

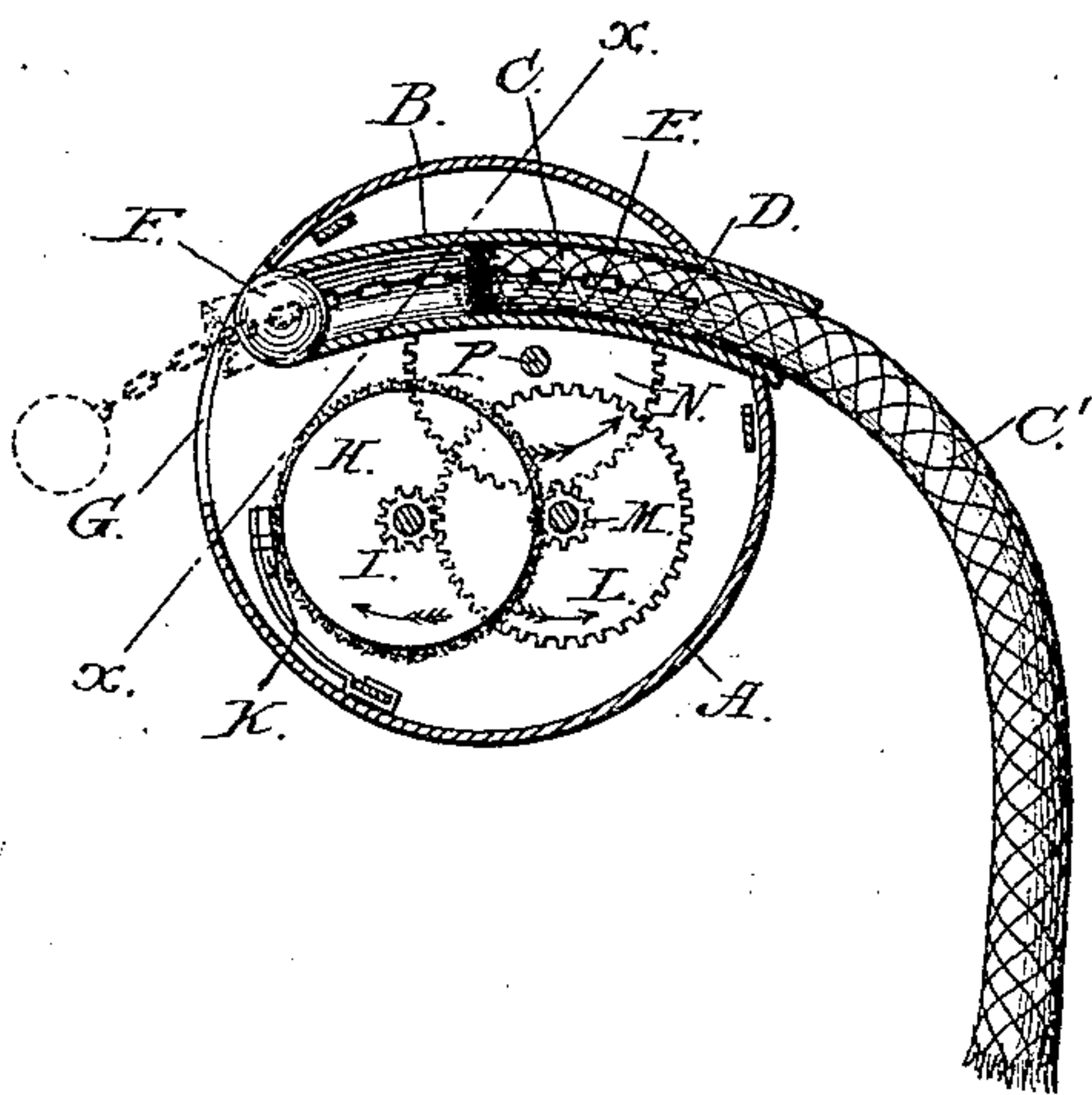
(No Model.)

