Oct. 19, 1937. W. M. SCHOLL 2,096,564

PERFORATED STRAPPING TAPE

Filed Feb. 1, 1936

Fig. 1.

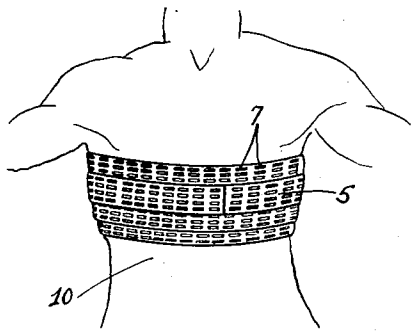


Fig. 2.

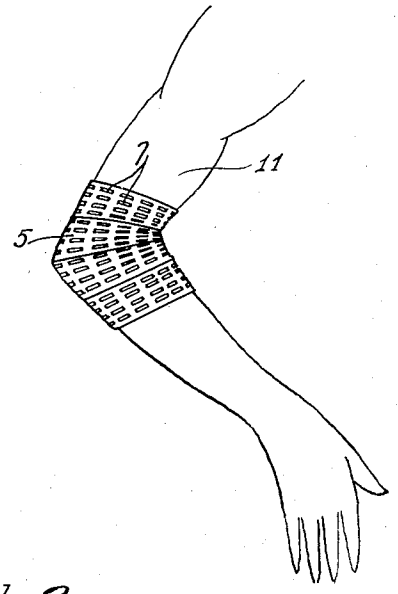


Fig. 3.

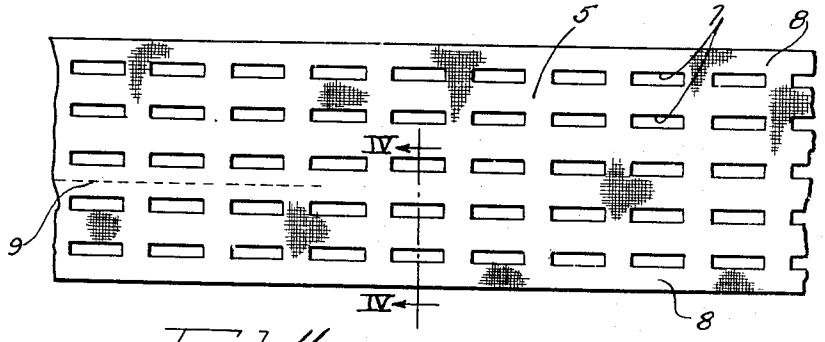
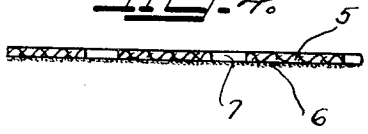


Fig. 4.



Inventor

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2,096,564

UNITED STATES PATENT OFFICE

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PERFORATED STRAPPING TAPE

William M. Scholl, Chicago, Ill.

Application February 1, 1936, Serial No. 61,900

2 Claims. (Cl. 128—156)

This invention relates to improvements in a strapping or binding tape highly desirable for use in connection with strapping and bandaging parts of the human body, of the character indicated in bandaging broken or cracked ribs, holding splints in position for broken limbs, bandaging over joints, and similar bodily ailments wherein binding or strapping is necessary, although the invention will have other uses and purposes as will be apparent to one skilled in the art.

It has been customary in strapping, bandaging and binding parts of the body to use ordinary non-porous adhesive tape, such as zinc oxide tape, in the form of an elongated strip wound around the afflicted portion of the body, but the use of such non-porous tape when applied to the skin for a reasonable length of time prevents ventilation of the skin and causes irritation, blisters, discomfort, etc. I am aware that in the past several types of medicated plasters or pads, adhesively held in position, have been provided with apertures for disposal over the afflicted area to ventilate that area. In most instances, these pads were not provided with an adhesive surface directly over the afflicted part, but adhesive straps made contact with the body outside of the afflicted area. While certain of these formerly known devices were used in connection with sore or injured fingers, toes, vaccinations and similar ailments, there has never been provided to my knowledge a bandage capable of being used for strapping or binding which also provides adequate ventilation and flexibility.

With the foregoing in mind, it is an object of this invention to provide an adhesive undersurfaced strapping tape usable in connection with orthopedic work proper, fractures, sprains, pleural cavity strappings, for rib cracks, fractures, etc., which is provided with openings therethrough to permit ventilation of the body surface beneath the tape.

Another object of this invention is to provide a strapping tape of the character set forth herein which is arranged to provide additional flexibility so that the tape may be readily applied over joints, such as ankle, elbow or knee joints, and permit a relatively free movement of the joints.

A further object of this invention is the provision of an adhesive undersurfaced strapping tape provided with a plurality of series of perforations, the perforations being so spaced that the tape may be cut into strips of a desirable or suitable width and still leave an unperforated selvage of suitable width on each side of the line of cut.

Still another object of the present invention is the provision of a strapping tape having an adhesive undersurface for attachment to the body of a user, which tape is provided with a plurality of elongated apertures therethrough not only to furnish ventilation to the body but also permit flexing of the strapping tape over a joint or the like.

