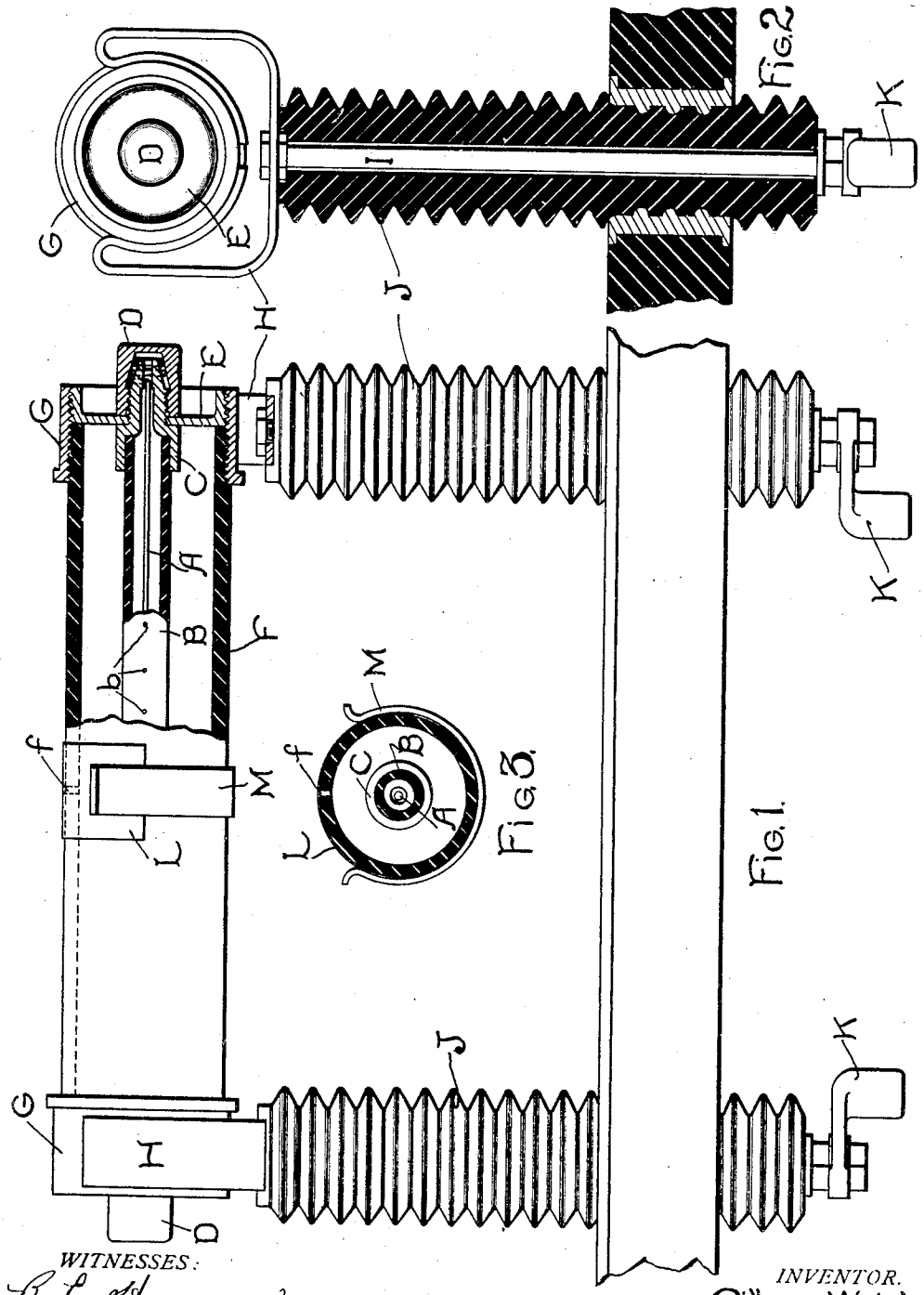
No. 770,034. PATENTED SEPT. 13, 1904.

G. WRIGHT.

FUSE.

APPLICATION FILED SEPT. 28, 1903.

NO MODEL.



WITNESSES:

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No. 770,034. Patented September 13, 1904.

UNITED STATES PATENT OFFICE.

GILBERT WRIGHT, OF PITTSFIELD, MASSACHUSETTS, ASSIGNOR TO STANLEY ELECTRIC MANUFACTURING COMPANY, OF PITTSFIELD, MASSACHUSETTS, A CORPORATION OF NEW JERSEY.

FUSE.

SPECIFICATION forming part of Letters Patent No. 770,034, dated September 13, 1904.

Application filed September 28, 1903. Serial No. 174,912. (No model.)

To all whom it may concern:

Be it known that I, GILBERT WRIGHT, a citizen of the United States, and a resident of Pittsfield, Massachusetts, have invented certain new and useful Improvements in Fuses, of which the following is a specification.

My invention relates to fuses for electric circuits; and its object is to provide a fuse of the inclosed type in which excellent electrical contact for the ends of the fuse is provided and yet in which the fuse when blown is readily replaced.

Another object of my invention is to provide means for indicating the condition of the fuse, which shall be readily renewable at any time.

