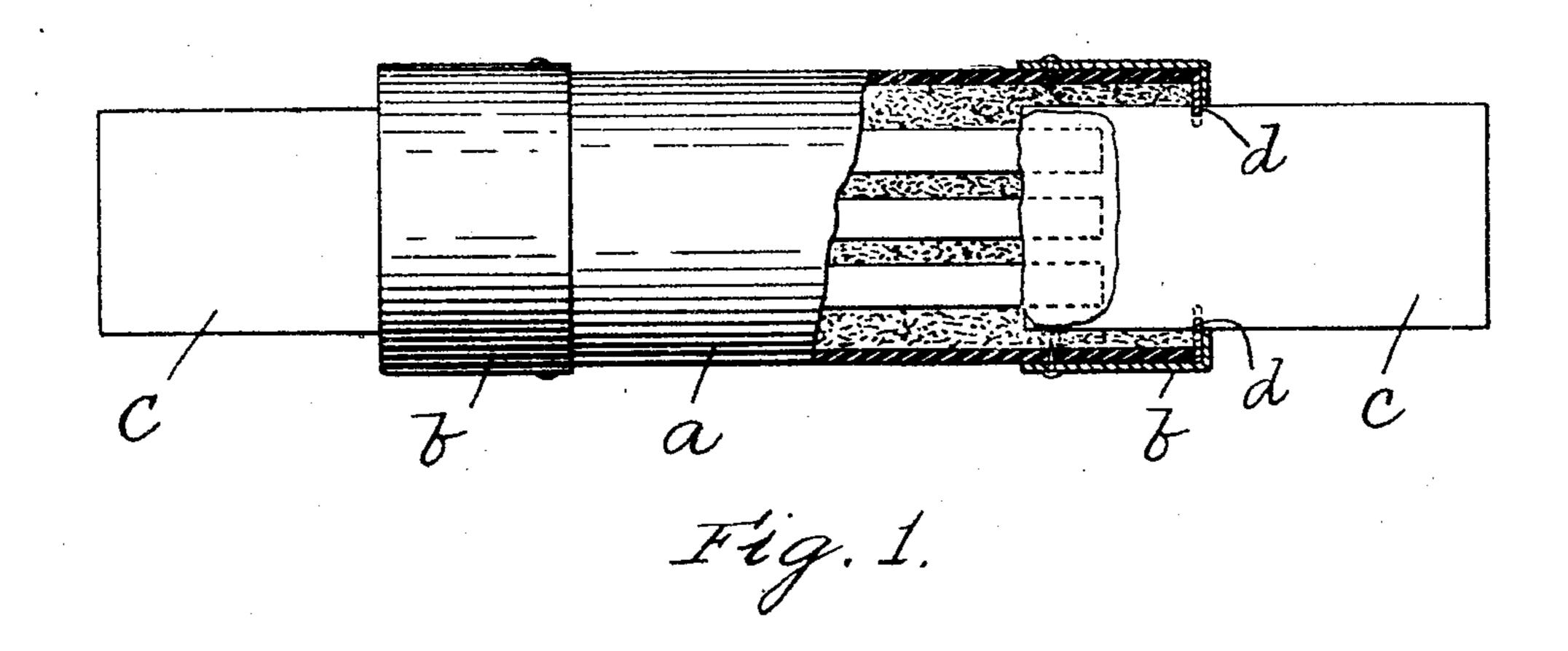
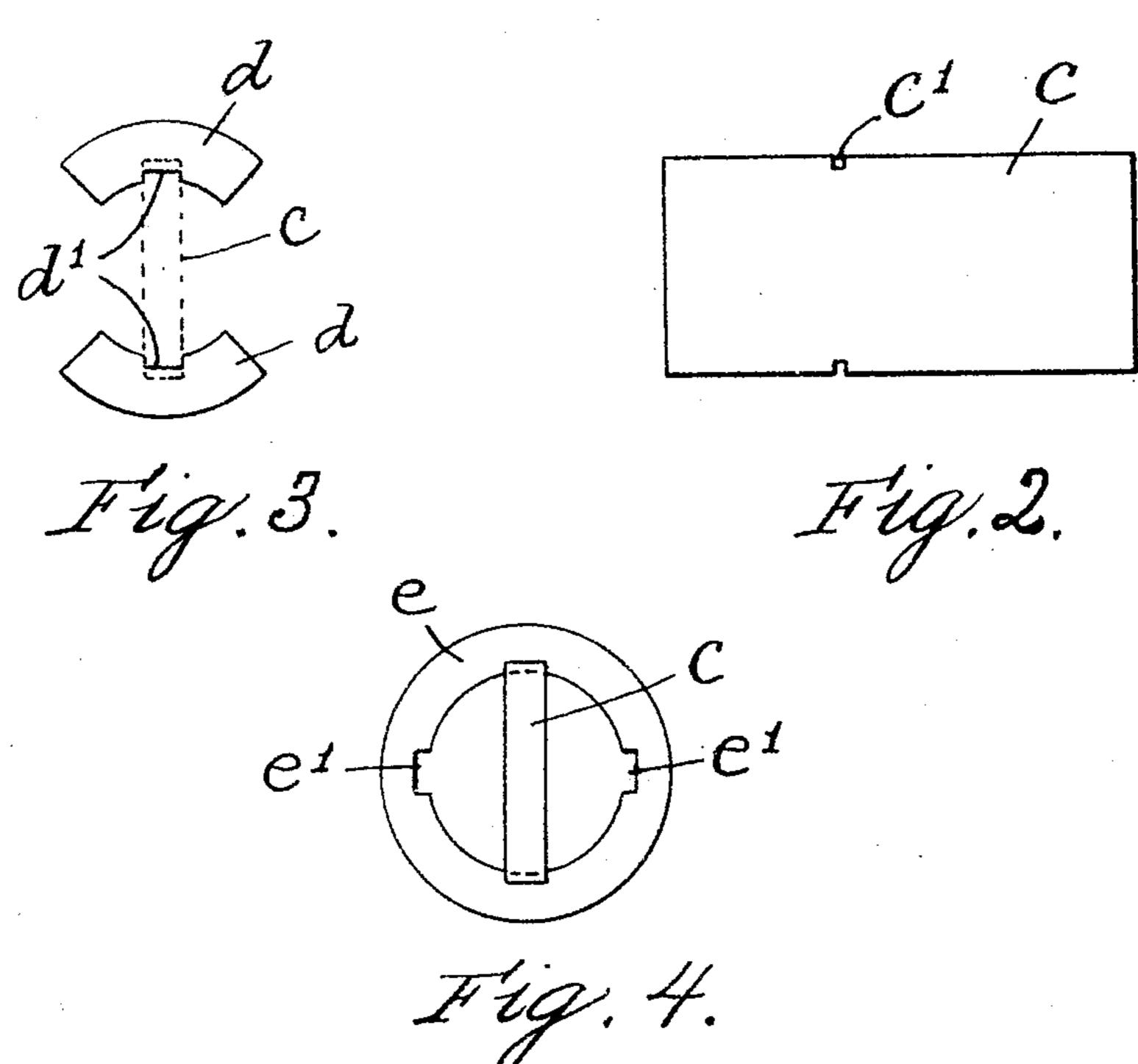
H. W. GIBBS. FUSE TERMINAL. APPLICATION FILED DEC. 9, 1904.





