

L. B. BUCHANAN.
ELECTRIC FUSE OR CUT-OUT.
APPLICATION FILED MAR. 20, 1905.

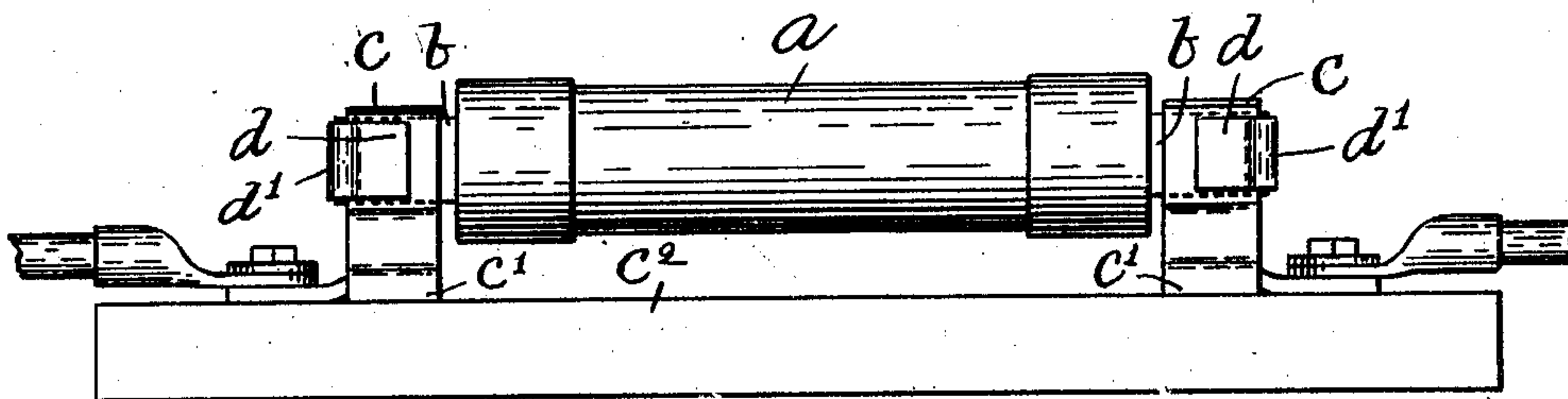


Fig. 1.

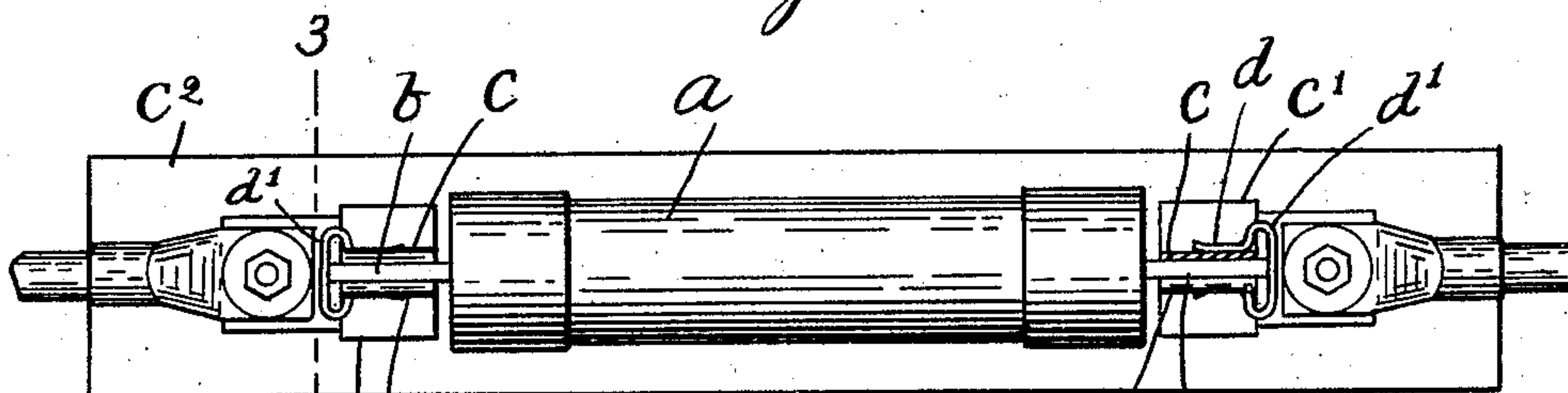


Fig. 2.