A further object of my invention is to provide such a construction of fuse that it may be easily taken apart for the purpose of replacing any of the parts when necessary, but which shall nevertheless be strong and self-contained, so that all arcing or other effects of an explosion shall be prevented from reaching the outer air.

In the accompanying drawings, Figure 1 shows a side elevation of a fuse constructed in accordance with my invention. Fig. 2 shows an end elevation of the same with a supporting-insulator shown in cross-section. Fig. 3 is a cross-section of the fuse near its center.

In the drawings, A represents the fuse, which is mounted within the inner barrel or chamber B. This barrel is made of fiber or other insulating material and carries at its ends the end pieces C. End pieces C are screw-threaded and taper at the ends. They are also split down a short distance at the end, as shown in Fig. 1, in order to allow the fuse to be brought out from the interior passage and given one or two turns around the tapered surface of the end pieces.

D D are caps screw-threaded and having a tapered socket. When caps D are screwed onto end pieces C, the end of fuse A is wedged between the tapered surfaces and flattened out, thus furnishing an excellent electrical contact between fuse A and end piece C.

E E are end plates supported by end pieces C and caps D. Between end plates E is supported the outer barrel F.

G represents caps or rings which screw on over end plates E and barrel F, locking them securely together and making electrical contact with end plates E.

H represents spring-clips supporting and making electrical contact with the rings G.

The flanges on rings G prevent the fuse from slipping longitudinally out of place. Clips H are supported on rods I, mounted inside of insulators J and carrying at their other ends terminals K.

It will be seen from Fig. 1 that inner barrel B is provided with a number of holes or perforations *b b*. These allow the gases generated by the disrupting of the fuse to make their exit into the chamber between the inner and outer barrels, thus preventing the inner barrel from bursting. Outer barrel F is made sufficiently strong and with a sufficient air-cushion between its inner surface and the outer surface of barrel B so that there is no danger of its being damaged itself or by its explosion damaging surrounding objects. Instead of the numerous holes *b b* of inner barrel B outer barrel F has a single hole *f*. This hole is covered by a sheet L of easily-ruptured material, such as a thin sheet of paper, which is held in place over hole *f* by spring-clip M. When fuse A blows, the pressure of gases within barrel F will blow a hole through sheet L, and thereby give notice that the fuse is ruptured. When the fuse is replaced, sheet L may be readily slipped out from under spring-clip M and another sheet substituted. In order to change fuse A, it is evident that it is only necessary to unscrew caps D D. A new fuse may then be readily inserted and given a few turns around the tapered end

pieces C. Thus when caps D are screwed back into place the ends of the new fuse will be flattened and good electrical contact afforded.

It is evident that a fuse built in accordance with my invention may be readily taken apart, so that any part may be quickly replaced, if necessary.

I do not desire to limit myself to the particular construction and arrangement of parts here shown, since changes therein which do not depart from the spirit of my invention and which are within the scope of the appended claims will be obvious to those skilled in the art.

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

1. In combination, a fuse, a barrel surrounding said fuse, tapered end pieces for said barrel adapted to serve as a core for one or more turns of said fuse, and caps adapted to compress the ends of said fuse upon said end pieces.

2. In combination, a barrel, tapered end pieces therefor, a fuse extending through said barrel and having its ends wound on the outer surfaces of said end pieces, and caps adapted to compress the ends of said fuse upon said end pieces.

3. In combination, a fuse, a barrel surrounding said fuse, cone-shaped end pieces for said barrel, and caps adapted to be screwed onto said end pieces and to compress the ends of said fuse on the cone-shaped surfaces of said end pieces.

4. In combination, a fuse, a barrel surrounding said fuse, end pieces for said barrel, means for compressing the ends of said fuse upon said end pieces, conducting members in contact with said end pieces, a second barrel supported by said members and surrounding the first-mentioned barrel, and contacts engaging and supporting said members.

5. In combination, a fuse, a barrel surrounding said fuse, a hole extending from the inner to the outer surface of said barrel, a sheet of easily-disrupted material covering said hole, and a spring-clip embracing said barrel and adapted to hold said sheet in place.

6. In combination, a fuse, a barrel surrounding said fuse and pierced by a plurality of holes, a second barrel surrounding the first barrel and pierced by a single hole, a sheet of paper covering said hole, and a spring-clip adapted to hold said sheet in place.

7. In combination, a barrel, flanged end pieces therefor, contacts engaging and supporting said end pieces, a second barrel supported within said first barrel, a fuse within said second barrel, and members in electrical connection with said end pieces adapted to press upon the ends of said fuse.

8. In combination, a fuse, a barrel surrounding said fuse, end pieces for said barrel having tapered surfaces and being split through said surfaces, and means for compressing the ends of said fuse upon said surfaces.

9. In combination, a fuse, a barrel surrounding said fuse, end pieces for said barrel having tapered surfaces and lateral passages through which the ends of said fuse are led out from the interior to said surfaces, and means for compressing the ends of said fuse upon said surfaces.

10. In combination, a fuse, a barrel surrounding said fuse, end pieces for said barrel having split, tapered surfaces, and caps adapted to be screwed onto said end pieces and to compress the ends of said fuse upon said surfaces.

Signed at Pittsfield, Massachusetts, this 24th day of September, 1903.

GILBERT WRIGHT.

Witnesses:

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