

Dec. 19, 1939.

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2,183,799

TAGGING SEAL

Filed Dec. 6, 1938

2 Sheets-Sheet 1

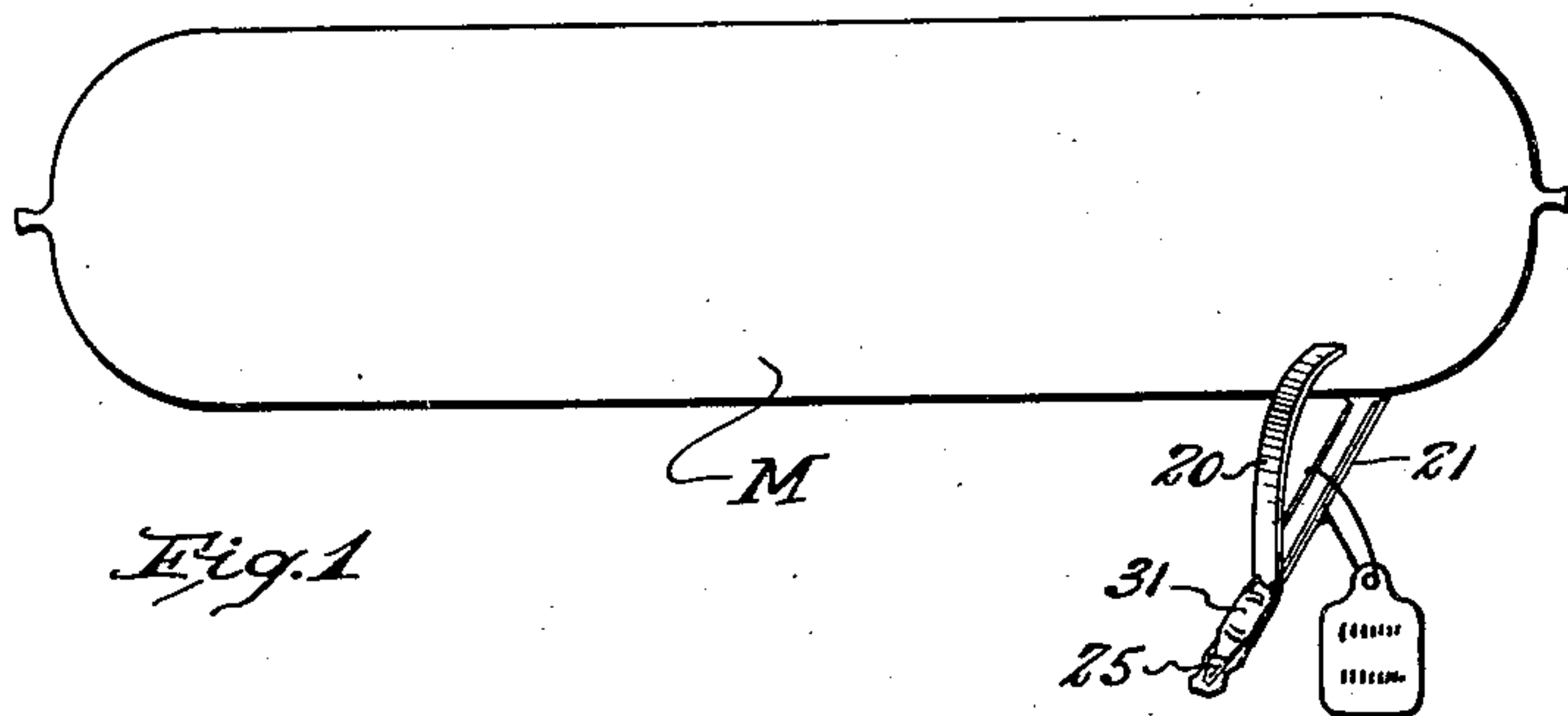


