this member 20 is cut away to provide a cam surface or face, as at 22, for purposes hereinafter appearing. Preferably member 20 is also cut-away at its sides to provide longitudinal grooves or recesses to receive the projecting ends 17′ and 18′ of said carrier arms 17 and 18, which at their immediate forward ends may be bent inwardly to oppositely fit into a suitable transverse opening or groove 23 provided in member 20 or be otherwise suitably secured thereto. As shown particularly in Fig. 2, member 20 is of such length and is so carried by arms 17 and 18 that, when in normal position, its rear end is approximately just above and in contact with the upper face of the projecting end of metal stick 5. Between said point of bending 19 and lever arm 11, carrier arms 17 and 18 are gradually bent downwardly, as at 24, to contact with, and as hereinafter appearing, to ride upon, the upper face of plate 12.

Fixed to, and upon the upper face of, plate 12, as at 25, is a forwardly projecting spring member 26 adapted at its forward end to bear or press outwardly against a small lug or the like 27 fixed on arm 18. Also fixed to, and upon the upper face of, plate 12 and lying to the outer side of arm 18, is a small stop or abutment 28 adapted to limit the pivotal movement of carrier 16 under the resiliency of spring 26.

Fixed, as at 29, to shell 2 is a downwardly presented leaf or other suitable spring member 30 adapted at its lower end to engage with lever 9 to resiliently hold the same and its carried parts in normal position, or in the position thereof as shown by full lines in Fig. 2.

In operation, on lever-handle 10 being forwardly depressed against the resiliency of spring 30, lever arm 11 will be moved rearwardly, as shown by dotted lines in Fig. 2, carrying therewith plate 12 and thereby exposing ignitible element or cotton 3. In this movement of lever arm 11, scratcher 20 will also be rearwardly moved and flatwise drawn obliquely across, with its teeth 21 in frictional engagement with, the projecting end of sparking-stick 5, thereby producing a multiplicity of sparks in quick succession, which, falling upon ignitible element or cotton 3, ignite the same. Lever 9 is then manually held in such outermost position with cotton 3 so ignited for use, such as cigar lighting or other purpose. On lever handle 10 being released, lever arm 11 will, under the resiliency of spring 30, return to normal position. In returning to such normal position, however, cam face 22 of scratcher 20 will engage with and ride upon the projecting end of sparking-metal 5, as shown particularly in Fig. 8, scratcher 20 and its carrier 16 being thereby sidewise moved against the resiliency of spring 26 and teeth 21 of scratcher 20 thus prevented from frictionally engaging with and wasting sparking-metal 5 on the returning movement of scratcher 20 to normal position. After cam-face 22 has passed out of engagement with the end of sparking-metal 5, scratcher 20 and its carrier 16 will, under the pressure of spring 26, be returned to normal position, or to the position thereof shown in Fig. 1, with carrier-arm 18 resting against limiting-stop or abutment 28 and the rear end or portion of scratcher 20 directly over the projecting end of stick 5, as shown particularly in Fig. 2. On lever arm 11 returning to its normal position, plate 12 will also be now slidably moved forwardly over the open end of shell 2 and thereby automatically extinguish the flame of ignitible element or cotton 3, the projecting end of sparking-metal 5, on the engagement therewith of the rear wall of recess 13, limiting the forward movement of lever 9 and its carried parts. It will be obvious that sparking-metal 5 may be readily and quickly renewed whenever occasion should require, and that, when plate 12 is in normal position

closing the open upper end of shell 2, ignitible element 3 will be protected thereby and oxidation thereof and evaporation of the combustible fluid in shell 2 prevented or retarded.

I am aware that minor changes in the construction, arrangement, and combination of the several parts of my new lighting appliance may be made and substituted for those herein shown and described without departing from the nature and principle of my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In a lighting appliance, a shell open at one end, an ignitible element in the open end of said shell, a spark-producing element supported on said shell with an end thereof projecting in proximity to said ignitible element, a lever pivoted on said shell, and a scratcher carried by said lever and adapted, on said lever being operated out of normal position, to be flatwise drawn over the projecting end of said spark-producing element to ignite said ignitible element and, on said lever being returned to normal position, to be moved by the projecting end of said spark-producing element out of operative sparking-engagement therewith; substantially as described.

2. In a lighting appliance, a shell open at one end, an ignitible element in the open end of said shell, a spark-producing element supported on said shell with an end thereof projecting in proximity to said ignitible element, a lever pivoted on said shell, a scratcher-carrier pivoted on said lever, and a scratcher carried by said carrier, said scratcher being adapted, on said lever being operated out of normal position, to be drawn over the projecting end of said spark-producing element to ignite said ignitible element and, on said lever being returned to normal position, to be pivotally moved by the projecting end of said spark-producing element out of operative sparking-engagement therewith; substantially as described.

3. In a lighting appliance, a shell open at one end, an ignitible element in the open end of said shell, a spark-producing element supported on said shell with an end thereof projecting in proximity to said ignitible element, a lever pivoted on said shell, a scratcher-carrier pivoted on said lever, and a scratcher having a cam-surface at its forward end carried by said carrier, said scratcher being adapted, on said lever being operated out of normal position, to be drawn over the projecting end of said spark-producing element to ignite said ignitible element and the cam-surface thereof being adapted, on said lever being returned to normal position, to engage with and ride upon the projecting end of said spark-producing element to pivotally move said scratcher out of operative sparking-engagement therewith; substantially as described.

