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WOUND DRESSING

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This invention relates to improvements of wound dressings applied over the broken skin to exclude germs, dirt, and damaging substances and to promote healing. In instances, such dressings are applied also over unbroken skin for protection, stabilisation, or applying a medicament.

Heretofore wound dressings have been devised consisting of cloth coated with a sticky, adhesive layer, and applied with or without gauze pads. These so called adhesive tape dressings are highly offensive to sight; of considerable thickness; soil easily; ravel and creep; are not germ- and water-proof; are difficult to remove; and prohibit control and inspection of the wound. To overcome some of these disadvantages, of late adhesive tapes have been prepared made of water-proof impregnated cloth still offensive to sight, of increased thickness impeding extended use, more difficult to remove and still excluding the covered surface from control except after removal.

Liquid wound dressings have been devised, consisting of solutions of gums or cellulose compounds in alcohol, ether and related highboiling solvents, capable of leaving a transparent film when applied to the wound and skin and after evaporation of the solvent. Their use involves containers capable of storing volatile liquids; apparatus and delay to apply the solution to the surfaces; application of damaging and irritating highboiling solvents to the sensitive and exposed tissue of the wound; delay of the covering effect until evaporation has taken place; pains through damage and irritation by action of the solvents on open tissue and even the unbroken skin; disturbance of the healing through entering between the broken surfaces; and difficulty and necessity of use of solvents for removal.

Object of my invention is to provide a wound dressing made of unoffensive, thin material; non-creeping and non-raveling; water-proof and germ-proof; not soiling; easy to remove; not involving application of solvents to the wound; flexible and transparent and permitting steady control and constant inspection of the covered wound and skin.

Another object of my invention is to combine with a thin, transparent, and water-proof dressing such modifications and accessories as to simplify and ease application, enlarge scope of use, and to increase the medicinal effect.

With the foregoing objects outlined and with other objects in view, which will appear as the description proceeds, the invention consists in the novel features described in detail, and more particularly pointed out in the appended claims.

My invention in its simplest form comprises a transparent paperthin material such as Cellophane, pyroxylin or preferably Celluloid, cut into the shape of sheets or tapes and prepared by hygienic, sterilized packaging for the purpose of covering wounds. Such packaging will, with advantage, include use of paper cut correspondingly or larger than the Celluloid, which will adhere by electrostatic power to the paper. The dressing can easily be handled in this manner without being touched.

It is part of my invention to employ for wound dressings described here, transparent material which has been embossed with a fine design, preferably resembling natural skin, rendering the dressing still less noticeable without disturbing the transparency, and fixating the adhesive coating described below.

Another object of my invention is to provide a transparent dressing of high flexibility and softness. For this purpose I prefer to employ pyroxylin or Celluloid, which contains an unusual large amount of plasticiser. For instance, a mixture of 1000 gm. commercial ethylacetate cotton solution with 500 gm. castor oil, or 200 gm. dibutylphthalate, prepared into thin sheets according to the art and dried prolongedly, is soft and pliable as silk. This example shall in no way limit the choice and amount of plasticisers used in my invention.

Transparent wound dressings as described above are easily affixed over a wound by applying a solvent or a glue such as gum mastic solution or collodium around the wound, not into the same, and to glue the dressing in its place. Collodium used for a Celluloid or pyroxylin dressing will at the same time soften the dressing and form it according to surface covered.

It is an essential part of my invention to prepare the transparent dressings as described above ready for use, coated with a sticky, adhesive layer as known in the art from the so called adhesive tape. I prefer, however, to use a transparent adhesive coating, obtained according to the art except for omission of non-transparent ingredients such as zinc oxide, or preferably by using a mixture of chlorinated rubber with a plasticiser. Chlorinated rubber is available in powder form and easily soluble, without the difficulties connected with raw caoutchouc, in many plasticisers such as dibutyl phthalate, castor oil, tung oil, hydrogenated methyl abietate and others known to the art, with which it will form, when mixed in about equal amounts, non-drying sticky masses, easily spread to an adhesive transparent coating.

Dressings as described above can be placed with advantage directly over some wounds; others will require an interposed layer of gauze. For Celluloid or pyroxylin dressings, not made adhesive, I have found a simple method of adding a gauze or cloth patch, by moistening said patch with a solvent such as acetone and pressing it strongly against the dressing, to which it will adhere after drying.

In the first portion of this specification, I have set forth the advantages of the invention over the known systems and while I have disclosed what I consider to be some preferred embodiments of the invention in such manner that the same may be readily understood by those skilled in the art, it is manifest that changes may be made in the details disclosed without departing from the spirit of the invention as expressed in the claims.

What I claim and desire to secure by Letters Patent is:

1. A new article of commerce, a transparent wound dressing provided with a transparent non-drying adhesive comprising a combination of chlorinated rubber with plasticizer.

2. A new article of commerce, a transparent wound dressing provided with a transparent non-drying adhesive comprising a combination of chlorinated rubber and plasticizer in an amount at least about equal to the amount of chlorinated rubber.

3. A transparent wound dressing comprising a flexible transparent film backing coated on one side with a transparent adhesive comprised of chlorinated rubber blended with a plasticizer in proportion such that the adhesive is non-drying.

4. A wound dressing comprising a flexible backing having on one side a non-drying permanently tacky adhesive layer containing a substantial proportion of chlorinated rubber.

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