Jan. 21, 1958 S. A. PEERLESS ET AL 2,820,456

SURGICAL BANDAGE

Filed March 21, 1955 2 Sheets-Sheet 1

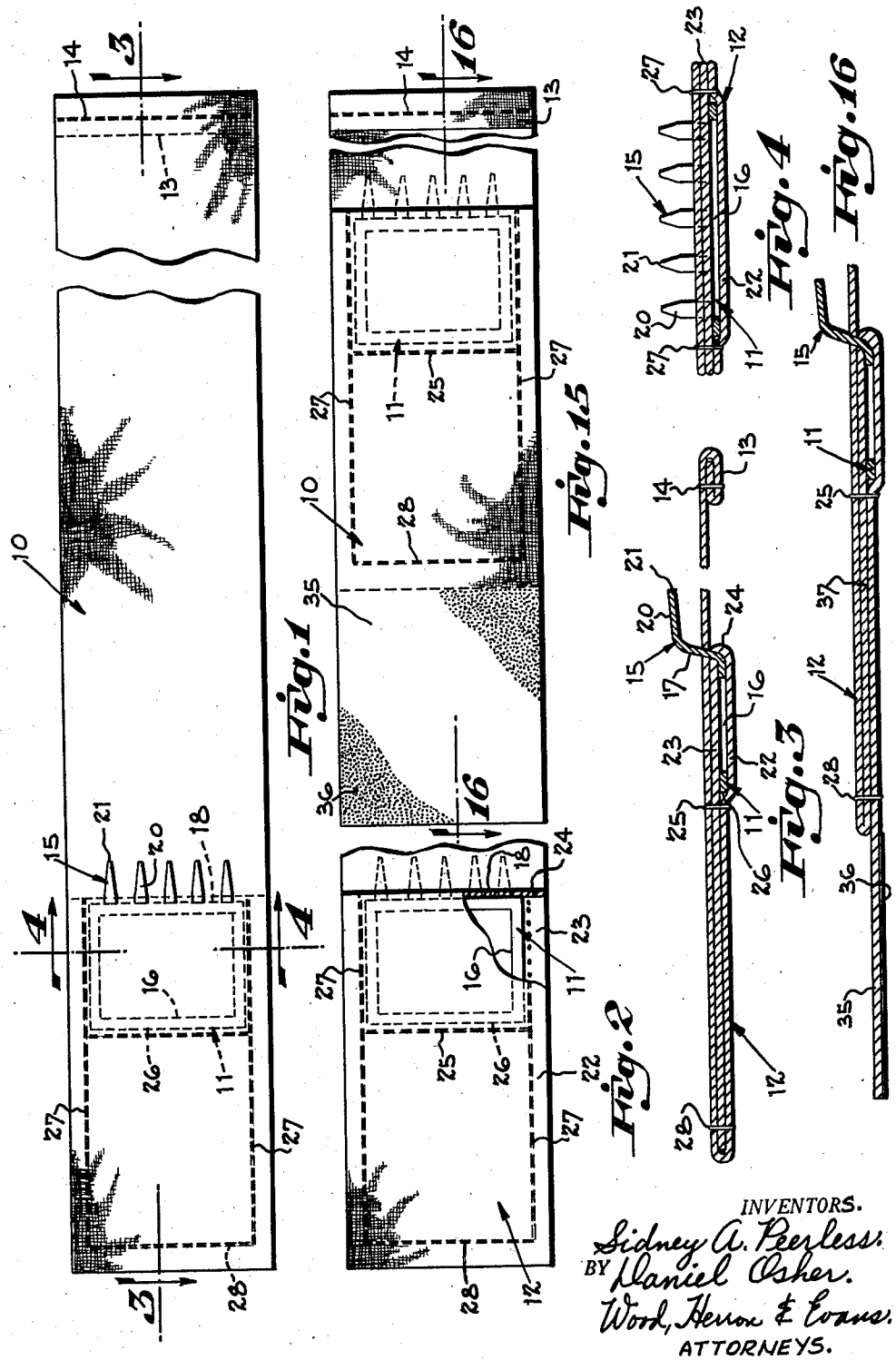


Fig. 1

Fig. 15

Fig. 2

Fig. 3

Fig. 4

Fig. 16

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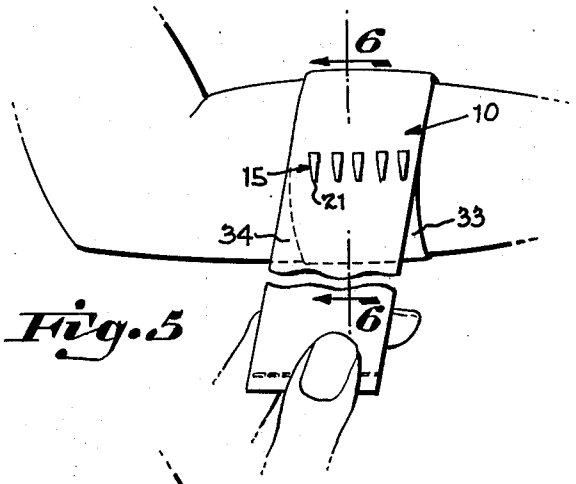



Fig. 5

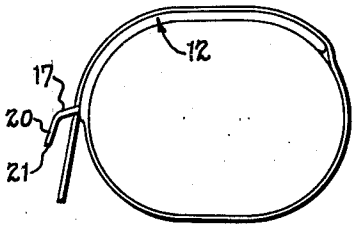



Fig. 6

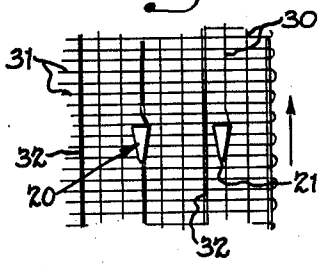



Fig. 11

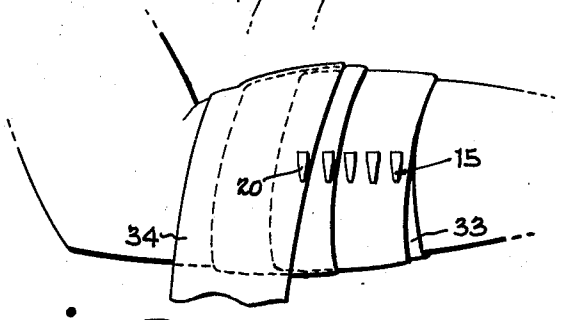



Fig. 7

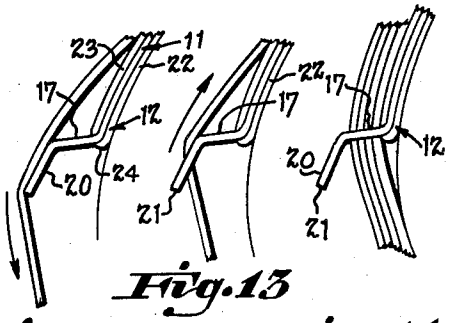



Fig. 13

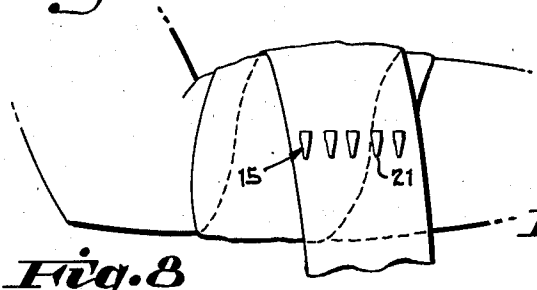