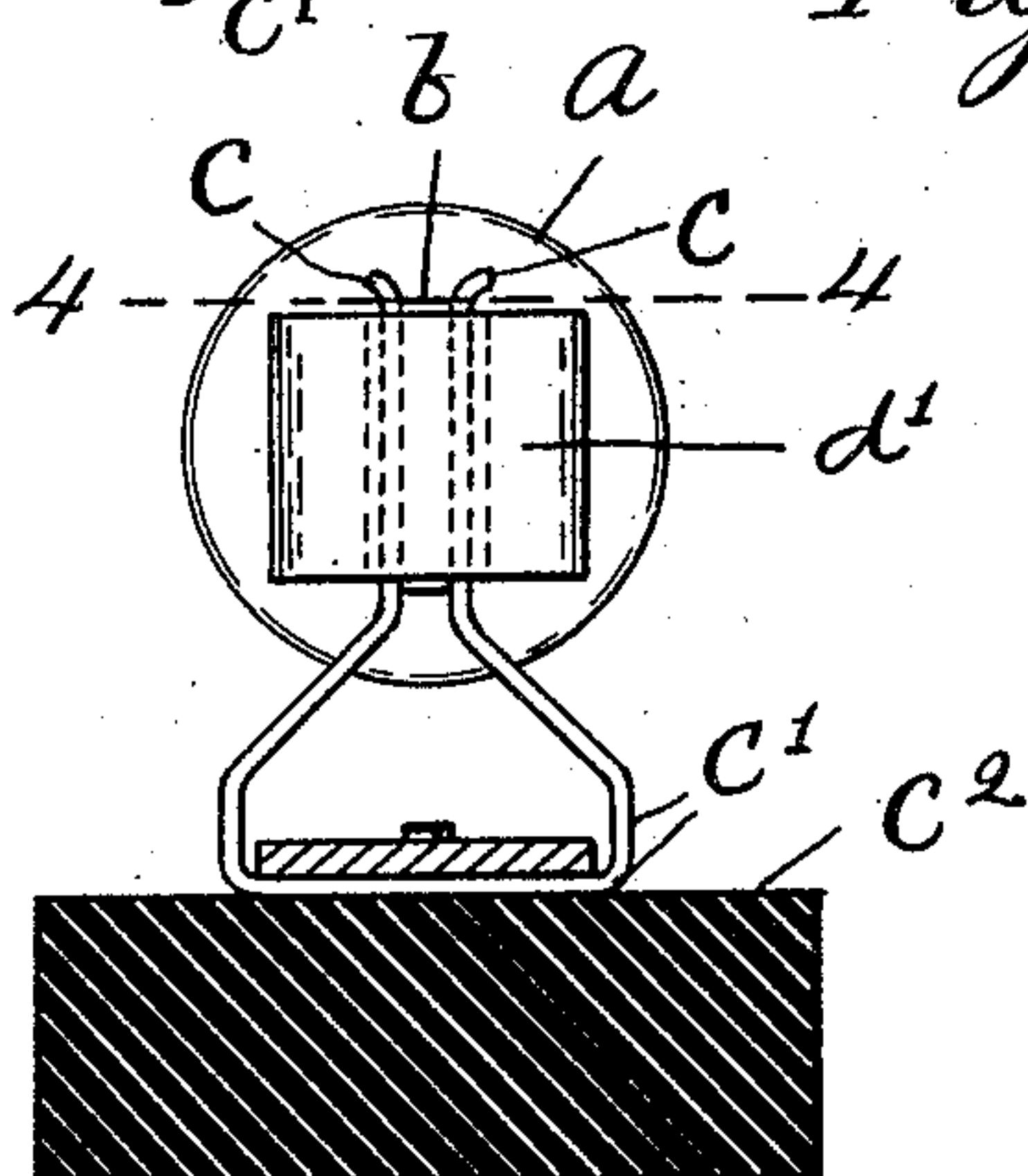


Fig. 3.

