

No. 795,954.

PATENTED AUG. 1, 1905.

H. E. BRANT.
FUSE IGNITER.

APPLICATION FILED APR. 5, 1904.

Fig. 2.

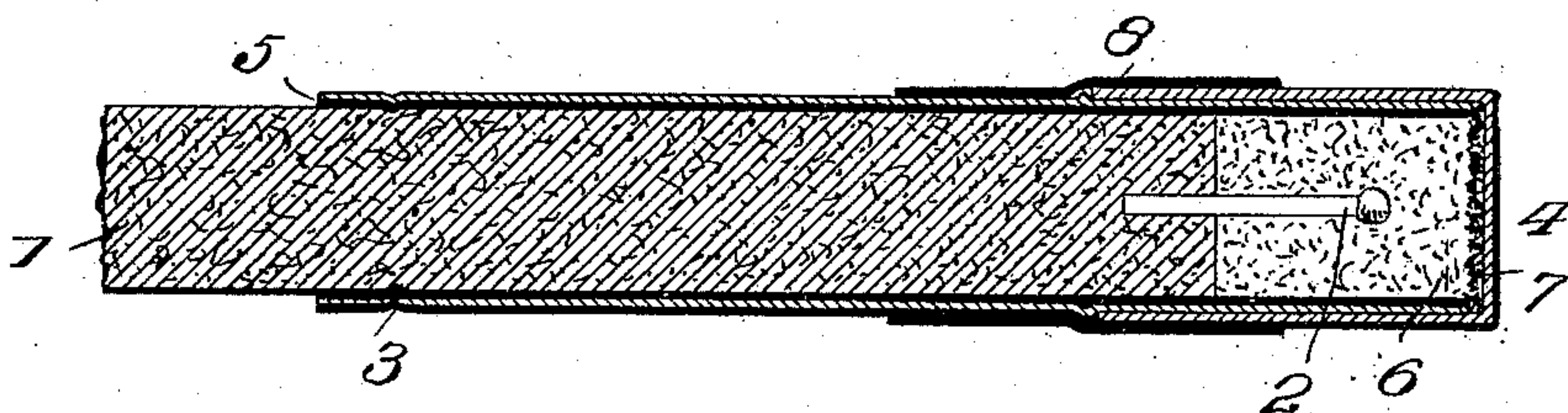


Fig. 1.

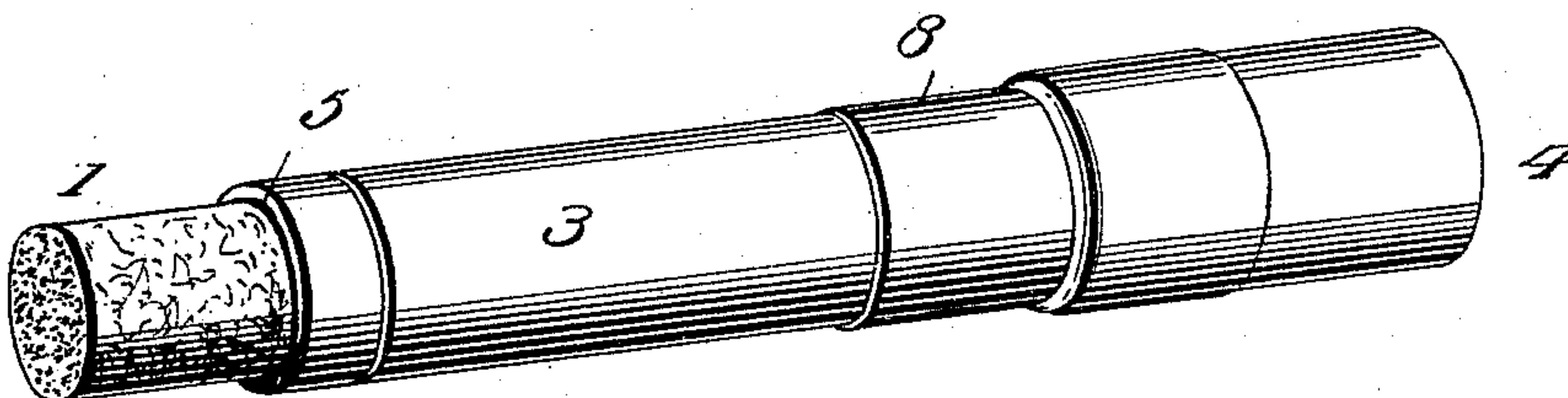


Fig. 3.