C. W. WEISS.  
POCKET CIGAR LIGHTER.

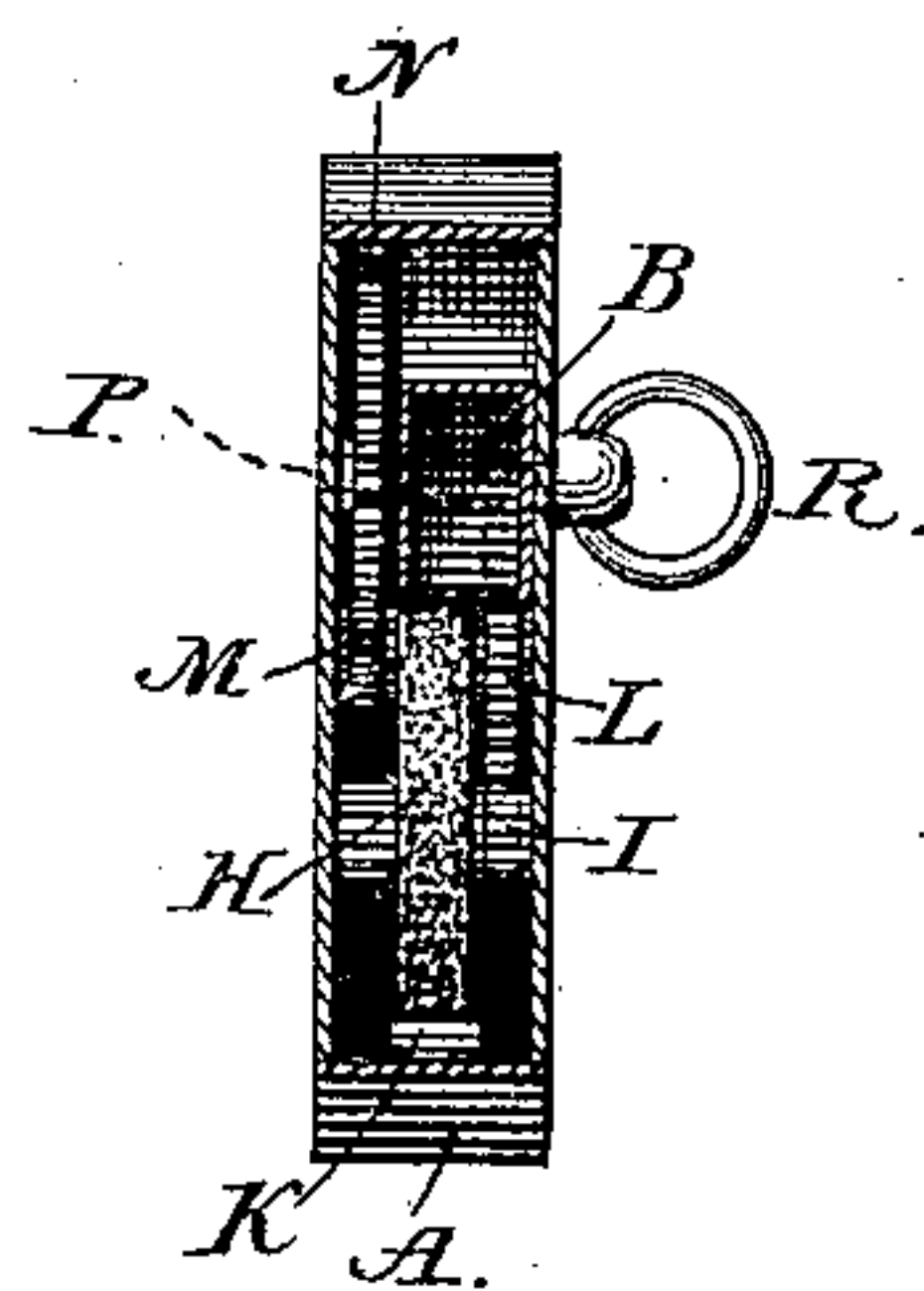
No. 356,513.

Patented Jan. 25, 1887.

*Fig. 1.*



*Fig. 2.*



*Attest:*

*John A. Ellis.*  
*A. J. Jesbera.*

*Inventor:*

*Charles W. Weiss*  
*By David A. Burr*  
*Atty.*

# UNITED STATES PATENT OFFICE.

CHARLES W. WEISS, OF BROOKLYN, NEW YORK.

## POCKET CIGAR-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 356,513, dated January 25, 1887.

Application filed June 1, 1886. Serial No. 203,732. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES W. WEISS, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful  
5 Improvement in Pocket Cigar-Lighters; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon,  
10 making a part of this specification, in which—

Figure 1 is a sectional view of my improved cigar-lighter in line *yy* of Fig. 2, and Fig. 2 a transverse section in line *xx* of Fig. 1.

My invention relates to that class of pocket  
15 cigar-lighters in which a prepared wick or cord of tinder is ignited by a spark generated in the apparatus.

