

United States Patent

[11] 3,570,496

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 [21] Appl. No. **776,521**
 [22] Filed **Nov. 18, 1968**
 [45] Patented **Mar. 16, 1971**

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[54] **EMERGENCY PRESSURE PLATE**
3 Claims, 5 Drawing Figs.

[52] U.S. Cl..... 128/327

[51] Int. Cl..... A61b 17/12

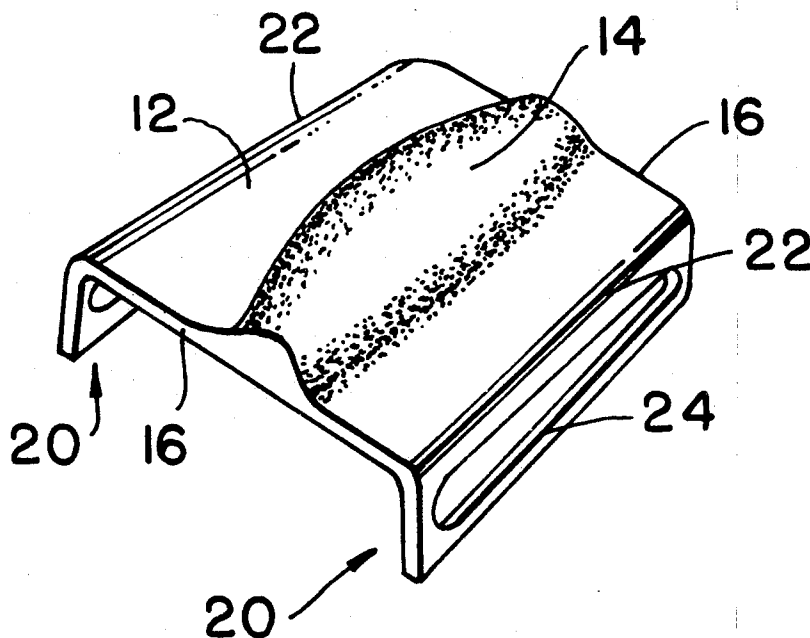
[50] Field of Search..... 128/334,
 335, 346, 325, 95, 96, 97, 98, 100, 106, 111, 115;
 128/326, 327

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ABSTRACT: A pressure plate comprising a flat support with an elongate lobe protruding from one side of the support and brackets on the other side of the support for receiving a belt. The belt holds the pressure plate against the body at a pressure point so that the lobe is forced against the pressure point to stop the flow of blood to an injured area.