4. In a lighting appliance, a shell open at one end, an ignitible element in the open end of said shell, a spark-producing element supported on said shell with an end thereof projecting in proximity to said ignitible element, a lever pivoted on said shell, a plate-member fixed on said lever, a scratcher-carrier pivoted on said lever above said plate-member, a scratcher having a cam-surface at its forward end carried by said carrier, and a spring on said plate-member and engaging with said carrier to resiliently hold the same and its carried scratcher in normal position, said scratcher being adapted, on said lever being operated out of normal position, to be drawn over the projecting end of said spark-producing element to ignite said ignitible element and the cam-surface thereof being adapted, on said lever being returned to normal position, to engage with and ride upon the projecting end of said spark-producing element to pivotally move said scratcher against the pressure of said spring out of operative sparking-engagement therewith; substantially as described.

5. In a lighting appliance, a shell open at one end, an ignitible element in the open end of said shell, a spark-producing element supported on said shell with an end thereof projecting in proximity to said ignitible element, a lever pivoted on said shell, a spring fixed on said shell and engaging with said lever to resiliently hold the same in normal position, a plate-member fixed on said lever, a scratcher-carrier pivoted on said lever above said plate-member, a scratcher having a cam-surface at its forward end carried by said carrier, and a spring on said plate-member and engaging with said carrier to resiliently hold the same and its carried scratcher in normal position, said scratcher being adapted, on said lever being depressed out of normal position, to be drawn over the projecting end of said spark-producing element to ignite said ignitible element and the cam-surface thereof being adapted, on said lever being returned by said first spring to normal position, to engage with and ride upon the projecting end of said spark-producing element to pivotally move said scratcher against the pressure of said second spring out of operative sparking-engagement therewith; substantially as described.

6. In a lighting appliance, a shell open at one end, an ignitible element in the open end of said shell, a spark-producing element supported on said shell with an end thereof projecting in proximity to said ignitible element, a lever pivoted on said shell, a spring fixed on said shell and engaging with said lever to resiliently hold the same in normal position, a plate-member fixed on said lever,

a scratcher-carrier pivoted on said lever above said plate-member, a scratcher having a cam-surface at its forward end carried by said carrier, a spring on said plate-member and engaging with said carrier to resiliently hold the same and its carried scratcher in normal position, said scratcher being adapted, on said lever being depressed out of normal position, to be drawn over the projecting end of said spark-producing element to ignite said ignitible element and the cam-surface thereof being adapted, on said lever being returned by said first spring to normal position, to engage with and ride upon the projecting end of said spark-producing element to pivotally move said scratcher against the pressure of said second spring out of operative sparking-engagement therewith, and an abutment on said plate adapted to limit the returning movement of said carrier and its carried scratcher to normal position under the pressure of said second spring; substantially as described.

7. In a lighting appliance, a shell open at one end, an ignitible element in the open end of said shell, a lever pivoted on said shell, a plate-member carried by said lever, said plate-member being adapted to flatwise normally close the open end of said shell and cover said ignitible element therein and, on said lever being operated out of normal position, to be slidably moved therewith to expose said ignitible element for ignition, and a member supported on said shell and adapted to engage with said plate-member to limit the returning movement of said lever and its carried plate to normal position; substantially as described.

8. In a lighting appliance, a shell open at one end, an ignitible element in the open end of said shell, a lever pivoted on said shell, a plate-member carried by said lever and provided with a recess at its forward end, said plate-member being adapted to normally close the open end of said shell and cover said ignitible element therein and, on said lever being operated out of normal position, to be moved therewith to expose said ignitible element for ignition, and a spark-producing element supported on said shell and adapted to fit in and engage with said recess to limit the returning movement of said lever and its carried plate; substantially as described.

9. In a lighting appliance, a shell, a lever pivoted on said shell, a spring-pressed scratcher pivotally carried by said lever and provided with a cam-surface at its forward end, and a spark-producing element supported on said shell with an end projecting above the upper end thereof, said scratcher being adapted, on said lever being operated out of normal position, to be drawn over the projecting end of said spark-producing element and the projecting end of said spark-producing element being adapted, on said lever being returned to normal position, to engage with said cam-surface to pivotally move said scratcher out of spark-producing engagement therewith; substantially as described.

10. In a lighting appliance, a shell, a lever pivoted on said shell, a plate-member carried by said lever, a scratcher carrier pivoted on said lever above said plate-member, a scratcher carried by said carrier and provided with a cam-surface at its forward end, a spark-producing element supported on said shell with an end projecting above the upper end thereof, said scratcher being adapted, on said lever being operated out of normal position, to be drawn over the projecting end of said spark-producing element and the projecting end of said spark-producing element being adapted, on said lever being returned to normal position, to engage with said cam-surface to pivotally move said scratcher out of spark-producing engagement therewith, and a spring-member on said plate-member resiliently engaging with said carrier to hold the same and its carried scratcher in normal position; substantially as described.

11. In a lighting appliance, a shell, a lever pivoted on said shell and extending longitudinally thereof, and a scratcher projecting from said lever over one end of said shell, said scratcher being pivotally carried by said lever and being laterally movable relatively thereto; substantially as described.

12. In a lighting appliance, a shell, a lever pivoted on said shell, a plate member carried by said lever, and a scratcher pivotally carried by said lever above said plate-member, said scratcher being sidewise movable on said plate-member relatively to said lever; substantially as described.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

FRANK H. LEWIS.

Witnesses:
W. R. POTTER,
L. G. TYLER.