Fig. 8

Fig 12

Fig. 14

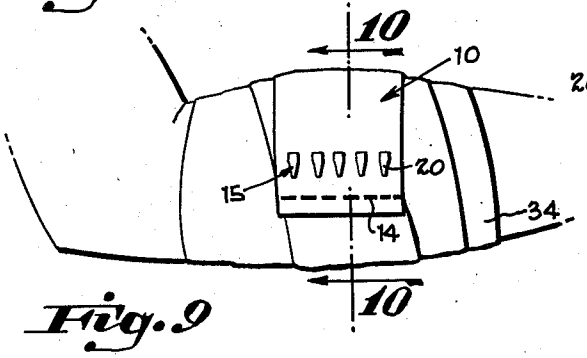



Fig. 9

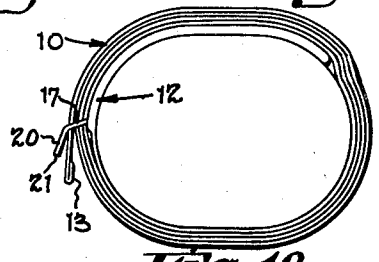



Fig. 10

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2,820,456

# SURGICAL BANDAGE

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Application March 21, 1955, Serial No. 495,428

6 Claims. (Cl. 128—171)

This invention relates to improvements in surgical bandages of the wrap-around class, that is, bandages consisting of an elongated strip of pliable material which is wrapped about an injured part of the body.