Fig. 1

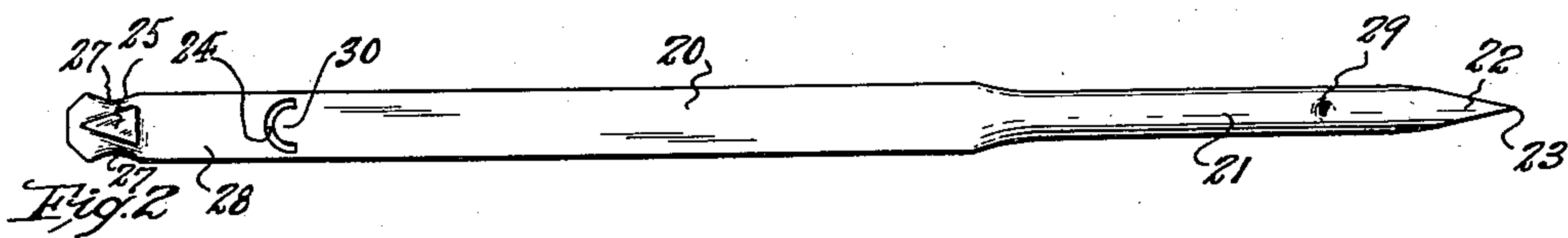


Fig. 2

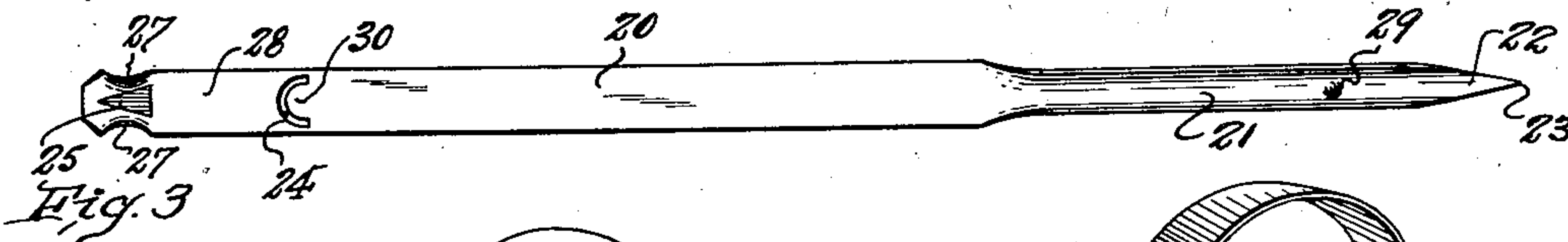


Fig. 3

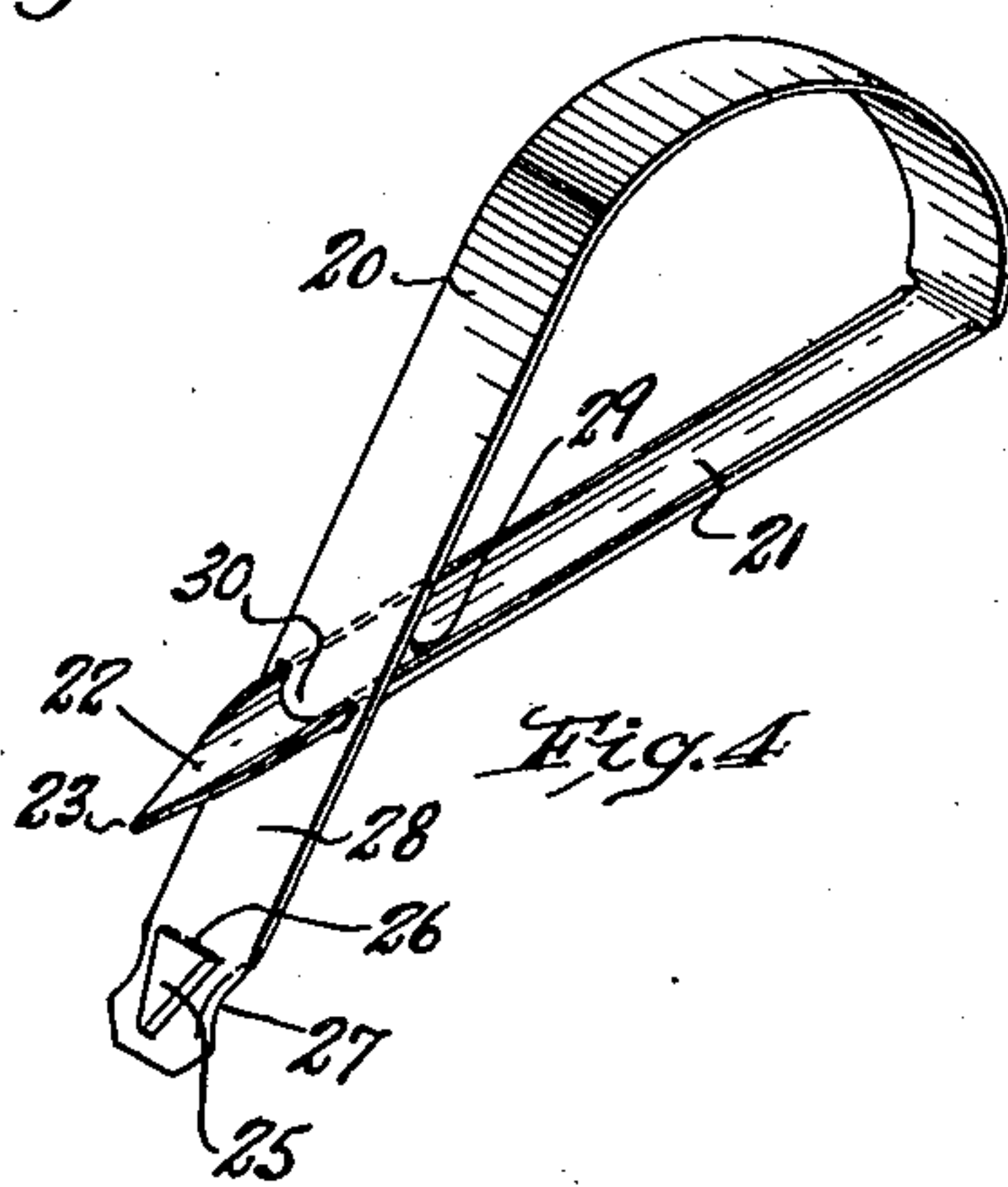


