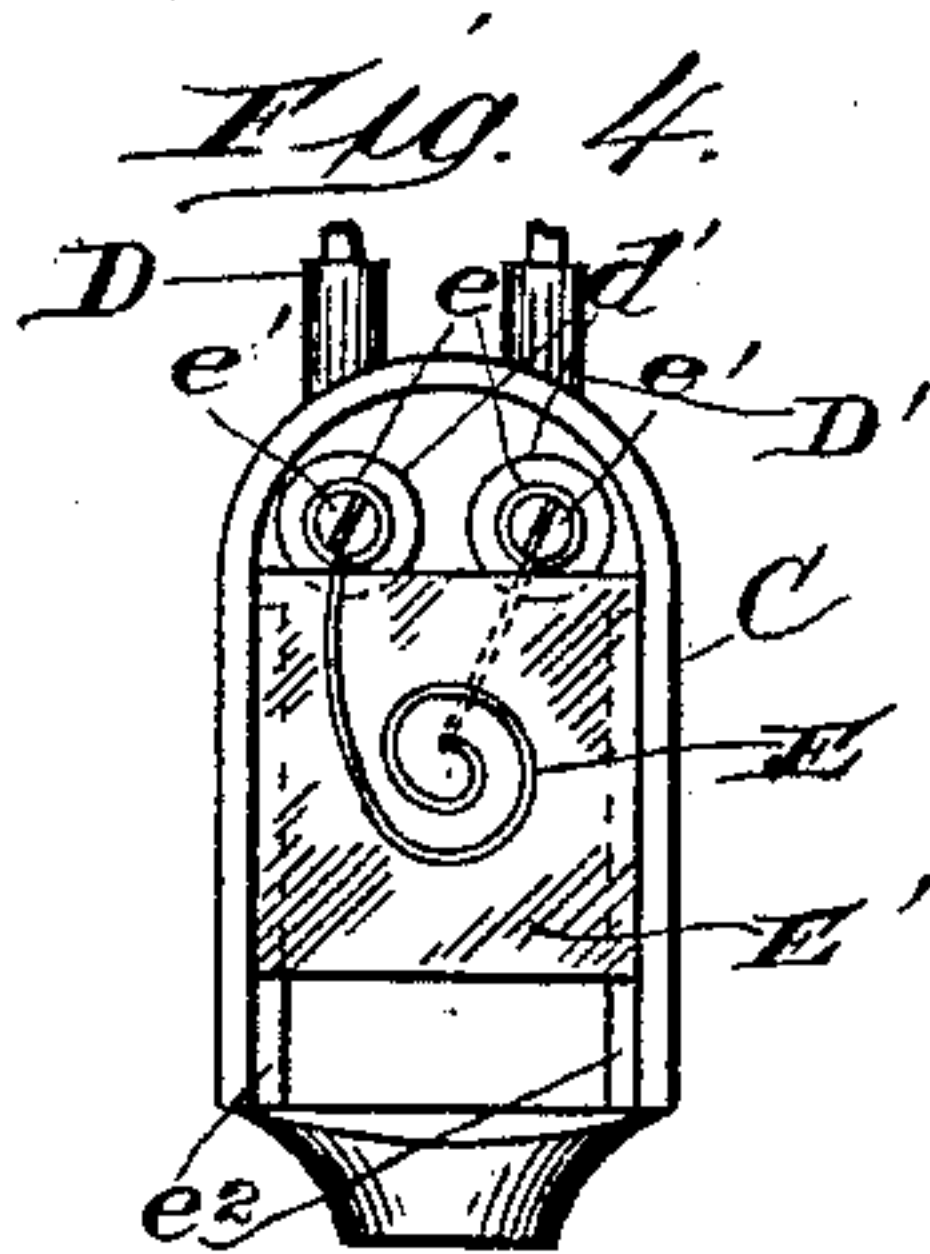