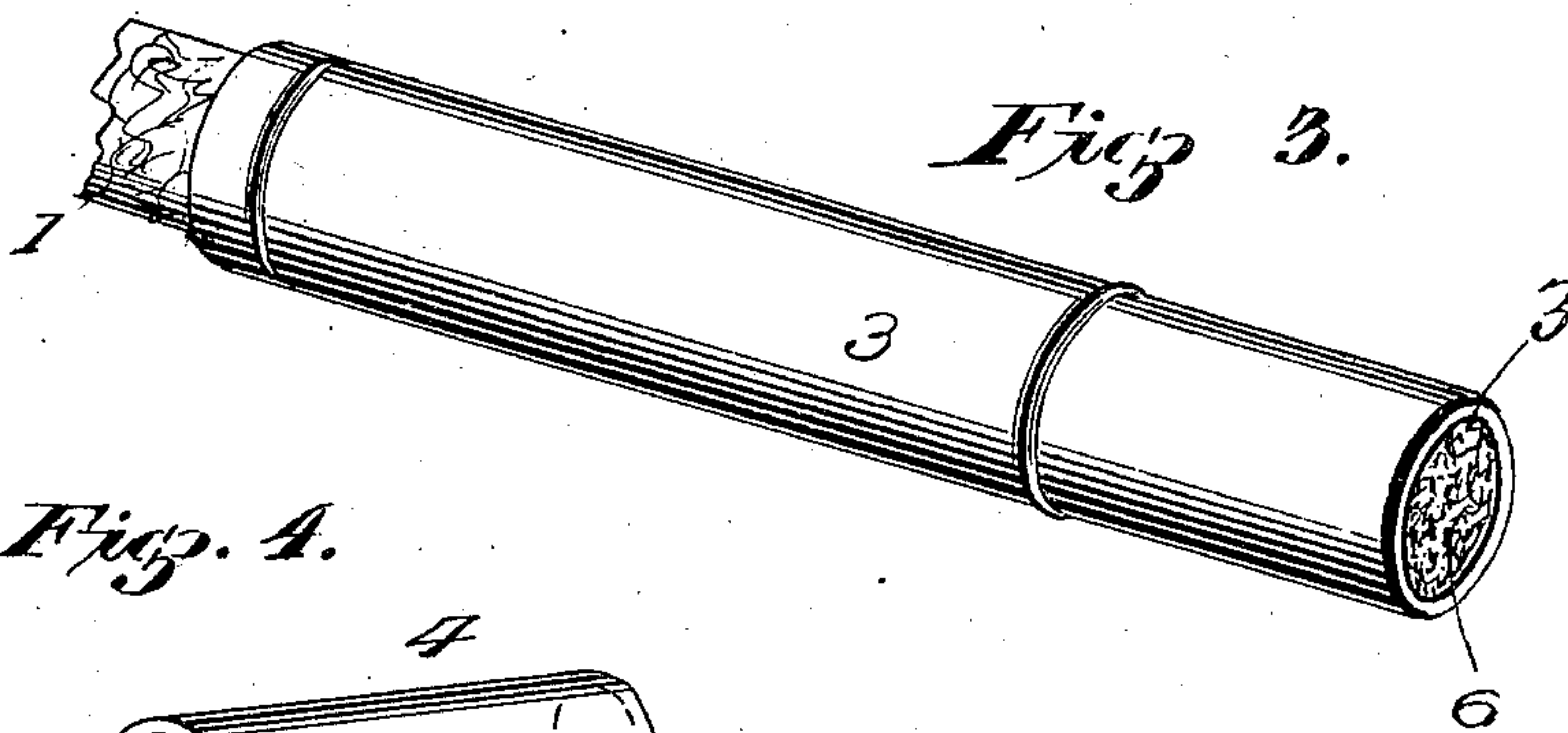
