

Jan. 8, 1952

F. I. BURSTEIN
SLEEPING BAG

2,581,357

Filed June 24, 1946

2 SHEETS—SHEET 1

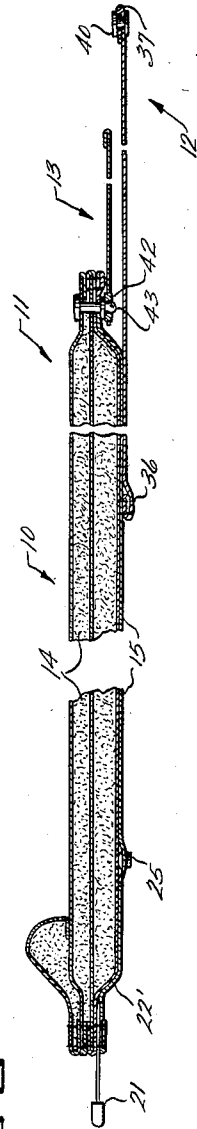
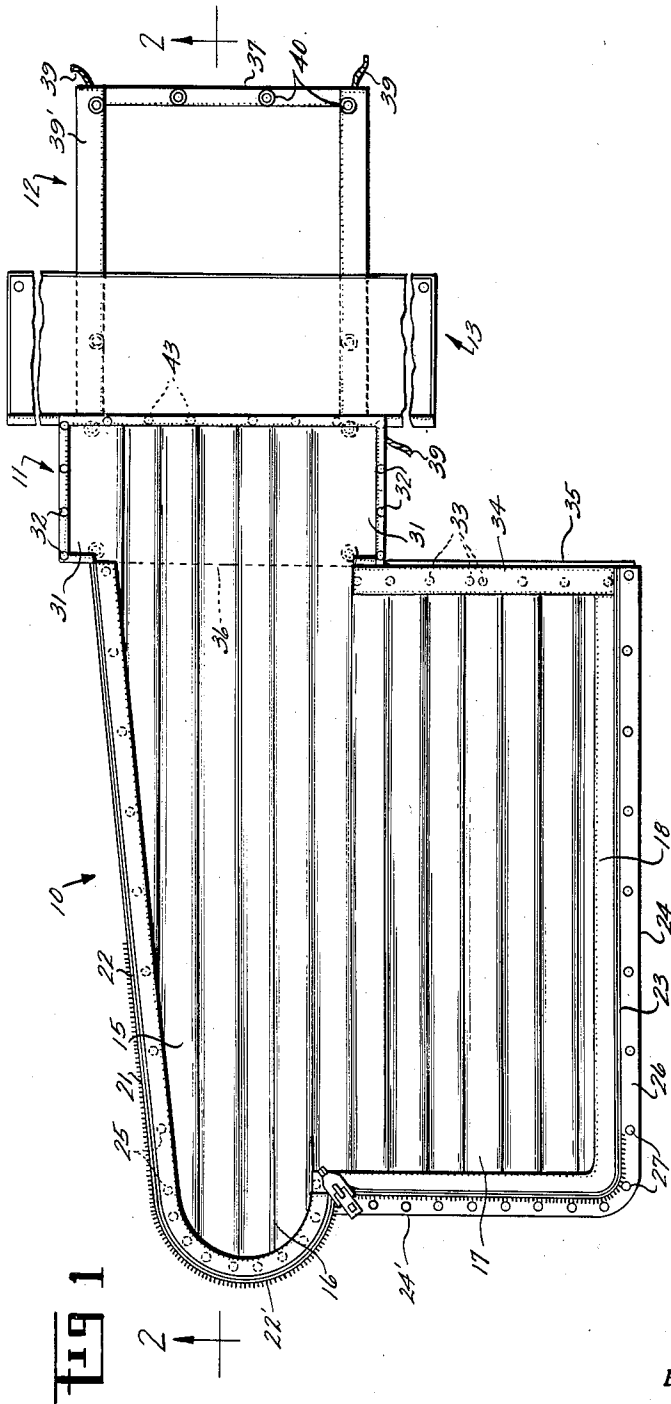


