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VEIN HOLDER

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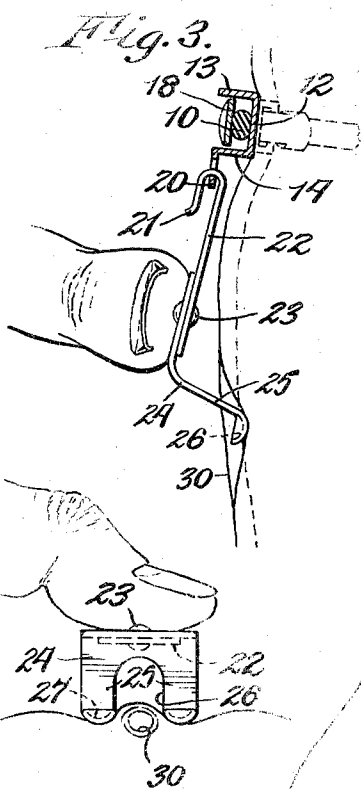
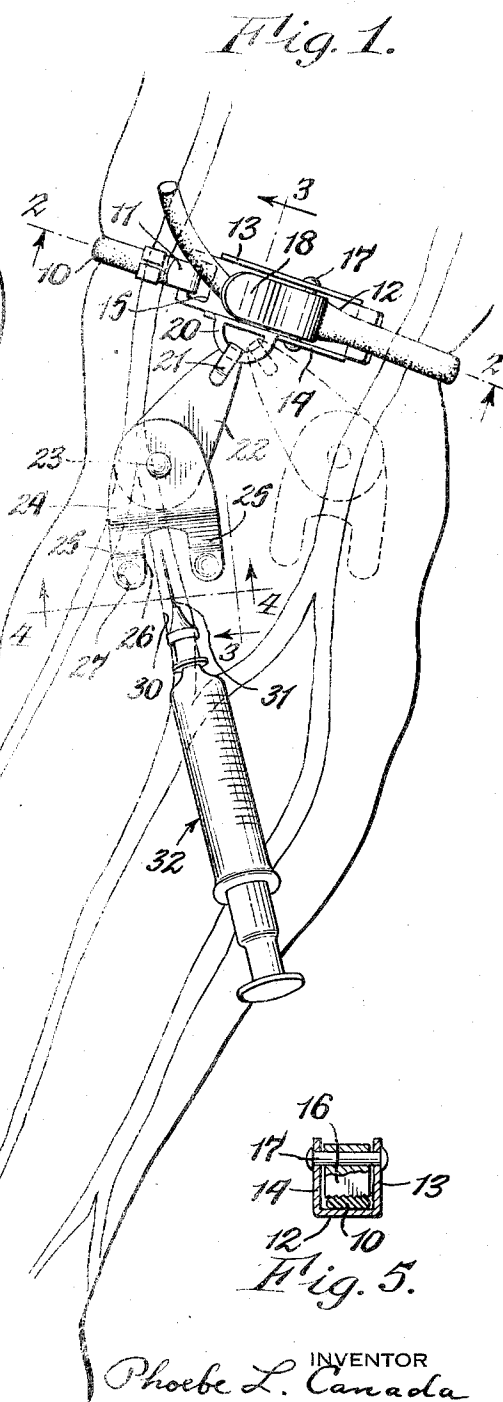
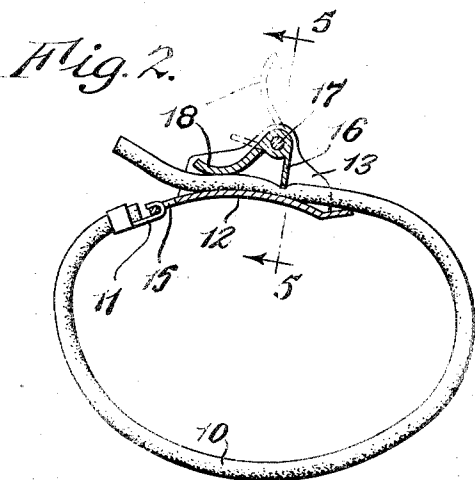
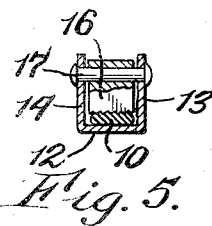


Fig. 4.



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3 Claims. (Cl. 128—327)

This invention relates to a tourniquet and more particularly to a tourniquet including a device for holding an adjacent vein to facilitate intravenous injections and the like.

5 The principal object of the invention is to provide a tourniquet which includes a readily manipulable device for pressing down upon opposite sides of a selected vein so as to hold this vein against displacement while an injection is
10 being made and also to raise the vein so as to facilitate the insertion of a hypodermic needle.

Another object of the invention is to provide such a vein holding device which permits the operator to hold the vein against displacement
15 and in a raised condition with one hand, thereby leaving the other hand free for the manipulation of the syringe.

Another object of the invention is to provide such a vein holding tourniquet which is simple
20 in construction and operation and can be quickly applied to the limb of the patient and thereby greatly facilitate intravenous injections.

Another object of the invention is to positively prevent slipping of the vein while the injection
25 is being made.

In the accompanying drawing:

Fig. 1 is a view of the inner side of the patient's arm showing a tourniquet with a vein holding device applied thereto and also showing the manner
30 in which an injection is made into a vein held in position and in an elevated condition by the vein holding device.

Figs. 2, 3 and 4 are sections taken on the correspondingly numbered lines on Fig. 1 and showing the manner in which the device is used.
35

Fig. 5 is a section taken on line 5—5, Fig. 2.