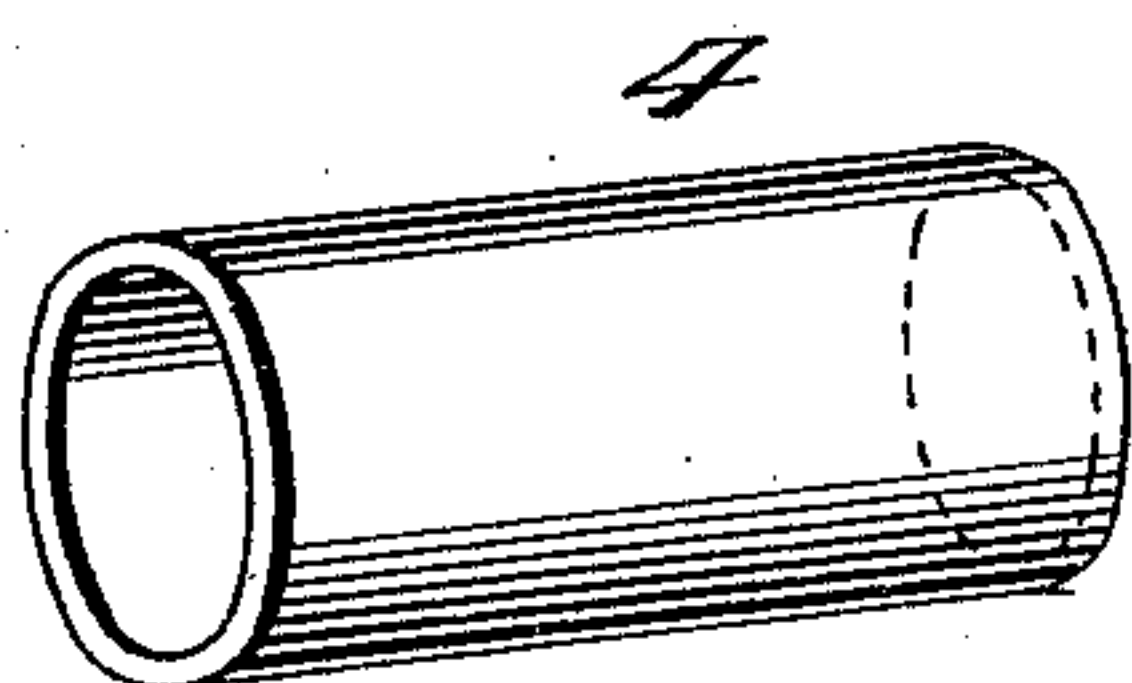