It is also an object of the invention to provide a strapping tape of the character set forth herein which is provided with a plurality of apertures therethrough of such size and arrangement as to permit a deformation or unusual application of the tape itself to meet the exigencies of circumstances without causing undue bulge, irritating ridges, etc., in the tape.

While some of the more salient features, characteristics and advantages of the present invention have been above pointed out, others will become apparent from the following disclosures, taken in conjunction with the accompanying drawing, in which:

Figure 1 is a fragmentary elevational view illustrating the application of a tape embodying principles of the present invention to the upper torso of the human body;

Figure 2 is a fragmentary elevational view illustrating one manner of applying the tape over a body joint, the tape permitting flexing of the joint;

Figure 3 is an enlarged fragmentary top plan view of the strapping tape itself;

Figure 4 is a greatly enlarged fragmentary vertical cross-sectional view of the tape, taken substantially as indicated by the line IV—IV of Figure 3.

As shown on the drawing:

In the illustrated embodiment of the present invention, there is seen an elongated strip of strapping tape 5 which may be made of any suitable material, such as the material commonly used in the manufacture of adhesive tape. As indicated in Figure 4, the tape is provided with an adhesive undersurface 6 of any suitable kind, for example, the well-known zinc oxide adhesive.

The tape 5 is provided with a plurality of spaced series of apertures 7, each series running longitudinally of the tape, there being a suitable unperforated selvage 8 along each side edge of the tape. These apertures 7 are preferably elongated apertures, as shown, and the space between adjacent apertures in a longitudinal direction is preferably not as long as one of the apertures. In addition, the apertures may be of any suitable shape to permit flexing of the tape over a joint, the rectangular shape illustrated being satisfactory for this purpose.

Of course, the tape may be provided in substantially any width, and if the tape is wider than the required width for a particular purpose, a physician or operator may readily slit the tape to the required width. As indicated in Figure 3, adjacent series of apertures or perforations 7 are preferably spaced sufficiently apart so that when the tape is slit, for example, along a line of cut indicated by the dotted line 9, there will be a sufficient unperforated selvage on each side of the line of cut to insure adhesion of the tape to the body along the edges thereof so as to leave no exposed edges adjacent an aperture to curl up during usage.

The tape may be applied to the body in substantially the same manner as strapping tape has been applied heretofore. In Figure 1, I have illustrated the application of tape over the pleural cavity in the upper torso 10 of a body, a strapping suitable for an injury or affliction, such as a cracked or fractured rib. It will be noted, however, that with the use of the present invention, the entire taped portion of the body is not shut off from ventilation, but a considerable region is open for ventilation through the apertures 7 in the tape. With many such ventilation areas disposed so closely together, that part of the body actually covered by the adhesive undersurface of the tape is less inclined to become irritated, blistered or the like in view of the proximity of the ventilating areas.

Of course, the apertures 7 permit a giving of the tape without a loosening thereof, due to body movements or flexing. This is especially desirable when the tape is applied over a joint, as indicated in Figure 2, wherein the tape is shown as being used to strap an arm 11 over the elbow joint. It will be seen that the apertures in the left hand part of this figure are spread wider than those in the right hand part, due to the flexing of the elbow joint, wherefore it is apparent that the tape not only provides adequate ventilation, but also permits a freedom of movement not heretofore provided by strapping tapes. It will also be noted that the tape may be applied nicely and easily over a portion of the body wider on one side than the other, whereby a distortion of the tape is necessary, such distortion being accomplished without objectionable bulges and wrinkles in the tape. The tape herein described may also be removed from the body with ease and much less irritation and pain than has heretofore been the case.

From the foregoing, it will be apparent that I have provided a strapping tape which not only provides ventilation for the body of a user, but also permits a freedom of movement, and which may be applied neatly and with great facility, the tape being in fact easier to apply to the body than tapes of the character heretofore used. In addition, it will be noted that the tape is of ample strength for all strapping purposes and may be economically manufactured.

I am aware that many changes may be made and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I, therefore, do not purpose limiting the patent granted hereon otherwise than is necessitated by the prior art.

I claim as my invention:

1. A strapping tape comprising an elongated strip of tape having an adhesive undersurface and provided with a plurality of spaced rows of elongated apertures running longitudinally of said strip whereby said strip is adapted for use in strapping a body joint so that the joint may be flexed without causing undue skin compression and puckering of the tape on one face of the joint and without causing undue tension of the skin on an opposed face of the joint.

2. A strapping tape comprising an elongated strip of tape having an adhesive undersurface and provided with a plurality of spaced rows of elongated apertures running longitudinally of said strip whereby said strip is adapted for use in strapping a body joint so that the joint may be flexed without causing undue skin compression and puckering of the tape on one face of the joint and without causing undue tension of the skin on an opposed face of the joint, said rows of apertures being spaced apart sufficiently to adapt the tape for slitting between adjacent rows while leaving an imperforate selvage on each side of the line of cut.

WILLIAM M. SCHOLL.