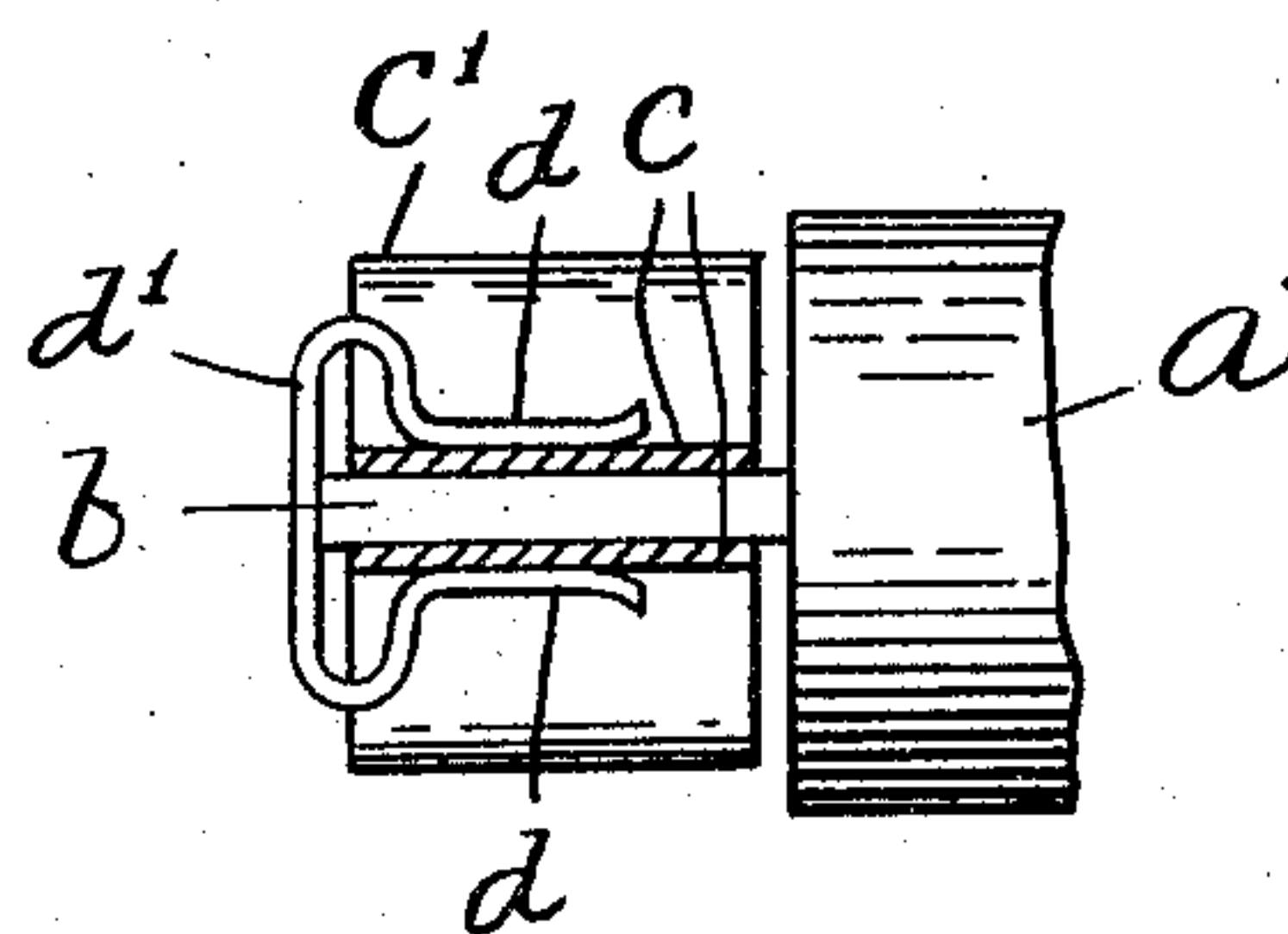


Fig. 4.

