March 24, 1959 H. I. LIPPARD 2,878,979

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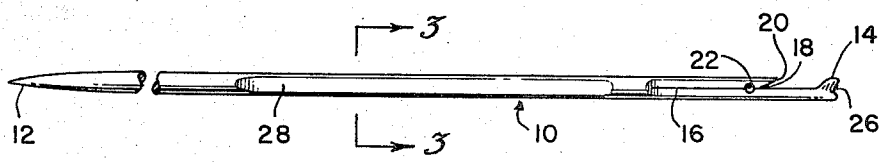


Fig. 1.

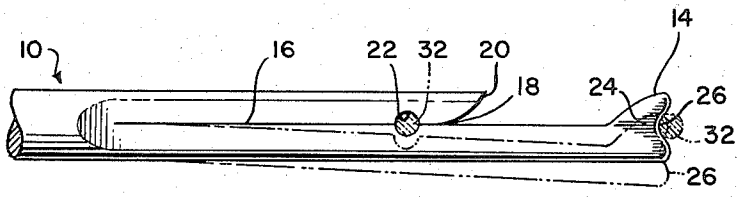


Fig. 2.

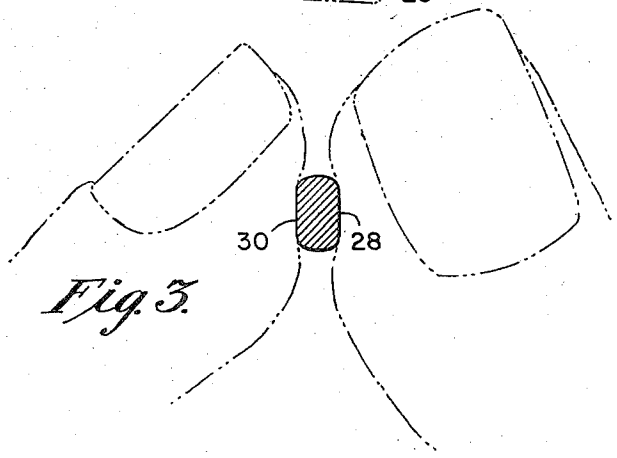
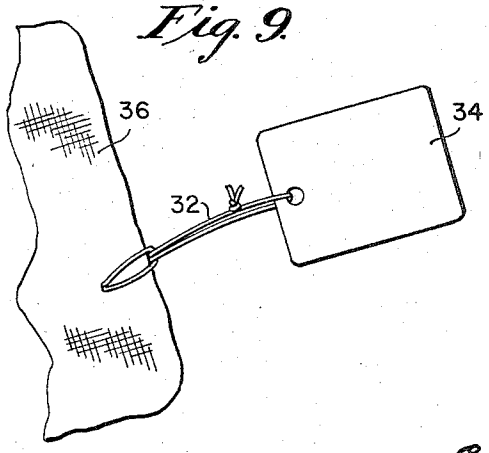


Fig. 3.

Fig. 9.



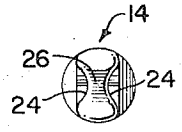


Fig. 4.

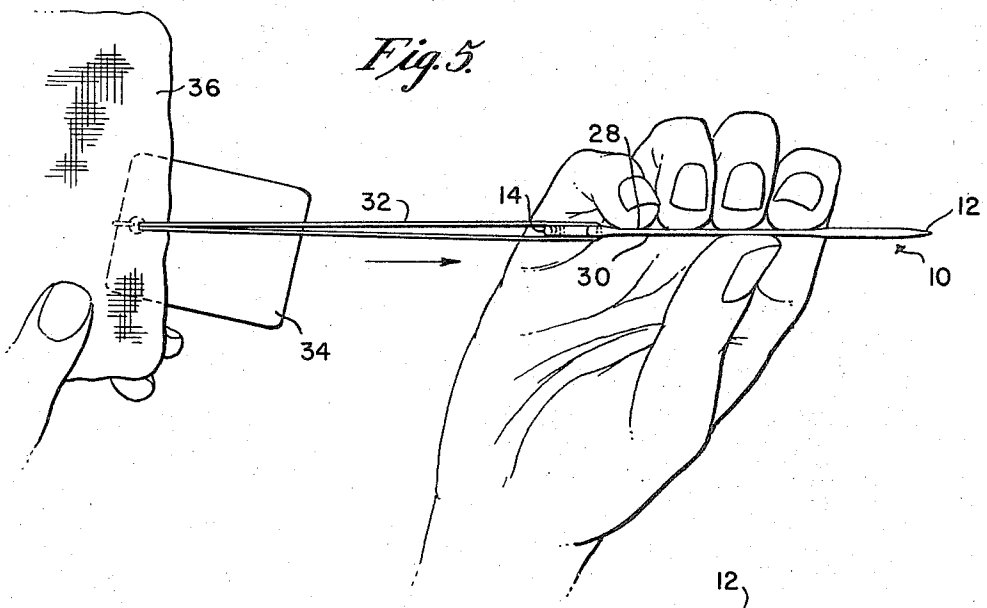
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Fig. 5.



