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PNEUMATIC WOUND DRESSING

3,171,410

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FIG_1

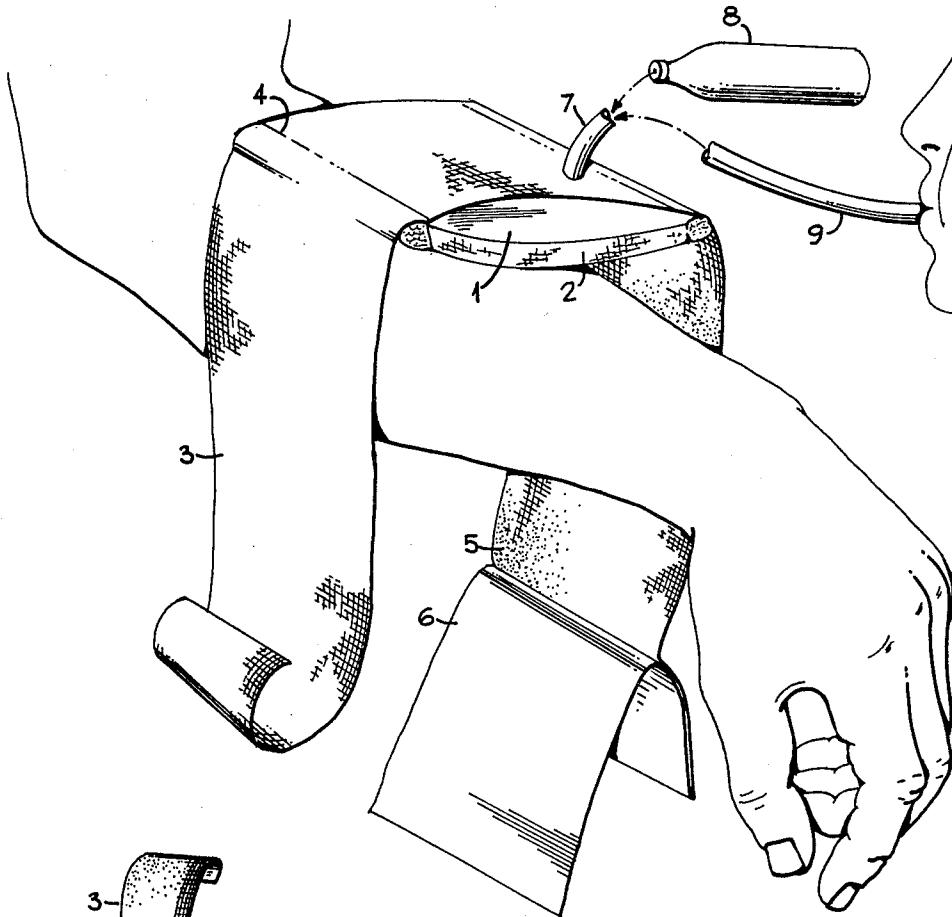
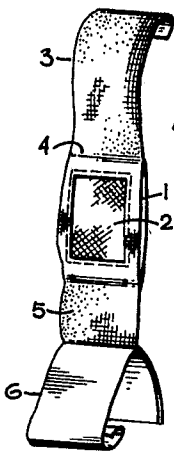


FIG_2



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3,171,410

PNEUMATIC WOUND DRESSING

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4 Claims. (Cl. 128—155)

(Granted under Title 35, U.S. Code (1952), sec. 266)

The invention described herein may be manufactured and used by or for the Government of the United States of America for governmental purposes without the payment of any royalties thereon or therefor.

This invention relates to dressings for wounds and more particularly to a pneumatic wound dressing.

Prior art wound dressings of the type using pressure to staunch the flow of blood are typically tied in position by attached bandages. Pressure to control bleeding is attained by the tightness of the bandages. Such bandages are commonly wrapped several times around the injured part and then tied. In a mass casualty situation, such as in battle, speed in treatment is of the essence. More patients treated earlier means more lives saved.

An object of the present invention is to provide a dressing for wound which can be more quickly applied than the prior art type of dressing and which will effectively control bleeding by pneumatic pressure directly over the wound site.

Other objects and many of the attendant advantages of this invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

FIG. 1 is a view showing the inner face of a dressing constituting one preferred embodiment of the invention with the protective covering partially removed from the pressure-sensitive adhesive tape; and

FIG. 2 is a view of the embodiment of FIG. 1, partially in cross section, showing the dressing being applied to a wound with alternative means for inflating the pneumatic chamber of the dressing.

The invention comprises an inflatable bladder having on one side thereof a gauze pad or the like for application to the wound and having on the other side thereof tape provided with pressure-sensitive adhesive for attaching the dressing to the injured part. Pressure achieved by inflating the bladder is applied directly to the wound site to staunch the flow of blood.

Reference is now made to the drawings. Numeral 1 indicates an inflatable bladder or the like which can be made of any suitable material such as polyethylene or rubberized cloth. On the inner face of the dressing, for direct application to the wound is a generally conventional gauze pad 2. For attaching the dressing to an injured part, a tape 3 is provided passing over the outer side of the bladder opposite the side having the gauze pad. Conveniently the bladder can be held between the pad 2 and the tape 3 by sewing the pad and tape together as at 4. The tape is provided with a pressure-sensitive adhesive 5 which is covered with an easily removable protective covering such as crinoline 6 to prevent undesired adhesion of the tape when not in use. The bladder 1 can be inflated by any suitable procedure. Conveniently a filling tube or the like 7 is provided through which fluid

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such as air or other gas can be introduced into the bladder to inflate it. The entryway 7 preferably contains a valve to prevent the leakage of the fluid from the bladder. If no valve is used the entryway can be closed by clamping or tying. The bladder can be filled from any convenient source such as a charged cylinder of gas 8, a tube 9 to facilitate inflating the bladder by mouth, or a bulb syringe, etc.

As is apparent from the drawing, the dressing of this invention is quickly applied simply by removing the protective covering 6 from the pressure-sensitive adhesive tape applying the gauze pad 2 or the like directly to the wound and then fastening the dressing in position by sticking the tape to the body adjacent the injured part as, for example, by circumvolution of an arm or leg. Pressure directly over the wound site is acquired by inflating the bladder 1, either by puncturing a charged cylinder 8 or blowing through a tube 9 or from a bulb syringe (not shown). In this invention the pressure of the inflated dressing substitutes for the tightness of the prior art conventional circumferential bandages which require considerably more time to apply.

The dressing of this invention can be made in several sizes to permit the user to select a suitable dressing to fit a particular injury. The gauze pad may be impregnated with a medicament if desired.

Obviously many modifications and variations of the present invention are possible in the light of the above teachings. It is therefore to be understood that within the scope of the appended claims the invention may be practiced otherwise than as specifically described.

What is claimed is:

1. A dressing for wounds comprising an inflatable bladder, an absorbent pad on one side of said bladder for application to a wound to be dressed, and pressure-sensitive adhesive tape on said bladder extending beyond the edges of said bladder and pad so as to provide an area of said tape for application to a patient for holding said dressing in place on the body of a wounded patient.

2. The dressing of claim 1 wherein said tape is attached to said bladder to pass over the side of said bladder opposite said pad with the adhesive side of said tape facing said pad.

3. The dressing of claim 1 further including means for inflating said bladder.

4. The dressing of claim 1 wherein said tape on its adhesive face is provided with a readily-removable protective covering to prevent undesired adhesion of said tape.

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