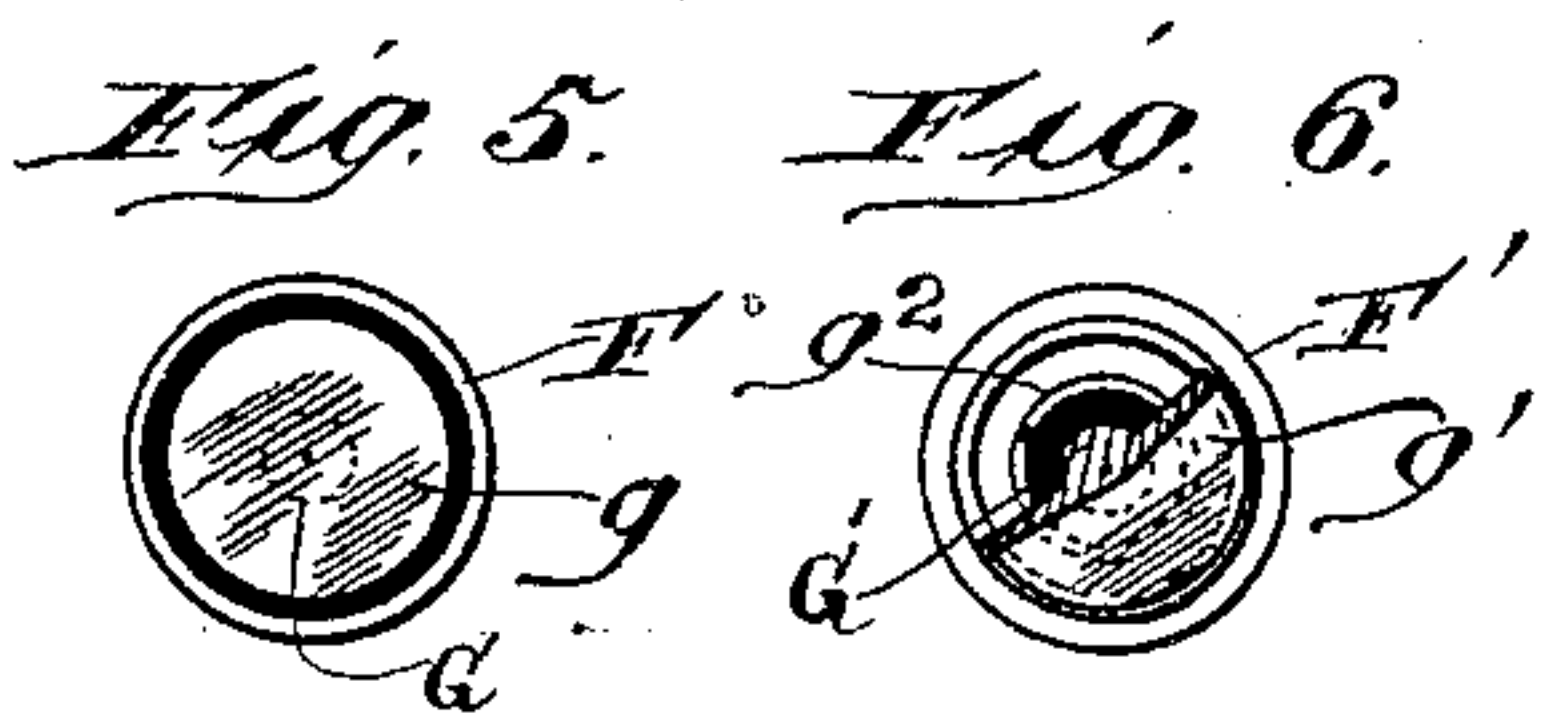
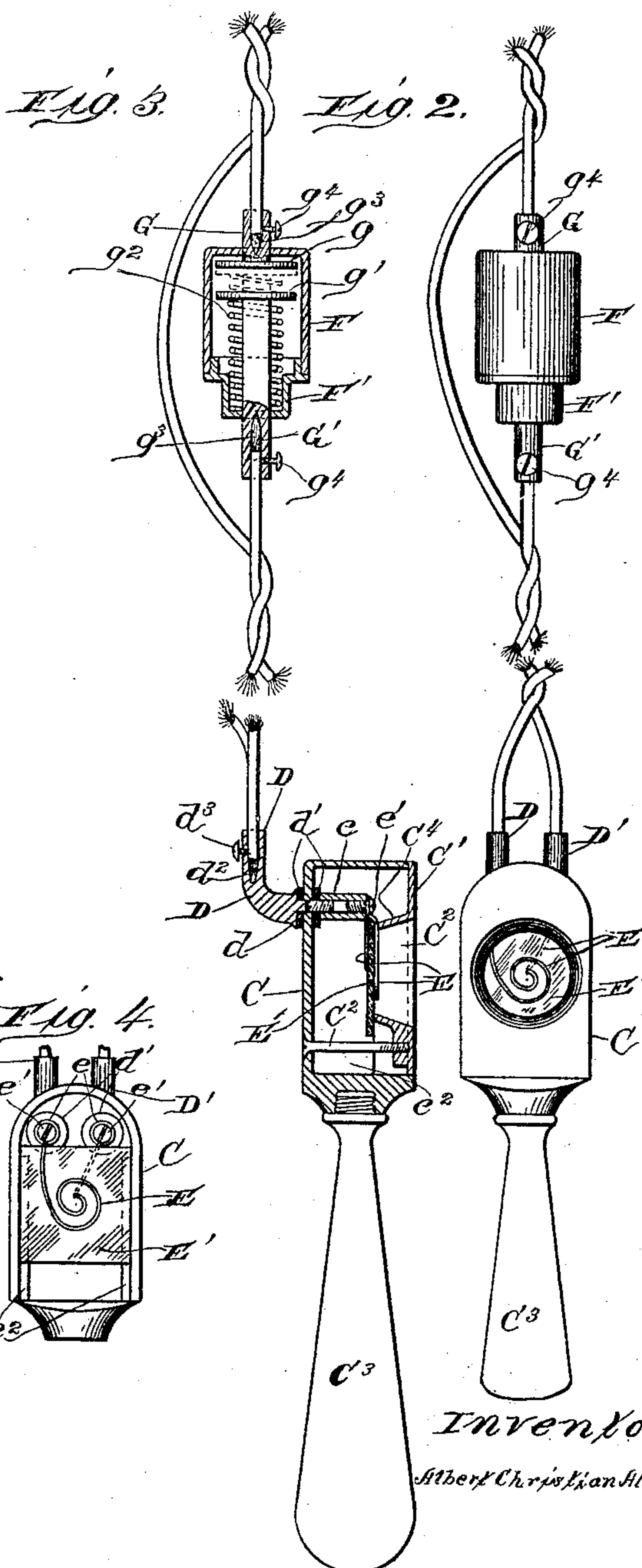