Fig. 4

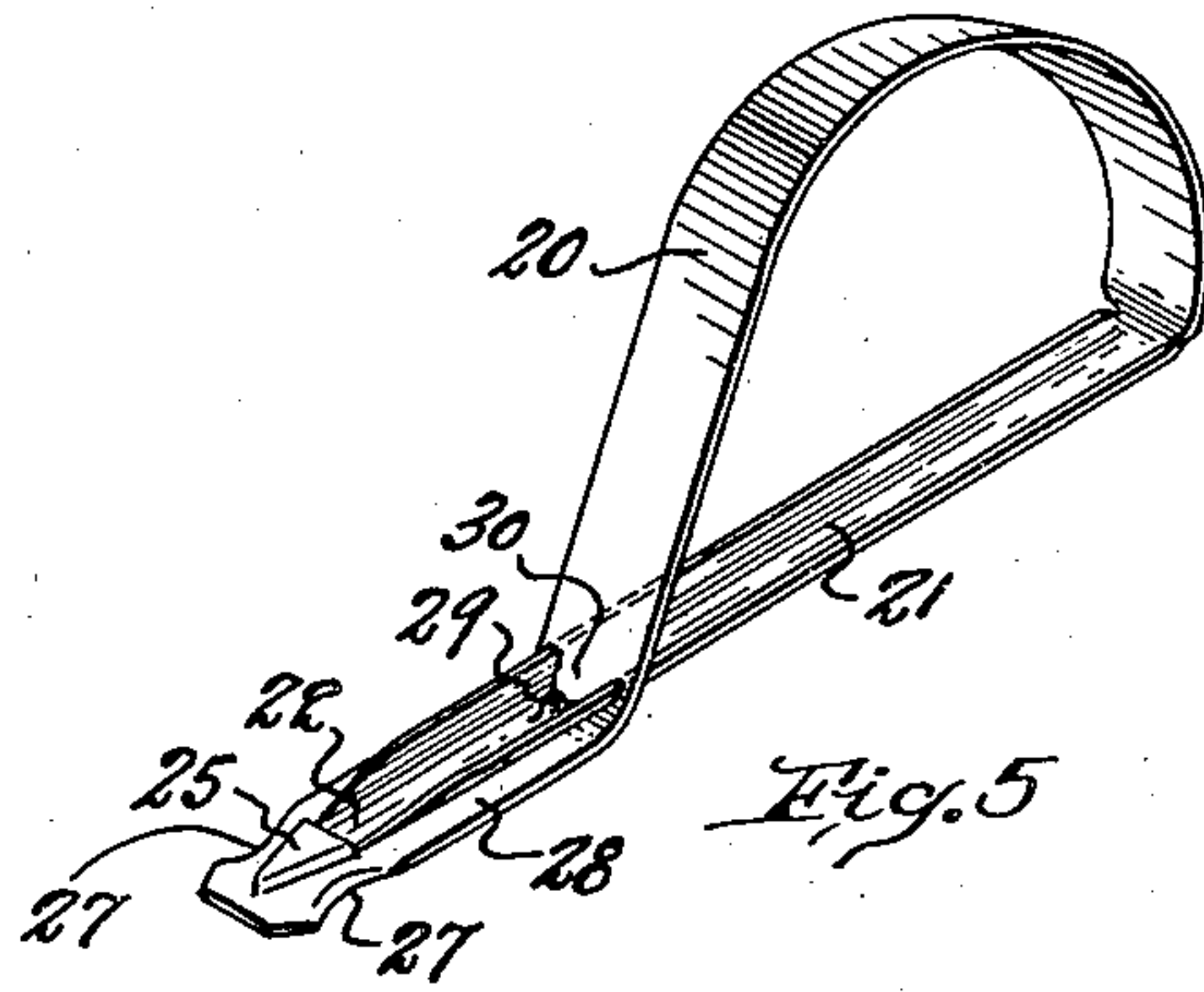


Fig. 5

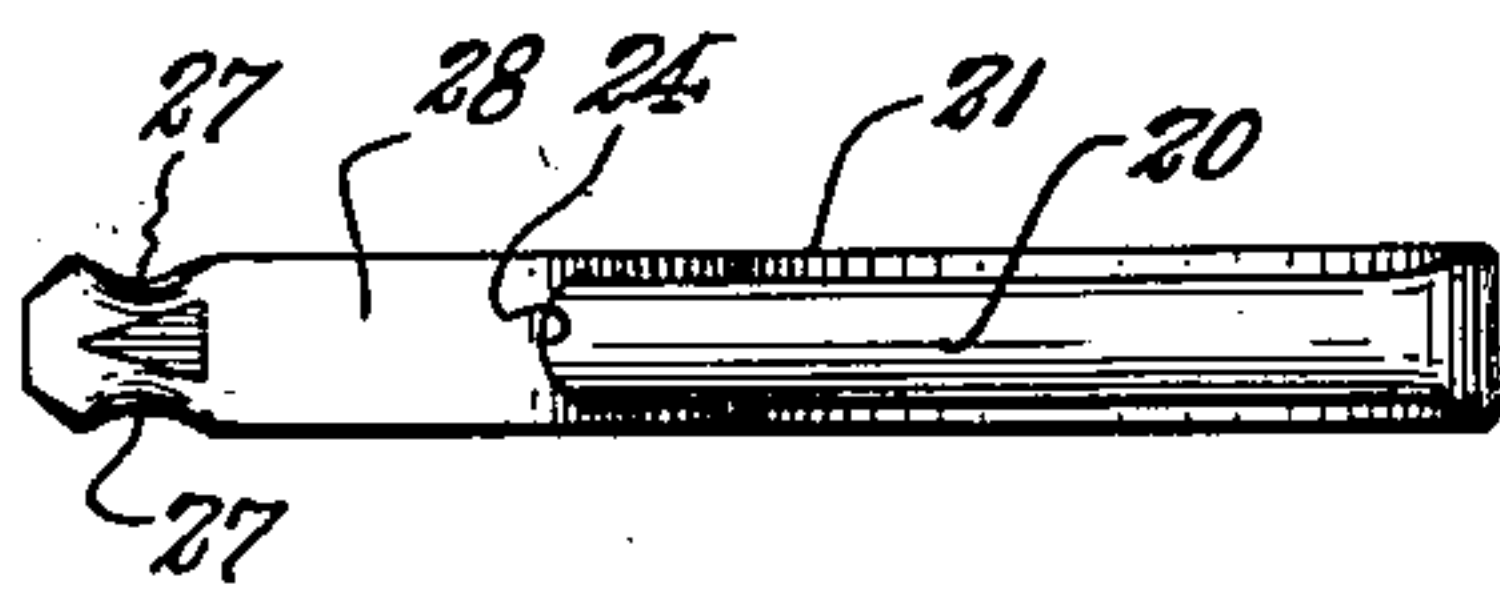


Fig. 6

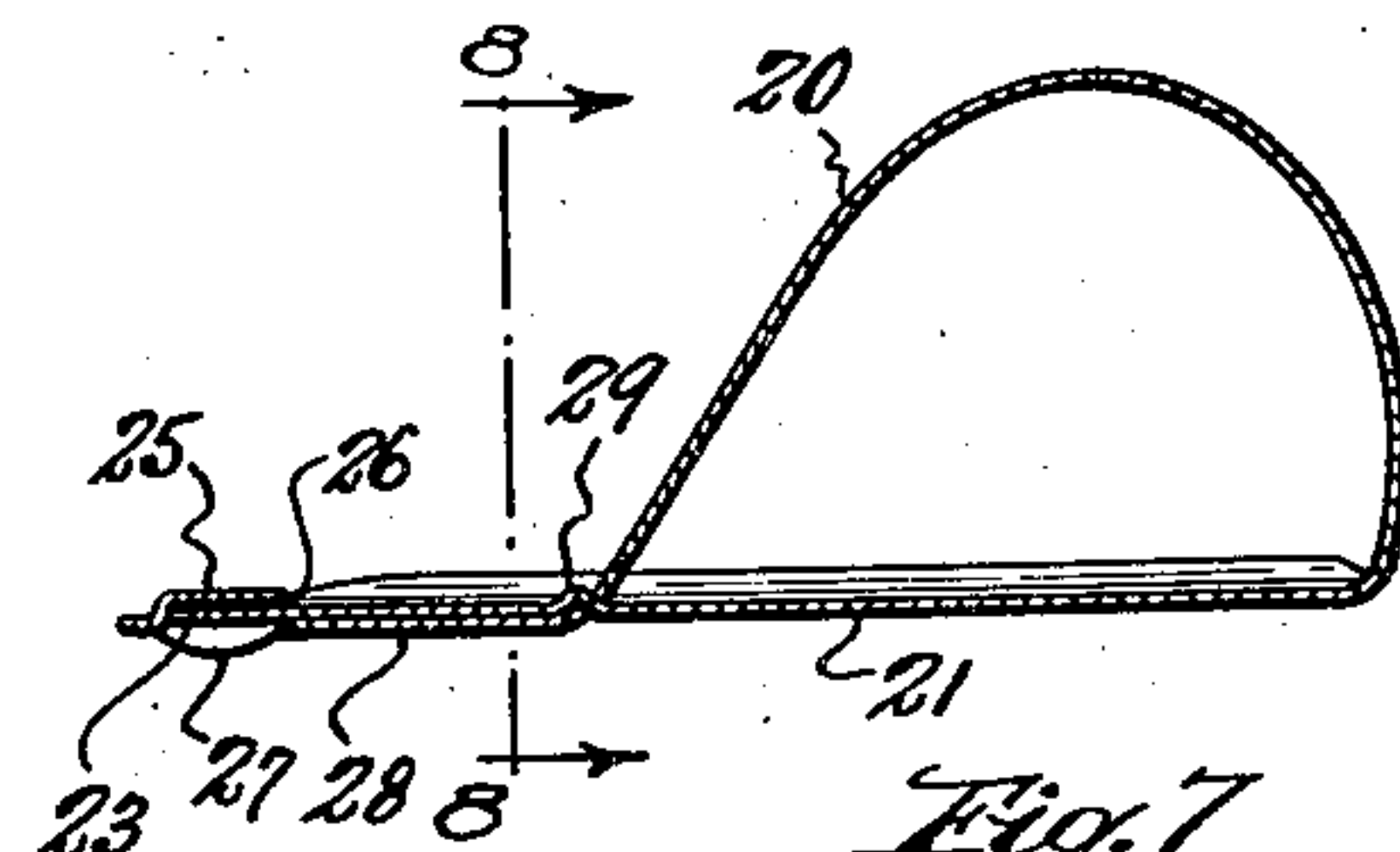


