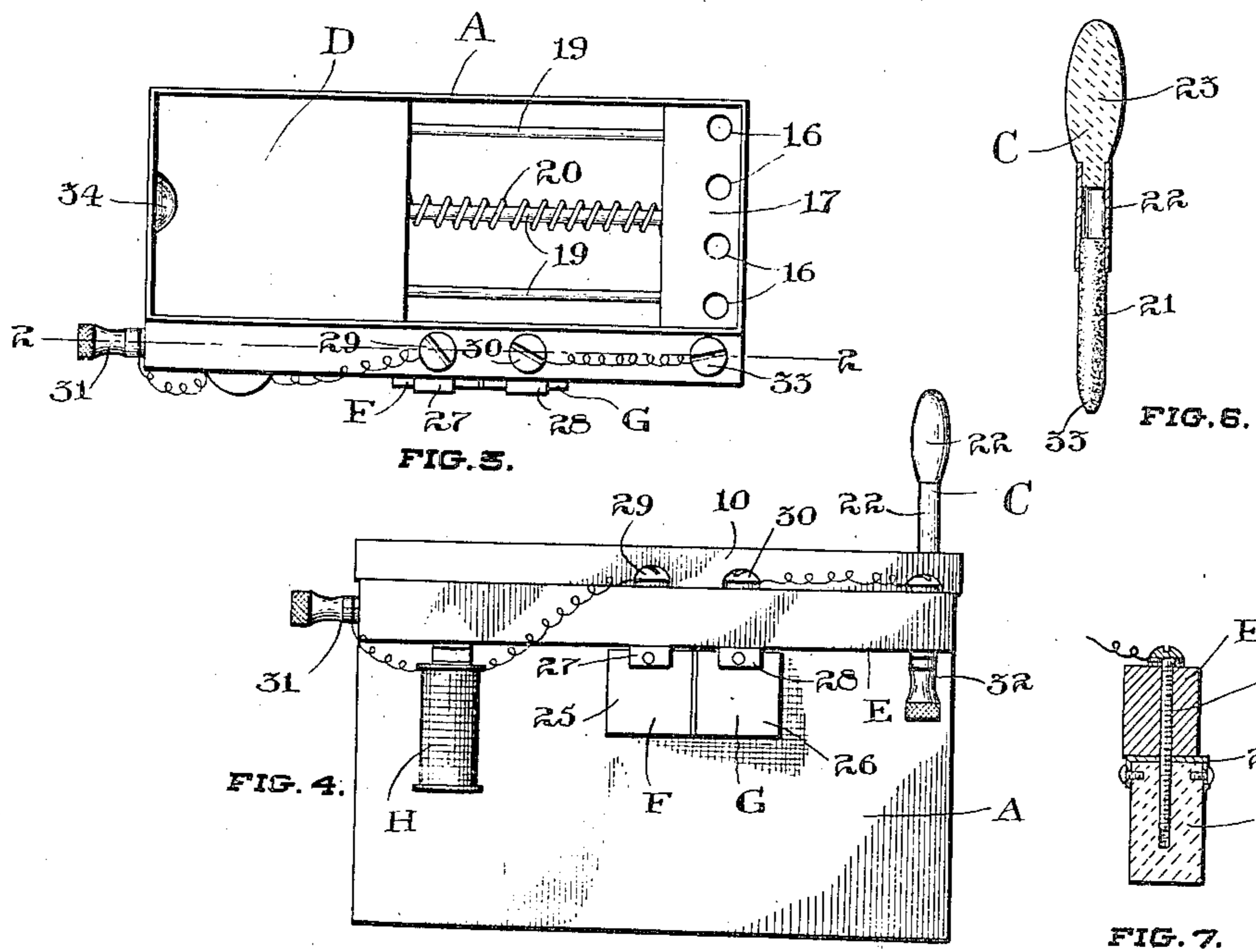
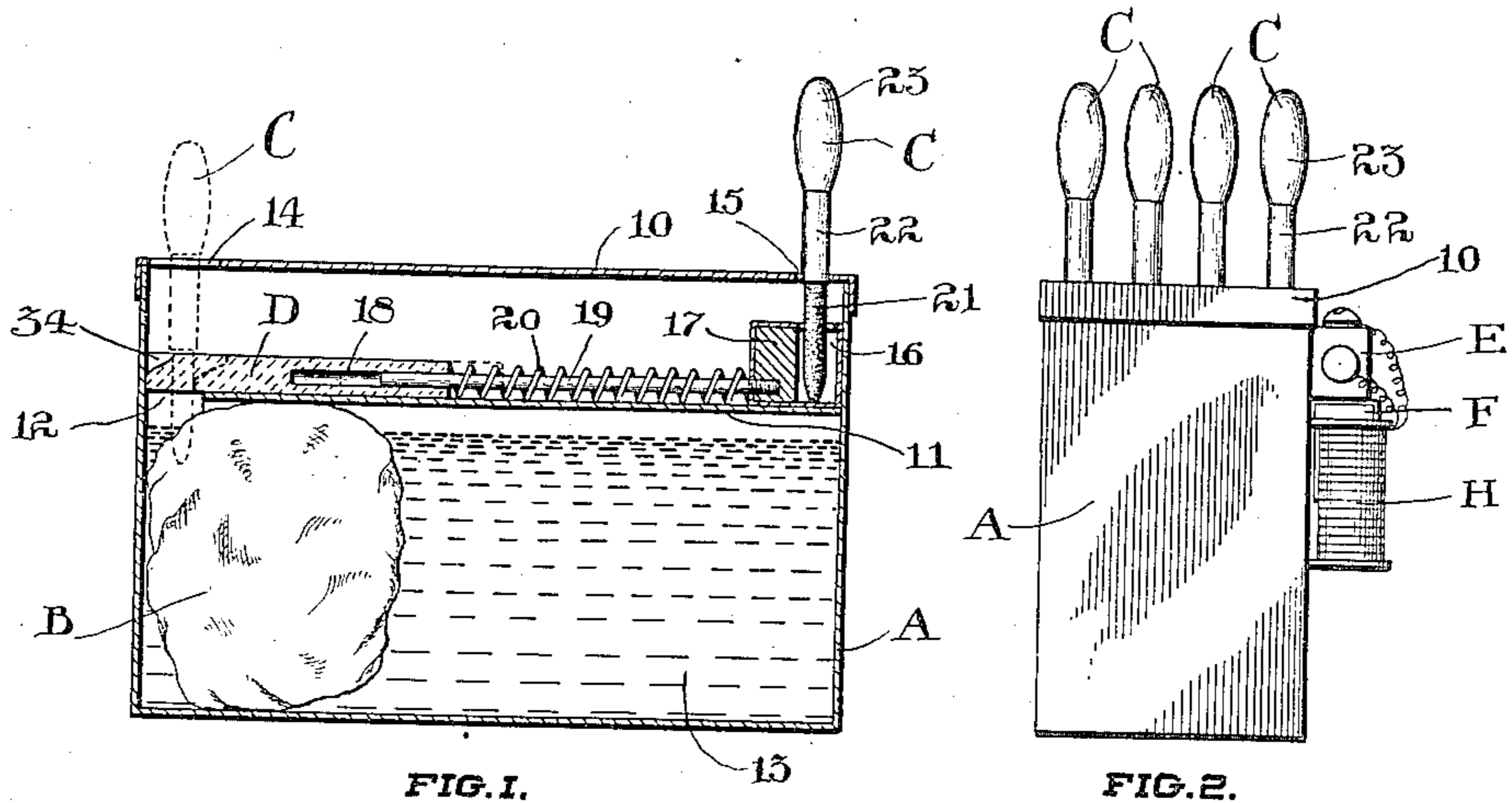


