

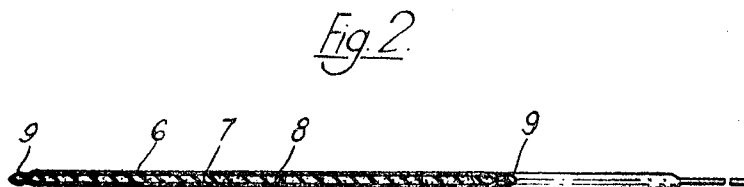
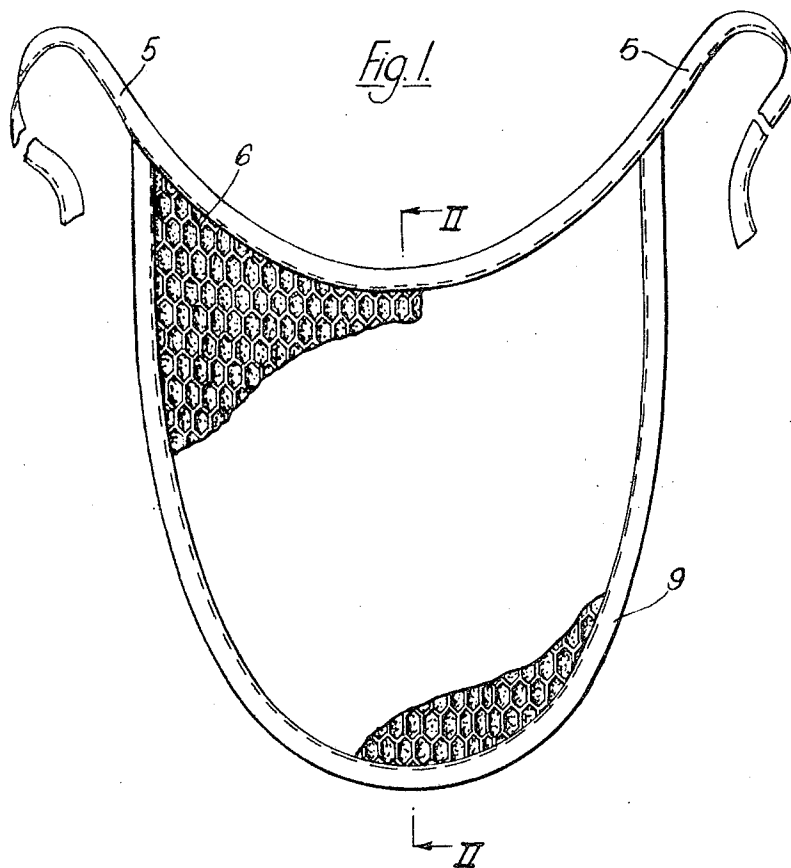
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RESPIRATORY PAD

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RESPIRATORY PAD

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1 Claim

ABSTRACT OF THE DISCLOSURE

A respiratory pad for use over the respiratory neck opening in a laryngectomy, tracheotomy and similar cases. The pad includes a series of superposed sheets from front face to rear face in succession of mesh fabric, microporous heat insulating material and mesh fabric. The sheets are bound together at their edges.

The invention relates to respiratory pads especially, but not exclusively for use over the respiratory neck opening in laryngectomy, tracheotomy and similar cases.

An object of the invention is to provide a simple respiratory pad for conditioning the inhalant air flow.

According to the present invention a respiratory pad comprises a sheet of microporous heat-insulating material and a sheet of mesh fabric superposed one upon the other.

The pad may comprise a series of superposed sheets which from front face to rear face of the pad are in succession of mesh fabric, microporous heat-insulating material, and mesh fabric, and which are bound together at their edges to form a composite sheet.

Preferably the heat insulating material is foamed plastic material, for example foamed polystyrene.

Preferably also the composite sheet has a pair of tie strands at its upper corners for tying around the neck of a wearer to hold the composite sheet in operative position with the rear face of the pad against the skin.

The pad may include a sheet of perforated waterproof material in front of said sheet of microporous heat-insulating material.

An embodiment of the invention will now be described by way of example only, with reference to the accompanying drawings, in which:

FIG. 1 is a plan view of a respiratory pad; and

FIG. 2 is a section through the pad on the line II—II in FIG. 1.

Referring to the drawings, the pad shown is for wear by a tracheotomy case over the respiratory neck opening to condition the inhalant air flow and consists of a composite sheet of U-outline, and a pair of tie strands 5 at its upper corners for tying around the neck to secure the sheet in position over the neck opening. The composite sheet consists of a series of three superposed sheets which in succession from outermost to innermost layer of the composite sheet are as follows:

(1) An outermost sheet 6 of mesh cotton fabric, (so-called "diamond-shaped cellular cotton material");

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(2) A thin, flexible sheet 7 of foamed plastic material, e.g. foamed polystyrene, which is microporous for breathing purposes and is heat-insulating; and

(3) An innermost sheet 8 of mesh cotton fabric identical to sheet (1) above for contact with the skin of the wearer.

The superposed sheets are secured together at their edges by binding tape 9 to form the composite sheet, and the binding tape extends beyond the upper corners of the composite sheet to form the tie strands 5.

With the pad in position over the neck opening, breathing is unimpaired, and heat and moisture are generated at the inner sheets 7 and 8 of the pad, the moisture being carried by the foamed plastic material. Thus, the inhalant air flow is heated and moistened in its passage to the neck opening, to the comfort and well-being of the wearer.

In a modification, a fourth sheet of oiled silk with small perforations throughout to permit breathing is provided between sheets (1) and (2). This fourth sheet is waterproof.

In a further modification, sheets (1) and (3) together form a pocket which removably carries sheet (2) with or without sheet (4). Thus renewal of sheets (2) and (4) is facilitated.

Some advantages of the abovedescribed embodiment are:

(a) Protection is afforded against sudden changes of temperature.

(b) A constant degree of humidity of inhalant air is maintained.

(c) The pad can be comfortably worn beneath normal clothing.

(d) The pad may be repeatedly washed and re-used.

(e) It is inexpensive to produce.

I claim:
1. A U-shaped respiratory pad for use over the respiratory neck opening and comprising a sheet of microporous heat-insulating material of foamed polystyrene and a sheet of mesh fabric of cellular cotton superposed one upon the other, a further sheet of mesh fabric of cellular cotton on the other side of said sheet of microporous heat-insulating material of foamed polystyrene, in which said sheets of mesh fabric bound by a binding strip together at their edges to form a pocket in which said sheet of microporous heat-insulating material of foamed polystyrene is supported, said binding strip extending beyond the edges of the pad to form ties for tying the pad about the neck of the wearer.

References Cited

UNITED STATES PATENTS

1,292,096	1/1919	Schwartz	128—146.2
2,039,681	5/1936	Chatfield	128—146.2
2,515,009	7/1950	Hyghlago	128—146.6
3,101,709	8/1963	Gruenewaelder	128—146.2
3,249,108	5/1966	Terman	128—212

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