Fig. 7

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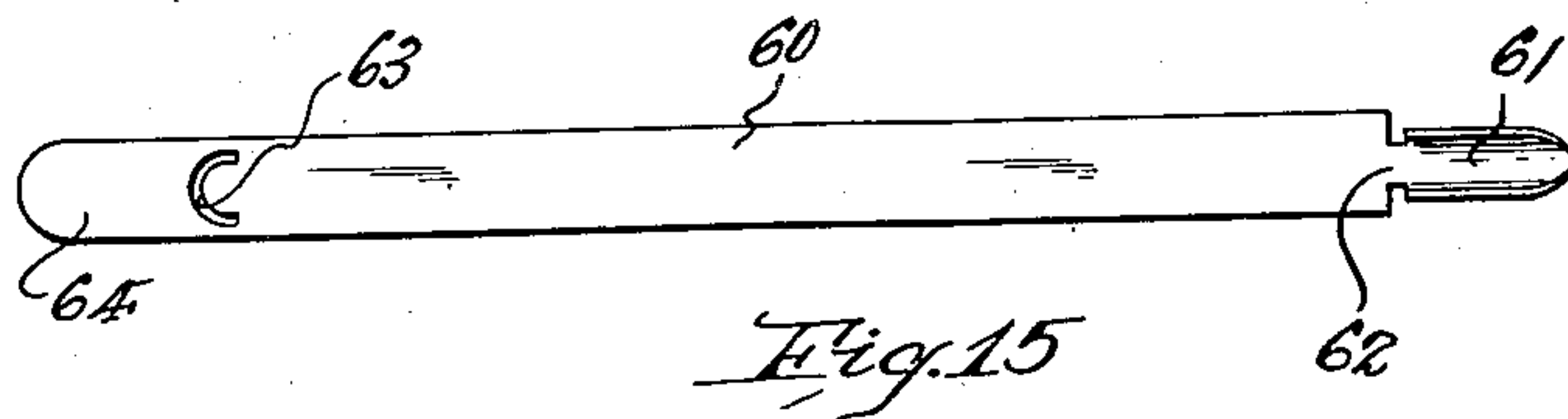
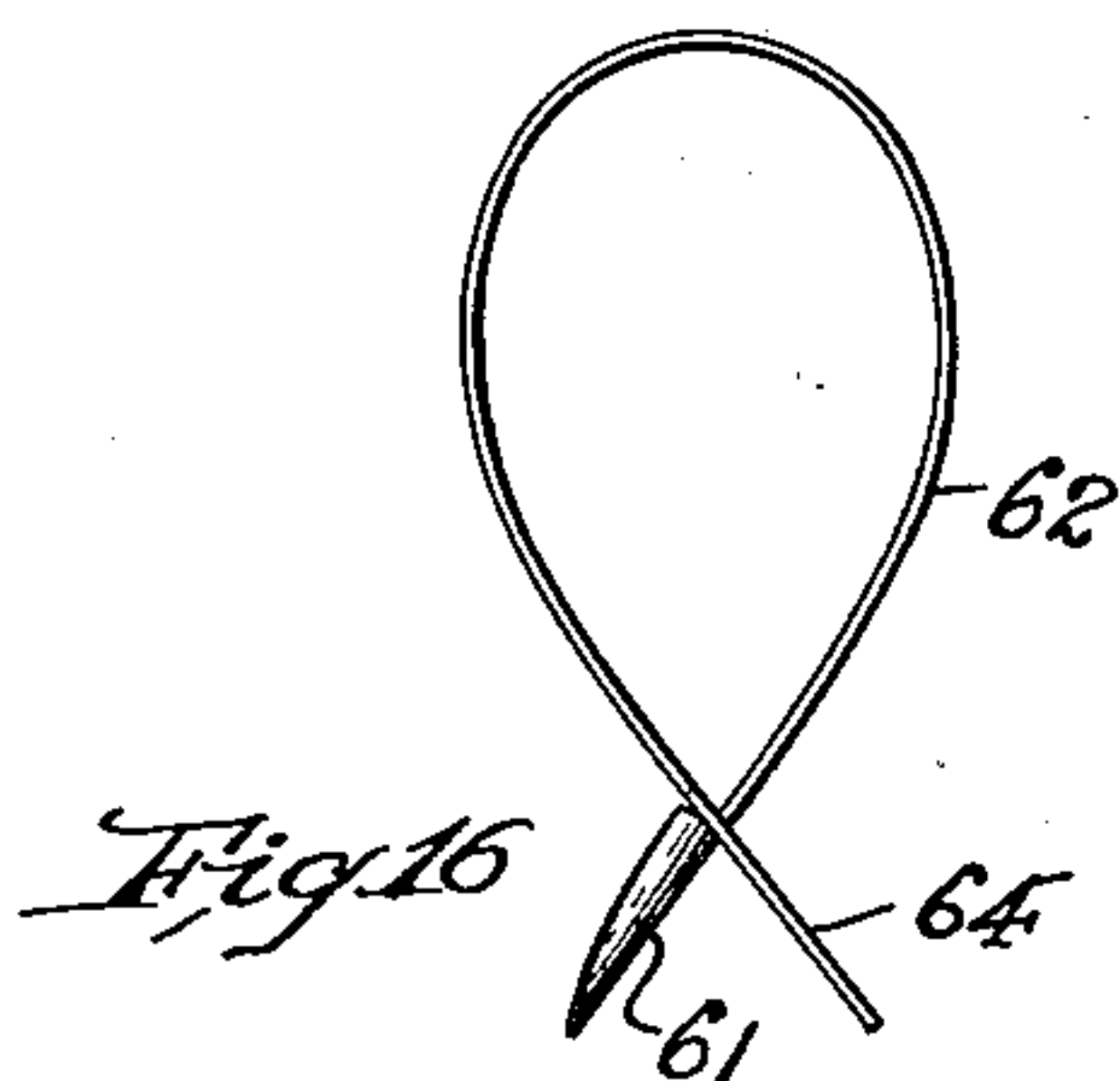