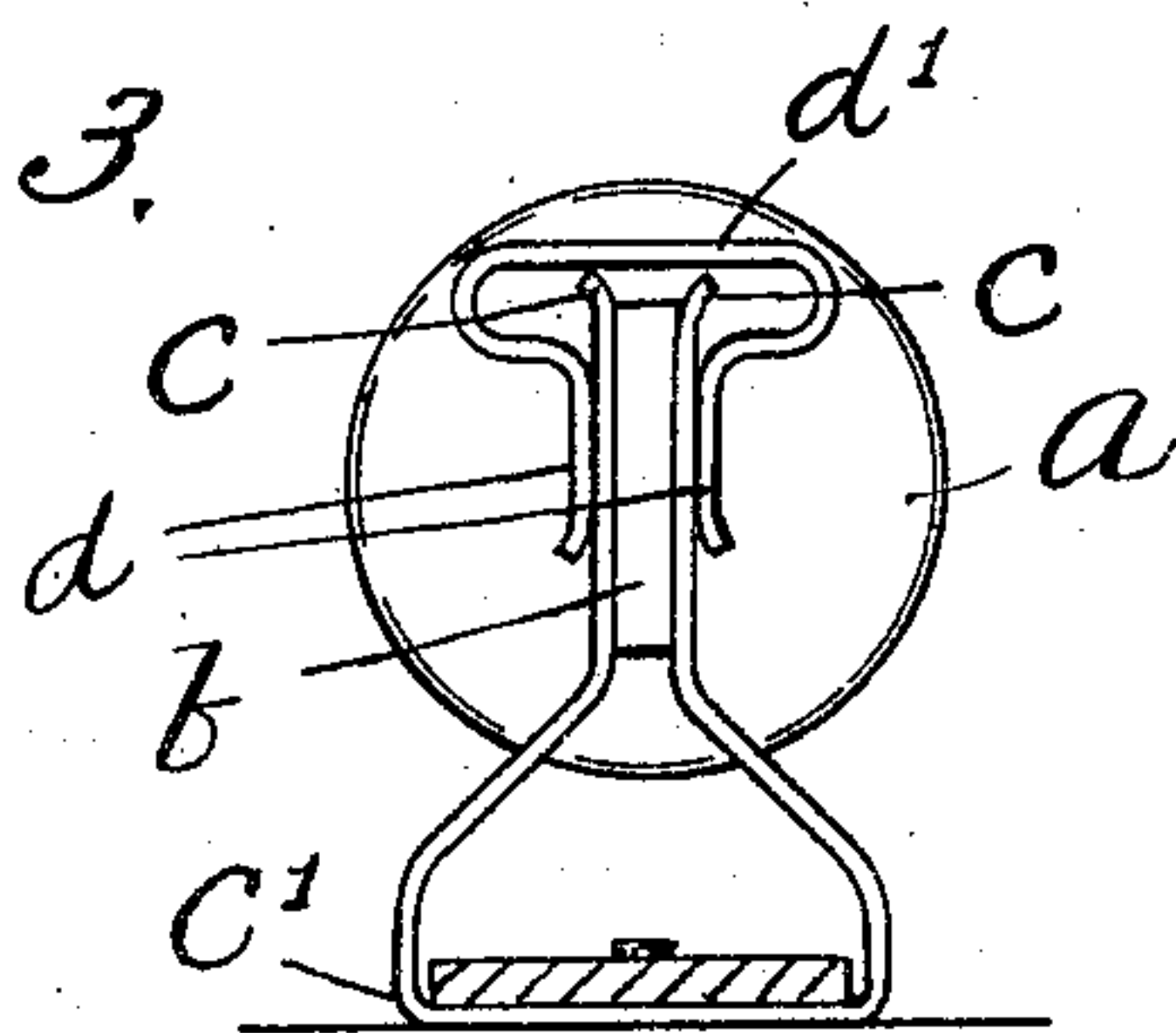


Fig. 5.

Witnesses:

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UNITED STATES PATENT OFFICE.

LEONARD B. BUCHANAN, OF WOBURN, MASSACHUSETTS.

ELECTRIC FUSE OR CUT-OUT.

SPECIFICATION forming part of Letters Patent No. 790,883, dated May 30, 1905.

Application filed March 20, 1905. Serial No. 250,920.

