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B. E. DE TUSCAN

2,294,026

FENCING FOIL

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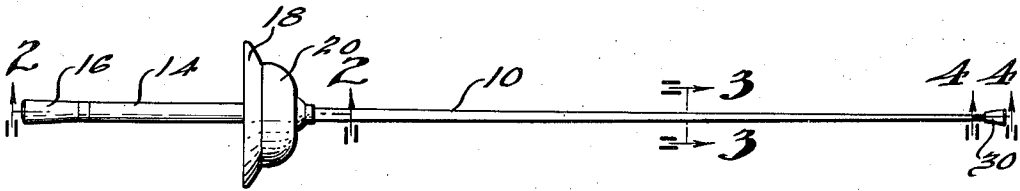


FIG. 1.

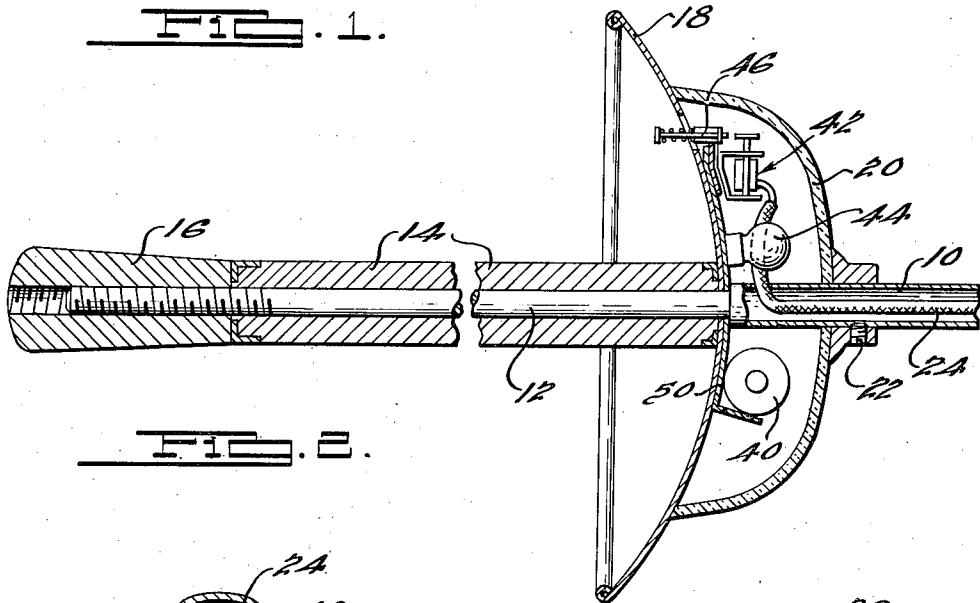


FIG. 2.

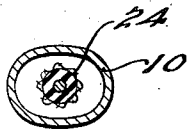


FIG. 3.

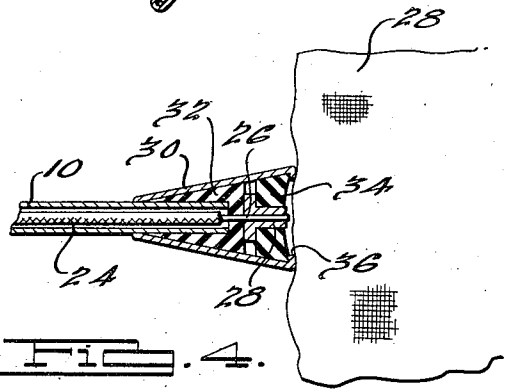


FIG. 4.

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FENCING FOIL

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5 Claims. (Cl. 272—57)

This invention relates to the art of fencing and particularly relates to improved foils for use in the game of fencing or in épée and saber.

One of the primary objects of the present invention is to provide an improved fencing blade in which such blade is tubular in form so that it is lighter in weight than the prior solid blades now used in conventional fencing and when in use will not break but rather will buckle without breaking, thereby rendering it less dangerous in use in that the prior solid blades would break and thereby become dangerous.

A further object of the invention is to provide an improved fencing blade which is tubular in form so that it is readily adaptable in the use of electrical foils, épées, and sabers.

A further object of the invention is to provide an improved electrical foil or épée of the types disclosed and claimed in U. S. patent to C. M. Harter, No. 2,206,697, granted July 2, 1940, in that in the present invention the contact element at the tip of the blade is so constructed and arranged that contact will only be made in the event of a proper touch.

Other objects of the invention will become apparent from the following specification, the drawing relating thereto, and from the claims hereinafter set forth.

In the drawing, in which like numerals are used to designate like parts in the several views throughout:

Figure 1 is an elevational view of a foil embodying the improved features of the present invention;

Fig. 2 is an enlarged cross-sectional view taken substantially along the line 2—2 of Fig. 1;

Fig. 3 is an enlarged cross-sectional view taken substantially along the line 3—3 of Fig. 1; and

Fig. 4 is an enlarged cross-sectional view taken substantially along the line 4—4 of Fig. 1 and showing the tip of the blade in its association with an external electrical conductor such as a metallized jacket worn by an opponent.

