

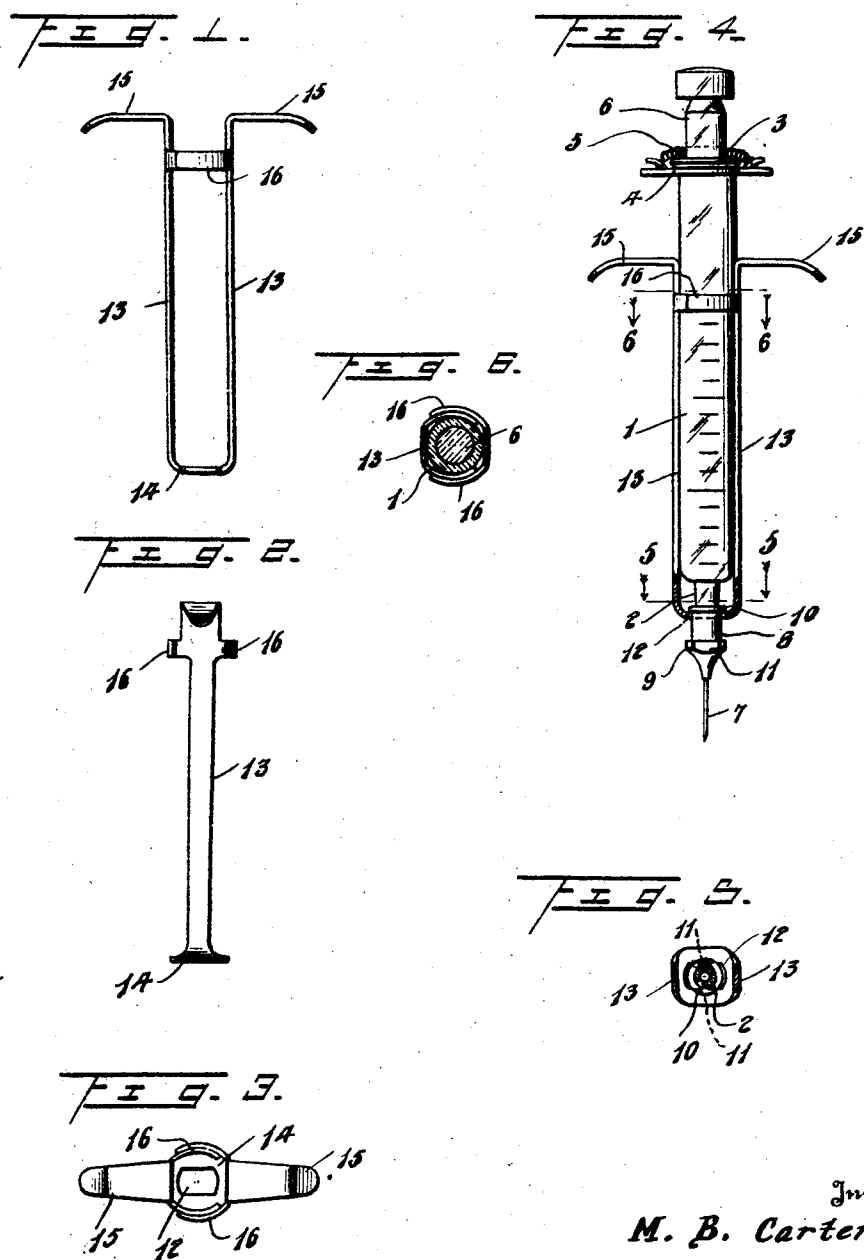
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M. B. CARTER

HYPODERMIC SYRINGE PROTECTOR

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Inventor

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UNITED STATES PATENT OFFICE.

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HYPODERMIC-SYRINGE PROTECTOR.

Application filed December 27, 1923. Serial No. 682,971.

To all whom it may concern:

Be it known that I, MOSCOW B. CARTER, a citizen of the United States, residing at Franklin, in the county of Williamson and State of Tennessee, have invented certain new and useful Improvements in Hypodermic-Syringe Protectors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention has for its object the provision of an attachment to be applied to hypodermic syringes to protect the same and enable a great pressure to be exerted without endangering the instrument to the extent of breaking the barrel and to hold the needle and syringe together when administering an injection into dense tissue.

The invention provides a protector or shield which transfers the pressure to the forward or nozzle end of the syringe when the latter is in active operation, said attachment positively engaging the hub of the needle to prevent separation of the latter from the syringe when administering an injection.

The device also provides means by which the withdrawal of the needle is insured when removing the syringe after administering an injection, and by which the more pressure that is applied to the plunger the tighter the needle will be held in place.

Other objects and advantages will be apparent and suggest themselves as the nature of the invention is understood.

While the drawings illustrate an embodiment of the invention it is to be understood that in adapting the same to meet different conditions and requirements, various changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit of the invention.

Referring to the accompanying drawings forming a part of the application:

Figure 1 is an elevational view of the protector,

Figure 2 is a side view thereof,

Figure 3 is a top end view,

Figure 4 is a side view of a hypodermic syringe with the protector in position,

Figure 5 is a sectional view on the line 5—5 of Figure 4, and

Figure 6 is a sectional view on the line 6—6 of Figure 4.

Corresponding and like parts are referred to in the following description and designated in the several views of the drawings by like reference characters.

The hypodermic syringe illustrated is of well known construction and comprises a barrel 1 having a nozzle 2 at one end and an outer flange 3 at its opposite end to engage a cross-bar 4 and friction spring 5, the latter exerting a lateral pressure upon a side of the plunger 6 to prevent casual displacement thereof in the handling of the instrument.

The needle 7 is provided with the usual hub 8 which receives the outer end of the nozzle 2 and which is provided with outer flanges 9 and 10, the flange 9 having opposite portions cut away, as indicated at 11, to admit of the flange 9 passing through an elongated opening 12 in the end of the protector, which prevents passage of the flange 10 therethrough with the result that the needle is positively held in the end of the protector, as shown most clearly in Figure 4.

The protector comprises side members 13 adapted to extend along opposite sides of the barrel 1 which is held therebetween. The members 13 are connected at one end by means of a yoke 14, in which the opening 12 is formed. Fingerpieces 15 are provided at the opposite end of the members 13, and adjacent the fingerpieces 15 clips 16 are provided to engage about the upper portion of the barrel 1 and retain the protector in position thereon. The clips 16 of one member are adapted to engage the clips of the companion member and thereby hold both members when pressed together about the barrel 1 of the syringe. The members 13 as well as the clips 16 are resilient, thereby adapting the protector for slight variation in different syringes and in practice the component parts of the protector are of integral formation, thereby obviating joints and simplifying the structure.

When using the syringe, the elements 15 engage the first and second fingers of the hand, thereby leaving the thumb free to exert a pressure upon the plunger. It is observed that the pressure is transferred by the protector to the forward or nozzle end of the barrel, thereby preventing injury to the latter when applying the force necessary to cause the needle to penetrate dense tissue. Moreover, the positive connection between

the protector and the needle prevents the latter from being forced off when the instrument is in service.

What is claimed is:

- 5 A protector for hypodermic syringes made from a blank, the same comprising side members, a yoke connecting the members at one end and having an elongated opening therein, said opening having parallel walls

and curved walls joining the parallel walls, 10 the yoke being continuous about the opening, fingerpieces at the opposite end of the members, and cooperating clips adjacent the fingerpieces to secure the side members when brought together.

In testimony whereof I affix my signature.

MOSCOW B. CARTER.