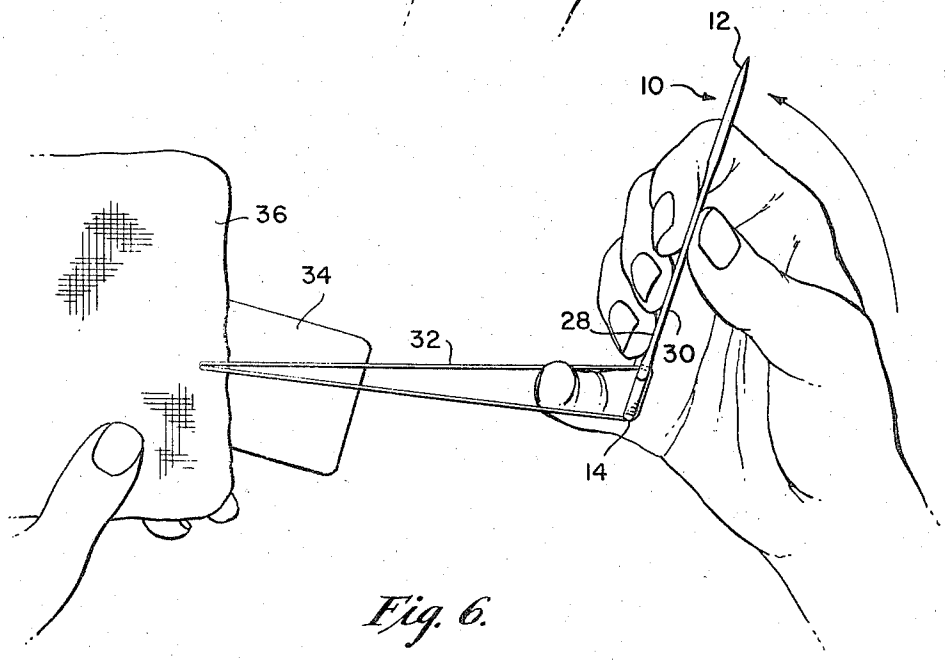


Fig. 6.

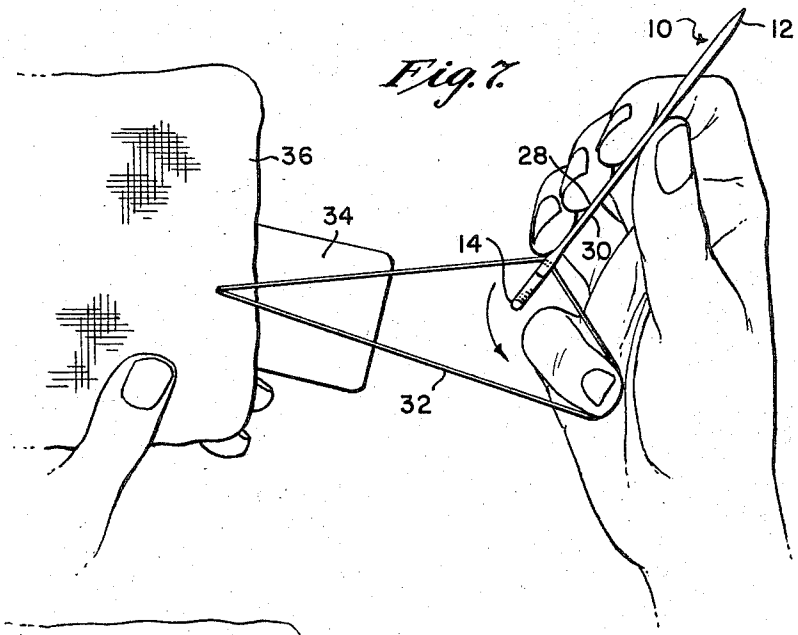
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Fig. 7.