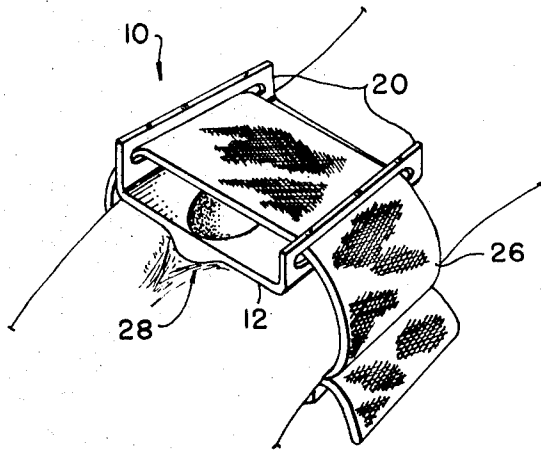


FIG. 1

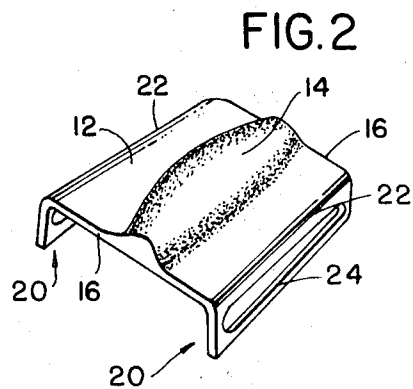


FIG. 2

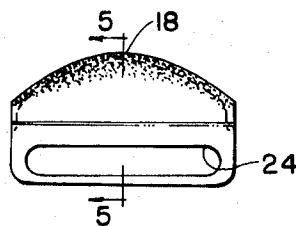


FIG. 3

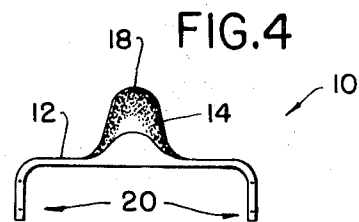


FIG. 4

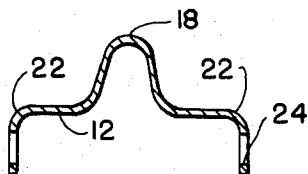


FIG. 5

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EMERGENCY PRESSURE PLATE

The invention relates to an emergency pressure plate used to stop the flow of blood to an injured area. In the past, tourniquets, such as a handkerchief wrapped around a limb and tightened with a pencil or the like, have been used to stop the circulation of blood to an injured area. Similarly, inflatable tubes have been wrapped around a limb and then inflated to stop the flow of the blood. Conventional tourniquets of the type mentioned have the disadvantage of limiting the flow of blood through the whole limb so that in protracted use injury may be incurred by the general restriction of the flow of blood. Such tourniquets may also bite into the flesh to tie off a portion of the body from the rest of the body. This changes blood volume and induces shock and, in some cases, death. The biting of the tourniquet into flesh can permanently destroy blood vessels, nerves, and tissue so that with conventional tourniquets it may be necessary to sacrifice an injured limb to save the life of the injured person. The invention represents an improvement over such conventional tourniquets by providing a pressure plate which controls the flow of blood at a selected pressure point without cutting off the flow of blood to an entire limb or injuring the adjacent flesh. The invention may be used to stop the flow of blood past any pressure point of the body.

The pressure plate is small and light in construction so that it may be easily carried as a part of the equipment of soldiers, firemen, policemen, or other persons who are likely to be injured or in contact with injured people where medical help is not readily available. In such a situation, the pressure plate can be easily applied to a pressure point to prevent the flow of blood to the injured area until the proper medical assistance is obtained.

Other advantages and features of the invention will become apparent as the description proceeds, especially when taken in conjunction with the accompanying drawings, of which there is one sheet, illustrating a preferred embodiment of the invention, wherein:

FIG. 1 is a perspective view illustrating the use of the pressure plate;

FIG. 2 is a perspective view of the pressure plate;

FIG. 3 is a side elevational view of the pressure plate;

FIG. 4 is an elevational view of the pressure plate; and

FIG. 5 is a sectional view taken along line 5-5 of FIG. 3.

The pressure plate 10 includes a rectangular, generally flat support or plate 12 having an elongate lobe 14 protruding from one side thereof. The lobe extends between edges 16 of the plate and is smoothly curved. As indicated in FIGS. 3 and 4, the lobe is symmetrical about its longitudinal and transverse axes and has an apex 18 at its center. Lobe 14 extends generally perpendicularly outwardly from plate 12.

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Portions 20 of the plate at edges 22 are bent away from the lobe and are provided with slots 24 which extend along the edges to form mounts for securing the pressure plate on a belt 26 or the like device.

FIG. 1 illustrates the use of the pressure plate. A belt 26 is inserted in slots 22 and the pressure plate is applied to a pressure point 28 with the lobe positioned at the pressure point and extending along the axis of the blood vessel.

The belt 26 is then tightened sufficiently to hold the lobe against the pressure point and stop the flow of blood past the pressure point. The flat plate 12 rests on the surface of limb 28 and orients the lobe as it projects into the limb to engage the pressure point. The tension required on belt 26 to prevent the flow of blood past the pressure point is not sufficient to prevent the flow of blood through adjacent blood vessels or injure the surrounding flesh. Thus, belt 26 does not serve as a tourniquet.

The pressure plate is mounted on the body with the longitudinal axis of lobe 14 generally parallel to the longitudinal axis of the blood vessel which it is used to close. Thus, when the belt 26 is tightened, the smooth lobe will be forced against the blood vessel and will close the same without any likelihood of pinching or other injury to the blood vessel.

While the pressure plate 10 disclosed herein utilizes a hollow lobe construction, it is not intended that the invention be limited to a pressure plate having a hollow lobe. Likewise, other suitable means may be utilized to mount the pressure plate on a belt or the like.

I claim:

1. A pressure plate for stopping the flow of blood past a pressure point comprising a generally flat plate having a convex, rounded lobe extending outwardly and centrally from one side thereof, said lobe having a rounded apex, a pair of opposed generally flat sidewalls and an outline generally of a shallow ellipse in planes parallel to the surface of said plate, and mounting means on said plate extending away from the plate in an opposite direction from the direction said lobe extends from the plate, said mounting means comprising a flange at each of the edges of the plate to either side of the longitudinal axis of said lobe, each flange including attachment means located outwardly of the plate and adapted to receive a mounting belt or the like, whereby said pressure plate may be held against a pressure point with said lobe projecting toward the pressure point.

2. A pressure plate as in claim 1, wherein said plate is rectangular and said lobe extends between two opposite edges of the plate.

3. A pressure plate as in claim 1, wherein at least one of said attachment means comprises a slot formed in a flange.

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