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IGNITER.

APPLICATION FILED MAR. 18, 1908.

914,964.

Patented Mar. 9, 1909.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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IGNITER.

No. 914,964.

Specification of Letters Patent.

Patented March 9, 1909.

Application filed March 18, 1908. Serial No. 421,819.

To all whom it may concern:

Be it known that we, JOSEPH HENRY MANTION, JOHN BENJAMIN MANTION, and ARTHUR WELLINGTON STANLEY, all of the city of Hull, in the county of Ottawa, Province of Quebec, Canada, have jointly invented certain new and useful Improvements in Igniters, of which the following is a specification.

Our invention relates to improvements in igniters, and the objects of our invention are to provide simple and effective, electrically-operated means for providing a cigar light or torch for other purposes, and such means as will operate with a minimum consumption of combustible material and power.

In its construction, the invention includes a receptacle containing a suitable combustible, such as wood spirits or alcohol, two adjacent but separated electrodes of opposite polarity on the exterior of the receptacle connected to a suitable source of power, a plurality of torches adapted to be inserted into the combustible and drawn across the electrodes, and means capable of being opened by insertion of the torch for closing the receptacle for the combustible, all as hereinafter more fully set forth and described in the accompanying specification and drawings.

In the drawings, Figure 1 is a longitudinal sectional view through the igniter. Fig. 2 is an end view of the same. Fig. 3 is a top view with the cover removed. Fig. 4 is a side view. Fig. 5 is a sectional detail along the line 2—2, Fig. 4. Fig. 6 is a vertical section through one of the torches. Fig. 7 is a section along the line 3—3, Fig. 5.

In the drawings, like characters of reference indicate corresponding parts in each figure.

Referring to the drawings, A is the receptacle formed of any desirable material, in any shape, and provided with a removable cover 10, below which is a partition 11 having an aperture 12 therethrough at one end. The compartment 13 below the partition 11 is wholly or partially filled with a suitable combustible, such as wood alcohol, alcohol or methylated spirits, and in order to apply it evenly to the torch stick, a sponge B or other means for drawing up the combustible and applying it to the torch when inserted through the aperture 12, is provided.