To all whom it may concern:

Be it known that I, LEONARD B. BUCHANAN, of Woburn, county of Middlesex, State of Massachusetts, have invented an Improvement in Electric Fuses or Cut-Outs, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

Electric fuses or cut-outs as ordinarily constructed comprise a cylindrical body having a flat blade projecting therefrom at each end, which constitute the terminals, and said terminals are adapted to engage suitable clips which serve as supports for the fuse. The clips each comprise a pair of spring-acting fingers projecting from a base, adapted to receive the fuse-terminal between them and to hold said terminal securely by frictional engagement therewith. The terminals and also the clips are made of copper or other conducting material and are suitably proportioned to properly carry the current. Objections have been made to this form of fuse-support on the ground of inefficiency and unreliability, it being represented that friction is depended upon to support the fuse, which is an unreliable means, and, furthermore, the spring-acting fingers are liable to become separated beyond the predetermined distance originally set, either by long-continued use or some other cause, especially in view of the particular kind of material composing them, and in such event they will not engage the terminal with the required degree of pressure.

This invention has for its object to provide means for supporting the spring-acting fingers of the terminal-clips in such manner as to increase or at least maintain their terminal engaging and holding qualities, and thereby increase or at least not diminish their efficiency and reliability.

The invention consists in a terminal-clip support constructed and arranged to engage the spring-acting fingers of the terminal-clip and hold them preferably with a yielding pressure against undue separation and so that they will at all times engage the terminal with the required degree of pressure, which it will

be understood is sufficient to positively hold the terminal under all ordinary conditions.

I have herein shown as a terminal-clip support a clip comprising a pair of spring-acting fingers extended from a crown or head the fingers of which are adapted to receive between them the pair of spring-acting fingers of the terminal-clip and to hold said spring-acting fingers positively, yet with a yielding pressure, in the relative position they are intended or designed to occupy, thus guarding against undue separation and at the same time reinforcing them, so that they will at all times exert sufficient pressure upon the terminal to positively hold it.

The construction of the terminal-clip support will vary in order that it may be used to support terminal-clips of different construction.

Figure 1 shows in side elevation an electric fuse or cut-out having terminals at the ends which engage terminal-clips and terminal-clip supports embodying my invention in engagement with said terminal-clips. Fig. 2 is a plan view of the parts shown in Fig. 1. Fig. 3 is a transverse sectional view taken on the dotted line 3 3 of Fig. 2, showing the terminal-clip support in end view. Fig. 4 is a longitudinal sectional view of the parts shown in Fig. 3, taken on the dotted line 4 4, showing the terminal-clip support in plan view. Fig. 5 is a modification to be referred to.

a represents the cylindrical body of an ordinary electric fuse or cut-out, and *b b* the terminals projecting from the ends thereof, which are formed as blades.

c c represent the spring-acting fingers of a terminal-clip rising from a base *c'*, which is secured to any suitable base-plate *c''* in any suitable manner.

The fuse-terminals *b b* are thrust between the spring-acting fingers *c c* and are held by frictional engagement therewith.

Each terminal-clip is provided with a support comprehending the essential feature of this invention, which engages or embraces the spring-acting fingers thereof and holds them with a yielding pressure against undue separation, and, as herein shown, said terminal-

clip support consists of a clip comprising a pair of spring-acting fingers $d\ d$, projecting from a head or crown d' . The spring-acting fingers $d\ d$ are spaced apart sufficiently to receive between them the pair of spring-acting fingers $c\ c$ of the terminal-clip. The fingers $d\ d$ of the terminal-clip support preferably exert a pressure upon the fingers of the terminal-clips to cause the latter to more firmly engage and hold the terminal; yet even though such pressure should not be exerted by the fingers of the terminal-clip support the relative position of the fingers of the terminal-clip will be maintained.

The spring-acting fingers of the terminal-clip support constitute finger-engaging portions, as they engage the fingers of the terminal-clips.

The terminal-clip support may be pushed onto the ordinary knife-type terminal-clip transversely, as shown in Fig. 4, with respect

thereto or vertically, as shown in Fig. 5, and by its use the objections above noted to the ordinary form of terminal-clip are obviated.

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

The combination with an electric fuse or cut-out having a terminal and a terminal-clip engaging said terminal comprising a pair of spring-acting fingers, of a terminal-clip support engaging the fingers of said terminal-clip consisting of a pair of spring-acting fingers and a head, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEONARD B. BUCHANAN.

Witnesses:

B. J. NOYES,

H. B. DAVIS.