In general, bandages of this class are utilized in dressing lacerations, minor surgical incisions and other injuries to prevent exposure to bacteria and, in many cases, to apply pressure for the control of bleeding. They are also used in treating sprains and similar injuries which require the application of pressure. The conventional bandage usually is made from surgical gauze or elastic material having sufficient length to be wrapped or wound successively about the injured member. After being wrapped, the free end of the strip or band is anchored so as to secure the convolutions of the bandage in position. Metal fasteners, safety pins or adhesive tape commonly are utilized for this purpose. In other instances, the free end portion of the strip is split lengthwise and wound in opposite directions around the bandage or bandaged part, the free ends of the split portions then being tied together to anchor the end of the wrapped bandage. Accordingly, the common mode of attachment anchors only one end of the strip and does not provide a positive holding action.

When dressing a bleeding wound or laceration, the physician usually winds the bandage strip under moderate tension around the injured part and directly over the wound, then continues winding the strip under greater tension on opposite sides of the wound or above and below it. The strip is thus contracted under pressure about the injured part on opposite sides of the wound to restrict the flow of blood.

If the nature of the laceration requires a fairly tight bandage, then the wrappings are likely to impede circulation and cause discomfort to the patient. In this event, the bandage must be unwound at intervals to restore circulation and replaced later. It may be necessary to repeat this procedure several times until the bleeding is brought under control; thereafter, the bandage may be wrapped under less tension.

In a great many instances, and particularly if the bandage is applied to an arm or leg, the bandage tends to loosen and relax after it is wrapped in place. Usually the strip is wound helically or spirally, at least in part, and the helical convolutions have a tendency to slip lengthwise of the bandage as the result of normal movements of the limb. This slippage naturally causes relaxation of pressure eventually throughout the entire bandage since the strip is anchored only at one end. The convolutions may relax to such an extent that the entire bandage slips away from its original position.

Briefly therefore, the conventional bandage is inconvenient to apply because it requires the manipulation of an attachment device or a tying operation to anchor it. The necessary attachment procedure adds to the inconvenience when it is necessary to unwind the bandage temporarily to relieve distress or to treat the wound. Moreover, the conventional mode of attaching the bandage is unsatisfactory because the windings tend to relax and loosen after the bandage is applied.



It has been a primary object of the present invention to provide a prefabricated bandage having a simple attachment device which anchors each winding or convolution as it is wrapped and which allows the physician to apply the several convolutions under individually regulated tension. The attachment device thus eliminates the separate attachment devices conventionally utilized and the attendant manipulation of them. By anchoring each winding individually, there is no opportunity for the windings to loosen, therefore, the bandage retains its original regulated pressure and position relative to the injury.

Another object has been to adapt the bandage strip to be wrapped about one area at a given tension and to be wrapped helically to embrace other areas under greater or less tension, with the several windings overlapped and anchored individually. This is of particular advantage in dressing a bleeding wound since the bandage strip may be wound under greater tension on opposite sides of the injury to control bleeding while the intermediate windings which bear upon the injury itself may be applied with less tension.

A further object has been to provide an attachment device which anchors the individual windings automatically as they are applied and which releases them readily as they are unwrapped. This allows the bandage to be unwound partially or completely and allows it to be rewrapped and anchored quickly and conveniently. This feature is of particular advantage in those cases which require temporary relaxation of pressure to restore circulation.

Briefly, the present invention is based upon the concept of combining a fabric strip, which is elastic lengthwise, with an integral attachment buckle having a row of spaced pointed tangs or spurs extending across the strip and projecting in the direction of the free length of the strip. Upon being wrapped in stretched condition about the injured part and over the tangs, then relaxed, the contracting strip pulls itself lengthwise toward the pointed ends of the tangs, causing them to pierce the fabric and provide a releasable anchorage for each winding as it is applied. Since the row of tangs extends across the full width of the strip, the helical convolutions which extend outwardly from opposite sides of the buckle, are engaged and anchored by at least one tang each. Upon being pierced, each winding is thus anchored to the end of the bandage strip which underlies the convolutions; hence the windings are secured in a positive manner and under fixed tension about the several zones of the injured member.

