

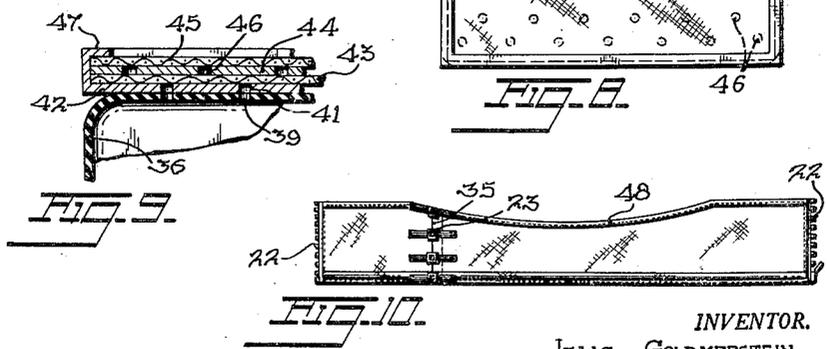
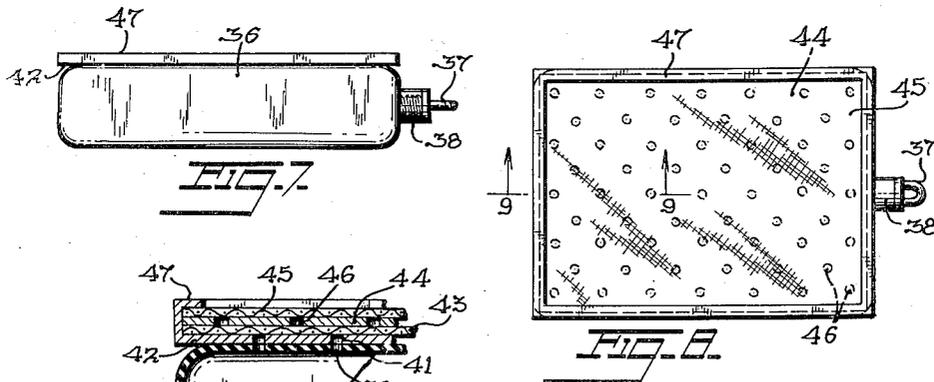
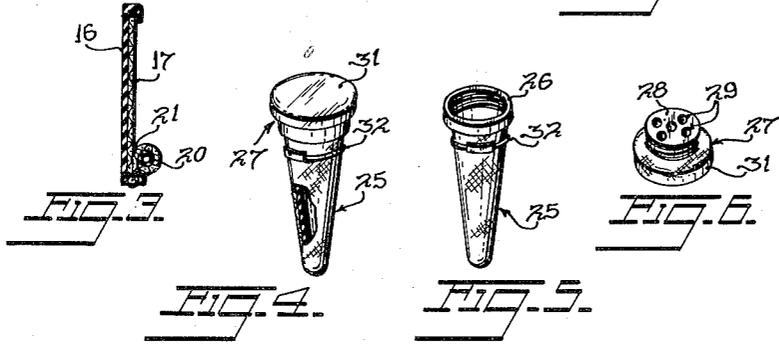
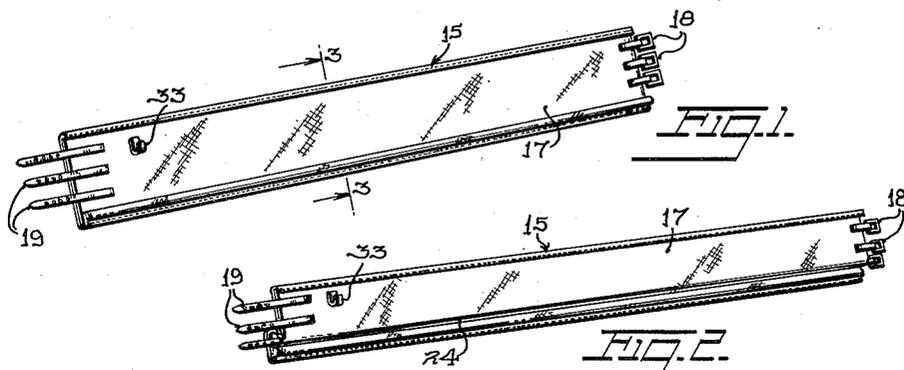
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2,544,381

COOLING BELT

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# UNITED STATES PATENT OFFICE

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## COOLING BELT

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5 Claims. (Cl. 62-1)

This invention relates to body cooling belt devices.

