No. 682,537. Patented Sept. 10, 1901.

F. & W. DUTCHER.

SIGNAL TORCH.

(Application filed May 29, 1901.

(No Model.)

Fig. 1

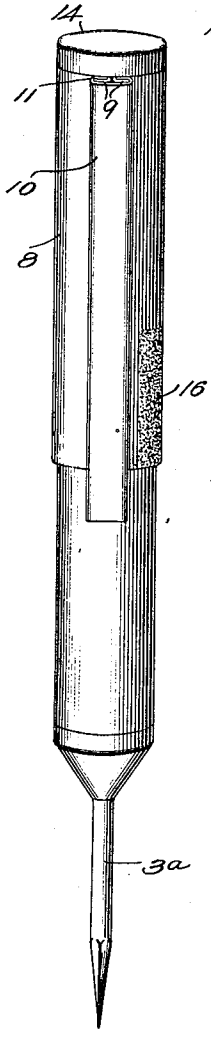


Fig. 2.

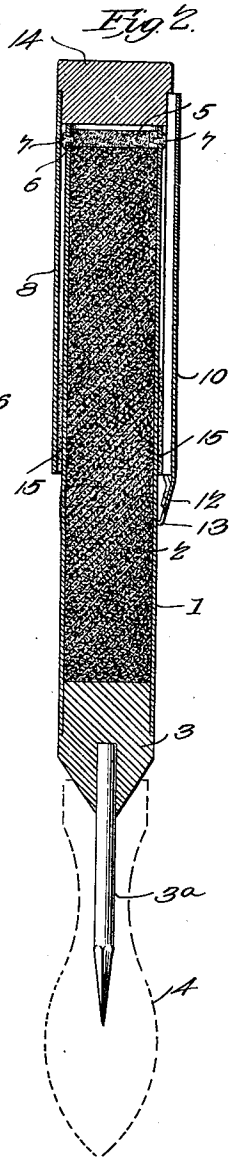


Fig. 5

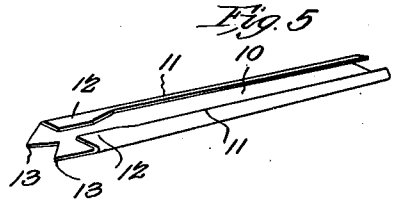
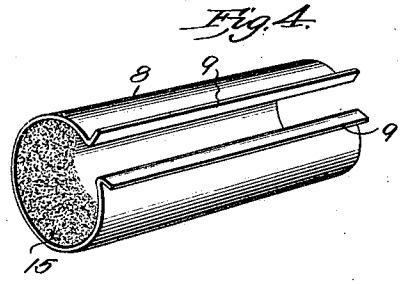


Fig. 4.



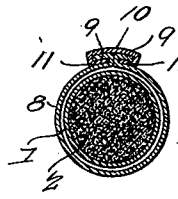


Fig. 3

Witnesses

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UNITED STATES PATENT OFFICE.

FRANK DUTCHER AND WARREN DUTCHER, OF FOSTORIA, OHIO.

SIGNAL-TORCH.

SPECIFICATION forming part of Letters Patent No. 682,537, dated September 10, 1901.

Application filed May 29, 1901. Serial No. 62,387. (No model.)

To all whom it may concern:

Be it known that we, FRANK DUTCHER and WARREN DUTCHER, citizens of the United States, residing at Fostoria, in the county of Seneca and State of Ohio, have invented a new and useful Signal-Torch, of which the following is a specification.

This invention relates to torches of that class embodying an inflammable material and an igniting-cap for convenience in igniting the torch, and has for its object to provide an improved form of igniting-cap which is arranged to be held against accidental displacement and permitting of the convenient removal thereof to ignite the torch. It is furthermore designed to arrange for insuring the ignition of the torch by the withdrawal of the cap without care as to the relative position thereof upon the body of the torch.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a torch constructed in accordance with the present invention. Fig. 2 is a central longitudinal sectional view thereof. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of the cap before completed and applied to the torch. Fig. 5 is a detail perspective view of the metallic fastening for the cap.

Like characters of reference designate corresponding parts in all of the figures of the drawings.