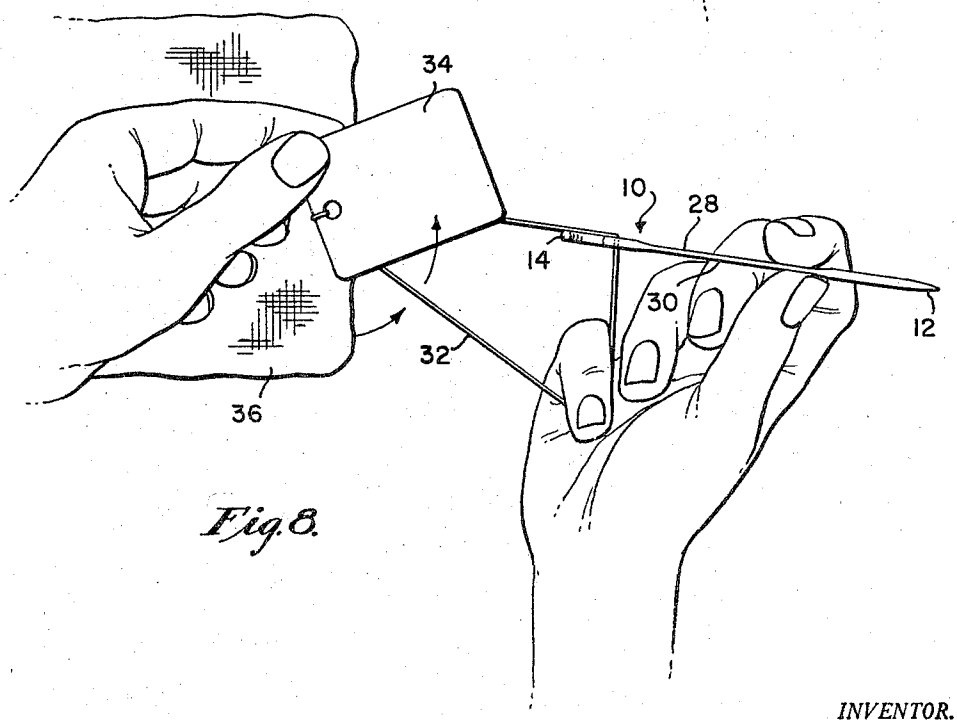


Fig. 8.

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United States Patent Office

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NEEDLE

Herman I. Lippard, Lake Worth, Fla.

Application March 13, 1957, Serial No. 645,843

1 Claim. (Cl. 223—102)

This invention relates to a sewing or tagging needle and constitutes an improvement over the needle shown and described in my Patent No. 2,190,792.

The principal object of this invention is to provide a tagging needle with a longitudinally extending, open-ended threading slit such as shown in my previous Patent No. 2,190,792 together with a means to facilitate the spreading of the strings of the loop which is attached to to the tag, thereby simplifying the tag looping operation.

A further object of the invention is to provide a tagging needle of the character described with means on the sides of the needle which, when grasped by the fingers, will serve the dual function of maintaining the needle in proper position for threading and also in proper position for the operation of the loop spreading means.

And yet another object of the invention is to provide a needle which is relatively simple in design and construction, inexpensive and admirably suited for tagging merchandise, since it includes means which facilitate both the threading of the needle and the spreading of the loop in the tagging operation.

These and other objects of the invention will become more apparent as the following description proceeds in conjunction with the accompanying drawings, wherein:

Figure 1 is a side elevational view of the improved needle;

Figure 2 is an enlarged view of the rear or right hand portion of Figure 1 illustrating the string loop in position on the needle and in section;

Figure 3 is a sectional view taken on the line 3—3 of Figure 1;

Figure 4 is an end view looking to the left on Figure 1;

Figure 5 is a diagrammatic view of the first step in the process of applying a tag to merchandise;

Figure 6 is a view similar to Figure 5 and illustrating the first step in the loop spreading procedure;

Figure 7 is a view similar to Figure 6 and illustrating the second step in the loop spreading procedure;

Figure 8 is a view similar to Figure 6 and illustrating the third step in the loop spreading procedure; and

Figure 9 is an elevational view illustrating the tag in its final position on the merchandise.