An object of the present invention is to provide a body cooling device wherein the cooling liquid need not at any time engage directly with the body and produce discomfort but wherein large surfaces of the body can be cooled by liquid disposed on a large belt wrapped about the body which has a fabric on its exterior side for absorbing the liquid and a waterproof material of high heat conductivity covered front engaging with the body surface or clothing and wherein there can be provided a convenient bag containing liquid which can be carried on the belt and used to moisten the fabric as desired.

Another object of the present invention is to provide a body cooling belt which can be adjusted to regulate the amount of cooling surface provided by the belt whereby larger or greater areas of the body will be cooled.

Another object of the invention is to provide a wetting bag which is of simple construction, inexpensive to manufacture, and efficient in operation.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is an extended view of the belt adapted to be wrapped about the body.

Fig. 2 is an extended view of the belt illustrating how the same can be folded to lessen the area of contact of the belt with the body whereby the cooling of the body can be controlled.

Fig. 3 is a cross sectional view taken on line 3-3 of Fig. 1 looking in the direction of the arrows thereof.

Fig. 4 is a perspective view of the wetting bag with the fabric cover attached thereto and said bag having a band adapted to attach the same to a hook formation.

Fig. 5 is a perspective view of the wetting bag with the cover removed to place water therein.

Fig. 6 is a perspective view of the cover of the wetting bag shown in an inverted position.

Fig. 7 is a side elevational view of a modified form of the wetting bag.

Fig. 8 is a top plan view of the wetting bag.

Fig. 9 is a fragmentary cross sectional view of the wetting bag taken on line 9-9 of Fig. 8.

Fig. 10 is a fragmentary view of a modified belt with a zipper for securing the ends of the belt together showing adjustable straps for tightening the belt and for regulating the area of the body covered by the belt.

Even on very hot summer days, the body is able to hold a perfect balance between heat production and heat loss thus maintaining normal blood temperature. The cost of the balance, however, is considerable discomfort to the individual. This resultant discomfort leaves the individual physically and mentally inefficient, tired, irritable and indifferent. All of the vital organs are affected because the blood required to effect the balance is diverted from the internal organs to the surface capillaries.

It has been found that when a large space of the skin above the waist line is cooled from four to six degrees F. considerable discomfort to the individual disappears. By cooling off this large area, people can stand a heat of ninety degrees F. and fifty percent humidity for a long time. It has also been found that different people must have different amounts of body surface cooled to obtain the desired result.

According to the present invention, there is provided a large belt 15 having a waterproof front surface 16 and a linen or other fabric back 17 for containing water or other cooling liquid. The belt 15 is strapped about the waist line of the body and secured thereto by buckles 18 and straps 19. The belt is extended so that the waterproof surface is in contact with the skin. The top edge of the belt has a folded over seam while the bottom edge of the belt has its material folded rearwardly upwardly and downwardly about a rubber hose and sewed to the bottom of the belt. In this manner, a trough indicated at 21 (Fig. 3) is formed in which drops of water will be collected and evaporated before overflowing the belt. While buckles 18 and straps 19 have been shown for connecting the ends of the belt together, it will be understood that the ends of the belt can be connected together by a zipper fastening 22, as shown in Fig. 10, and in this case, the tightening straps 23 can be used to alter the length of the belt and at the same time regulate the area of the body covered by the belt on the particular person using the same. Another way of altering the width of the belt which is shown in Figs. 1 and 2 is to provide a fold longitudinally of the belt.