A further object of the invention has been to provide a self-contained bandage which can be applied by an injured person to enable him to help himself in an emergency. For this purpose, the self-contained bandage is equipped with an adhesive anchorage strip extending loosely from the free end of the pad opposite the elastic strip. To apply the bandage, the adhesive strip is applied with one hand to the surface of the limb or other injured part to hold the pad temporarily in position. This makes the unit particularly useful in case of an arm injury. After the adhesive strip is attached, the elastic strip is wrapped about the arm and over the pad and adhesive strip. The adhesive strip provides sufficient purchase to allow the elastic strip to be stretched and anchored to the barbs; thereafter, the additional windings are readily applied to complete the dressing.

The prefabricated bandage, with the attachment buckle (and adhesive strip) permanently secured to it, is furnished in suitable lengths and widths to accommodate the various parts of the body and types of wounds and

injuries. Each bandage preferably is packaged in compact form, and sealed in an envelope in sterile condition for convenient application.

The various features and advantages of the invention are disclosed in greater detail in the following specification in conjunction with the attached drawings.

In the drawings:

Figure 1 is a top plan view of the bandage, with the end portion partially broken away to illustrate the pad and the fastening buckle or clip within it.

Figure 2 is a bottom plan view of the bandage projected from Figure 1, further illustrating the relationship of the pad and clip.

Figure 3 is an enlarged sectional view taken on line 3—3, Figure 1, detailing the pad and clip structure.

Figure 4 is a cross section taken on line 4—4, Figure 1, further illustrating the pad and clip.

Figure 5 is a diagrammatic side view, illustrating the first step of applying the bandage to an injured part of the body.

Figure 6 is a diagrammatic sectional view taken on line 6—6, Figure 5, further detailing the application of the first winding.

Figure 7 is a view similar to Figure 5, showing the bandage strip wound helically over the first winding and about the injured part on one side of the injury.

Figure 8 is a view similar to Figure 7, showing the bandage strip being wound helically across the first winding toward the opposite side of the injury.

Figure 9 is a view showing the bandage strip completely wound and anchored about the injured part.

Figure 10 is a diagrammatic sectional view taken on line 10—10, Figure 9, further detailing the bandage in completely wound condition.

Figure 11 is an enlarged diagrammatic plan view of a portion of the bandage strip in stretched condition, showing the action of the strip as it contracts and pulls itself toward the points of the barbs.

Figure 12 is an enlarged diagrammatic view showing the step of anchoring the first winding of the bandage strip upon one of the points barbs.

Figure 13 is a view similar to Figure 12, showing the stretched strip contracting and drawing itself into anchored position upon the barb.

Figure 14 is a view similar to Figure 13, showing the several windings of the bandage strip anchored upon the shank portion of the barb.

Figure 15 is a face view of the bandage, similar to Figure 2, showing, as a modification, an adhesive strip attached to the end of the pad to permit self-application of the bandage by an injured person.

Figure 16 is a sectional view taken on line 16—16 of Figure 15, further detailing the modified structure.

Referring to Figure 1, the strip or band of elastic bandage material is indicated generally at **10** and the attachment buckle or clip is indicated at **11**. The attachment clip is secured within an end portion of the strip which is doubled over upon itself to provide a pad, indicated generally at **12**.

In the present instance, the pad is of two-ply formation, although additional plies may be formed if greater thickness is desired. As indicated, the length of the folded pad is approximately twice the width of the bandage strip. After being formed, the pad is folded lengthwise upon the end portion of the bandage strip. It is then secured by lines of stitching which pass through the end portion of the strip and through the plies or laminations of the pad. The pad thus is secured permanently upon the under surface of the bandage strip in position to be placed face down upon the wound or injury when the bandage is applied. The outer end of pad **12** forms an anchorage portion which may conveniently be held in place with the thumb or finger while the first convolution is wrapped and anchored to the barbs. As explained later in detail, the pad also provides a reinforced anchorage for the clip **11**.

To prevent unraveling of the woven fabric, the end of the bandage strip opposite the pad is also doubled over upon itself as indicated at **13** and stitched as at **14** to provide a hem.

Referring to Figure 1, the attachment clip or buckle **11** consists of a flat, rectangular body formed of sheet metal, extending for the full width of the bandage strip and including a row of tangs **15** spaced apart from one another and projecting outwardly from an edge of the clip body. To reduce weight, the major central portion of the clip body includes a rectangular opening **16**, the body thus being in the form of an open rectangular frame. Each tang consists of a shank or neck **17** (Figure 12), joined to the edge **18** of the clip and projecting upwardly from the plane of the clip body. The upper end of the shank curves forwardly and blends into a barb **20**, which projects outwardly a substantial distance from the shank. The several barbs of the row all reside above the clip body in the same upwardly inclined plane relative to the body.

