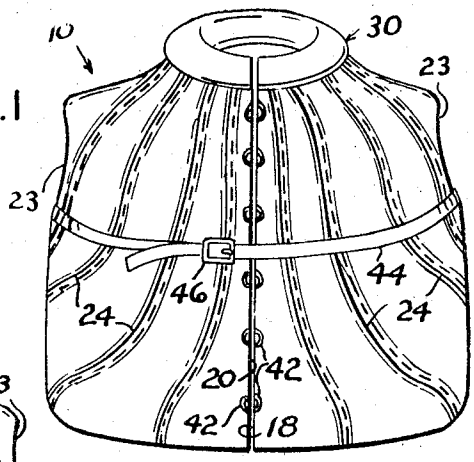
July 1, 1969 J. B. SMITH 3,452,554

COOLING GARMENT

Filed Feb. 8, 1968

FIG. 1



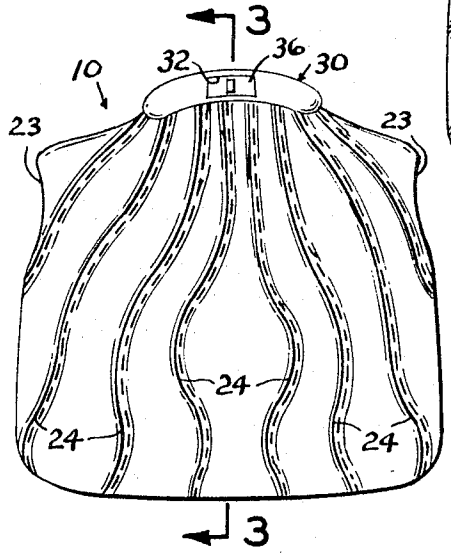


FIG. 2

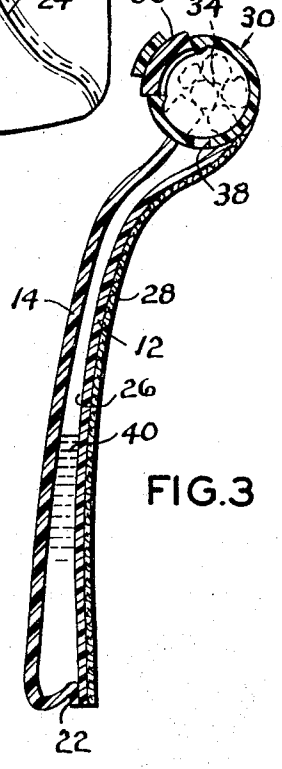


FIG. 3



FIG. 5

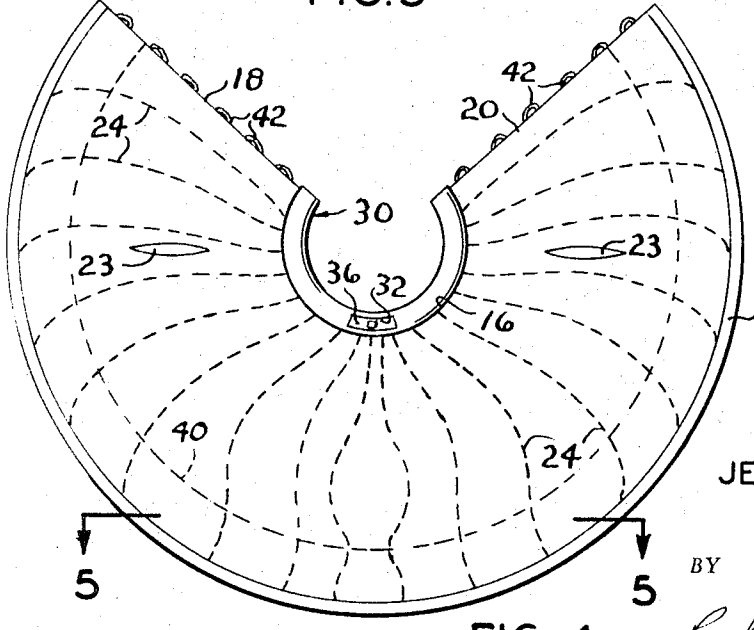


FIG. 4

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COOLING GARMENT

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U.S. Cl. 62—259 3 Claims

ABSTRACT OF THE DISCLOSURE

A multilayer section of material surrounds the upper torso of the wearer and is held closed at the front by a belt or lacing. A tube-like collar, connected with the garment, surrounds the neck of the wearer for receiving chipped ice which, as it melts, drains into a plurality of vertical compartments formed between the layers of the material.

Background of the invention

The present invention relates to cooling devices and more particularly to a garment adapted to provide cooling for the body of a wearer.