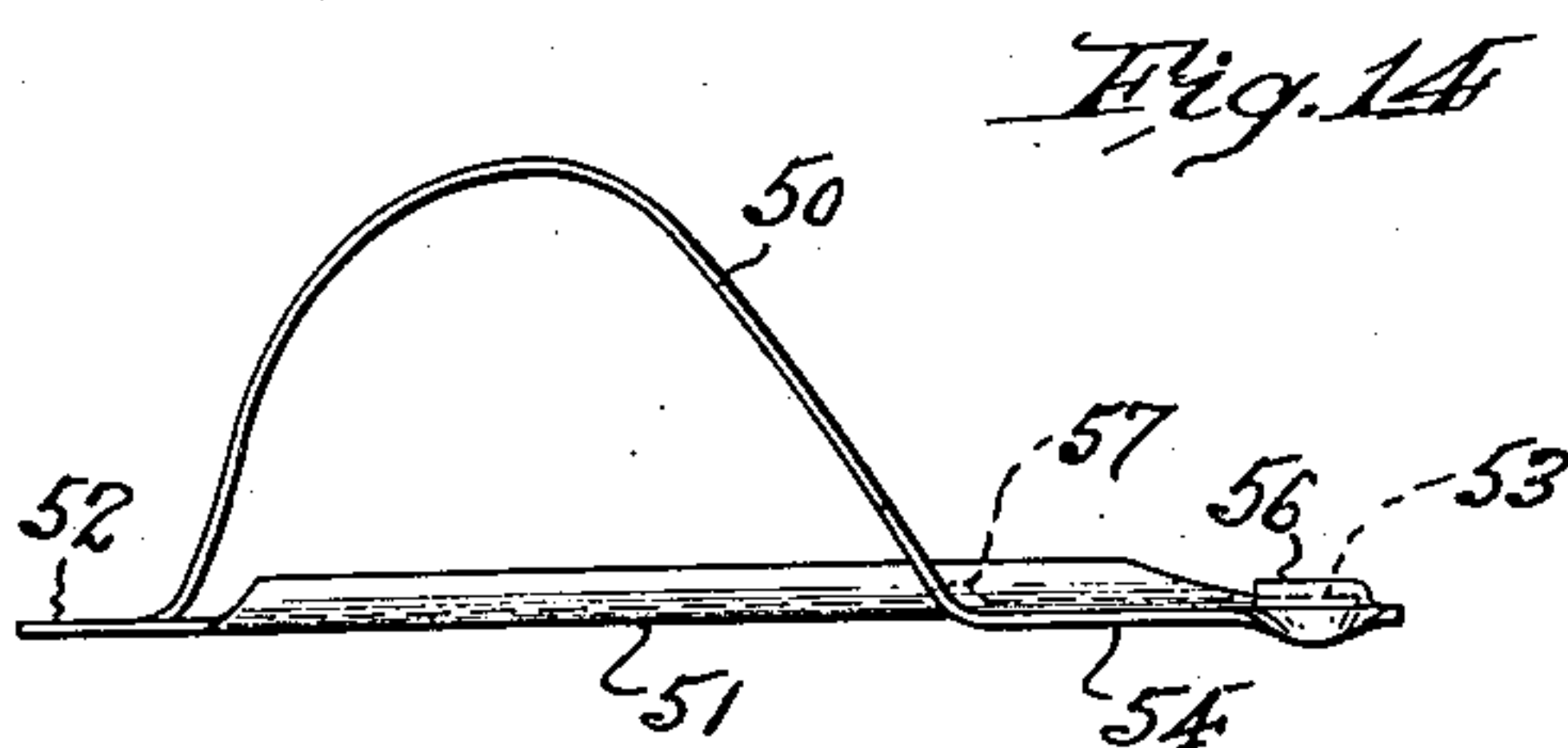
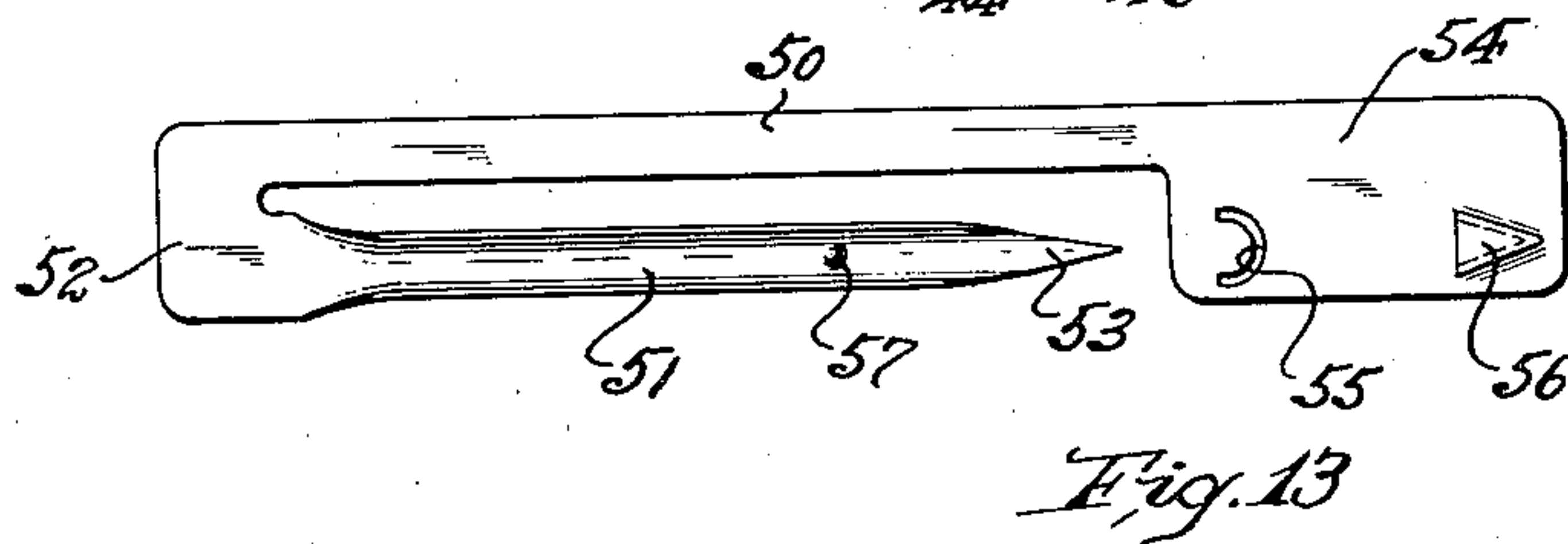
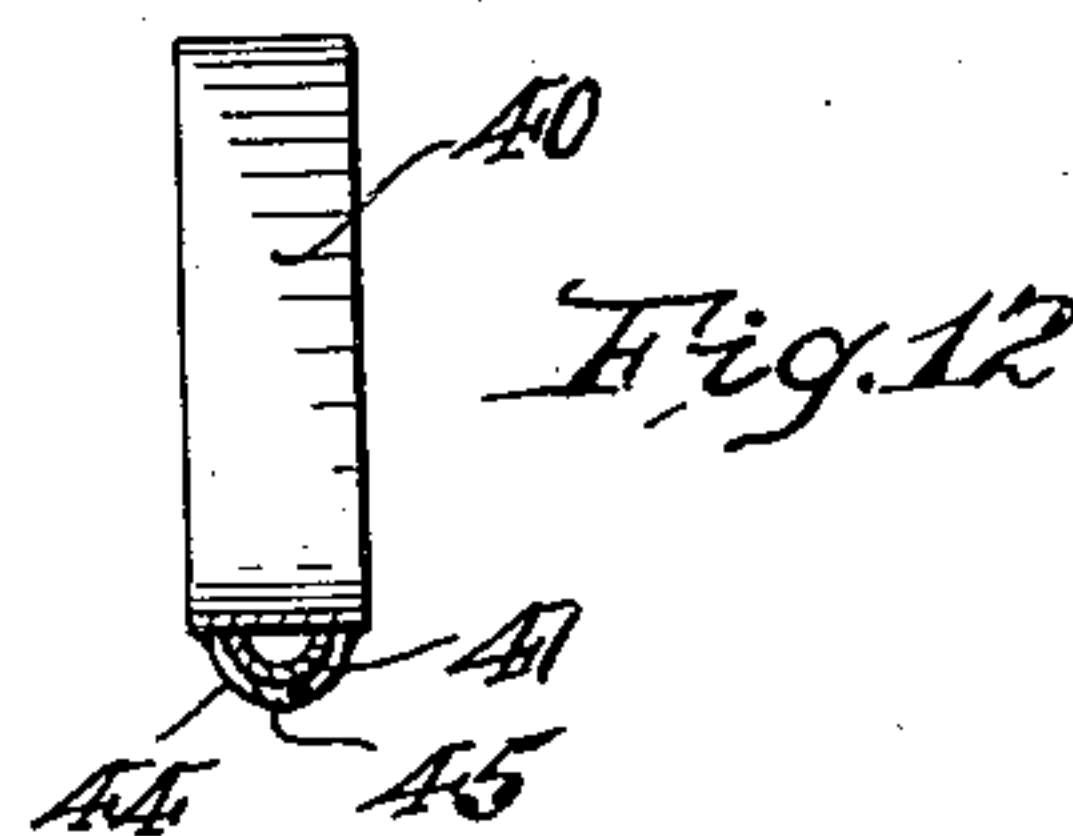
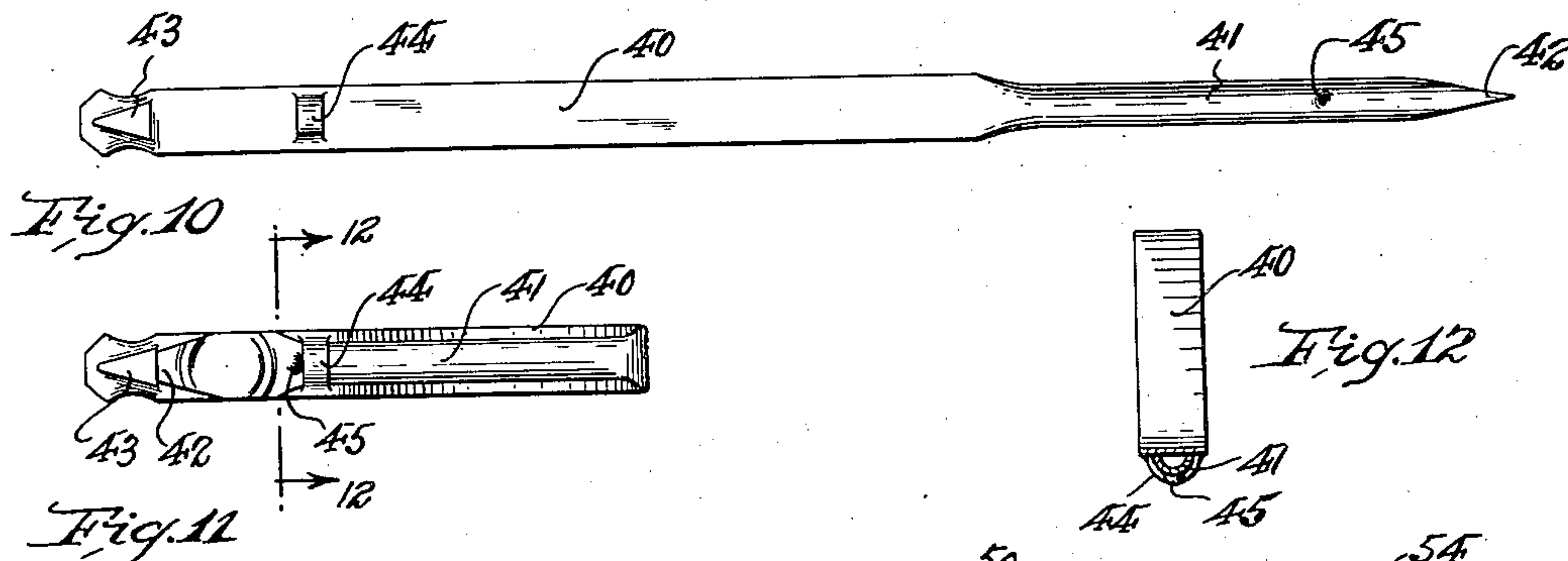