As shown in Figures 1 and 11, the forwardly projecting end of each barb terminates in a pointed end **21**. The pointed ends preferably are slightly blunted to prevent injury in case they accidently scrape or contact other parts of the body after the bandage is applied.

As explained later with reference to Figure 5, the clip body is clamped in flat position against the surface of the injured part by at least one convolution of the bandage strip which is wrapped about the part and over upon the pad. The clip body thus acts as a firm base or foundation for the tangs and the upward inclination of the barbs facilitates the anchorage of the windings as they are passed across the barbs in stretched condition and then relaxed (Figures 12 to 14).

The clips are fabricated preferably from stainless steel sheets by a blanking and stamping operation, this material being preferred because it resists corrosion and does not require plating and polishing. The clips may be blanked out in flat condition, then the tangs are bent by the stamping die to form the shank and barb configuration.

Referring to Figures 1 and 3, the clip **11** resides between the laminations **22** and **23** of the pad with its edge **18** engaged against folded edge **24** of the pad, with the barbs projecting upwardly and forwardly through the doubled edge of the pad and through the strip of bandage material above the pad. The clip is secured permanently in this position by a line of cross stitching **25**, extending along the rearward edge **26** of the clip. The line of stitching **25** passes through the portion of the strip above the pad and through the laminations of the pad itself. The clip is thus anchored longitudinally of the strip between the row of stitching and the folded edge of the pad. Two longitudinal lines of stitching **27—27** are applied along the opposite side edges of the pad, passing through the strip and pad to anchor the clip transversely and to secure the pad more firmly to the strip. A second line of stitching **28** preferably is applied across the opposite doubled end of the pad.

It will be seen in Figures 3 and 12, that the barbs **20** of the assembled bandage are spaced upwardly above the top surface of the bandage strip with their pointed ends **21** projecting forwardly and upwardly toward the opposite end of the strip. When the strip is stretched lengthwise and wrapped about the injured part and over the barbs, the points of the barbs project in the direction in which the strip is stretched; therefore, as the strip is allowed to contract, it draws itself lengthwise toward the pointed ends, causing them to pierce the strip and anchor the convolution in stretched condition.

The elastic bandage strip preferably consists of woven fabric or webbing having warp threads **30** extending longitudinally of the strip, interwoven with cross threads **31** forming the woof of the fabric (Figure 11). To impart elasticity, the fabric includes the elastic threads **32** which extend parallel with the warp threads, the elastic threads being interwoven in the fabric by the cross threads. The

fabric is normally contracted lengthwise by the elastic threads which are incorporated in the weave under tension. In the present example, the elastic threads consist of strands of rubber which are covered by a wrapping of fine thread, such that the exposed surface of the woven fabric is fibrous.

The fabric strip is woven rather loosely with the cross threads **31** spaced apart from one another. In normal condition, the prestressed elastic strands naturally contract the fabric lengthwise, reforming the loosely woven web into a solid pattern with the cross threads closely spaced and the longitudinal warp threads buckled between them. When the strip is stretched lengthwise (Figure 11), the warp threads are drawn to their full length and the cross threads are separated from one another, providing interstices through which the pointed barbs **20** readily may pass. To protect the patient, as noted earlier, the pointed ends of the barbs preferably are blunted; however, the loosely woven fabric is readily pierced by the blunted barbs.

In applying the bandage to an injured part of the body, for example, an arm, as shown in Figure 5, the pad **12** is placed face down upon the injury and is held temporarily in this position. The free length of the bandage strip is now stretched outwardly and wrapped in tension around the injured part and over the pad. It will be seen that the pointed barbs reside above the surface of the pad with their pointed ends projecting at an angle upwardly and in the direction in which the strip is stretched.

The stretched portion of the strip thus passes across the top of the barbs and at an angle across their pointed ends (Figure 12). The tension on the strip is then relaxed partially, causing the convolution, particularly that portion which overlies the barbs, to contract and draw itself against the pointed ends of the barbs in the direction indicated by the arrow in Figure 13. This causes the pointed barbs to penetrate the interstices of the fabric material and thus anchor the strip in stretched condition to the shanks **17** of the barbs (Figure 14). The pad thus is secured in position by the first convolution or winding **33** (Figure 5), which encircles the limb under regulated tension. In other words, the convolution is anchored to the end of the strip by the barbs.

