Sept. 4, 1923. 1,467,231

F. N. COX

SURGICAL TOOL

Filed June 1, 1921

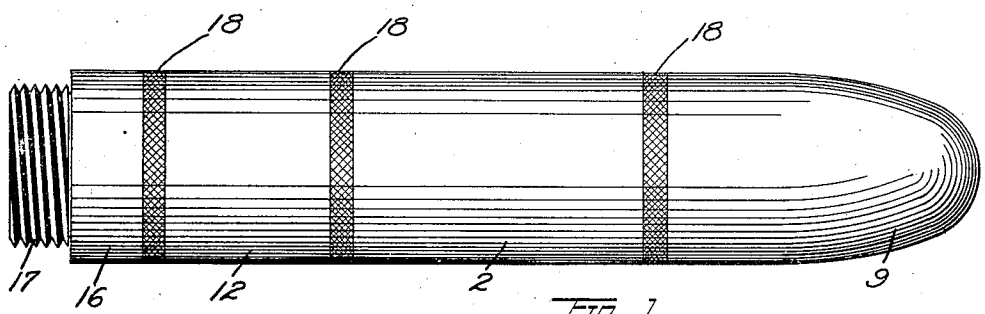

Fig. 1

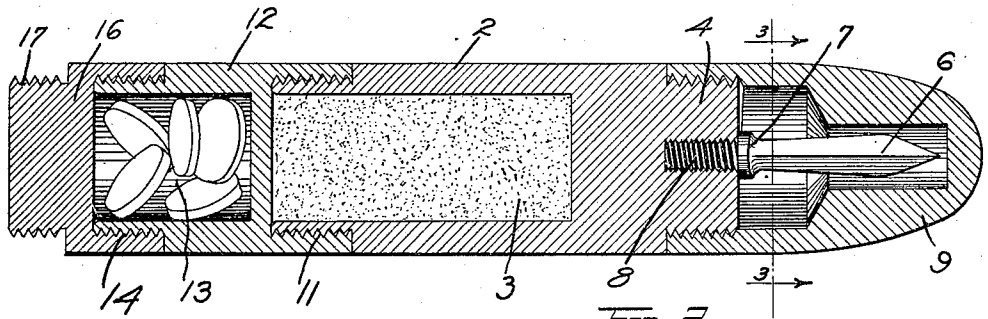

Fig. 2

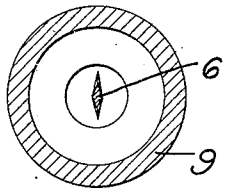

Fig. 3

WITNESS

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Patented Sept. 4, 1923. 1,467,231

UNITED STATES PATENT OFFICE.

FREDERICK NUTTER COX, OF BERKELEY, CALIFORNIA.

SURGICAL TOOL.

Application filed June 1, 1921. Serial No. 474,184.

To all whom it may concern:

Be it known that I, FREDERICK NUTTER COX, a British subject, and a resident of Berkeley, county of Alameda, and State of California, have invented a new and useful Surgical Tool, of which the following is a specification.

My invention relates to surgical tools for treating promptly in the field snake or other bites, and also providing an efficient disinfectant for wounds and sores, and a means of cautery for bites or wounds suspected of infection by rabies or tetanus respectively.

One of the objects of the invention is to provide a self-contained implement for the prompt and efficient treatment of snake bites. Another object of the invention is to provide a surgical tool embodying a lancet for laying open the wound, and two chambers in which are carried remedial agents. Another object of the invention is the provision of a device of the character described which will be durable under the conditions obtaining in the tropics and which will hold the remedial agents without danger of loss by rupture or loosening of the container.

My invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of my invention. It is to be understood that I do not limit myself to the showing made by the said description, as I may adopt variant forms of my invention within the scope of the claim.

Referring to the drawings, Fig. 1 is an elevation of the surgical tool of my invention. Fig. 2 is a vertical sectional view thru the center of the device. Fig. 3 is a vertical sectional view taken in a plane indicated by the line 3—3 of Fig. 2.

In tropical countries, especially in India, thousands of persons die yearly as a result of the bites of poisonous snakes. In other countries as well, and especially in the unsettled portions thereof, the traveler faces a very real danger when bitten by venomous reptiles or insects if he is without prompt aid. Physicians agree that the best treatment for such wounds is the prompt application of a tourniquet above the wound to prevent as far as possible the absorption of the venom into the circulation, followed by the opening up of the tissue immediately surrounding the wound, the expulsion of as much venom as possible from surrounding tissue by hand pressure, and cleansing, the application of an oxidizing agent, such as permanganate of potash, and in the case of alkaloid poisons the stimulation of the heart by strychnine or caffeine. Since in an emergency of this sort prompt action is absolutely essential, it is necessary that the tool with which the incision about the wound is made and the remedial agent shall be immediately available on the spot when urgently needed. Since permanganate of potash will cause bad burns upon the body if spilled in the pockets of a garment and left there to become moistened by rain or perspiration, it is necessary to provide a tight and durable container, unaffected by moisture, ordinary heat, and usage. The proper use of the lancet requires an adequate mounting therefor, that is to say, a handle large enough to be readily grasped and manipulated. If unnecessary delay and insufficient incision are to be avoided, the lancet must be sharp and properly protected to retain it in good condition. To meet all of these problems I have devised my present invention which comprises a barrel 2 which is hollowed out to form a chamber 3, sufficiently large to hold a quantity of permanganate of potash sufficient for the above mentioned purposes. The closed end of the barrel is provided with a threaded nipple 4 in which a two edged pointed blade 6 is removably mounted. Preferably the blade is formed with a flange 7 and a threaded shank 8 which screws into the end of the barrel. A cap 9 adapted to enclose the blade 6 is internally threaded to screw over the nipple 4, and when in place completely encloses and protects the blade.

The open end of the barrel is provided with a nipple 11 adapted to be engaged by the threaded end of the closure 12 which also comprises a container for tablets of strychnine or caffeine carried in the chamber 13 formed in the closure. The open end of the closure is also provided with a nipple 14 adapted to receive the threaded end of the closure 16 the other end of which is formed with a nipple 17 threaded to receive the cap 9 when it is removed from the lancet end of the device. Preferably the portions of the device are provided with knurled areas 18 to indicate the joints between them, and if desired, the color of the closure 16 may be different from the rest of the device

for the same reason. I prefer to make the tool body of bakelite or vulcanite or similar substance which is unaffected by ordinary changes of temperature, moisture and handling, the knife being of course made of steel.

The entire device as shown in Fig. 1 may readily be carried in a pocket where it is instantly available in case of need. In the event of a bite it requires but a few seconds to unscrew the cap 9 so that the lancet 6 may be used to open the wound. The closure 12 is then readily unscrewed so that the permanganate is available for use, after which the closure 16 is taken off to give access to the heart stimulant. After use, the lancet blade should be cleaned and the chambers reloaded for any subsequent emergency.

I claim:

A surgical tool comprising a hollow barrel having a threaded nipple at each end, a lancet arranged at one end of said barrel, a closure for said hollow barrel comprising a container threaded at one end to fit one of the barrel nipples and having a threaded nipple at its other end, a closure for said container threaded at one end to fit the container nipple and having a threaded nipple at the other end, and a cap threaded to fit the other barrel nipple and the last named closure nipple.

In testimony whereof, I have hereunto set my hand.

FREDERICK NUTTER COX.