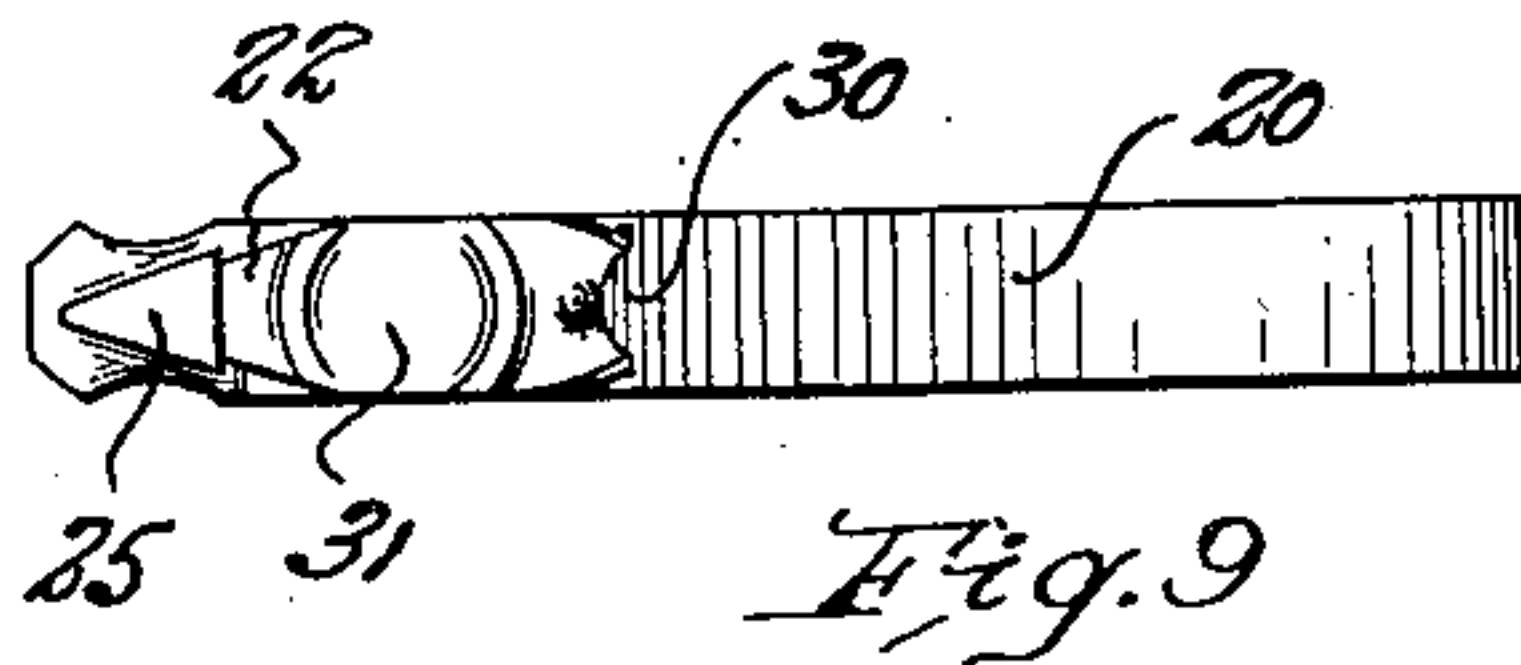
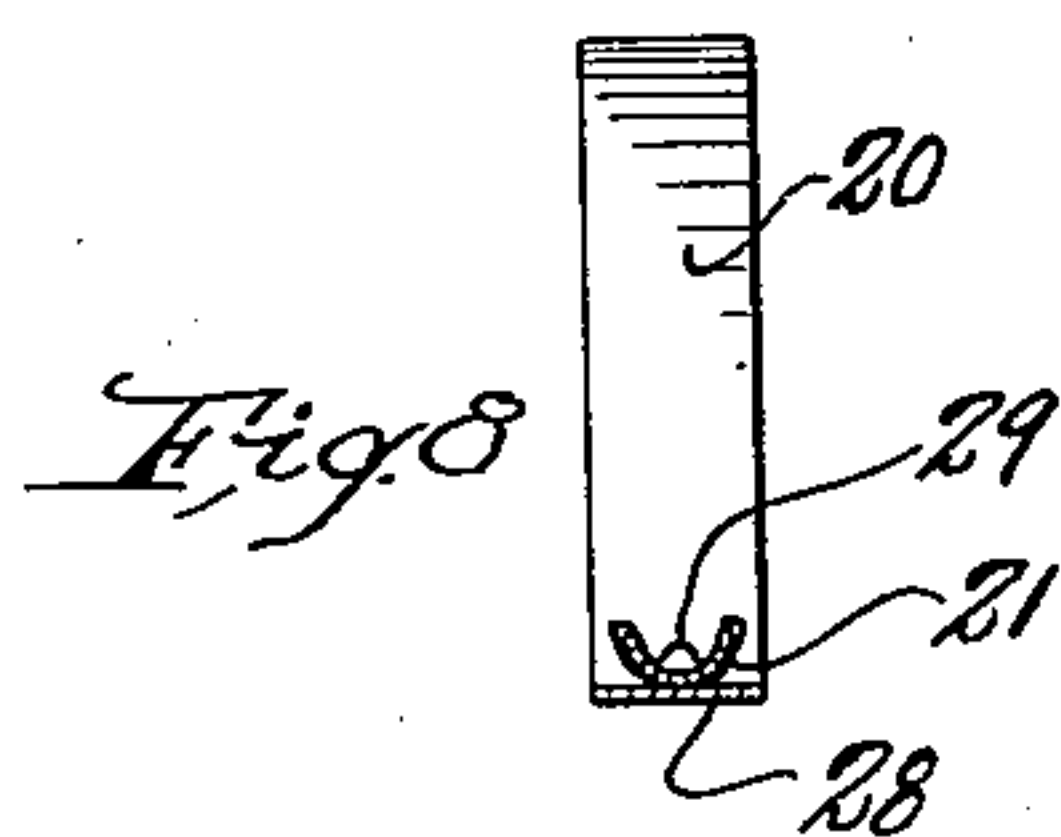
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,183,799