Application of the bandage is completed by repeating the operations of wrapping the stretched strip around the injured member and anchoring each convolution individually upon the barbs in the same manner. It will be understood that the pressure to be applied about the injured part is regulated by the amount of tension which is applied to the strip each time it is wrapped around the part and anchored.

In applying the bandage to a wound to control bleeding, as indicated earlier, the pad is placed upon the wound and the bandage strip is wrapped to cover the pad at a given pressure and is wrapped at a greater pressure along the injured part on opposite sides of the pad. Thus, as shown in Figure 5, the winding or windings **33**, which overlie the pad, are each anchored to the barbs, then the free length of the band is wrapped in helical fashion as indicated at **34**. It will be noted that the helical convolutions are anchored to the tangs near the outer edge of the pad, the outermost winding having an edge portion anchored by at least one tang.

Preferably, the helical convolutions are stretched at greater tension than the intermediate convolutions **33**, which overlie the pad, to provide greater compression around the injured part on opposite sides of the wound. After the winding of the strip at one side is completed, the strip is wound helically across the pad (Figure 8) to the opposite side and the same procedure is followed.

It will be observed that by anchoring each winding individually, moderate pressure may be applied directly upon the wounded area and greater pressure in the areas on opposite sides of it by controlling the pressure of the helical windings. Moreover, there is no opportunity for the helical convolutions to shift, accordingly the original pressure and position of the windings remain constant in spite of muscular action and other factors which tend to loosen or displace the bandage.

Since the windings are anchored upon the barbs by contraction of the stretched strip, they are released from the barbs in a convenient manner by stretching the anchored end portion of the strip outwardly. Upon being stretched, the strip is drawn outwardly from the shanks toward the pointed ends of the barbs and disengaged therefrom. The first winding is then unwrapped and successive windings are released in the same manner until the entire length of the strip is disengaged and unwound.

The tangs thus eliminate the manipulation of separate attachment devices and, on the other hand, the discomfort of stripping off adhesive tape, which is otherwise used to anchor conventional bandages. Because of the ease in which the windings may be released and rewound, it is a simple matter to unwind the bandage partially or completely to relieve distress, and to replace the bandage after relief is obtained.

As noted above, the buckle or clip **11** provides a very firm base or anchorage for securing the windings under permanent tension. After the first winding or windings are anchored to the clip, the helical windings **34**, which are anchored to the side portions of the clip can not disturb the clip or tend to rotate it relative to the pad because of the width of the clip and its secure attachment by the lines of stitching.

The prefabricated bandage is ideal for emergency use, particularly in the case of a bleeding wound which requires quick application of a pressure dressing to control hemorrhage. In other words, it is self-contained and requires no separate dressing material to be placed over the wound; moreover, it is self-holding, requiring no manipulation of fastening devices.

These advantages also make the bandage ideal for attaching splints to an injured or fractured limb. In this case, the first winding or windings may be attached directly to the limb and anchored to the clip. Thereafter, the splints may be held in position with one hand and the successive wrappings applied with the other hand under tension around the limb and over the splints, each winding anchored to the clip as indicated.

For purposes of illustration, the present self-contained bandage is disclosed in its application to an injured arm. However, it will be understood that bandages having proportions suitable for other parts of the body are contemplated. By way of example, for dressing wounds or injuries of the larger parts of the body, such as the waist or chest, a bandage having a proportionally greater length and width is furnished. However, the principle and mode of application of the various sizes of bandages is identical.

In the modification shown in Figures 15 and 16, an adhesive strip **35** extends outwardly from the free end of the pad. In its preferred form, the adhesive strip consists of an extension of the elastic strip **10**, having a coating of pressure sensitive adhesive **36**, preferably on one side only. The adhesive coating is applied to the side of the strip which is placed face down upon the surface of the injured part when the pad is applied over the wound or injury. In the preferred construction shown in Figure 16, the free length of adhesive strip is obtained by folding the laminations of the pad **12** in zig-zag formation as at **37**, instead of doubling them over in the same direction (Figure 3). The zig-zag folds are secured by the lines of stitching **25**, **27** and **28** previously described, the clip **11** being anchored between the laminations by the stitching.

