

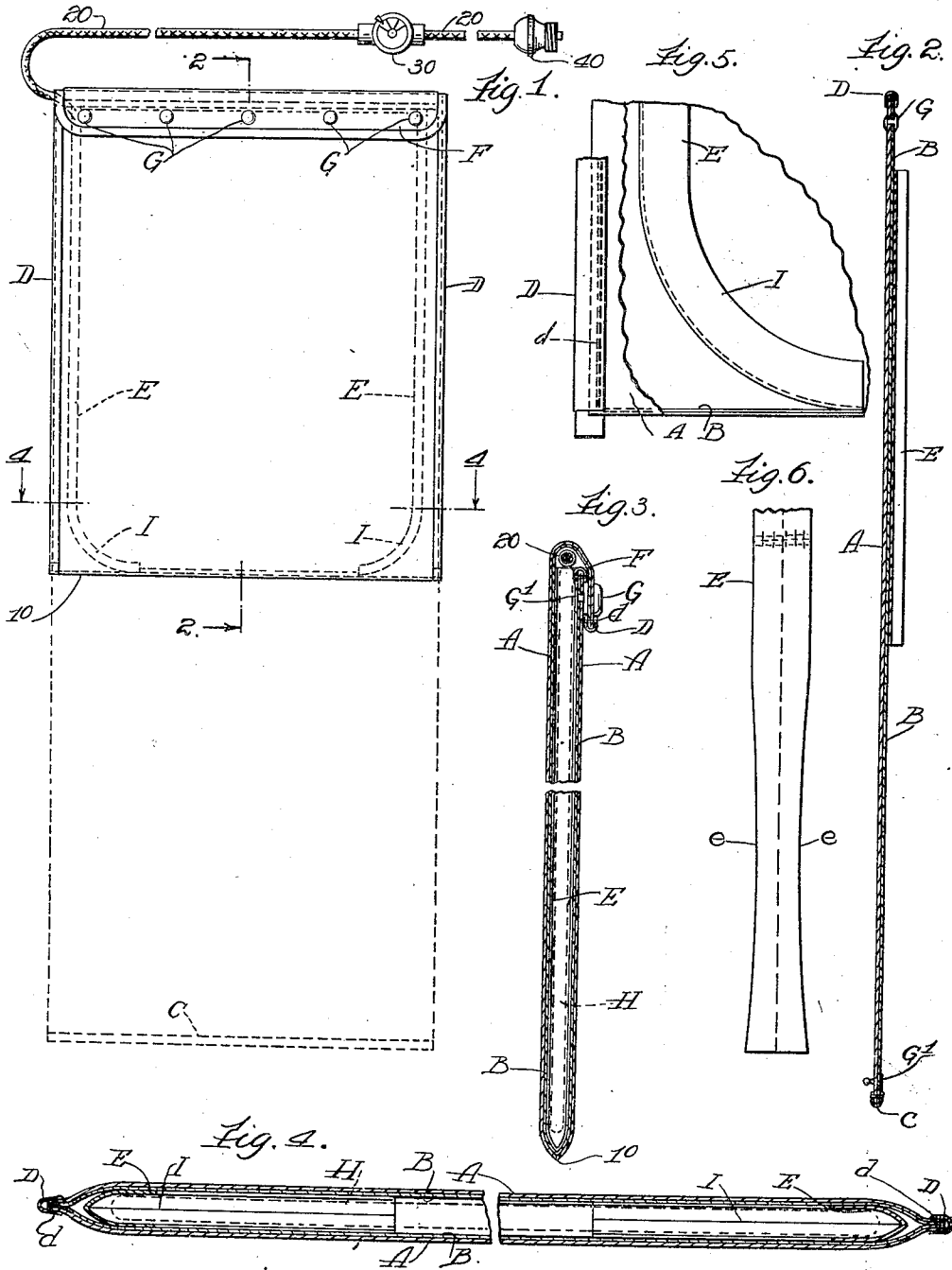
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SHEATH FOR ELECTRIC WARMING PADS

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UNITED STATES PATENT OFFICE

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SHEATH FOR ELECTRIC WARMING PADS •

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The purpose of this invention is to provide a covering and enclosure of such devices as electric warming pads, which shall prevent moisture from the perspiration or other bodily eliminations, or from medicinal applications which require the heat furnished by the pad to render them effective, from penetrating the covering of the heating coils and causing deterioration and cross-circuiting; and to serve this purpose while employing material for the outer surface which is soft and comfortable for contact with the skin. It consists in the elements and features of construction shown and described as indicated in the claims.

In the drawings:

Figure 1 is an elevation of a sheath embodying this invention for enclosing an electric pad, showing in dotted line the fabric unfolded as it would appear at one stage in the process of construction.

Figure 2 is a section at the line 2—2 through the entire length of the unfolded ply of the two layer sheath.

Figure 3 is a section at the same plane as Figure 2 through the completed sheath enclosing the electric pad indicated in dotted line therein.

Figure 4 is a section at the line 4—4 on Figure 1.