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## ITED STATES PATENT OFFICE.

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## FUSE-TERMINAL.

No. 797,054.

Specification of Letters Patent.

Patented Aug. 15, 1905.

Application filed December 9, 1904. Serial No. 236,246.

To all whom it may concern:

Be it known that I, Howard W. Gibbs, of Newburyport, county of Essex, State of Massachusetts, have invented an Improvement in Fuse-Terminals, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to electric fuses or cut-outs, and has for its object to provide improved means for securing the terminal plates to the shell or case, aiming to increase the strength and durability of such means and also to reduce to the minimum the cost of as-

sembling the parts.

Figure 1 shows in side elevation and partial section an electric fuse or cut-out having its terminal plates secured by means embodying this invention. Fig. 2 is a plan view of one of the terminal plates. Fig. 3 is a plan view of a pair of locking-plates which are employed as the means for securing the terminal plate to the shell or case. Fig. 4 is a modified form of locking-plate to be described.

a represents the tubular cylindrical body of the shell or case, and b b the caps, which are placed upon and secured to the ends of said body. At each end of the shell or case a terminal plate is secured, and said terminal plates and the means employed for securing them at each end of the shell or case are substantially the same. Hence one only will be described. The terminal plate c consists of a flat plate of copper, which is projected through a slot in the end of the cap b, the inner end of said terminal plate having one or more fuse-wires connected to it and the outer end of said terminal plate being adapted to be connected with the circuit, and said terminal plate has at each side of it a notch c', adapted to receive the securing means.

The securing means (shown in Figs. 1 and 3) consists of a pair of similarly-constructed locking-plates d, made of thin flat sheet metal. Each locking-plate d is curved, being represented as the segment of a circle or portion of a ring, the curvature of its outer edge corresponding to the curvature of the exterior of the cylindrical body, and the inner edge of said plate is provided with a notch d'of a width corresponding to the thickness of the terminal plate c. This notch d' is to receive the edge of the terminal plate. The

segmental locking-plates d are engaged with the opposite edges of the terminal plate at the notched part thereof, and when so engaged the terminal plate is held from longitudinal movement by the plates d entering the notches of said terminal plate, and said terminal plate is held from turning by entering the notches d' in the plates d. The terminal plate, with the pair of segmental locking-plates thereon, is projected through the slot of the cap until said locking-plates abut against the inside of the end of the cap, and then said cap is placed upon the end of the cylindrical body and the locking-plates thus brought into position between the cap and body, whereby they are positively held. The cap is then secured to the body by pins in any suitable manner.

In lieu of a pair of segmental plates a circular ring may be employed, as shown in Fig. 4.

The circular ring e, Fig. 4, is made quite thin, as a plate, and has at two opposite points notches e' of a width and depth to enable it to be slipped over and upon the terminal plate, and when brought to a position thereon over the notches c' said ring is turned a part of a cycle, and thus caused to enter the notches c'of the terminal plate, being thereby held firmly on or in engagement with the terminal plate. The terminal plate having the ring e thereon is then projected through the slot in the cap b until said ring abuts against the inner face of the end of the cap, and then the cap is placed upon the body and the ring brought to bear against the end of said body, being held fast between the cap and body. The cap is then secured to the body by pins in any suitable manner.

It will be seen that the terminal plate is held against longitudinal movement by the lockingplates or equivalent and that the lockingplates or equivalent are held between the cap and body and a very strong and durable means thus provided for securing the terminal plate to the body. Furthermore, it will be seen that the parts thus constructed may be easily and quickly assembled.

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

1. In an electric fuse or cut-out, a shell or case comprising a tubular body and the end caps thereon, having slots for the terminal plates, terminal plates projected through said slots, and means, held between the end caps and body, which engages and holds said terminal plates against longitudinal movement,

substantially as described.

2. In an electric fuse or cut-out, a shell or case comprising a tubular body, and end caps thereon, having slots for the terminal plates, terminal plates projected through said slots, having side notches, and locking-plates held in place between the caps and body, which enter the notches in the terminal plates, substantially as described.

3. In an electric fuse or cut-out, a shell or

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case comprising a tubular body, and end caps thereon, having slots for the terminal plates, terminal plates projected through said slots, having side notches, and notched locking-plates held in place between the caps and body, which enter the notches in the terminal plates, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two sub-

scribing witnesses.

HOWARD W. GIBBS.

Witnesses:

B. J. Noyes,

H. B. Davis.