(No Model.)

F. MICHL.

CIGAR LIGHTER.

No. 483,464. Patented Sept. 27, 1892.

Fig. 1.

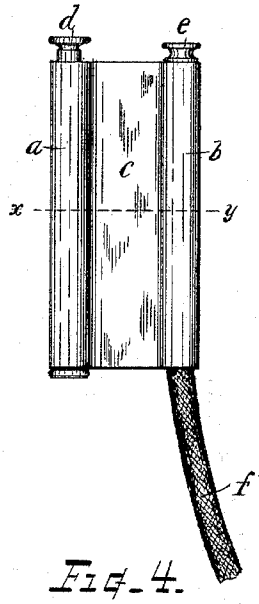


Fig. 2.

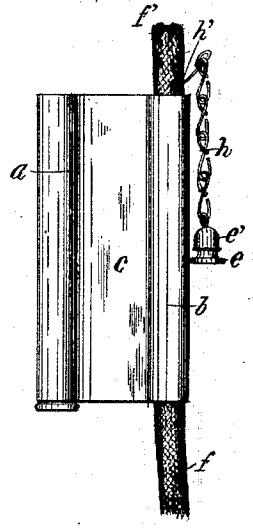


Fig. 3.

Fig. 4.

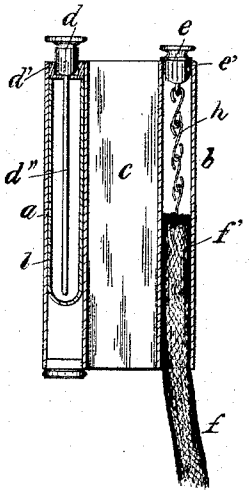
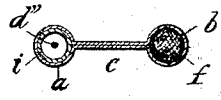


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANZ MICHL, OF NEW YORK, N. Y.

CIGAR-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 483,464, dated September 27, 1892.

Application filed October 4, 1888. Serial No. 287,232. (No model.)

To all whom it may concern:

Be it known that I, FRANZ MICHL, a subject of the Emperor of Austria-Hungary, residing at the city of New York, in the county of New York and State of New York, have invented a new and useful Improvement in Cigar-Lighters, of which the following is a specification.

The nature of the invention consists in the details of combination and construction substantially as illustrated in the drawings, hereinafter described, and subsequently pointed out in the claims.

Figure 1 is a side view of my newly-invented cigar-lighter closed and ready to carry in the pocket. Fig. 2 is a view of the same open and ready to be lighted. Fig. 3 is a view of the lighting-needle. Fig. 4 is a sectional view of my cigar-lighter, taken in the plane of the plate *c*. Fig. 5 is a transverse section of the same, taken on the line *x y* of Fig. 1.

The body of my cigar-lighter consists of two hollow cylinders *a* and *b*, which are joined together by a plate *c*, and the said plate and cylinders are all integral with each other. This body may be formed in any of the ways commonly adopted by mechanics for such purpose; but I prefer to cast it all in one piece. It may be made of any convenient and proper material; but I prefer to make it of soft metal, from which the castings may be easily made and afterward finished in imitation of silver in any common and well-known way.

In the cylinder *b* is placed a cotton cord *f f'*. In one end of this cylinder fits the shank *e'* of the head *e*. This head *e* is attached by the chain *h* and hook *h'* to the end of the cotton cord *f f'*, so that if the operator pulls the head *e* the end *f'* of the cord will be drawn out of the cylinder *b*, as illustrated in Fig. 2, or if the end *f* of the cord be pulled the shank *e'* of the head *e* will be drawn into the end of the cylinder, as illustrated in Fig. 4.

Within the cylinder *a* is fixed a bottle *i*, preferably made of glass. Within this bottle is contained a quantity of an alloy composed of sodium, potassium, and zinc. The shank *d'* of the head *d* fits into the top of the cylinder *a*. A needle *d''*, attached to the head *d*, projects downward into the bottle *i*, and may, together with the head *d*, be taken out and put in at pleasure.

To prepare the said alloy, I mix together about equal proportions of sodium, potassium, and pulverized zinc. These I then subject to heat in a proper vessel until the alloy becomes of a very light whitish-gray color. Then as soon as it is cold the alloy would be fit to put into the bottle *i* for use.

To use my invention, the cord *f f'* is drawn out into the position illustrated in Fig. 2. The needle *d''*, having been placed in the alloy in the bottle *i*, as illustrated in Fig. 4, being now drawn out, will have some of the alloy sticking upon its sides. That part of the needle to which the alloy sticks is then drawn across the end *f'* of the cord. At once that end of the cord takes fire and from it a cigar or pipe may be easily lighted. When the cord is pulled back into the cylinder, as illustrated in Fig. 4, the fire will be extinguished and the needle being replaced in the bottle *i*, as also illustrated in said Fig. 4, the lighter is ready to be carried in the pocket, forming a very practicable, durable, and economical cigar-lighter.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A lighter comprising two connected parallel tubes or cylinders open at their ends, a bottle within one cylinder, provided with a stopper having a needle, and a cord or wick passing into the other tube, and means for withdrawing the said cord or wick, substantially as set forth.

2. A lighter comprising two tubes or cylinders open at their ends and an intervening plate connecting the same and integral therewith, a cord or wick movable through one of the tubes, a head or stopper for said cylinder provided with a chain connected to the cord or wick, and a bottle in the other tube or cylinder, having a stopper provided with a needle, substantially as set forth.

3. A lighter comprising two connected parallel open-ended tubes or cylinders, a cord or wick in one tube, a head or stopper connected

with the cord or wick to close said tube, a bottle in the other cylinder, containing a finely-comminuted igniting-paste, and a stopper for the bottle, having a needle for withdrawing a portion of said paste and rubbing it on the cord or wick to ignite the same, substantially as set forth.

In witness whereof I hereunto set my hand in presence of two witnesses.

FRANZ MICHL.

Witnesses:
FREDK. W. RUBIEN,
C. E. MCDONALD.