The modified bandage arrangement is useful as a self-applied bandage for emergency use, particularly in dressing a wounded arm which leaves only one hand free. In applying the bandage in such cases, the pad is placed face down over the wound, thus exposing the adhesive side **36** of the strip to the surface of the arm near the injury. The adhesive strip is then pressed down upon

the arm to secure adhesion; this is readily accomplished with the free hand. The elastic strip is next wrapped about the arm, passing over the adhesive strip and pad; it is then anchored to the barbs by stretching the free length of elastic strip and allowing it to contract and be pierced by the barbs.

The tackiness of the adhesive coating provides an adhesive purchase which is greater than the pull exerted by the elastic strip when it is stretched outwardly. The adhesive strip thus makes it possible to anchor the pad temporarily with one hand and then, with the same hand, to wrap and anchor the first winding. After this is accomplished, the function of the adhesive strip is ended; the first winding anchors the bandage and pad for convenient wrapping of the additional helical windings with one hand.

For packaging the bandage, the strip or band of material may either be rolled or folded upon itself and upon the pad to provide a compact mass. Preferably, the bandage is sterilized after fabrication and may be inserted in packed condition into a sterile envelope which is sealed to prevent contamination.

We claim:

1. A wrap-around surgical bandage comprising, an elongated strip of fabric material adapted to be wrapped successively about an injured part of the body and upon itself, an attachment clip formed of substantially flat rigid material, said clip having a width substantially equal to the width of said strip, a plurality of pointed barbs projecting upwardly and outwardly from said clip, said strip of material having an end portion which is doubled over upon itself providing several thicknesses of material, said doubled portion being folded toward the opposite end of the strip and upon the under surface thereof, and means securing the doubled portion of material to the under surface of the strip, said doubled portion thereby providing a multiple ply pad residing at the end portion of the strip, said attachment clip residing between the plies of the pad with said pointed barbs projecting upwardly and outwardly through the pad and through the upper surface of the strip above the pad, the pointed ends of the barbs projecting toward the opposite end of the strip, said pad adapted to be placed upon the injured part with the pointed barbs residing above the exposed side of the strip, the strip being sufficiently elastic to stretch lengthwise when wound about the injured part and upon itself, said convolution thereby passing over the pointed barbs with the points thereof projecting in the direction in which the convolution is stretched, adapting the convolution to contract partially and draw itself toward said points to be pierced thereby and anchored to said attachment clip.

2. A wrap-around bandage adapted to be self-applied to an injured part of the body comprising, a strip of pliable bandage material having sufficient length to be wrapped about the injured part, said strip being elastic in the direction of its length, said strip having an anchorage portion at one end, a plurality of pointed attachment elements secured to the strip and residing at the upper surface of the strip, the attachment elements being spaced inwardly from the free outer end of said anchorage portion, the elastic strip being sufficiently yieldable to stretch lengthwise when wrapped under tension about the injured part and over the pointed attachment elements, whereby the pointed attachment elements pierce the wrapped strip and anchor the strip over the anchorage portion and about the injured part, and an adhesive element secured to the said anchorage portion for securing the anchorage portion to the surface of the injured part when applied thereon; the adhesive element having an adhesive purchase upon said surface which resists a greater force than the tension required to stretch the elastic strip lengthwise, the adhesive element thereby adapting the anchorage portion to be secured to the surface of the injured part to resist the tension applied to the elastic strip as the same is stretched and wrapped before being pierced and anchored by the attachment elements.

3. A wrap-around bandage adapted to be self-applied to an injured part of the body comprising, a strip of bandage material having sufficient length to be wrapped about the injured part, said strip being elastic in the direction of its length and having an anchorage portion at one end, an attachment element secured to said strip, the attachment element having a plurality of pointed barbs residing above the upper surface of the strip, said barbs being spaced inwardly from the free outer end of the anchorage portion, with the pointed ends of the barbs projecting toward the free end of the elastic strip, the elastic strip being sufficiently yieldable to stretch lengthwise when wrapped under tension about the injured part and over the pointed barbs, with the pointed ends of the barbs projecting in the direction in which the strip is stretched, thereby adapting the strip to contract and draw itself lengthwise toward said pointed ends to be pierced and anchored by the barbs, and an adhesive strip secured to the said anchorage portion and extending outwardly therefrom in a direction opposite to the pointed ends of the barbs, said adhesive strip having a coating of pressure sensitive adhesive thereon adapted to secure the anchorage portion to the surface of the injured part, said coating having an adhesive purchase upon said surface which resists a greater force than the tension required to stretch the elastic strip lengthwise, the adhesive strip thereby adapting the anchorage portion to be secured to the surface of the injured part to resist the tension applied to the elastic strip as the same is stretched and wrapped before being pierced and anchored to the barbs.