FIG 2

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2 SHEETS—SHEET 2

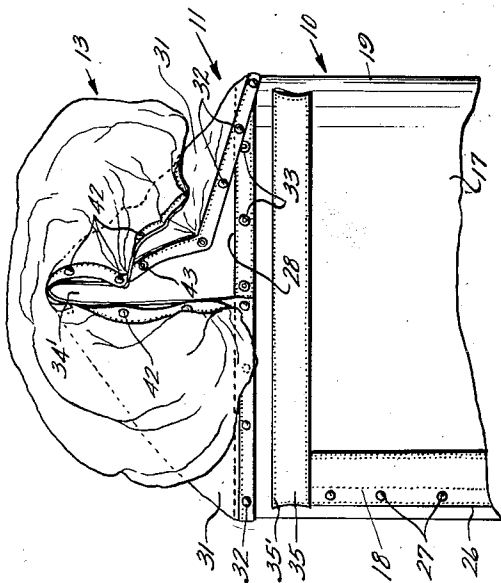


FIG 3

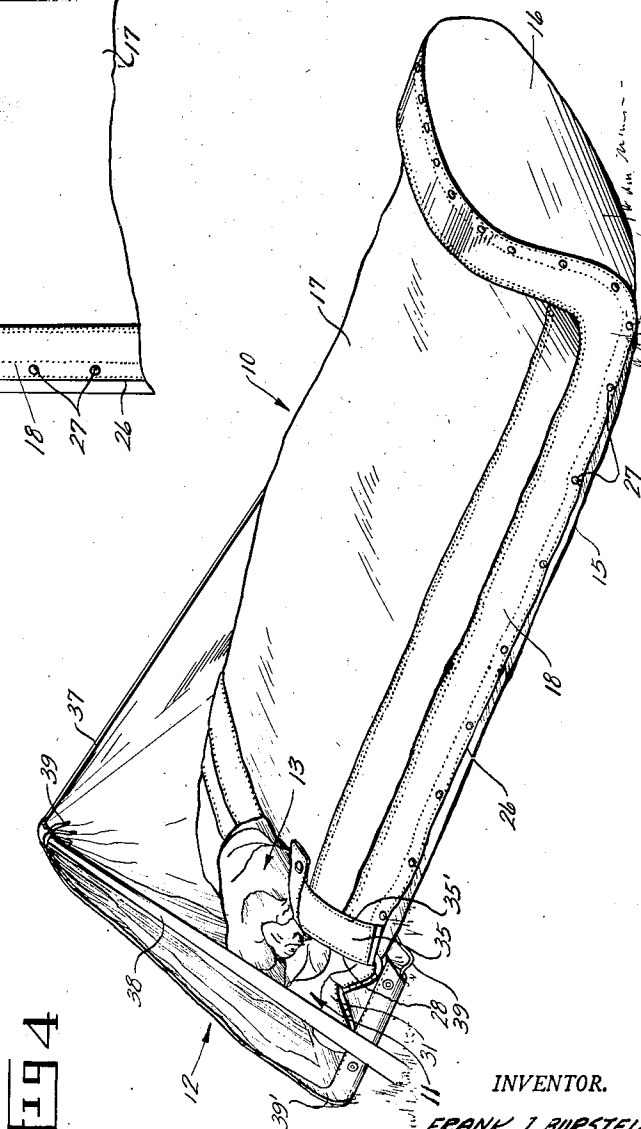


FIG 4

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UNITED STATES PATENT OFFICE

2,581,357

SLEEPING BAG

Frank I. Burstein, Dayton, Ohio

Application June 24, 1946, Serial No. 678,763

6 Claims. (Cl. 5—343)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

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The invention described herein may be manufactured and used by or for the Government for governmental purposes without payment to me of any royalty thereon.

This invention relates to improvements in sleeping bags, and especially such as are adapted for use in the arctic regions.

One of the essential objects of this invention is to provide a sleeping bag including various improvements all arranged so as to provide convenient access into the bag and also to afford snug comfort and better thermal protection in extremely low temperatures as encountered in the arctic regions, said bag being at the same time well adapted for use in milder climates.

Another object of this invention is to provide a sleeping bag equipped with means to keep the breath of the occupant and the frost formed thereby away from the edge part of the bag adjacent the face, in order to prevent frost formation from gathering on the main body of the bag, and thereby obviate the difficult task of thawing out and of removing frost from the bulky sleeping bag.

Another object of this invention is to provide an improved sleeping bag which is shaped and is equipped with readily operable fastening means arranged so that it will provide a person convenient entry into the bag and then enable snug closing thereof into a warm and comfortable enclosure, and which bag can also be readily opened and unfolded into a flat shape to facilitate renovating and drying of the entire bag.