Fig. 4.



Witnesses

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HENRY E. BRANT, OF LARAMIE, WYOMING.

FUSE-IGNITER.

No. 795,954.

Specification of Letters Patent.

Patented Aug. 1, 1905.

Application filed April 5, 1904. Serial No. 201,758.

To all whom it may concern:

Be it known that I, HENRY E. BRANT, a citizen of the United States, residing at Laramie, in the county of Albany and State of Wyoming, have invented certain new and useful Improvements in Fuse-Igniters, of which the following is a specification.

This invention is designed to provide novel means for the lighting of fuses used chiefly in mining operations, the purpose being to obviate the use of matches and to guard against impairment of the igniting means by dampness while at the same time assuring ignition of the fuse at each operation.

The device consists of two members or parts detachably connected, one of the parts being provided with an igniting compound and having the fuse fitted thereto and the other member being provided with an abrading surface or part, which in the relative movement and separation of the two parts causes lighting of the fuse by setting off the igniting composition.

The invention further contemplates means for excluding dampness and preventing the same reaching either the fuse or the igniting composition.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a fuse-igniter embodying the invention. Fig. 2 is a central longitudinal section thereof. Fig. 3 is a perspective view of the body member of the igniter. Fig. 4 is a perspective view of the member, which is made removable and provided with the abrading or lighting surface.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The fuse 1 may be of any make and is provided at its lighting end with an igniting-point 2.

The invention comprises the members or parts 3 and 4, detachably fitted. The member or part 3 constitutes the body and is pref-

erably tubular and receives the igniting end of the fuse 1. A lining 5, of rubber or other non-absorbent and moisture-excluding material, is fitted within the member or part 3 and affords protection for the lighting end of the fuse and prevents any dampness reaching the igniting composition. The inner end of the member 3 is crimped about the fuse to insure the formation of a tight joint, as well as to hold the parts in place. The member or part 4 is hollow and of cap form and is fitted to the member or part 3 by means of a slip-joint or in any desired manner. In the preferable construction the rim of the cap member 4 encircles the outer end portion of the tubular part or member 3, thereby holding the parts together and in alinement.

The igniting composition is indicated at 6 and may be of any manufacture, so as to ignite upon abrasive or rubbing action. The igniting composition 6 is arranged at the outer end of the tubular member 3 and in contact with the fuse or in such a manner as to insure lighting thereof. The abrasive surface or part 7 is applied to the cap member 4 in such a manner as to come in contact with the igniting composition, whereby relative movement of the two members 3 and 4, as by turning one upon the other, will effect lighting of the igniting composition 6, whereby the fuse is set off. Within the purview of the invention it is contemplated to make the members 3 and 4 relatively movable in any manner, the purpose being to effect ignition of the igniting composition. However, it is preferred to produce the lighting of the fuse by rotation of the cap 4 upon the member 3.

A sealing-band 8 encircles the joint formed between the members 3 and 4 and prevents the entrance of any moisture or dampness into said joint. The sealing-band may be of any suitable moisture-proof material. However, rubber is preferred, the same being stretched and forced upon the igniter so as to overlap the joint. The sealing-band, in addition to the function of excluding moisture, may also serve to hold the members or parts 3 and 4 together, thereby preventing casual displacement thereof.

When it is required to light a fuse provided with igniting means embodying the invention, the members 3 and 4 are grasped in opposite hands, and the cap 4 is turned either to the right or to the left or backward and forward, as may be desired, to insure setting off the igniting composition, after which the cap

is removed to admit of air reaching the fuse, so as to support combustion. The turning of the cap to effect lighting of the igniting composition at the same time either loosens or breaks the seal and releases the cap, thereby facilitating its removal.

Having thus described the invention, what is claimed as new is—

1. A fuse-igniter comprising complementary members, the one secured to the fuse and receiving an igniting composition and the other movable and separable from the member attached to the fuse and provided with a surface for lighting the same upon the initial movement of the separable member when withdrawing it from the fuse member, substantially as set forth.

2. A fuse-igniter comprising complementary members, one of said members being tubular and fitted to an end of the fuse and projecting therefrom, igniting composition filled in the projecting end of the fuse member, an igniting-point inserted in the end of the fuse and in said composition, the other member being of cap form closely fitting the fuse mem-

ber, and an igniting composition within the cap member in direct contact with the aforesaid igniting composition to insure lighting thereof when removing the cap, substantially as specified.

3. A fuse-igniter comprising a member secured upon the end of the fuse, a lining of moisture-excluding material arranged within said member and encircling the end of the fuse inserted therein, an igniting composition filling the outer end of said member, a companion member slipped upon the first-mentioned member and provided with an abrasive or igniting part in direct contact with the igniting composition, and a sealing-band preventing casual separation of the members and excluding moisture from the joint thereof, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY E. BRANT. [L. s.]

Witnesses:

C. S. GREENBAUM,
JOHN W. HULLETT.