

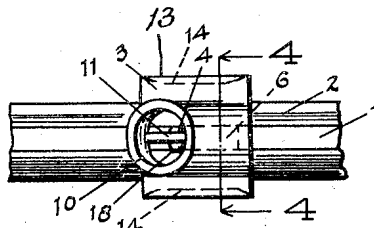
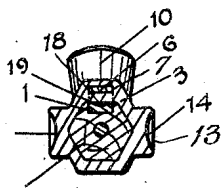
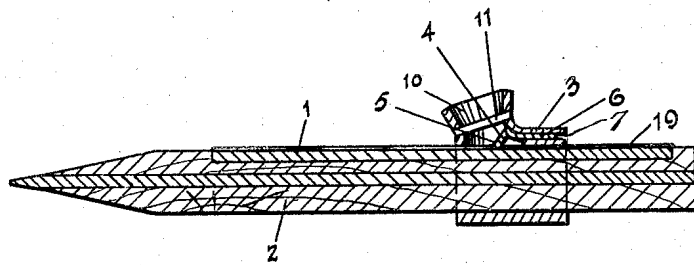
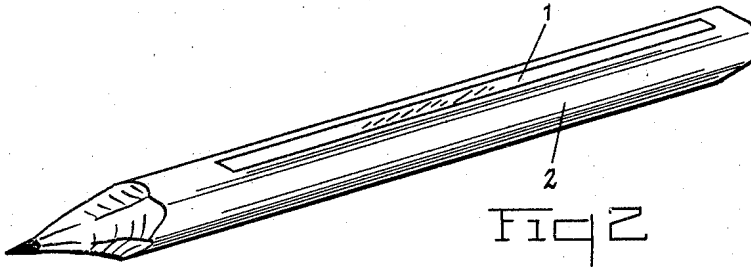
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H. A. MYERS

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LIGHTER

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Inventor

Hubert A. Myers

By Faust F. Crumpton

Attorney

UNITED STATES PATENT OFFICE

HUBERT A. MYERS, OF TOLEDO, OHIO

LIGHTER

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My invention has for its object to provide a simple and efficient lighter for lighting material, such as tobacco, particularly made up in the form of cigars and cigarettes. The invention particularly provides a linear strip of a spark producing composition and means for supporting a scraping or abrading element in contact therewith, whereby particles of the spark producing composition may be struck from, or shaved from, the strip to produce a stream of sparks of sufficient volume and temperature to ignite materials such as tobacco.

Constructions containing the invention may be varied in their form and, to illustrate a practical application, I have selected a lighter as an example of the various embodiments of my invention and shall describe it hereinafter. The lighter selected is shown in the accompanying drawings.

Fig. 1 is a longitudinal sectional view of the lighter referred to. Fig. 2 illustrates a perspective view of the sparker strip, or bar, used in the lighter and of its supporting member. Fig. 3 is a top view of a part of the lighter. Fig. 4 is a view of a section taken on the plane of the line 4-4 indicated in Fig. 3.

In the lighter shown in the figures, a spark producing composition, referred to in the art as "flint", is made in the form of a strip, or bar. The strip 1, if desired, may be secured to a suitable support. In the form of construction shown, the strip 1 is located in the side of the pencil 2. The pencil 2 may be provided with a lead feeder, of the type well known in the art, or it may have a lead core and usable up to the end of the strip 1.

An abrader or a shaving member is supported contiguous to the strip to scrape or strike particles of the strip therefrom. The abrader may be supported in a frame that surrounds the strip. In the form of lighter shown, a collar 3 is located on the pencil 2. Preferably, the pencil is hexagonal in its cross section and the collar has an inner hexagonal surface which prevents rotation of the collar 3 relative to the pencil 2. A blade 4 is located within the collar and in a position such that it will be inclined to the surface of

the strip 1, as shown in Fig. 1. The blade 4 has a sharp chiseled edge 5, which, by reason of the angle at which the blade 4 is located relative to the surface of the strip 1, movement of the blade relative to the strip will maintain the edge 5 sharp.