Another object of this invention is to provide a sleeping bag having an enlarged and preferably a semicircular foot portion to provide ample room for the feet and enable them to be moved freely therein for stimulating circulation.

A more particular object of this invention is to provide such a sleeping bag which incorporates the various advantageous features and to accomplish this by constructing the bag so that it comprises a head or pillow flap closable into a hood for completely covering the shoulders and also protecting the head, said flap being provided with a frost cloth for taking up the freezing breath of the occupant, this cloth being detachable from the bag to facilitate removal of frost formation therefrom, and the sleeping bag being furthermore equipped with a shielding flap adapted during use of the bag to serve for protecting and shielding the head of the occupant and additionally to serve as a cover wherein to pack the rolled bag when not in use.

These and various other objects and advantages are attained with this invention, as will become apparent from the following description, taken in connection with the accompanying drawings wherein the invention is shown in its preferred form, it being evident that other arrangements and forms of construction may be resorted to in carrying out the objects and purposes of this invention.

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In the drawings:

Fig. 1 is a plan view of the various parts of the entire sleeping bag shown in a flat unfolded position.

Fig. 2 is an enlarged sectional view taken on line 2—2 of Fig. 1, being partly broken away and showing various parts of the sleeping bag including padding material and fastening means.

Fig. 3 is a partial view of the bag showing the head protecting section mainly folded into hood shape and including the frost cloth thereon.

Fig. 4 is a perspective view of the entire sleeping bag in use by the occupant, with the head protecting section at the left-hand side remaining unfolded.

This invention as illustrated in the drawings comprises a body protecting section 10, a head protecting section 11 fixed at one end of section 10, a shielding section 12 adapted to be extended over the head and shoulder portion of the occupant during use to shield the same from wind and weather and also to be utilized for inclosing and protecting the rest of the bag when folded for storage, and a frost cloth 13 which is removably mounted on the bag. These sections 10, 11 and 12 are constructed integral or are secured together as one unit which may be conveniently unfolded into a flat sheet, as indicated in Fig. 1 of the drawings, to facilitate airing and drying whenever that may become necessary, while the frost cloth 13 is mounted on the head protecting section 11 in such a manner that it can be conveniently removed therefrom for individual defrosting and drying.

The body inclosing section 10 constitutes the main part of the bag, and it is padded or quilted in an approved manner with a filling 14 of warm and comfortable material as feathers or wool or the like. It comprises a lower section 15 which serves as a mattress for supporting the body and has a relatively large foot portion or foot flap 16 thereon to provide ample room for free movement of the feet, and comprises an upper or covering section 17 including with its main upper portion also the two opposite side portions 18 and 19. These two sections, the lower or mattress section 15 and the upper or cover section 17, are constructed integral or made continuous along the side 19 thereof, substantially as shown in Fig. 1, and are provided with coating fastening means along the two opposite outward or free edges and along the foot portion thereof. Said fastening means are shown as including two rows or branches of interengageable fastener elements and a slide member for operating said elements, one row 21 of such elements extending along the edges 22' and 22 of the flap 16 and mattress 15 respectively, while the other row 23 extends along the edges 24' and 24 of the cover 17. Additional fastening means, besides said slide fastening means 21 and 23 are provided to secure the bag

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firmly in its closed position, and these means include stud fasteners 25 along parts 22 and 22', and a flap 26 carrying thereon eyes or caps 27 along said edge part 24 or 24', to coengage said studs 25 and hold the bag closed except at the end 28.

The head protecting or pillow section 11 extends from the end 28 of the mattress section 15, being made integral therewith or secured to said end. This pillow section 11 includes side extensions or wings 31 on its two opposite sides which are provided with fastening means 32, shown as eyes. Complementary fastening means 33 are provided along the edge part 34 of the cover section 17 of the bag, in order that when either or both of these two extensions 31 are folded over at the corners the fastening means 33 can be coengaged with the fastening means 32 to provide substantially a hood for fully covering the shoulders and also snugly inclosing the entire head, but leaving only a breathing slot 34' open between the two upturned and fastened wing corners, substantially as shown in Fig. 3 of the drawings, such hood being thus arranged to expose only the mouth and nose or breathing part of the face. Fig. 4 shows the bag with the wing at the right-hand side only folded over and fastened in place, while the other wing 31 at the left-hand side is retained extended. A sealing flap 35 is seamed along one side 45' onto the adjacent part of cover section 17 adapted to be flapped upwardly and cover the connection between the edge parts of said wings 31 and said section 17 and their coengaging fastening elements 32 and 33 thereon. The flap 35 is shown folded downward in Fig. 3.