Specific reference is now made to the drawings wherein similar reference characters are used for corresponding elements throughout.

The present needle is generally indicated at **10**, is made of a suitable metal, such as spring steel and is generally circular in cross section. It tapers at its forward end to a point **12** and at its rear end is provided with a protuberance **14** for a purpose later to appear. For purposes of clarity the portion of the needle between the point **12** and the protuberance **14** will be called the main body portion.

The main body portion adjacent the rear end of the needle is longitudinally bifurcated for a portion of its length to provide a threading slit **16** which has on open string-entrance end **18** at a short distance forward of the rear protuberance **14**. In other words, the slit **16** divides

a portion of the needle into two spring arms of different lengths, the longer arm extending to and including the rear protuberance **14** and the shorter arm terminating in a beveled end **20** which slopes downwardly into the slit. Intermediate its ends the slit is enlarged to form a generally circular string-receiving eye **22**.

The protuberance **14** extends upwardly in the direction of the beveled end **20**, and as will be seen particularly in Figures 2 and 4, the sides of the protuberance itself are indented, notched or inwardly dished as at **24** and the free end of the protuberance **14** may also be indented, notched or inwardly dished as at **26**. As will appear hereinafter, the protuberance and its indentations serve as a means to facilitate the spreading of the strings which are attached to a tag so that the tag can be readily looped.

It will further be seen that the main body portion of the needle to the rear of the point **12** and forward of the threading slit **16** is provided with generally flat sides **28** and **30**, these sides extending generally in planes which are perpendicular to the major plane of the threading slit **16**. As will also appear hereinafter, the flattened side portions **28** and **30** serve as a means to properly position the needle for the threading operation and also as a means to facilitate the function of the protuberance **14** in the spreading of the strings.

In use, the thumb and other fingers grasp the flat sides **28** and **30** of the needle and since the flat sides restrain the rotation of the needle, the latter is held in the position shown in Figures 1 and 2. In this position the string **32** which is already attached in a conventional manner to a tag **34** is slipped on to the rear end of the needle and pushed forwardly into the threading slit **16** until it is positioned securely in the eye **22**, the beveled end **20** of the shorter spring arm serving to guide the string into the threading slit. The needle is then inserted through a piece of merchandise **36** and pulled taut such as is shown in Figure 5.

In this position with the fingers still grasping the flat sides, the needle is rotated around an axis perpendicular to that of the needle itself as indicated by the arrow in Figure 6. This causes the protuberance **14** to engage one of the strings **32** and begin to separate it from the other string, as shown in Figure 6. The protuberance **14** grippingly engages the string by means of its indentations **24** and **26**.

Once the strings are separated, the smaller finger can readily and easily be inserted in the loop and flexed towards the palm whereupon the loop is widened, as shown in Figure 7. At this point, the hand holding the merchandise releases the same and engages the tag **34** which is then inserted in the loop as shown in Figure 8. The tag is then pulled taut and with a straight away jerk of the needle, the string is released therefrom and the loop is tightened on the goods as shown in Figure 9.

While a preferred embodiment of the invention has been shown and described herein, it will be understood that a skilled artisan may make minor variations without departing from the spirit of the invention and the scope of the appended claim. Thus, for example, the needle may be employed not only for the tagging of merchandise but for any sewing operation or equivalent function.

I claim:

A tagging needle of generally circular cross-section having a point at one end, a protuberance at its other end and a body portion intermediate said ends, said body portion being longitudinally bifurcated to form a resiliently spreadable threading slit having an open end which is spaced from said protuberance and which serves as an entrance for a loop string, said protuberance having inwardly dished portions at its sides and at its free end, said body portion between the pointed end and the threading slit having flat sides in substantial longitudinal

alignment with the inwardly dished portions at the sides of said protuberance, said flat sides being in planes which are substantially perpendicular to the plane of said slit whereby when said flat sides are grasped by the fingers, the entrance of the slit is in position for threading and when the needle is rotated about an axis generally perpendicular to that of the needle, one of the inwardly dished portions at the sides of said protuberance and then the inwardly dished portion at the free end of said protuberance will engage the loop string and spread it.

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