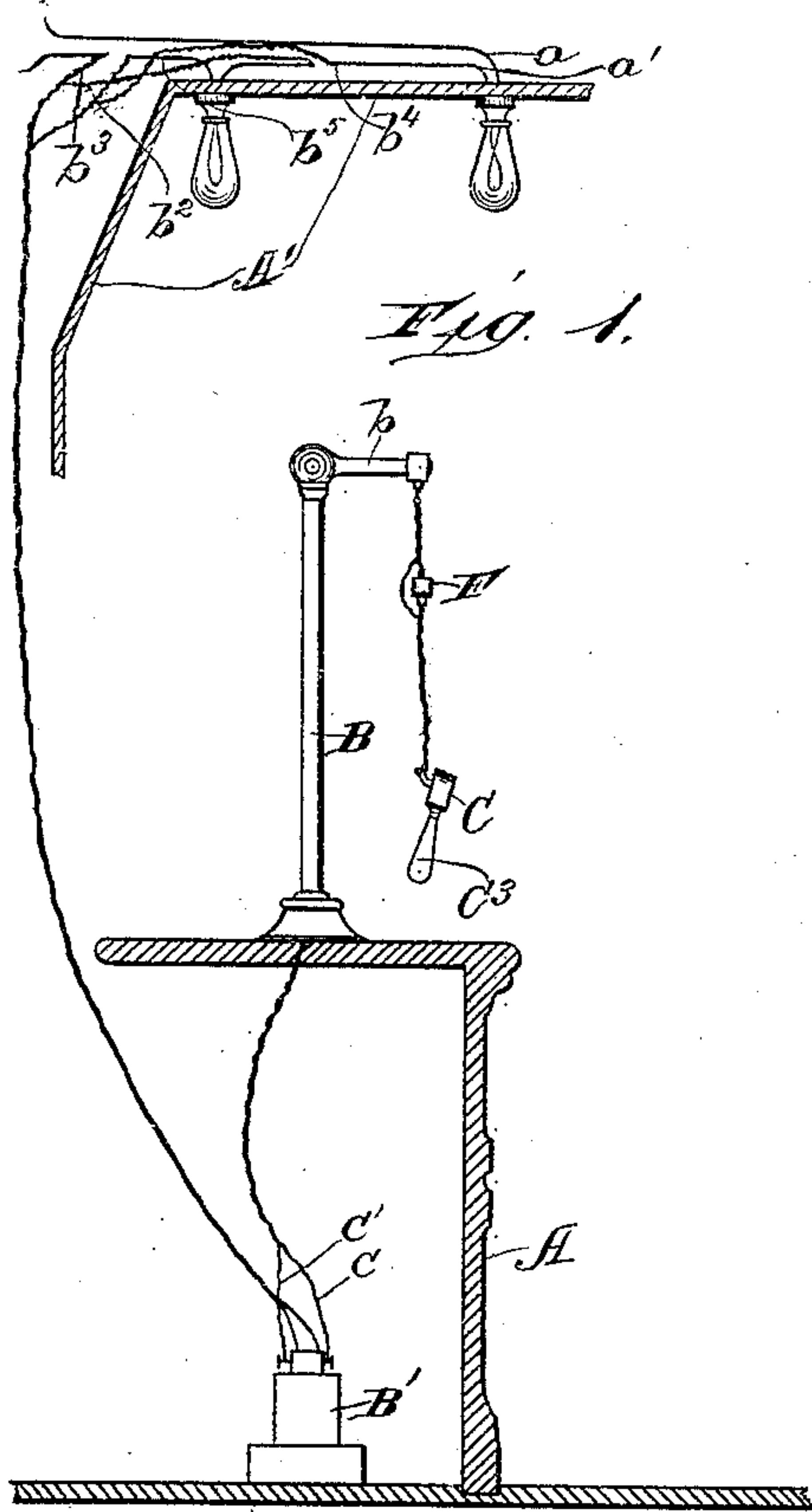