TAGGING SEAL

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Application December 6, 1938, Serial No. 244,165

5 Claims. (Cl. 292—315)

This invention relates to a novel seal device for tagging meats, poultry and other food products, or for tagging other kinds of merchandise, articles or materials.

5 This invention has for an object to provide a novel seal device comprising a flexible body or strap having at one end a relatively rigid sharp portion adapted for piercing insertion through material to which the seal is to be applied, and 10 having at its other end portion means to receive and hold said piercing portion, while at the same time providing superposed sections of the body or strap subject to deformation by a suitable seal press to thereby interlock the mutually engaged 15 end portions against separation and consequent tampering or unauthorized removal of the seal.

This invention has for another object to provide a seal device of the kind mentioned wherein the body or strap is provided at one end with an 20 elongated piercing member or needle element formed integrally therewith, the same being of concavo-convex cross sectional shape so as to possess substantial rigidity, and wherein the body or strap is further provided adjacent to the op- 25 posite end portion thereof with an opening corresponding in shape to the cross-sectional shape of said needle element, and through which the free end part of the latter may be projected to overlie said opposite end portion; the extremity 30 of said opposite end portion having a sheathing means to receive and enclose the sharp pointed extremity of said needle element; means being also provided to prevent retractive displacement of the thus engaged needle element pending seal- 35 ing deformation of superposed parts of the latter and said opposite end portion.

Another object of the invention is to provide, in connection with the needle element point sheath- 40 ing part of said body or strap, guard means for protecting the fingers from contact with the needle element point when entering said point into the receiving sheath upon manipulation of the seal device during application thereof to de- 45 sired material.

Other objects of this invention, not at this time more particularly enumerated, will be understood from the following detailed description of the same.

50 Illustrative embodiments of this invention are shown in the accompanying drawings, in which:

Fig. 1 shows one form of seal device according to this invention as operatively applied and sealed to material to be tagged thereby.

Fig. 2 is a plan view of the obverse face of said 55 seal device in initial condition; Fig. 3 is a plan

view of the reverse face of the same; Fig. 4 is a perspective view showing the first step in the manipulation of the seal to close the same; Fig. 5 is a similar perspective view showing the seal 5 closed ready for the application of a seal press thereto; Fig. 6 is a bottom plan view of the closed seal; Fig. 7 is a longitudinal sectional view of the closed seal; Fig. 8 is a transverse sectional view of the same, taken on line 8—8 in Fig. 7; and Fig. 9 is a top plan view of the closed seal after super- 10 posed parts thereof have been sealed together by a suitable deforming seal press or like tool.

Fig. 10 is a plan view of the obverse face of a somewhat modified form of the novel seal device; 15 Fig. 11 is a top plan view of the same in closed and sealed condition; and Fig. 12 is a transverse sectional view thereof, taken on line 12—12 in Fig. 11.

Fig. 13 is a plan view of the obverse face of another modified form of the novel seal structure 20 according to this invention; and Fig. 14 is a side elevational view of the same in closed condition.

Fig. 15 is a face view of still another modified form of the seal of this invention; and Fig. 16 25 is a side elevation with the ends thereof operatively interengaged preparatory to final sealing.

Similar characters of reference are employed in the above described views, to indicate corre- 30 sponding parts.

Referring first to Figs. 1 to 9 inclusive, the 30 illustrative form of the novel seal therein shown comprises a strap-like body 20 preferably consisting of a comparatively narrow elongated strip of flexible or bendable sheet metal, such e. g. as tin. One end portion of said body 20 is formed 35 to provide a needle element 21 of concavo-convex shape in cross-section, the same terminating in a laterally tapered end portion 22 to provide a sharp piercing point 23. Said needle element 21 preferably approximates in length about one- 40 third of the total length of body 20, and is so formed that its convex side faces outwardly from the obverse face of the body 20. Owing to the approximately semi-circular concavo-convex cross-sectional shape of said needle element 21, 45 the same is relatively rigid in character and is thus free from tendency to bending.

At a point spaced inwardly a suitable distance from the opposite end of said body 20, the same is pierced to provide a transverse needle element 50 receiving opening 24, the configuration of which corresponds to the concavo-convex cross-sectional shape of said needle element 21. Stamped upwardly out of the body 20, closely adjacent to said opposite end thereof, is a raised hollow boss 25 55

having convergently tapered sides corresponding substantially to the tapered shape of the point of said needle element, and an inwardly facing transverse open end 26. Said boss 25 provides a needle element point receiving sheath raised above the plane of the obverse face of said body 20. Said sheath is open at its under side, and although there is little likelihood of the needle element point engaging the fingers when, in manipulating the seal, the operator enters said point into said sheath, yet to further assure against such occurrence, guard means are provided adapted to fend or space the operator's fingers away from the open under side of said sheath when holding the body and manipulating the seal to close the same. Said guard means comprise downwardly projected fender lips 27 struck from the side marginal portions of the body 20 respectively adjacent to the opposite sides of said sheath, the edges of the same being disposed to lie in a plane offset from the plane of the reverse face of said body and consequently also from the plane of the open underside of said sheath.

Illustrative of the use to which the novel tagging seal may be put is its use to mark or identify kosher meat products. As shown in Fig. 1 for example, a meat product M of the bologna type has applied thereto the identifying tagging seal according to this invention. To apply the seal, the needle element 21 is passed through a portion of the body 20 therethrough with needle element 21 freely extending at one point and the sheath bearing portion of the body 20 freely extending at another point, whereupon the body 20 is bent to oppose its opening 24 to the free end portion of the needle element, which is thereupon passed therethrough, in the manner shown more particularly in Fig. 4. The portion 28 of the body 20 is then bent upwardly so that the through extending portion of the needle element is superposed thereon, whereupon these parts are relatively moved longitudinally to cause the tapered end portion 22 and point 23 of the needle element to enter the sheath 25 through the open end 26 thereof so as to be enclosed therein. In order to prevent retractive displacement of the needle element when thus engaged and sheathed, pending the final sealing by an applied seal press, said needle element is provided with a stop projection or tit 29 struck upwardly from the concave face thereof and spaced inwardly from the point 23 at a distance substantially equal to the distance between the outer end of the sheath 25 and the center of the opening 24. As the tapered end portion 22 and point 23 is pushed home into the sheath 25, said stop projection or tit 29 will pass through the opening 24, the interiorly bounding wing or tongue 30 of which will yield to its passage and then lodge behind the same, as shown in Figs. 5, 7, 8 and 9, thus obstructing any retractive relative longitudinal movement of the body section 28 and needle element 21.