The blade 4 is, preferably, spring pressed to press the edge against the strip 1. In order to spring press the edge of the blade against the strip 1, it is formed of elastic, thin sheet steel and has a tongue 6 that extends from the blade 4 substantially parallel to the surface of the strip, and is secured by being forced into a slot 7 formed in the collar 3. The tongue 6, that elastically holds the blade against the sparker composition, will be maintained in the slot 7 by reason of the position of the blade 4 relative to the bar, for when the bar is drawn relative to the collar to produce the abrasive action of the blade 4 on the bar, it produces a pressure tending to press the tongue into the slot.

As the sparks are formed by the shearing or scraping action of the blade 4, they follow the outer surface of the blade. The inclined position of the blade thus directs the stream of sparks away from the strip 1. Preferably, the blade is slightly curved which produces a better delivery of the sparks. In order to locate the end of the cigar or cigarette that it is desired to ignite in the stream of sparks or flame that is thus produced, the collar 3 is provided with a funnel 10 in which the end of the cigar or cigarette may be located. The funnel 10 is, preferably, so located, with reference to the blade, that the blade constitutes, substantially, a part of the wall of the funnel so that when an article is inserted in the funnel 10, the stream of sparks will be directed to the article. In order to limit the inward movement of the article, when inserted in the funnel, and in order to properly locate the end of the article, such as a cigar or cigarette, whereby it may be more readily lighted by the stream of sparks, it is spaced from the strip 1 the proper distance by a bar or wire 11 that extends across the funnel near its lower end. This will prevent placing the end of the cigarette too close to the strip 1.

In order to light a cigar or cigarette, one end is inserted in the mouth of the user and the other end is inserted in the funnel 10 and the collar is held between the fingers of the user. The strip is then drawn lengthwise to produce the scraping or cutting action of the blade on the surface of the strip. The sparks, that will be directed towards the end of the cigar or cigarette, will ignite the cigar or cigarette. Preferably, the collar 3 is provided with a pair of bosses 13 having recessed portions 14 which enables the user to tightly grip the collar between the thumb and one of the fingers of the hand so as to hold the collar firmly in position when the pencil is being drawn through the collar.

If desired, the strip 1 and the blade 4 may be maintained in their relation and guided in their relative movements by the point 18 that may be formed in the edge of the blade. This soon forms and maintains a groove 19 in the surface of the strip. Preferably, the strip is formed to have the groove when molded.

I claim:

1. In a lighter, an elongated holder member, a pyrophoric strip, the pyrophoric strip being secured to one side of the holder member, a collar substantially fitting around the holder member and pyrophoric strip, a steel blade mounted on the collar for engaging the pyrophoric strip, the collar having a boss, the boss having a recess for receiving the article to be ignited and locating it at the end of the steel blade.

2. In a lighter, an elongated holder member, a pyrophoric strip, the pyrophoric strip being secured to one side of the holder member, a collar substantially fitting around the holder member and pyrophoric strip, a steel blade mounted on the collar for engaging the pyrophoric strip, the collar having a boss, the boss having a recess for receiving the article to be ignited, a stop extending into the recess to locate the article to be ignited in proximity to the end edge of the blade.

3. In a lighter, an elongated holder member, a pyrophoric strip, the pyrophoric strip being secured to one side of the holder member, the pyrophoric strip having a groove, a collar substantially fitting around the holder member and pyrophoric strip, a steel blade located within the collar, the steel blade having an end portion inclined toward the surface of the pyrophoric strip, the edge of the blade being located in the groove for maintaining the collar and strip in position as the collar and the strip are moved one relative to the other, the collar having a boss, the boss having a recess for receiving the article to be ignited and located at the end of the steel blade.

4. A lighter comprising an elongated holder member, a pyrophoric strip, the pyrophoric strip being substantially the length of the holder member and secured to one side

of the holder member, a slidable member having a scraper, the scraper located to make contact with the pyrophoric strip, a recess located in the slidable member for receiving the article to be ignited and registering it in line with the sparks produced by the movement of the holder member relative to the slidable member.

In witness whereof I have hereunto signed my name to this specification.

HUBERT A. MYERS.

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