The object of my invention is to provide a simple, cheap, and efficient device in which  
20 the tinder supplied in the customary manner is ignited at will by means of sparks flying from the frictional contact of a fixed piece of steel with a rotary emery-wheel.

In the accompanying drawings, A represents the metallic case of my cigar-lighter, constructed in the usual manner, to inclose and afford suitable support for its movements. Within this case a tubular receptacle, B, is fitted to receive the wick or tinder C. The  
30 ends of the tube extend to the periphery of the case, and are open, so that the wick C may be passed through it. A slender hook, D, attached to a chain, E, whose outer end carries a button, F, of a diameter slightly larger than  
35 the mouth of the tube B, is made to engage the forward end of the wick, whereby when this end of the wick is drawn into the tube the button will be made to close the mouth thereof, as shown in Fig. 1, and, remaining there, will  
40 furnish a ready means by which the end of the wick may be drawn out again for ignition.

An opening, G, is formed in the periphery of the case A, immediately in front of the mouth or forward end of the wick-tube B, and  
45 an emery-wheel, H, is mounted to rotate within the case upon a suitable spindle or arbor, whose ends find their bearings in the two side plates of the case in such position that the periphery of the wheel shall be immediately beneath the  
50 opening G and in front of the mouth of the wick-tube, as is illustrated in Fig. 1.

A plate of spring-steel, K, is made fast to the inner side of the periphery of the case, to rest and bear with an elastic pressure upon the periphery of the wheel in front of the  
55 opening G.

The arbor of the emery-wheel H is provided with a small pinion, I, secured thereto, which meshes into a train of toothed wheels, L M N, of which the third, N, is secured upon an axle  
60 or spindle, P, which, projecting through the side of the case, is fitted exteriorly with a crank or equivalent ring, R, by which the spindle may be readily rotated. The train L M N is so geared as to multiply greatly the  
65 speed of each successive wheel, and the emery-wheel H is thereby made to turn at the rate of one hundred or more revolutions per minute by a comparatively slow rotation of the spindle P by means of the ring R. It is evi-  
70 dent that additional wheels may be added to the train, if desired, to increase the velocity of the wheel H.

The rotation of the crank or ring R from left to right will cause the emery-wheel to rotate at its high speed toward the wick C, and  
75 by contact with the steel plate K will cause a stream of sparks to fly from the steel against the end of the wick C, drawn out from the mouth of the tube B by means of the button F  
80 to receive them. The sparks caught upon the wick will ignite it, and the burning wick may then be used for lighting the cigar. To extinguish the wick it is only necessary to draw its burning end back into the tube B, which  
85 may be readily done by pulling out the portion, C', of wick projecting from the opposite end of said tube.

My device is thus constructed of few and simple parts, viz: a suitable case, A; a train  
90 of three or more toothed wheels and pinions geared to rapidly multiply their speed and inclosed in the case; a crank or ring, R, outside of the case, secured to the end of the master-spindle P, carrying the first wheel, N, in the  
95 train; an emery-wheel, H, upon the shaft or spindle of the last pinion, I, in the train; a bit of elastic steel, K, made fast to bear upon the emery-wheel opposite an opening, G, in the periphery of the case, and a wick, C, con-  
100 tained in a wick-receptacle, B, whose mouth is opposite the opening in the case.



I claim as my invention—

1. The combination, in a cigar-lighter, with  
a suitable case therefor, of an emery-wheel, a  
steel plate in contact therewith, a train of  
5 geared wheels actuating the same, and a crank  
or ring outside the case for driving said wheels,  
to produce thereby a rapid rotation of the  
emery-wheel in contact with the steel and a  
consequent emission of sparks from the latter,  
10 substantially in the manner and for the pur-  
pose herein set forth.

2. The combination, in a cigar-lighter, of a  
train of geared wheels and pinions and a suit-  
able case inclosing the same, a crank or ring  
15 upon the outer end of the arbor of the master-  
wheel in the train, an emery-wheel fixed upon  
the arbor or spindle on the last pinion in the

train, a piece of steel held in contact with the  
periphery of the emery-wheel beneath an open-  
ing in the case, and a receptacle for tinder, se- 20  
cured upon the case with its mouth opposite  
the opening, whereby a revolution of the  
emery-wheel produced by the turning of the  
crank or ring will cause sparks to fly from the  
steel toward the mouth of the tinder-recepta- 25  
cle, substantially in the manner and for the  
purpose herein set forth.

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

CHAS. W. WEISS.

Witnesses:

S. A. STARUS,  
A. N. JESBERA.