

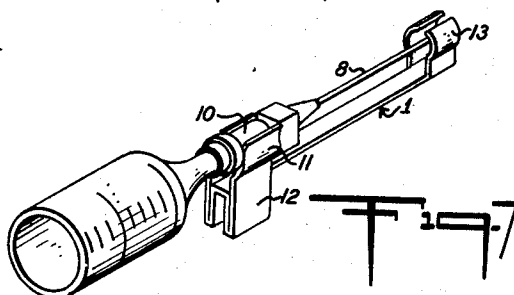
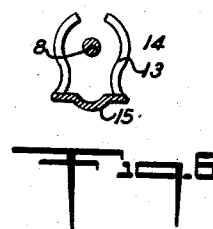
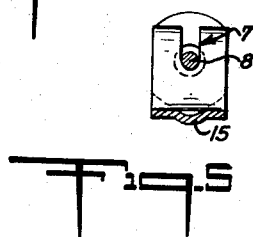
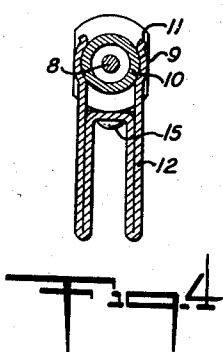
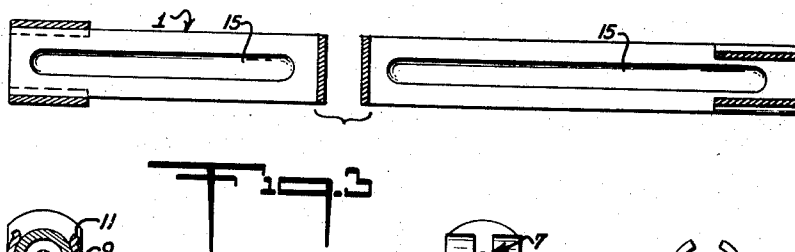
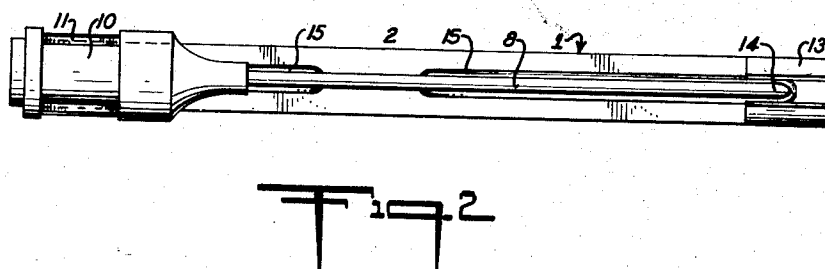
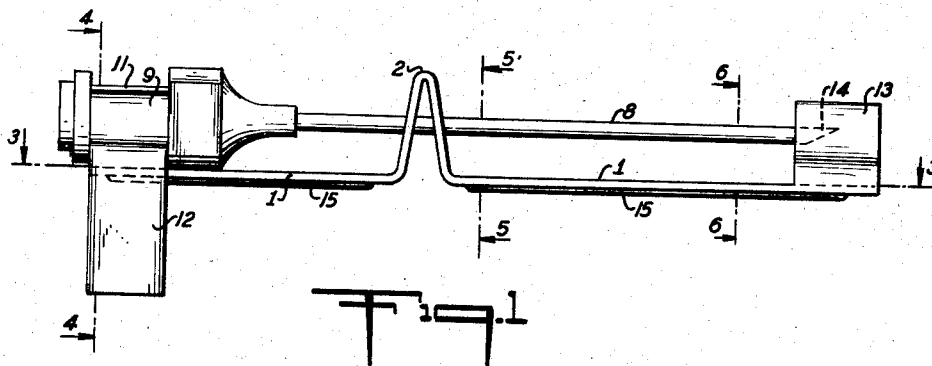
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2,854,976

PROTECTIVE DEVICE FOR NEEDLES OF HYPODERMIC SYRINGES

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PROTECTIVE DEVICE FOR NEEDLES OF HYPODERMIC SYRINGES

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3 Claims. (Cl. 128—221)

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This invention relates to protective devices for the needles of hypodermic syringes.