The shielding section 12 is fastened onto the lower or mattress section 15, being positioned below the head protecting or pillow section 11, as shown in Fig. 2, and attached to the head part of said lower section by a seam 36 as shown in Fig. 1. This section 12 extends beyond the head protecting or pillow section 11 and is adapted to have its free upper end 37 brought over forwardly to extend above the head section and the frost cloth, being held elevated by the use of brace rods or posts 38 and cords 39 positioned in pockets 39' provided along the two sides of said shielding section 12, and by suitable grommets 40, substantially as indicated in Fig. 4 of the drawings.

The frost cloth 13 is a relatively long section of cloth and preferably consists of woolen material as a woolen blanket, or other frost retaining and washable material. Said cloth is provided with fastening means 42 to engage or coat with complementary fastening means 43 provided on the free end part of the head protecting section 11. These elements 42 and 43 are shown as detachable snap fasteners, so that the frost cloth can be readily attached to said free end part of the head protecting section for extending or folding this cloth around the breathing edge part of the closed head protecting section and the top edge part of the bag in such a manner as to cover and protect said edge parts against contact with the breath of the occupant.

The frost cloth will thus take up the breath frost of the occupant of this bag and will thereby prevent the customary frost formation on the bag itself. This frost cloth can be readily detached for defrosting and drying, and it will thereby avoid the otherwise bothersome and tedious task of defrosting and drying the entire cumbersome bag itself.

With respect to the several fastening means

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25, 27, 32, 33, 43, the cover 17 is folded over the top of the mattress 15 which brings the two "zipper" parts adjacent and aligns fasteners 25 with 27 so that they can be snapped together.

If fasteners 25 are now snapped together on 27, the bag will be closed except at the head end, and there will be a row of fasteners 33 clear across the mattress 15 and cover.

If, now, fasteners 32 are snapped with fasteners 33, a conical enclosure will be formed which acts as a hood to protect the head of the wearer. The absorbent strip 13 which may be any suitable length may be tucked in over the occupant's head.

Finally the shield 12 may be brought up to partly cover the conical enclosure. Any convenient stick 38 may be used to hold the weight of the covering off the occupant. Any convenient cord or rope may be used in conjunction with the grommets 40 to maintain closure.

I claim:

1. A sleeping bag made up of a uniplanar section of insulated bedding foldable on a longitudinal line intermediate of its width to provide a mattress and a cover, an integral foot flap extending from the foot end of said mattress and beyond the foot end of said cover when the cover is folded over the mattress, an integral pillow flap extending from the head end of said mattress and beyond the head end of said cover when said cover is folded over the mattress, a frost cloth detachably secured to the free end of said pillow flap and a shielding flap secured to the underside of said mattress and extending lengthwise beyond the free end of said pillow flap and said frost cloth, two series of snap fasteners each spaced along said head end of said cover and on the outside thereof when said cover is folded over the mattress, and two series of similarly spaced complementary snap fasteners, one series extending longitudinally along each side of the pillow flap, a series of spaced apart snap fasteners beginning at the junction of the foot end of the cover with the foot flap, and extending along said foot end of the cover and along the free side of the cover to said head end thereof and a complementary series of similarly spaced snap fasteners extending from the same said junction and extending around the periphery of the foot flap and along the free side of the mattress to said head end thereof, and a zipper having its permanently joined end at the same said junction and having one branch extending along said foot end of the cover and along the free side of the cover to said head end thereof, and a complementary branch extending around the periphery of the foot flap and along the free side of the mattress to said head end thereof.