Referring to the accompanying drawings, 1 designates the open-ended tubular body or case of the torch, within which is held the inflammable material 2. One end of the tubular body is closed by means of a plug 3, from which projects a pointed pin 3^a, disposed in line with the longitudinal axis of the device and designed to be stuck into some object for supporting the torch when burning. Normally this pin is covered by means of a detachable handle 4 (indicated by dotted lines in Fig. 2) for convenience in holding the torch in the hands. The inflammable material 2 is terminated short of the opposite end of the tubular body for the reception of a thin layer of material 5, which is quickly ignitible. At the peripheral edge of this latter material the tube is provided with the slots or openings 6 for the reception of the frictionally-ignitible material 7, such as is used in the manufacture of matches or any such similar material.

For closing the open end of the tubular body there is provided a cap 8, that is formed from a single blank of material, as indicated in Fig. 4. This blank, which is preferably of heavy paper, is bent into the form of an open-ended tube, with its opposite edges bent back and outwardly to form the flanges or strips 9, which are connected by means of a metallic fastening 10, which is in the form of a long narrow strip having its opposite longitudinal edges bent over upon the same side to form flanges 11, that snugly embrace the flaps or bent edges 9 of the cap to hold the same in shape. In practice the fastening is slid endwise upon the flaps 9 from what is to be the inner end of the cap until it is stopped by means of the flattened portions 12 of the flanges 11 engaging the inner ends of the flaps. The outer end of the fastening is flush with the outer end of the cap, and the inner end thereof is projected beyond the adjacent end of the cap and provided with an intermediate substantially V-shaped notch to form the opposite pointed fingers or prongs 13, which are bent to frictionally engage the exterior of the torch-body after the cap has been applied thereto, so as to prevent accidental endwise movement of the cap and at the same time permitting of the cap being forcibly withdrawn from the torch. The cap is applied to the torch from the pin end thereof, so as to avoid frictional contact with the igniting material 7, that projects exteriorly of the torch-body, and the plug 14 is applied after the cap has been projected slightly beyond the upper end of the torch. A suitable frictional surface 15 is provided upon the interior of the cap and at the inner end only, said surface being preferably painted thereon and extending entirely around the interior of the cap in the form of a marginal

band, so that when the cap is quickly withdrawn the frictional surface will ignite the material 7, and by reason of the fact that the said surface extends entirely around the cap the ignition of the torch is insured without requiring care to determine that the frictional surface is alined with the material 7.

At any desired place upon the exterior of the torch—as, for instance, at 16 upon the cap—there is provided an additional frictional surface for convenience in lighting a match should the torch fail to light when the cap is withdrawn therefrom.

What is claimed is—

1. A torch, having a frictionally-ignitible device projected externally thereof, and a cap fitted to the torch, housing the ignitible device, and provided with an internal marginal frictional surface extending entirely around the cap and located inwardly from the ignitible device.

2. A torch, having a removable igniting-cap, formed from a single blank, and a fastening device connecting the edges of the blank, and having its inner end projected beyond the cap and formed for engagement with the torch to prevent accidental displacement of the cap.

3. A torch, having a removable igniting-cap, formed from a single blank folded into a tube, with its opposite edges folded backwardly and externally, and a fastening device of metal having its opposite edges folded inwardly in opposite directions to embrace the respective edges of the cap-blank, the inner end of the fastening being projected beyond the cap and formed into a pointed spring-finger in frictional engagement with the body of the torch to prevent accidental displacement of the cap.

4. As a new article of manufacture, an igniting-cap for torches, comprising a tubular body which is open at one end and closed at the opposite end, the open end having an internal frictional surface extending entirely around the cap.

5. As a new article of manufacture, an igniting-cap for torches, comprising a tubular body formed from a single blank folded into a tube, the opposite meeting edges of the blank being folded outwardly and backwardly in opposite directions, and a metallic fastening-strip having its opposite longitudinal edges folded inwardly in opposite directions to snugly embrace the respective bent edges of the blank, the strip being extended beyond the open inner end of the cap and notched to form pointed spring fingers or prongs, and the opposite end of the cap being closed, the interior of the cap being provided with a frictional surface.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

FRANK DUTCHER.
WARREN DUTCHER.

Witnesses:
JAS. P. MONROE,
B. F. WIRKUTT.