It is known that needles of hypodermic syringes are subject to damage and in many cases are rendered useless by handling and so forth.

Frequently, the dropping of a needle during its handling causes it to become useless due to the breaking of the point or to its being bent which renders it useless.

The invention eliminates these problems, permitting the needle to remain in a perfect condition for use.

In addition, devices of the invention have the advantage of being economical and extremely simple to manufacture.

The invention will be better understood with reference to the accompanying drawing, in which:

Figure 1 is a longitudinal view of a protective device provided in accordance with the invention with a needle for a hypodermic syringe mounted thereon.

Figure 2 is a top plan view of said protective device.

Figure 3 is a cross-sectional view along line 3—3 of Figure 1.

Figure 4 is a cross-sectional view along line 4—4 of Figure 1.

Figure 5 is a cross-sectional view along line 5—5 of Figure 1.

Figure 6 is a cross-sectional view along line 6—6 of Figure 1.

Figure 7 is a perspective view of the protective device in which is mounted a needle placed on a hypodermic syringe.

In accordance with the invention, a protective device for hypodermic syringe needles is constituted by a preferably metallic piece whose central part is formed by a strip 1 that is rectangular and elongated, the central portion of which forms an inverted V section 2, and provided with a longitudinal slot 7 wherein is encased the body of needle 8 to avoid lateral movement thereof.

On the front part of the device, by side extensions of metallic strip 1, there is formed an encasement for neck 10 of the needle by means of which said needle is mounted on the syringe.

The encasement, as is better seen in Figures 1 and 4, is constituted by a portion in approximately the form of an H, integral with the metallic strip, the H being formed by conveniently bending the side extensions of metallic strip 1.

The upper legs 9 of the H are curved in order to be adapted to the cylindrical neck 10 of the needle and widen outwardly at their upper parts 11, to exert on the neck 10 of the needle sufficient pressure to maintain the said needle fixed in position.

The lower wings 12 of the H are straight and serve to grip the protective device during its handling.

The rear part of metallic strip 1 is provided with an approximately cylindrical portion 13, made by simply bending two side extensions of the metallic strip 1 until they almost form a closed cylinder.

This rear cylindrical portion 13 is the protector of point 14 of the needle, as it surrounds the point completely without allowing the needle to contact any external body.

For a greater protection of the point of the needle when it is placed on the protective device the height of the inverted V of the central portion, should preferably be slightly higher than the height of the rear cylindrical portion 13, thus insuring that the point of the needle cannot touch said cylindrical portion 13.

Metallic strip 1 is provided with longitudinal grooves 15 to afford it the necessary stiffness and strength.

When the hypodermic syringe is not being used, the collar formed by the upper legs of the H is hooked on the neck of the needle and thus the central part of the needle is encased in the slot of the inverted V and the end of the needle by the cylindrical portion at the end of the protective device.

The needle mounted on the protective device is removed from the syringe and stored until it is needed again.

To mount the needle on the syringe, the inverse operation is carried out. By removing from the protector the pressure exerted by the upper legs of the H, the protector is withdrawn.

It is evident that modifications of the illustrated device can be made essentially without departing from the spirit of the invention whose scope is limited only by the following claims.

What is claimed is:

1. A protective device for a hypodermic syringe needle comprising an elongated strip including a central portion in the form of an inverted V defining a longitudinal slot at the vertex of the V to hold the central part of the needle; releasable holding means at one extreme of the strip to engage the neck of the needle; and means on the other extreme of the device to encase the point of the needle.

2. A protective device as claimed in claim 1, in which the holding means is constituted by side extensions integral with the strip forming an H-shaped piece having upper legs curved to adapt to the cylindrical surface of the neck of the needle, said extensions widening outwardly at their upper extremities to exert on the neck of the needle a pressure whereby the needle is fixed in position; the lower legs of the H-shaped piece being straight to constitute a support for handling purposes.

3. A protective device as claimed in claim 1, wherein the means to encase the point of the needle consists of an approximately cylindrical portion constituted by two side extensions on the strip, said extensions being spaced at their ends to define a longitudinal space at the upper part of the cylindrical portion so that the pointed end of the needle can pass therethrough when the protective device is mounted.

References Cited in the file of this patent

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