An aperture 14 is provided in the cover,

registering with the aperture 12 and on the opposite side of the cover a plurality of apertures 15 are provided, through which torch sticks C extend into sockets 16 provided in a block 17 resting on the partition 11. The aperture 12 is normally closed by a movable closing member D which is in the form of a block resting on top of the partition 11, and having a plurality of recesses 18, which are slidably engaged by rods 19 supported from the block 17. The block is normally retained in a closed position by means of a compression spring 20 extending around one of the rods 19 between the block 17 and closing member D. The upper surface of the block is provided at one edge, with a tapered recess 34, adapted to be engaged by the end of the torch to open the closing member. The torch stick C is formed with a lower portion 21 of electrical conducting absorbent and non-inflammable material, such as carbon, which is connected by a ring 22 to the handle 23 formed of suitable heat insulating material such as wood. It may here be noted that the absorbent qualities of the carbon on the torch stick are important in the operation of the device, as the combustible fluid is absorbed by the same and comes to the surface as it is gradually burned, and not flowing quickly off as it would off a metal surface.

On the exterior of the receptacle a bar E of insulating material is provided, from which are supported two electrodes F and G, which are adjacent to, but not in contact with each other, and preferably separated by a few thicknesses of mica 24, or other insulating material. The outer surfaces 25 and 26 of these electrodes are in substantially the same plane.

The particular means illustrated to support the electrodes are brackets 27 and 28 extending about the electrodes supported by screws 29 and 30 from the bar. The electrodes are connected respectively to two binding posts 31 and 32 on the bar which binding posts will, in practice, be connected to a suitable source of power and a resistance coil H is also preferably inserted in circuit with the electrodes to prevent short circuiting of the supply current.

In operation, to obtain a light, one of the torch sticks C is withdrawn from the socket 16 and the tapered end 33 inserted in the tapered recess 34, opening the closing member

D and permitting the end 21 of conducting material, to be moistened by the sponge B. The torch stick is then withdrawn, and the end 21 drawn across the two electrodes F and G. This establishes a momentary circuit 1 the make and break of which produces a sufficient amount of sparking to ignite the combustible with which the end 21 has been moistened which will provide a flame for a sufficient length of time to light a cigar or other purpose for which a match can be used. As the circuit established is only momentary, the amount of electric current used is exceedingly small, and the combustible material will not be wasted as it is applied through the moistening sponge B. It will also be observed that the closing member D affords a safeguard against the insertion of a lighted torch, as if there was any flame on the torch, the forcing of the end of the same into the tapered recess 34 would smother the flame.

While the invention has been described herein with great particularity of detail, yet it will be readily understood that in carrying out the construction of the same, changes, within the scope of the appended claims, may be made, without departing from the spirit of the invention.

What we claim as our invention is:—

- 30 1. An igniter, including two adjacent, but separated electrodes of opposite polarity, a torch stick of conducting material adapted to be drawn across the electrodes to produce ignition sparks, a receptacle for liquid combustible, having an opening therein, through which the torch stick may be inserted, and closing means for the opening in the receptacle adapted to be opened by insertion of the torch stick.
- 40 2. An igniter including two adjacent, but separated electrodes of opposite polarity, a torch stick of conducting material adapted to be drawn across the electrodes to produce ignition sparks, a receptacle for liquid combustible, having an opening therein through which the torch stick may be inserted, and spring-operated closing means for the open-

ing in the receptacle adapted to be opened by insertion of the torch stick.

3. An igniter including two adjacent, but 50 separated electrodes of opposite polarity, a torch stick of conducting material adapted to be drawn across the electrodes to produce ignition sparks, a receptacle for liquid combustible having an aperture therein through 55 which the torch stick may be inserted, a slidable closing member for the aperture, guiding means for the member and means for normally retaining it in closed position, the said member being adapted to be opened 60 by insertion of the torch stick.

4. An igniter including two adjacent, but separated electrodes of opposite polarity, a torch stick of conducting material adapted to be drawn across the electrodes to produce 65 ignition sparks, a receptacle for liquid combustible having an aperture therein through which the torch stick may be inserted, a slidable closing member for the aperture, guiding means for the member and means 70 for normally retaining it in closed position, the said member having a tapered recess in the edge thereof, into which the torch stick may be inserted to open the same.

5. An igniter including two adjacent, but 75 separated electrodes of opposite polarity, a torch stick of conducting material adapted to be drawn across the electrodes to produce ignition sparks, a receptacle having an aperture through the cover thereof, a partition 80 below the aperture having a corresponding aperture therein and closing means mounted on the partition for closing the aperture, the said means being capable of being opened 85 by insertion of the torch stick.

Signed at the city of Ottawa, Province of Ontario, this 13th day of March, 1908.

JOSEPH HENRY MANTION.
JOHN BENJAMIN MANTION.
ARTHUR WELLINGTON STANLEY.

In the presence of—
RUSSEL S. SMART,
WM. G. WYMAN.