2. A sleeping bag made up of a uniplanar section of insulated bedding foldable on a longitudinal line intermediate of its width to provide a mattress and a cover, a foot flap extending from the foot end of said mattress and beyond the foot end of said cover when the cover is folded over the mattress, a pillow flap extending from the head end of said mattress and beyond the head end of said cover when said cover is folded over the mattress, a frost cloth secured to the free end of said pillow flap and a shielding flap secured to said mattress and extending lengthwise beyond the free end of said pillow flap and said frost cloth, two series of snap fasteners each spaced along said head end of said cover and on the outside thereof when said cover is folded over the mattress, and two series of similarly spaced complementary snap fasteners, one series extending

longitudinally along each side of the pillow flap, a series of spaced apart snap fasteners beginning at the junction of the foot end of the cover with the foot flap, and extending along said foot end of the cover and along the free side of the cover to said head end thereof, and a complementary series of similarly spaced snap fasteners extending from the same said junction and extending around the periphery of the foot flap and along the free side of the mattress to said head end thereof, and a zipper having its permanently joined end at the same said junction and having one branch extending along said foot end of the cover and along the free side of the cover to said head end thereof, and a complementary branch extending around the periphery of the foot flap and along the free side of the mattress to said head end thereof.

3. A sleeping bag made up of a section of bedding foldable on a longitudinal line intermediate of its width to provide a mattress and a cover, a foot flap extending from the foot end of said mattress and beyond the foot end of said cover when the cover is folded over the mattress, a pillow flap extending from the head end of said mattress and beyond the head end of said cover when said cover is folded over the mattress, a frost cloth secured to the upper free end of said pillow flap and a shielding flap secured to said mattress and extending lengthwise beyond the free end of said pillow flap and said frost cloth, two series of fasteners each spaced along said head end of said cover and on the outside thereof when said cover is folded over the mattress, and two series of separately openable and similarly spaced complementary fasteners, one series extending longitudinally along each side of the pillow flap, a series of spaced apart fasteners beginning at the junction of the foot end of the cover with the foot flap, and extending along said foot end of the cover and along the free side of the cover to said head end thereof, and a complementary series of similarly spaced fasteners extending from the same said junction and extending around the periphery of the foot flap and along the free side of the mattress to said head end thereof, and a zipper having its permanently joined end at the same said junction and having one branch extending along said foot end of the cover and along the free side of the cover to said head end thereof, and a complementary branch extending around the periphery of the foot flap and along the free side of the mattress to said head end thereof.

4. A sleeping bag made up of a section of bedding foldable on a longitudinal line intermediate of its width to provide a mattress and a cover, a foot flap extending from the foot end of said mattress and beyond the foot end of said cover when the cover is folded over the mattress, a pillow flap extending from the head end of said mattress and beyond the head end of said cover when said cover is folded over the mattress, a frost cloth secured to the free end of said pillow flap and a shielding flap secured to said mattress and extending lengthwise beyond the free end of said pillow flap and said frost cloth, two series of fasteners each spaced along said head end of said cover and on the outside thereof when said cover is folded over the mattress, and two separately openable series of similarly spaced complementary fasteners, one series extending longitudinally along each side of the pillow flap, and a slide fastening means beginning at the junction of the foot end of the cover with

the foot flap and extending along said foot end of the cover and along the free side of the cover to said head end thereof and a complementary slide fastening means extending from the same said junction and extending around the periphery of the foot flap and along the free side of the mattress to said head end thereof.

5. A sleeping bag made up of a section of bedding foldable on a longitudinal line intermediate of its width to provide a mattress and a cover, a foot flap extending from the foot end of said mattress and beyond the foot end of said cover when said cover is folded over the mattress, a pillow flap extending from the head end of said mattress and beyond the head end of said cover when said cover is folded over the mattress, a shielding flap secured to said mattress and extending lengthwise beyond the free end of said pillow flap, two series of fasteners each spaced along said head end of said cover and on the outside thereof when said cover is folded over the mattress and two series of similarly spaced complementary fasteners one series extending longitudinally along each side of the pillow flap, and a zipper having its permanently joined end at the same said junction and having one branch extending along said foot end of the cover and along the free side of the cover to said head end thereof, and a complementary branch extending around the periphery of the foot flap and along the free side of the mattress to said head end thereof.

6. A sleeping bag made up of a section of bedding foldable on a longitudinal line intermediate of its width to provide a mattress and a cover, a foot flap extending from the foot end of said mattress and beyond the foot end of said cover when said cover is folded over the mattress, a pillow flap extending from the head end of said mattress and beyond the head end of said cover when said cover is folded over the mattress, fastening means extending longitudinally along each side of the pillow flap and complementary fastening means extending transversely along said head end of said cover and a fastening means beginning at the junction of the foot end of the cover with the foot flap and extending along said foot end of the cover and along the free side of the cover to said head end thereof, and a complementary fastening means extending from the same said junction and extending around the periphery of the foot flap and along the free side of the mattress to said head end thereof.

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