

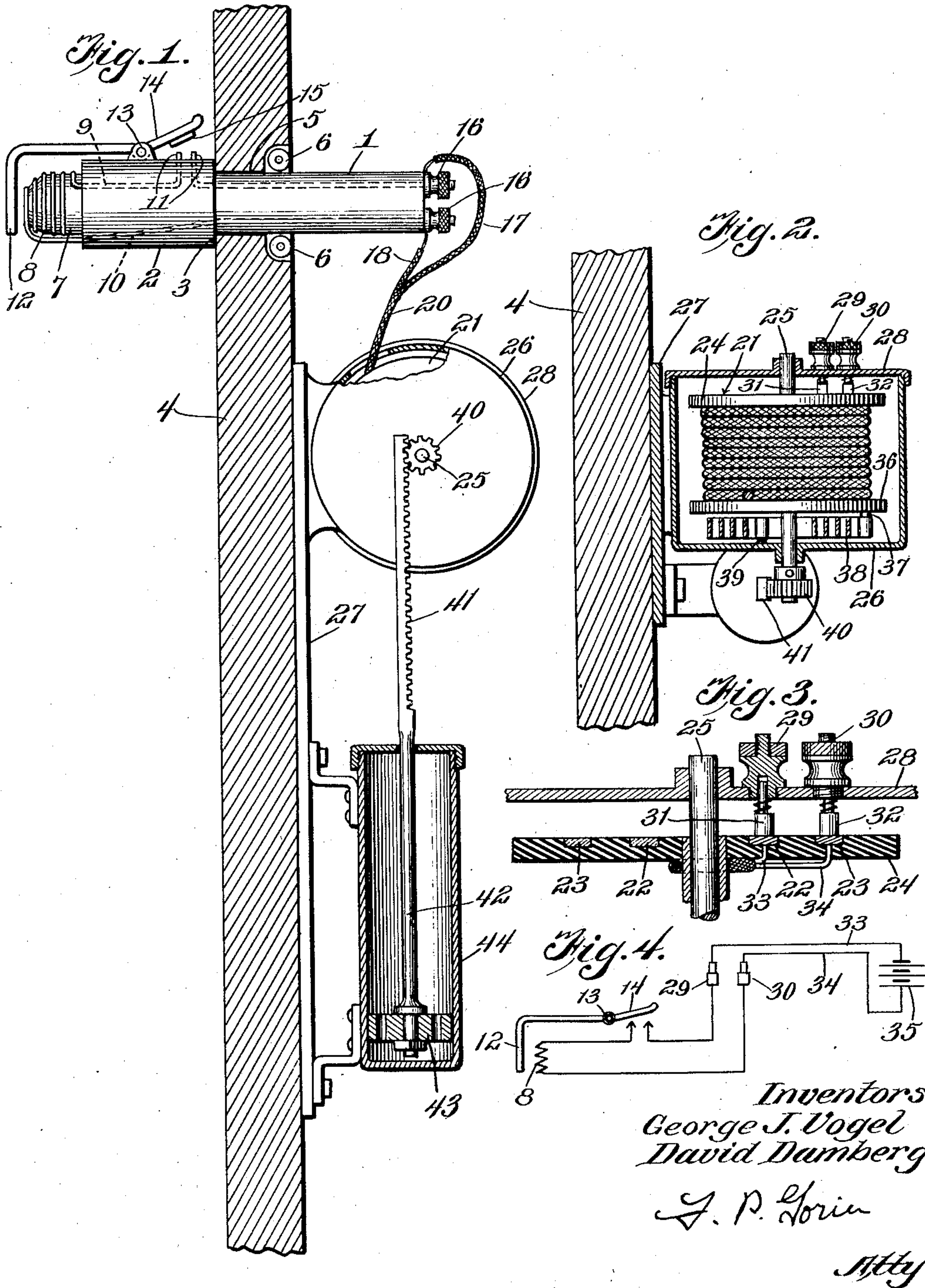
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G. J. VOGEL ET AL

ELECTRIC CIGAR LIGHTER

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# UNITED STATES PATENT OFFICE.

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## ELECTRIC CIGAR LIGHTER.

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*To all whom it may concern:*

Be it known that GEORGE J. VOGEL and DAVID DAMBERG, citizens of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Electric Cigar Lighters, of which the following is a specification.

This invention relates to an improvement in electric cigar lighters, designed particularly for use in connection with motor vehicles, and constructed to permit the lighter to be withdrawn from its normal position adjacent the dash or other support to a position convenient for use, the lighter being automatically returned to its normal position upon its release by the user.

The invention also provides for an automatic control of the energizing current, so that when the lighter is released, the current will be interrupted.

The lighter is also particularly formed to provide an incandescent terminal, which is readily adapted for lighting pipes, as well as cigars or the like.

The invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a view in section partly in elevation, illustrating the application of the improved lighter to a fixed part of a vehicle, the parts being shown in normal positions.

Fig. 2 is a horizontal section taken through the reel casing immediately above the reel.

Fig. 3 is an enlarged vertical section showing the circuiting contacts between the source of current supply and the reel.

Fig. 4 is a diagrammatic view of the circuit.

The improved lighter comprises an insulating body 1, having an enlarged forward end 2 providing an intervening shoulder 3. The fixture as 4 with which the lighter co-operates when in normal position, as for example the dash board of the vehicle, is formed with an opening 5 to slidably receive the reduced portion 1 of the lighter proper, the support at the inner end of the opening being provided with rollers or movable guides 6. The enlarged portion 2 of the lighter proper is formed with what may be termed a lighting terminal including a rounded knob-like projection 7, over which is coiled a wire 8 forming a choke coil adapted to become more or less incandescent in the passage of the current. The ter-

minals of this coil lead through conductors 9 and 10, which extend longitudinally of and within the lighter proper, the conductor 9 being interrupted to provide spaced contact points 11, which extend through one wall of the lighter proper as shown. The igniting end of the lighter proper is provided with a shield 12 adapted to overlie and substantially cover said end, this shield being pivoted at 13 on the lighter proper to permit the shield to be moved from a position away from the igniter end when desired. The shield extends rearwardly of the pivot in an inclined section 14, having a contact strip 15, which when the shield is elevated to expose the igniter end bridges the contact points 11 and completes the circuit through the conductor 9.

The inner end of the lighter proper is provided with binding posts 16, to which are connected the terminals of conductors 17 and 18. These conductors beyond the lighter proper are wound as a single conductor 20, and this conductor is coiled about a reel 21 with the terminals of the respective wires leading to circular strips 22, 23, on one wall 24 of the reel. The reel is mounted upon a shaft 25 supported in a housing 26 mounted upon a plate 27 adapted to be secured on the support 4, the housing 26 having a removable cover 28 for convenient access to the interior of the housing. The housing is provided with binding posts 29, 30, having sliding contact pieces 31, 32, adapted to engage respectively with the contact rings 22, 23, and the binding posts 29, 30, are connected by conductors 33, 34, with a source of energy 35. Thus the electrical circuit to the lighter is complete in any position of the reel, being broken only at the spaced contact points 11. The wall 36 of the reel opposite the wall 24 is provided with a pin 37 to which is secured one end of a coil spring 38, the opposite end being secured to a pin 39 projecting from the casing 26. The shaft 25 is provided at one end with a pinion 40 adapted to engage a rack 41 forming an extension of piston rod 42 connected to a piston 43 of a dash pot cylinder 44 secured to the plate 27.

Obviously, as the lighter is withdrawn from its normal position, the conductor 20 is drawn from the reel, tensioning the spring 38, and also raising the piston of the dash pot. As the user removes the shield 12, the current flows to the coil 8, and the latter



is rendered incandescent for ignition purposes. Upon release of the lighter proper, the spring 38 acts through the coil and conductor 20 to withdraw the igniter from the point of use to its normal position in the support 4, the roller 6 serving to prevent abrasion of the conductors during this movement. The dash pot serves to retard the return movement of the lighter and thus its action is a slow even one until it is finally positioned properly in the support, the shoulder 3 serving to permit sufficient projection of the lighter to permit convenient grasping of the same when the lighter is to be used.

Claims:

1. A cigar lighter having a coil terminal for lighting purposes, an interrupted circuit leading to the coil, a shield for the coil, and means carried by the coil to close the interrupted circuit when the shield is moved away from the coil.

2. In combination with a support formed with an opening, a lighter positioned in said opening and removable therefrom, circuiting wires for said lighter, a spring operated drum about which said wires are coiled, and a dash pot for retarding return movement of the drum.

3. In combination with a support formed with an opening, a lighter positioned in said opening and removable therefrom, circuiting wires for said lighter, a spring operated drum about which said wires are coiled, and a dash pot for retarding return movement of the drum, said lighter having a shoulder to limit its movement in the opening.

4. In combination with a support formed with an opening, a lighter positioned in said opening and removable therefrom, circuiting wires for said lighter, a spring operated drum about which said wires are coiled, and a dash pot for retarding return movement of the drum, and rollers carried by the support to form guides for the circuiting wires in the movement of the lighter.

5. A cigar lighter having a coil terminal for lighting purposes, an interrupted circuit leading to the coil, a shield for the coil, and means carried by the coil to close the interrupted circuit when the shield is moved away from the coil, the coil being of knob-shape to permit its use in lighting a pipe.

In testimony whereof we affix our signatures.

GEORGE J. VOGEL.  
DAVID DAMBERG.