Referring to the drawing, a foil is illustrated which comprises a blade 10. Such blade 10 is of tubular, oval cross-sectional configuration gradually tapering from the handle end of the blade toward the tip. The tubular blade 10 is light in weight and is flexible so that such blade may bend but when bent a considerable amount will merely buckle without breaking. Such blade 10 has its handle end welded to a co-axial handle portion 12, which is in the form of a rod of less diameter than the smallest cross-sectional diameter of the blade 10. The handle portion of the

foil includes removable portions 14 and 16, each of which is provided with an opening there-through so that such portion 14 is slidably received over the handle portion 12. The rear end of the rod 12 is threaded and threadably receives thereon the removable portion 16 for holding the elements in assembled relationship.

A conventional guard 18 is received between the blade 10 and the handle portion 14 and is held in its assembled position when the portion 16 is threaded on to the member 12.

A second guard or bell 20 is associated with the guard 15 and is releasably secured to the blade by means of a set screw 22. The bell 20 provides a cover for the electric mechanism including the relay, batteries and indicating means, and may be easily removed in case it is necessary to repair the electrical mechanism or replace the worn out elements thereof. The bell 20 may be transparent or may be formed of metal and perforated in order to render the electric bulb visible and which when lighted forms the visible indicating means.

The electric circuit for the indicating means includes an insulated conductor in the form of an insulated wire 24, which is disposed within the tubular blade 10 and extends from the tip to the handle thereof. The tip end of the electrical connector 24, as indicated at 26, is secured to a metallic, electric contact element 28. Such contact element 28 is mounted within a metal, conical shield element 30, which forms an electric contact element and which embraces and is fixed to the tip of blade 10 in electric contact therewith.

The contact element 28 is mounted within the element 30 and is separated therefrom by means of insulating members 32 and 34, which may be rubber, and which are compressed within the shell 30 so that the contact element 28 is insulated from the shell 30 and also from the blade 10. The shield member 30 is provided with an open annular face 36 having the edges turned in for securing and mounting the insulating member 34. The forward contact tip of contact element 28 projects slightly forwardly beyond the exposed face of member 34, which is depressed inwardly from the forward annular edge of element 30. It will thus be seen that the exposed tip of contact element 28 is recessed with respect to the annular edge 36, so that the tip of the foil must engage the metallized jacket 38 with some force and be in the form of a thrust in order that the metallized jacket 38 contacts the contact element 28 together with the annu-

lar, metal face of element 30 and thereby close the electric circuit.

The electric circuit here used is such as that disclosed in the above mentioned U. S. patent and includes the wire 24, which passes through an opening provided in the base of blade 10 and is connected through a suitable electric connector with one end of the relay. Batteries, such as the one shown at 40, are mounted within bell 20; and also mounted within bell 20 are relay elements generally indicated at 42 and indicating bulbs indicated at 44. Release means indicated at 46 are associated with the relay 42 and all of such elements are mounted within the bell 20. When contact is made between elements 28 and 30, 15 through the metallized jackets 38, the electric circuit to the relay 42 is closed. The circuit is completed through the ground connection of element 30 with blade 11 and through the ground connection of one of the bulb terminals with the bulb socket which is grounded to blade 11 through element 50 and shield 18. For a complete description of the electric circuit and its operation, reference may be had to the patent above referred to.

Formal changes may be made in the specific embodiment of the invention described without departing from the spirit and substance of the invention, the scope of which is commensurate with the appended claims.

What is claimed is:

1. In a foil for use in conventional fencing, a blade secured to a handle, said blade being tubular and oval in cross-section.

2. In a foil for use in conventional fencing, a blade secured to a handle, said blade being tubular and oval in cross-section and gradually tapering towards the tip thereof.

3. In a foil for use in conventional fencing, in combination, a blade having a handle portion, a guard interposed between said blade and handle portion, an insulated electric contact element adjacent the tip of said blade, indicating means electrically connected with said contact element whereby the circuit to said indicating means is normally opened, a shield member adjacent the tip of said blade and shielding said contact element against contact except in the event of thrusts, said contact being constructed and arranged to close said circuit through an external electric conductor, such as a metallized jacket worn by an opponent.

4. In a foil for use in conventional fencing, in combination, a blade having a handle portion, a guard interposed between said blade and handle portion, indicating means, a metallic shield member mounted on said blade adjacent the tip thereof, an electric contact element mounted within said shield member and insulated therefrom, means electrically connecting said contact element with said indicating means, said shield member having an open forward face, and said contact element being recessed inwardly of said open face.

5. In an electric foil, a blade, a metallic shield member mounted on the tip of said blade in contact therewith, an electric contact element mounted within said shield member and insulated from said shield member and from said blade, said shield member having an open forward face and said contact portion exposed through said face, the exposed portion of said contact element being disposed inwardly of the open forward face of said shield element.

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