4. A wrap-around surgical bandage comprising an elongated strip of pliable bandage material adapted to be wrapped successively about an injured part of the body and upon itself, an attachment clip formed of substantially flat rigid material, said clip having a width substantially equal to the width of said strip, a plurality of tang elements residing in spaced row formation transversely across the attachment clip, each tang element having a shank portion rising upwardly substantially at right angles to the plane of said clip and having a barb projecting from the upper end of said shank, each barb having a longitudinal axis extending longitudinally of the strip and having a pointed outer end, and means anchoring the attachment clip to an end portion of said strip with said barbs residing above the upper surface of the strip and with the pointed ends of the barbs projecting toward the opposite end of the strip, said attachment clip adapted to be placed adjacent an injured part of the body with the pointed barbs residing above the upper surface of the strip, the strip being sufficiently elastic to stretch lengthwise when wound successively under tension about the injured part and upon itself, said windings thereby passing over said pointed barbs with the points thereof projecting in the direction in which the windings are stretched, adapting each winding to contract partially and to draw itself upon said pointed barbs to be pierced thereby and anchored to the shanks of said barbs, the length of said shanks adapting successive windings to be anchored individually one above the other upon said shanks.

5. A wrap-around surgical bandage comprising an elongated strip of pliable bandage material adapted to be wrapped successively about an injured part of the body and upon itself, an attachment clip formed of substantially flat rigid material, said clip having a width substantially equal to the width of said strip and having a length not greater than the width of the strip, said clip having a forward edge extending transversely across said strip, a plurality of tang elements extending in spaced row formation across the forward edge of the attachment clip, each tang element having a shank portion rising upwardly from the forward edge of the clip substantially at right angles to the plane of the clip and having a barb

projecting from the upper end of said shank, each barb having a longitudinal axis extending longitudinally of the strip and having a pointed end projecting outwardly beyond the forward edge of the clip, and means anchoring the attachment clip to an end portion of said strip with said barbs residing above the upper surface of the strip and with the pointed ends of the barbs projecting toward the opposite end of the strip, said attachment clip adapted to be placed adjacent an injured part of the body with the pointed barbs residing above the upper surface of the strip, the strip being sufficiently elastic to stretch lengthwise when wound successively under tension about the injured part and upon itself, said windings thereby passing over the attachment clip and over said pointed barbs with the points thereof projecting in the direction in which the windings are stretched, adapting each winding to contract partially and to draw itself upon said pointed barbs to be pierced thereby and anchored upon the shanks of said barbs, the length of said shanks adapting successive windings to be anchored one above the other upon said shanks, the length of the attachment clip adapting the same to be anchored firmly by the individual windings which pass over the clip and are anchored upon the shanks thereof.

6. A wrap-around surgical bandage comprising an elongated strip of pliable bandage material adapted to be wrapped successively about an injured part of the body and upon itself, an attachment clip formed of substantially flat rigid material, said clip having a width substantially equal to the width of said strip, said clip having a forward edge extending transversely across said strip, a plurality of tang elements residing in spaced row formation across the forward edge of the attachment clip, each tang element having a shank portion rising upwardly from the forward edge of the clip substantially at right angles to the plane of the clip and having a barb projecting from the upper end of said shank, each barb having a longitudinal axis extending longitudinally of the strip, each of said barbs having a pointed end portion projecting outwardly beyond the forward edge of the clip, said pointed end portions residing in a plane which is inclined upwardly to the plane of said clip from said shank portions, and means anchoring the attachment clip to an end portion of said strip with said barbs residing above the upper surface of the strip and with the pointed ends of the barbs projecting toward the opposite end of the strip, said attachment clip adapted to be placed adjacent an injured part of the body with the pointed barbs residing above the upper surface of the strip, the strip being sufficiently elastic to stretch lengthwise when wound successively under tension about the injured part and upon itself, said windings thereby passing over said pointed barbs with the points thereof projecting in the direction in which the windings are stretched, adapting each winding to contract partially and to draw itself upon said pointed barbs to be pierced thereby and anchored to the shanks of said barbs, the length of said shanks adapting successive windings to be anchored one above the other upon said shanks.




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