When the seal is closed in the manner above described, it is ready to have superposed parts thereof deformed by a seal press or like tool, to so laterally spread the engaged portion of the needle element 21 so as to prevent any surreptitious release or unauthorized disturbance thereof without manifesting that the seal has been tampered with. To this end, the jaws of a seal press or like tool are engaged over the superposed needle element and body portions 21 and 28, so that by the squeezing effects of the actuated seal press jaws

the concavo-convex contour of said needle element is flattened out and the metal spread laterally, as shown at 31 in Fig. 9, to thus render impossible the pulling back of the needle element through the opening 24 without destroying the seal or clearly indicating that it has been tampered with. If desired, the metal of the spread needle element and the underlying body portion 28 may be at the same time crimped together or embossed with a suitable design, character, notation or the like, all in a manner well known in the art.

In Figs. 10 to 12 inclusive, there is shown a slightly modified form of the novel seal, the same comprising a similar strap-like body 40 having at one end a similar needle element 41 of concavo-convex cross-sectional shape terminating in a sharp pointed end portion 42, and having at its opposite end an inwardly open sheath means 43 to receive and enclose said pointed end portion of the needle element. The needle element is so formed that its concave side faces outwardly from the obverse face of the body 40. Struck out of the body 40, to project from the obverse face thereof, in suitably spaced relation to the sheath means 43, is a transversely disposed loop member 44, through the opening of which the needle element 41 may be passed when closing the seal. Struck outwardly from the convex face of said needle element 41, in properly rearwardly spaced relation to the point thereof, is a stop projection or tit 45, which springs beneath and passes the loop member 44, when the seal is closed, so as to engage the edge of said loop member to hold the seal parts against displacement from seal closing relation until sealing by a seal press or like tool is accomplished.

In Figs. 13 and 14 there is shown another form of the novel tagging seal which embodies the essential principles of this invention. This form of the seal comprises a body of sheet metal comprising a bendable longitudinal strap member 50 and a needle element 51 in longitudinally extending parallel and laterally offset relation thereto; butt end of said needle element 51 and an adjacent end of said strap member 50 being integrally connected by a transverse end portion 52 common thereto. The needle element 51 is of concavo-convex cross sectional shape and terminates in a sharp pointed end portion 53. Integrally formed in connection with the opposite end of said strap member 50 is an end section 54 laterally offset so that a portion thereof is aligned with but normally initially longitudinally outwardly spaced from the pointed end portion 53 of said needle element 51. Formed in said section 54 is a transverse arcuate needle element receiving opening 55, and also formed in said section 54 in outwardly spaced and aligned relation to said opening 55 is an inwardly open sheath means 56. In closing this form of seal, by bending the strap member 50 into arched relation to the needle 51, the pointed end portion of the latter may be opposed and thrust through the opening 55, so that its forward end portion overlies section 54 and its pointed end portion is received in the sheath means 56. Said needle element 51 is provided with a properly located stop projection or tit 57 which, upon passing through opening 55, prevents retractive displacement of the thus engaged parts, similarly as set forth in connection with the previously described seal structures. The sealing of the device by a seal press applied intermediate the opening 55 and sheath

means 56 is also accomplished in a manner as similarly above described.

In Figs. 15 and 16, there is shown a very simple form of seal comprehended within the principles of the instant invention, the same comprising a strap-like body 60 of bendable sheet metal. At one end portion of said body 60 is formed a relatively short sharp ended needle element 61 of concavo-convex cross sectional shape, and integrally connected to said body 60 by a neck-portion 62 of reduced width. Formed in said body 60, in rearwardly spaced relation to its opposite extremity, is an arcuate opening 63 to conform to the cross-sectional shape of the needle element and through which said needle element 61 may be passed to extend over an end section 64 provided between said body extremity and said opening 63 (see Fig. 16). When this seal is thus closed, the needle element 61 and the end section 64 are pinched together to dispose the same in superposed relation, whereupon the device may be sealed by applying a seal press or like tool to the thus superposed parts, thereby suitably deforming the same against separation, in substantially the same manner as set forth with respect to the previously described seal forms.

Having now described my invention, I claim:

1. A seal device of the kind described comprising, a bendable portion, a relatively rigid needle element connected therewith, a needle receiving section also connected with said bendable portion and adapted to be opposed to said needle element by flexing said bendable portion, said receiving section including an opening through which the needle element may be projected and a raised inwardly open sheath means spaced outwardly beyond and in line with said opening and conformably shaped to receive the point of said needle element, whereby the end portion of said needle element, when engaged through said opening and its point entered in said sheath means, is disposed in superposed relation to said receiving section subject to interlocking deformation by a suitable sealing tool.
2. A seal device of the kind described comprising, a bendable portion, a relatively rigid needle element connected therewith, a needle receiving section also connected with said bendable portion and adapted to be opposed to said needle element by flexing said bendable portion, said receiving section including an opening through which the needle element may be projected and a raised inwardly open sheath means spaced outwardly beyond and in line with said opening and

conformably shaped to receive the point of said needle element, whereby the end portion of said needle element, when engaged through said opening and its point entered in said sheath means, is disposed in superposed relation to said receiving section subject to interlocking deformation by a suitable sealing tool, said needle element having formed thereon a stop projection located rearwardly of its free extremity and intermediate its sides adapted to pass forwardly through said opening and thereafter engage a bounding portion of said opening to retain said needle element against retractive movement therethrough.

3. A seal device as defined in claim 1, including down-turned finger fending means projecting from said receiving section beyond the plane of the open bottom side of said sheath means formation.

4. A seal device of the kind described comprising, a bendable body, a relatively rigid needle element of concavo-convex cross-sectional shape at one end of said body, a needle receiving section at the other end of said body adapted to be opposed to said needle element by flexing said body, said receiving section including, in spaced relation, an opening of peripheral shape conforming to the cross-sectional shape of said needle element and a chambered sheath means raised from the plane of said receiving section and shaped conformably to the point shape of said needle element, and a stop projection for the purposes described, formed on the body of said needle element intermediate its sides and in rearwardly spaced relation to its point.

5. A seal device of the kind described comprising, a bendable body, a relatively rigid needle element of concavo-convex cross-sectional shape at one end of said body, a needle receiving section at the other end of said body adapted to be opposed to said needle element by flexing said body, said receiving section including, in spaced relation, an opening of peripheral shape conforming to the cross-sectional shape of said needle element and a chambered sheath means raised from the plane of said receiving section and shaped conformably to the point shape of said needle element, a stop projection for the purposes described carried by said needle element in rearwardly spaced relation to its point, and down-turned finger fending means projecting from said receiving section beyond the plane of the open bottom side of said sheath means.

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