(No Model.)

A. C. ALBERTSEN.  
ELECTRIC CIGAR LIGHTER.

No. 525,437.

Patented Sept. 4, 1894.



Witnesses:

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# UNITED STATES PATENT OFFICE.

ALBERT CHRISTIAN ALBERTSEN, OF CHICAGO, ILLINOIS, ASSIGNOR TO  
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## ELECTRIC CIGAR-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 525,437, dated September 4, 1894.

Application filed November 29, 1893. Serial No. 492,326. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT CHRISTIAN ALBERTSEN, a subject of the King of Denmark, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electric Cigar-Lighters, of which the following is a specification.

This invention relates to improvements in a device for lighting cigars, in which the ignition is produced by a current of electricity, and while it may be used for said purpose in numerous places, yet it is more especially adapted to be employed in cigar-stores or stands; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

Heretofore electric cigar-lighters have generally been supplied with electricity by means of primary batteries, to which they were connected by means of suitable wires for the transmission of the electric current required for the purpose of igniting the cigar. These batteries required frequent removal, in order to be renewed, and consequently had to be detached from the lighter, thus rendering it, the lighter, useless for the time being, and also incurring expense, labor and annoyance. Another material objection to the above stated method of electrifying the lighter, is, that as the charge of the battery or batteries becomes exhausted, the electric current will be so weakened or diminished thereby, as to seriously impair the usefulness of the lighter.

