No. 851,218. PATENTED APR. 23, 1907.

C. E. BESSEL.

CIGAR LIGHTER.

APPLICATION FILED MAR. 16, 1906.

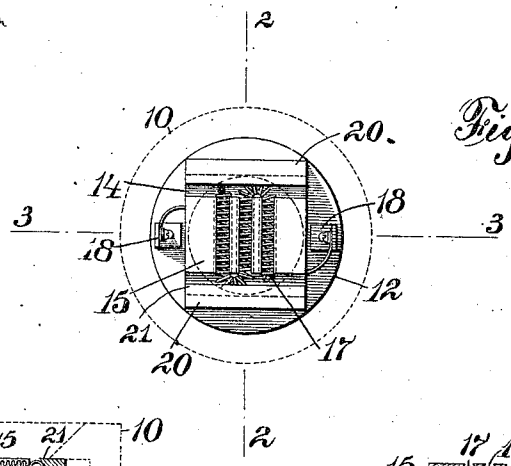


Fig. 1

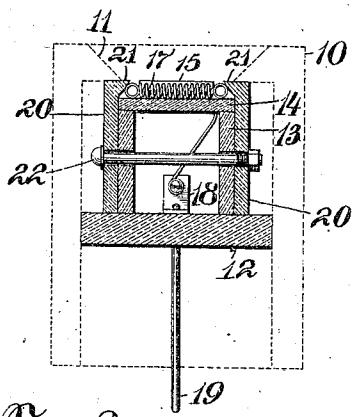


Fig. 2

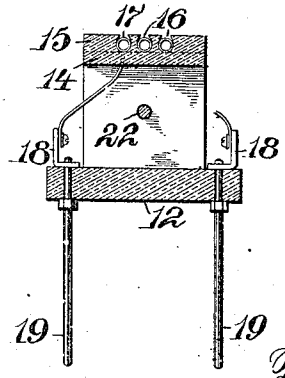


Fig. 3

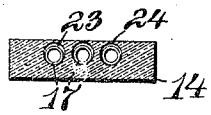


Fig. 4

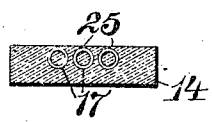


Fig. 5

WITNESSES:

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CIGAR-LIGHTER.

No. 851,218. Specification of Letters Patent. Patented April 23, 1907.

Application filed March 16, 1906. Serial No. 306,348.

To all whom it may concern:

Be it known that I, CHARLES E. BESSEL, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Cigar-Lighters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to the class of lighters that communicates heat sufficient to ignite by means of a wire of high electrical resistance that becomes incandescent when subjected to an electrical current of sufficient strength.

The invention is further designed to provide a lighter that is particularly adapted as a cigar lighter, and that has the lighting medium sunk slightly below the surface to prevent contact with the article to be lit and is further designed to provide a construction in which the lighting medium is placed to get the best results.

The invention is illustrated in the accompanying drawings, in which

Figure 1 is a plan of the lighter. Fig. 2 is a section on line 2, 2, in Fig. 1, and Fig. 3 is a section on line 3, 3, in Fig. 1. Figs. 4 and 5 are modified ways of putting the lighting wire in its supporting plate.

In the drawings 10 illustrates the end of a cigar lighter which may be of any well known construction, being shown in dotted outline, and it is provided with the tapered opening 11.

Within the cigar lighter casing is a plate 12 on which are two vertical plates 13 surmounted by a plate 14, these plates being fastened together preferably by means of cement. The plate 14 has the raised portion 15, preferably integral therewith, this raised portion being provided with slots or grooves 16 into which is inserted the coiled wire 17. This wire is preferably arranged as shown in Fig. 1, passing down through openings in the plate 14 and being connected in any usual way to the contact plates 18, these being fastened in turn to the contact rods 19 secured in the plate 12. These contact pins 19 are arranged in circuit with a source of electrical energy sufficient to heat the wire 17 to incandescence. This wire 17 has a considerable length of wire exposed for ignition purposes by reason of being in the shape of a spring which is the preferred way of installing it.

On the outside of the plates 13 I arranged plates 20 which have the over hanging portion 21 which, when the bolt 22 is screwed up, fit over the ends of the coiled wire 17, as shown in Fig. 2, and thereby assist in holding the wire 17 flat on the supporting plate 14.

The slotsor grooves 16 can be made slightly smaller at the top, this serves also to prevent any buckling of the wire 17. The hollow or chambered construction shown herein, has the advantage of allowing a quicker heating of the wire 17 because a solid block or plate has a chilling effect, especially when made as in this case of porcelain or lavite or other suitable substance that is both heat resisting, and a non-conductor of electricity.

The wire 17 might be placed in the block 14, by means of the perforations 23, instead of the grooves 16 leaving a slight amount of material 24 over the wire, that would protect the wire, but would not be thick enough to interfere with the ready transmission of heat.

A still further modified form of inserting the wire 17 in the block 14 as shown in Fig. 5, where it is illustrated as being embedded, leaving a thin covering of material 25 on the top of the wire.

This construction is cheap, is durable, and presents a neat and attractive appearance.

Having thus described my invention, what I claim is:—

1. A cigar lighter comprising a supporting plate and a wire of high electrical resistance arranged in the shape of a coil laid in grooves slightly below the surface of the supporting plate.

2. A cigar lighter comprising a supporting plate and a wire arranged in a coil and secured in the supporting plate slightly below the surface.

3. A cigar lighter comprising a supporting plate, vertical plates under the supporting plate forming a chamber a wire of high electrical resistance coiled and arranged slightly below the surface of the supporting plate and means within the chamber aforesaid for connecting the ends of the wire to an electric circuit.

4. A cigar lighter comprising a supporting plate, a wire of high electrical resistance arranged in a coiled shape on the supporting

plate and means for holding said coiled wire flat on the plate.

5. A cigar lighter comprising a supporting plate, a wire of high electrical resistance coiled and then laid in grooves in the face of the supporting plate and means for holding said wire flat on the supporting plate.

6. A cigar lighter comprising a hollow structure made of heat resisting material, this material also being a non-conductor of electricity, a supporting plate secured on the top of the structure, a wire of high electrical resistance arranged in a coiled shape in grooves on the surface of the supporting plate and means within the structure for connecting the ends of the wire to an electric circuit.

7. A cigar lighter comprising a hollow structure made of heat resisting material, this material also being a non-conductor of electricity, a supporting plate secured on the top of the structure, a wire of high electrical resistance arranged in a coiled shape in grooves on the surface of the supporting plate and means to engage the wire coils to hold the wire flat on the supporting plate.

In testimony, that I claim the foregoing, I have hereunto set my hand this 14th day of March 1906.

CHARLES E. BESSEL.

Witnesses
E. A. PELL,
WM. H. CAMFIELD.