Figure 5 is an enlarged detail showing the interior construction at one corner of the back.

Figure 6 is a view showing the detail form of the water-proof strip for lining the seam at the corner.

In the structure shown in the drawings, A represents the outer elements of the sheath, which may be of suitably soft fabric such as woolen, cotton or felt selected for its surface as being comfortable for contact with the skin and a poor conductor of heat, and without regard to its electric conductivity or non-conductivity or its permeability to moisture. B represents an inner element or lining of waterproofed (rubberized) fabric which is desirably not only waterproof but electrically non-conductive, which requirements are met by textile fabrics of the class commonly described as "rub-

berized". The two elements, A and B, are desirably made of exactly equal dimensions and applied to each other with peripheries coinciding and secured together by binding at one end as seen at C, the binding being applied and secured by stitching in the customary manner of applying binding in the construction of garments. The two-layer sheath thus formed is folded at a transverse line a short distance from the middle of its length, as seen at 10, Figure 1, the shorter ply being that having the bound end, and the layer, B, being inside. The shorter layer may be then basted onto the longer layer at their lapping margins at both sides, and the periphery at three sides comprising the two lateral seams, together with the intervening extent of the periphery of the portion of the longer ply which projects beyond the shorter, is then enclosed in a binding, D, applied and secured by stitching, seen at d, which constitutes permanent seams at the sides. The bag structure thus formed is now turned inside out and the side seams are covered by suitable adhesive strips, E, E, of waterproof fabric, applied and made adherent to the inner surfaces of the two plies which are joined by the seam at a short distance inward from the line of stitching forming the seam, as seen in Figure 4, and flexed in a 90° curve around the lower corner of the bag, as seen at I, in Figure 5. The bag is now turned right side out and the margin of the flap, F, formed by the excess length of the longer ply over the shorter ply, and the upper margin of the shorter ply at the open end of the bag, are equipped with co-operating snap fasteners, G, G', of familiar construction, in sufficient number suitably spaced apart to effect a close lap of the flap on the outer side of the shorter ply forming the front side of the sheath; the fastening nearest the side seams being at sufficient distance therefrom to permit the cable, 20, comprising the circuit wires of the warming pad, A, which may be enclosed in the sheath, to emerge without liability of causing accidental disengagement of the fasteners or rupture of the seams.

A rubber or rubberized bag may be re-

garded as an obvious expedient for enclosing a warming pad to prevent access of moisture to the heating coils; and it may be considered an equally obvious expedient for obviating the objection to such a rubber or rubberized pad-enclosure, which is cold and otherwise unpleasant for contact with the skin of the patient, to provide an outer bag of material having a comfortable surface enclosing the inner bag; but neither of such single-layer bags would long endure the handling to which they would be subjected in the application to and removal from warming pads; whereas in the construction above described, each of said layers reinforcing the other and the entire structure being applied to the warming pad without the wearing friction which would be involved in drawing the outer bag over the inner bag, the structure described is both convenient and durable.

I claim:

1. A sheath for an electric warming pad and the like consisting of a seamed and lined bag made of sheet material consisting of two fabric layers, the inner lining layer being of water-proof fabric and the seams being formed by marginal areas of the interiorly facing surfaces of the sheet material constituting the opposite sides of the bag, and the seams being covered interiorly of the bag for preventing moisture creeping through seams, the covering consisting of water-proof strips applied spanning the gap between the opposite sides of the bag leading to the seam, with the edges of said strips facing away from the seam, said strips being made adherent to the inner facing surfaces of the water-proof lining layer at short distances inwardly with respect to the bag cavity from the inwardly facing secured-together marginal areas forming the seam.

2. The construction defined in claim 1 having the body of the bag formed of a sheet folded transversely to form the bottom, the water-proof strips being extended and flexed longitudinally in an inwardly concave arc passing the bottom corners of the bag, and secured to the bottom of the bag over the entire width of the strips at their ends.

3. A sheath for an electric warming pad and the like consisting of a bag comprising a two-layer sheet of which one layer is water-proof fabric and the other layer is soft-surfaced fabric which is a poor conductor of heat; the bag being formed by folding the sheet transversely for forming the bottom of the bag at such point in the length of the sheet as to lap a shorter ply on a longer ply with the water-proof layer interior, the coinciding longitudinal marginal areas of the inner facing surfaces of the two plies being secured in contact by exteriorly applied binding, and water-proof strips folded

to form two plies for securement to the opposite facing inner surfaces of the bag and thereby interiorly spanning the bound seams respectively and secured to said interiorly facing surfaces of the respective plies with the edges of said strips extending away from the seam inwardly with respect to the bag, the width of said water-proof strips being substantially less than the distance measured on the inner surface of the bag from one lateral edge of the strip to the opposite lateral edge; whereby the fold of the strip is spaced a substantial distance inwardly from the bound seam.

In testimony whereof, I have hereunto set my hand at Chicago, Illinois, this 7th day of December, 1927.

MICHAEL W. McARDLE.