Other electric cigar lighters receive their current from the general electric light circuit, and require an artificial resistance coil, and still others give forth a flash by which a stick or brush saturated with alcohol or the like is ignited and by means of which the cigar is lighted.

It is therefore the object of my invention, to avoid the aforesaid objections and difficulties, consequent upon the use of any of the above named styles of lighters, by dispensing with the use of bad primary batteries, and artificial resistance coils and affording a cigar-lighter, which shall be simple and inexpensive in construction, attractive in appearance, and effective in operation, as well as being very durable, and in which no flame is used

to light the cigar, but in which a sufficient and uniform current of electricity is supplied to render an exposed platinum wire or foil incandescent. Another object is to prevent waste or unnecessary loss of the electric current, when the lighter is not in use. I attain these results by the use and novel arrangements of the devices, shown in the accompanying illustration, and in order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1, is a view in side elevation of my cigar-lighter, showing in cross-section, the counter upon which its bracket is mounted, and also a section of the wall and ceiling, with the electric light globes affixed thereto, illustrating the connections of the various circuit wires, with the lighter and its battery. Fig. 2, is a view in front elevation of the lighter and its automatic switch or cut-off, showing the circuit-wires fore-shortened, for the convenience of illustration. Fig. 3, is a side sectional view of the same. Fig. 4, is a front view of the lighter-casing or frame, showing the face-plate and handle thereof removed. Fig. 5, is a bottom plan view of the cylinder of the cut-off or switch, showing its upper contact disk or plate in place, and the lower one removed. And Fig. 6, is a top plan view, partly in section, of the lower part of the switch or cut-off.

Similar letters refer to like parts throughout the different views of the drawings.

A, represents a counter or table upon which is mounted a suitable bracket or support B, for the lighter, its cut-off, or switch, and the circuit wires leading from the storage battery B', to the poles of the lighter, which is suspended on the free ends of the wires *c*, and *c'*, after they have been passed through the bracket, which is formed hollow for their reception and retention. The other ends of the wires *c*, and *c'*, are connected to the poles of the battery for the transmission of the electric current, as will be presently explained.

The casing C, of the lighter is made of any suitable size, form, and material, but preferably of metal, and usually rectangular in form, as shown in the drawings, and has at its front a removable plate C', which is firmly held in place by means of a screw *c*<sup>2</sup>, and is



formed with an opening  $C^2$ , for the reception of the end of the cigar, when being lighted. Around this opening and on the inner surface of the plate  $C'$ , is a flaring annular flange  $C^4$ , which guides the cigar and also prevents the ashes therefrom falling in the casing. To the lower portion of the casing  $C$ , is secured in any suitable manner, a handle  $C^3$ , which is preferably made of wood, and is to be caught by the hand, when using the lighter. In the back of the casing  $C$ , and near its top, are formed two holes through which are passed and secured the ends of the binding-posts or stems  $D$ , and  $D'$ , which are formed as shown in Fig. 3, with an upturned elbow, and have their inner portions reduced so as to form the shoulder  $d$ , between which and the casing is placed a washer  $d'$ , of asbestos or other insulation. The upper part of the elbow of each of the stems or posts is provided with a socket  $d^2$ , and a set-screw  $d^3$ , for the reception and retention of the ends of the current wires  $e$ , and  $e'$ , as is clearly shown in the drawings. On the inner portion of each of the stems or posts  $D$ , and  $D'$ , is secured a tube  $e$ , which is insulated, at its end adjacent to the casing, by means of a piece of asbestos  $d'$ , or other suitable material, and receives a screw  $e'$ , at its other end for securing thereto the ends of a small platinum wire or foil  $E$ , which may be coiled, as shown, and rests on and passes through a non-conducting plate  $E'$ , which is preferably made of mica on account of its well known heat resisting and non-conducting properties, and which rests on the ledges  $e^2$ , on the inner surface of the sides of the casing. While I prefer to use a platinum wire or foil, to connect the inner ends of the stems or posts  $D$ , and  $D'$ , for the reason that said material does not oxidize when subjected to heat, yet I may sometimes employ other material for a like purpose.