The tourniquet is shown as comprising an elastic band 10 made of rubber or the like and attached at one end to a hook 11 which can be of
40 any suitable form, the hook being shown as having ears which embrace the end of the elastic band 10 and are pressed into firm engagement therewith. The ends of the elastic band 10 are held by a device which is shown as including a
45 body having a curving portion 12 adapted to lie against the body of the patient and upstanding flanges 13 and 14 so that the body is U-shaped in cross section. One end of the curving portion 12 is provided with a hole 15 adapted to receive
50 the hook 11 and the opposite end of the elastic band 10 is received between the two flanges 13 and 14 and held in position by a lock which comprises a latch 16 mounted on a cross pin 17 carried by the two flanges 13 and 14 and formed
55 integrally with a curving fingerpiece 18. The

latch 16 is of such length that when it is swung from the dotted to the full line position shown in Fig. 2 it engages and compresses the free end of the elastic band 10 and holds this free end against movement. The fingerpiece 18 is of such
5 form that when the latch 16 is moved to the full line position shown in Fig. 2 the fingerpiece 18 engages the free end of the elastic band 10 thereby holding the latch 16 against movement in the direction of the pressure imposed by the
10 elastic band 10.

The flange 14 of the tourniquet is formed at its outer edge to provide a laterally and outwardly extending sector or eye 20, this sector forming a semi-circular track around which is removably
15 hooked the hook 21 of a traveling link 22. This link or traveler 22 carries a rivet 23 at its outer end to which is pivotally secured a presser member 24. This presser member includes a broad part engaging the broad face of the traveler 22
20 and a pair of laterally projecting fingers 25 which are spaced as indicated at 26 and have their lower ends rounded or cupped as indicated at 27. These fingers 25 are spaced to receive between them the vein to be operated upon.
25

In using the tourniquet in making an intravenous injection, as illustrated in the drawing, the elastic band 10 is placed around the arm of the patient about two inches above the vein 30 to be used and the free end of the elastic
30 band is drawn between the curving part 12 of the holder and its pin 17 until the required pressure is applied to the arm. The operator then presses down on the fingerpiece 18 until it engages the elastic band 10, this movement forcing the latch 16 into locking engagement with the elastic band, as illustrated by full lines in Fig. 2. The operator then takes the presser member and moves it until its fingers 25 lie on
40 opposite sides of the vein 30 to be used. This is readily done inasmuch as the traveler 22 can move around the sector track 20 and also the presser member 24 is pivotally connected to the traveler 22. The operator then presses down upon the presser member 24, using the thumb
45 of his left hand for this purpose, this downward pressure serving to bring the vein 30 still further into relief, as illustrated in Figs. 3 and 4. It will be seen that the use of the operator's thumb in applying the pressure also serves to
50 hold the vein against displacement. Therefore the vein is not only held against movement, but also in high relief so that the operator can readily insert the needle 31 of the syringe 32 in making an intravenous injection.
55

From the foregoing it will be seen that the tourniquet with the vein holding attachment forming the subject of the invention greatly facilitates intravenous injections, inasmuch as the operator can, with one hand, hold the vein against displacement and also in high relief. It will further be seen that the device is very simple and inexpensive in construction and can easily and quickly be moved to the proper position with reference to the vein selected for use.

I claim as my invention:

1. A surgical instrument comprising a band adapted to be secured around the limb of the patient, an eye secured to said band and projecting outwardly therefrom to lie parallel with the skin of the limb, a rigid flat metal link having a rounding hook at one end passing through said eye and formed to permit said flat link to be swung outwardly from the skin of the limb as well as parallel with the skin, a metal vein holding member having a flat end engaging one flat face of said link at the free end thereof, a rivet pivotally securing said free end of said link and said flat end of said vein holding member, the free end of said vein holding member being formed to provide a pair of spaced rounded fingers movable over a vein and into engagement with the surface of the skin on opposite sides of said vein to hold said vein against displacement and in high relief while making an intravenous injection or the like.

2. A surgical instrument comprising a band adapted to be secured around the limb of the patient, an eye secured to said band and projecting outwardly therefrom to lie parallel with the skin of the limb, a rigid flat metal link having a rounding hook at one end removably passing through said eye and formed to permit said flat link to be swung outwardly from the skin of the limb as well as parallel with the skin, a metal vein holding member having a flat end engaging one flat face of said link at the free end thereof, a rivet pivotally securing said free end of said link

and said flat end of said vein holding member, the free end of said vein holding member being formed to provide a pair of spaced parallel fingers of substantial length projecting laterally at an acute angle relative to the plane of said flat end of said vein holding member, and a rounding end provided at the free end of each of said fingers and projecting outwardly in a direction generally parallel with said plane of said flat end of said vein holding member, said rounding ends of said fingers being engageable with the surface of the skin on opposite sides of said vein to hold said vein against displacement and in high relief while making an intravenous injection or the like.

3. A surgical instrument comprising a band having two ends, a latch secured to one end of said band and engageable with the other end to fasten said band around the limb of the patient, an eye secured to said latch and projecting outwardly therefrom to lie parallel with the skin of the limb, a rigid flat metal link having a rounding hook at one end passing through said eye and formed to permit said flat link to be swung outwardly away from the skin of the limb as well as parallel with the skin, a metal vein holding member having a flat end engaging one flat face of said link at the free end thereof, a rivet pivotally securing said free end of said link and said flat end of said vein holding member, the free end of said vein holding member being formed to provide a pair of spaced parallel fingers of substantial length projecting laterally at an acute angle relative to the plane of said flat end of said vein holding member, and a rounding end provided at the free end of each of said fingers and projecting outwardly in a direction generally parallel with said plane of said flat end of said vein holding member, said rounding ends of said fingers being engageable with the surface of the skin on opposite sides of said vein to hold said vein against displacement and in high relief while making an intravenous injection or the like.

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