Body cooling devices have been proposed before but most of these devices utilize the process of evaporation of a liquid for cooling the body wherein the evaporation of the liquid contained by the device absorbs body heat of a wearer. Garments which depend upon the evaporation of a volatile liquid are satisfactory when the humidity is relatively low, however, when the atmosphere contains considerable moisture the rate of evaporation is reduced to such an extent that the desired cooling effect cannot be achieved. This invention, on the other hand, does not rely on the evaporation of a liquid but depends for its cooling effect on heat being absorbed from the body of the wearer by the melting of ice and the absorption of heat from the wearer in raising the temperature of the resulting ice water contained by the garment.

Summary of the invention

Two layers of water proof material, shaped to surround the neck and upper torso of a wearer, are joined together at their marginal edges and at a plurality of locations intermediate their edges to form a series of vertically extending pockets or chambers extending from the neck to the waist portion of the wearer. A ring-like tubular member or collar is secured to the garment around the neck of a wearer and is provided with an access opening for receiving chipped ice. Openings in the collar communicate with the vertical chambers of the garment so that water draining out of the ring or neck piece is collected by the chambers. A layer of soft fabric forms a lining between the innermost water proof layer and the wearer's body.

The principal object of the invention is to provide a means for cooling the body of a wearer by the absorption of body heat in melting ice and raising the temperature of the resulting ice water.

Brief description of the drawings

FIGURE 1 is a front elevational view of the device in wearing position;

FIGURE 2 is a rear elevational view of FIG. 1;

FIGURE 3 is a vertical cross-sectional view taken substantially along the line 3—3 of FIG. 2;

FIGURE 4 is a plan view of the garment; and,

FIGURE 5 is a horizontal sectional view taken substantially along the line 5—5 of FIG. 4.

Brief description of the preferred embodiment

Like characters of reference designate like parts in those figures of the drawings in which they occur.

In the drawings:

The reference numeral **10** indicates the garment, as a whole, comprising inner and outer layers **12** and **14**, respectively, preferably formed of water proof flexible material, such as plastic, of a configuration to loosely surround the upper torso of a wearer, having a neck line **16**, front edges **18** and **20** and a depending or hem edge **22**. Arm hole slits or openings **23** are formed in both layers **12** and **14**. The outer layer **14** is of a larger dimension than the inner layer **20** and is joined as by bonding, not shown, to the inner layer at the respective marginal edges and arm openings and at a plurality of spaced-apart locations, indicated by the wavy lines **24**, to form a plurality of chambers or pockets **26** vertically extending between the neck line **16** and hem line **22**. The garment is lined by a layer of cotton fabric, indicated at **28**. A tube-like substantially circular neck ring or collar **30**, having closed ends, is secured to the garment at the neck line **16**. The collar **30** is provided with an access opening **32** great enough to permit the insertion of chipped ice, indicated by the dotted lines **34** (FIG. 3). The opening **32** is closed by a plug or cap **36**. The collar **30** is further provided with a series or plurality of small openings **38**, one for each of the chambers **26**, so that water, as a result of the melting of the ice **34**, drains into the respective chamber **26** and is collected therein, as indicated by the lines **40** (FIG. 3).

Operation

In operation the wearer places the garment around the upper portion of his body with his arms projecting through the sleeve openings **23** and the collar **30** encircling the neck. Prior to donning the garment the chambers **26** are preferably filled approximately one-fourth full with cold water **40** and the neck piece is filled with the crushed ice **34**. The garment may be left open at its front or fastened together as by lacing inserted through loops **42** formed on the front edge of the garment. Alternatively, a belt **44** may be placed around the back portion of the wearer under the garment and extended outwardly through the sleeve openings **23** for fastening by means of a buckle **46** at the front. As the ice **34** melts, cool water drips downwardly out of the collar openings **38** into the respective chambers **26** and as the water trickles downwardly it absorbs heat from the body of the wearer. The layer of cotton fabric, interposed between the wearer and the innermost water proof layer **12**, serves as a perspiration absorbent and heat transfer as well as preventing any discomfort which would be present if the plastic material directly contacted the wearer's skin.

Obviously the invention is susceptible to some change or alteration without defeating its practicability, and I therefore do not wish to be confined to the preferred embodiment shown in the drawings and described herein, further than I am limited by the scope of the appended claims.

I claim:

1. A cooling garment, comprising: inner and outer layers of water proof material, said outer layer having a slightly greater overall dimension than said inner layer and being secured to said inner layer at its marginal edges and at a plurality of spaced-apart positions extending from the neck to the hem portion and forming a like plurality of water proof chambers; collar means secured to the neck line of said garment, said collar means communicating with the respective water proof chambers; and a heat absorbing medium contained by said collar.

2. Structure as specified in claim **1** in which the collar means comprises a substantially circular length of tubular material having closed ends and having an opening intermediate its ends; and a cap removably closing the opening.

3. Structure as specified in claim 2 in which the heat absorbing medium comprises chipped ice.

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