In order that the person will have at all times a convenient source of cooling liquid there may be provided a wetting bag 25 as shown in Figs.

4, 5 and 6. This wetting bag is formed of a fabric container which is rubber lined and which has an internally threaded ring 26 secured over its opening. Water or other cooling liquid is placed in the wetting bag and then a cover 27 having a threaded portion 28 is screwed to the ring 26. The portion 28 has holes 29 through which the water can pass and a fabric 31 is fitted over the exterior of the portion 28. With this bag the user can deliver water over the fabric of the belt in measured quantities and such that it will not overflow the belt. On the bag 25 is a band 32 by which the bag can be attached to a hook 33 secured on the belt so that the bag can be conveniently carried by the person and readily accessible for use when more liquid is needed.

Referring now again to Fig. 10, it will be noted that parts of the material at the location of the straps 23 may overlap one another, as indicated at 35, whereby the amount of area of the body which is covered can be also controlled by the straps 23.

Referring now particularly to Figs. 7, 8 and 9, there is shown a modified form of wetting bag in which bag 36 is filled from one end as a stopper 37 is removed therefrom and liquid is passed into inlet sleeve 38. The flat side of the bag 36 has holes 39 therein adapted to match with holes 41 in waterproof material 42 cemented or otherwise secured to the face of the bag 36. On the waterproof material 42 there is disposed a turkish towel or other absorbent 43, a sheet of aluminum 44 and another turkish towel 45, all being stacked one above the other in the order mentioned. The sheet of aluminum has holes 46 extending therethrough and the aluminum will serve to distribute the water throughout the turkish towels. The waterproof material can be turned over the pieces, as indicated at 47, and sewed to bind the same together.

By pressing the wetting bag, water leaves the holes 39 and enters the waterproofing material through the holes 41. This water will wet the turkish towel 43 and then will pass through holes 46 in the sheet of aluminum to wet the turkish towel 45. By rubbing the belt with this wetting bag, the belt will be moistened. Only slight pressing of the bag is necessary to obtain the water.

It should also be understood that the belt can be applied with good results over the exterior of the clothing and need not be located directly upon the body surface.

As shown in Fig. 10, the belt can be cut away as indicated at 48 so that it will better fit the front part of the waist at its top edge.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by United States Letters Patent is:

1. A body cooling belt comprising a strip of cloth material, a strip of high heat conductive waterproof material lining one side of said strip

of cloth material to be engaged with the body surface about the waist, said strips being stitched together, and means securing the strips of material in position about the waist.

2. A body cooling belt comprising a strip of cloth material, a strip of high heat conductive waterproof material lining one side of said strip of cloth material to be engaged with the body surface about the waist, said strips being stitched together, and means securing the strips of material in position about the waist, and a trough formed along the lower edge of the belt in which excess water used to moisten said strip of cloth material can accumulate.

3. A body cooling belt comprising a strip of cloth material, a strip of high heat conductive waterproof material lining one side of said strip of cloth material to be engaged with the body surface about the waist, said strips being stitched together, and means securing the strips of material in position about the waist, the bottom edge of said strip of cloth material being folded upwardly and then downwardly along one face thereof and stitched in position to provide a trough in which excess water can accumulate.

4. A body cooling belt comprising a strip of cloth material, a strip of high heat conductive waterproof material lining one side of said strip of cloth material to be engaged with the body surface about the waist, said strips being stitched together, and means securing the strips of material in position about the waist, the bottom edge of said strips of cloth material being folded upwardly and then downwardly along one face thereof and stitched in position to provide a trough in which excess water can accumulate, and a rod-like element positioned between said upwardly and downwardly bent portions at the junction thereof to stiffen the top edge of said trough.

5. A body cooling belt comprising a strip of cloth material, a strip of high heat conductive waterproof material lining one side of said strip of cloth material to be engaged with the body surface about the waist, said strips being stitched together, and means securing the strips of material in position about the waist, said sheets of material having their top edges intermediate their ends cut away to better fit the body surface at the waist area.

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