Between the lighter and the arm  $b$ , of the supporting bracket, and on the current wires is located the automatic switch or cut-off, which consists of a cylindrical casing  $F$ , made of non-conducting material, and is open and screw-threaded at its bottom to receive a screw-threaded cap  $F'$ , which is of a like material.

Through the top of the casing  $F$ , is secured a metallic stem  $G$ , to the inner end of which is horizontally fixed, a disk or plate  $g$ , made of any good conducting material, which disk is designed to contact with a similar one  $g'$ , on the upper end of the metal stem  $G'$ , which passes loosely through the cap  $F'$ , and has around its inner portion a spring  $g^2$  which actuates the disk  $g'$ , and its stem. By reference to Fig. 3, of the drawings, it will be seen that the stems  $G$ , and  $G'$ , are provided at their outer ends with a socket  $g^3$ , and set-screw  $g^4$ , for the reception and retention of the current-wires.

In Fig. 1, I have shown a section of the wall, and ceiling  $A'$ , of the room, with two electric-light-globes or lamps fixed thereon,

and a portion of the main circuit wires  $a$ , and  $a'$ , which lead to a generator (not shown) and are tapped with the wires  $b^2$ ,  $b^3$ , and  $b^4$ ,  $b^5$ , which lead to and are connected with their respective poles of the battery, which is charged from the main current wires.

While I have shown two lamps, only, in order to illustrate the manner of connecting the wires, yet it will be understood, that one or more may be used. From the foregoing description of the various parts of my invention, it is apparent that the current of electricity will flow from the main wires  $a$ , and  $a'$ , through their connections to the storage battery  $B'$ , which will thereby be charged and be ever ready to supply the lighter with an uniform current, when the current from the generator shall have been thrown off. The connections being made as above set forth, the normal position of the parts of the automatic cut-off, and the lighter will be as is shown in Figs. 1, and 3, of the drawings, when by raising the lighter, its weight will be removed from the stem  $G'$ , of the switch and by reason of the spring  $g^2$ , the disk  $g'$ , will be thrown into contact with the disk or plate  $g$ , which will complete the circuit and cause the platinum wire or foil  $E$ , to become incandescently heated, to which the end of the cigar may be applied through the opening  $C^2$ , in the front plate of the lighter. As soon as the cigar is ignited, the lighter may be dropped, when its gravity will cause the disks  $g$ , and  $g'$ , to be thrown out of contact and the circuit thereby broken.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an electric cigar lighter, an automatic switch or cut-off consisting of the cylindrical casing  $F$ , having the stem  $G$ , provided with the disk  $g$ , on its inner end and having in its outer portion a socket and set-screw to receive and secure a circuit wire, and the cap  $F'$ , to engage the casing, said cap having and carrying the spring actuated stem  $G'$ , provided with the disk  $g'$ , on its inner portion and a socket and set-screw on its outer portion to receive and secure a circuit wire, substantially as described.

2. In an electric cigar lighter, the combination of the casing  $C$ , having the ledges  $e^2$ , and openings for the binding posts or stems  $D$ ,  $D'$ , with the face-plate  $C$ , having the opening  $C^2$ , and annular flange  $C^4$ , the seat or plate  $E'$ , the stems  $D$ , and  $D'$ , provided at their outer ends with a socket and set-screw to receive and retain the circuit wires and having their inner ends extended within the casing, the platinum wire coil or its equivalent connecting the inner ends of the posts and seated on the plate or seat  $E'$ , and the insulating pieces  $d'$ , substantially as described.

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Witnesses:

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