April 12, 1927. 1,624,797

S. C. MOREHOUSE

SLEEPING MAT

Filed July 13, 1923

FIG. 1

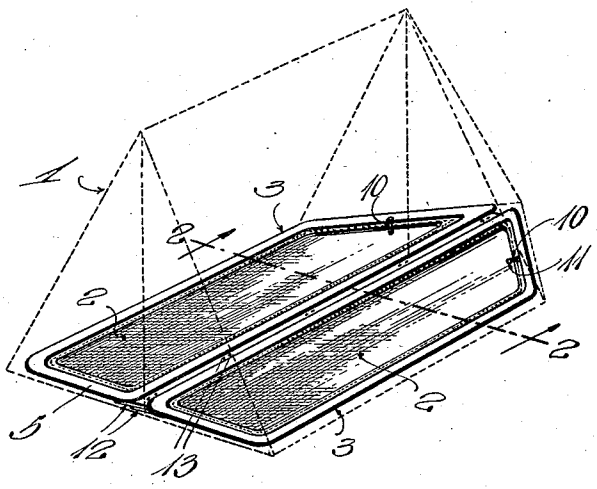


FIG. 2

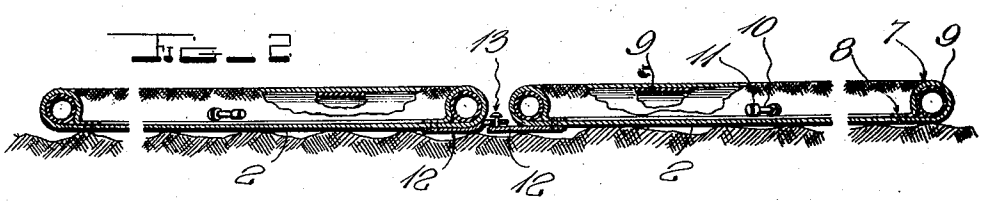


FIG. 3

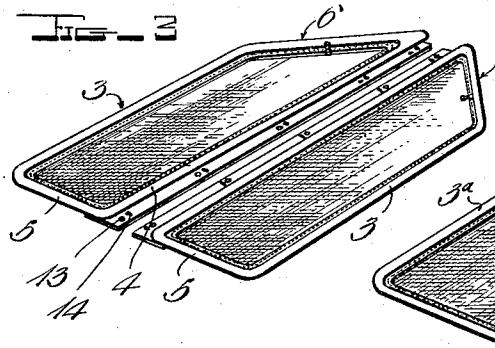


FIG. 5

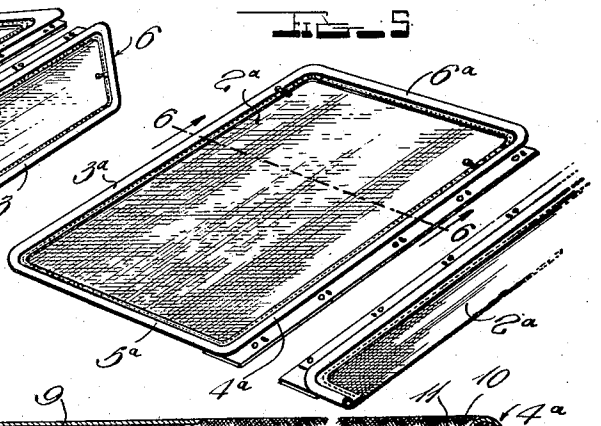


FIG. 6

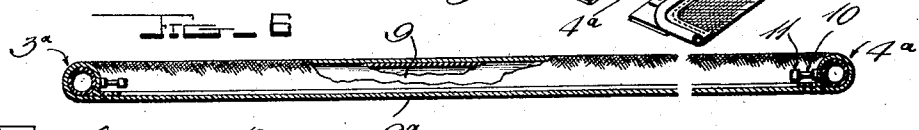
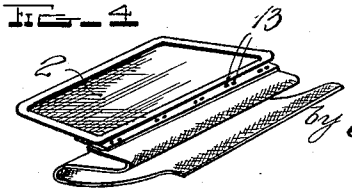


FIG. 4



INVENTOR:
Samuel C. Morehouse,
By C. A. Hines, ATTORNEY.

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UNITED STATES PATENT OFFICE.

SAMUEL C. MOREHOUSE, OF NEW HAVEN, CONNECTICUT.

SLEEPING MAT.

Application filed July 13, 1923. Serial No. 651,260.

This invention relates to a floor mat or cloth designed particularly for the use of soldiers and others camping out and sleeping in tents, the main object of the invention being to provide a floor mat or cloth which may be laid upon the ground to form a moisture-proof floor for the tent, upon which the occupants of the tent may sleep, and which is so constructed as to protect the sleeper against ground dampness and the access of water to the person or bed clothing, ensuring thorough protection so as to enable the person to sleep dry in damp or rainy weather, and which will obviate the necessity of employing the usual practice of digging a trench around the tent in order to prevent rain-water from flowing or trickling into the tent and causing personal discomfort or illness to the occupants thereof.

A further object of the invention is to provide a floor mat or ground cloth which may be made in sections, for ease and convenience in folding or rolling and transporting the same, which sections are designed to be coupled for use as a unitary article, and which sections, in case of their use in connection with tents of certain construction, may be attached to separate portions of the tent fabric so as to be folded or rolled therewith.

A still further object of the invention is to provide a floor mat having a novel construction of integral inflatable and deflatable water shedding rim so constructed and arranged as to allow the mat to be dragged over the ground surface or otherwise roughly handled without liability of the seamed edge of the rim being mutilated or torn away from the body of the mat and causing leakage or disruption of the rim.

With these and other objects in view, the invention consists of the features of construction, combination and arrangement of parts, hereinafter fully described and claimed, reference being had to the accompanying drawing, in which:—

Figure 1 is a perspective view of a floor mat or ground cloth of a form adapted to be used in connection with an Army "shelter" or "pup" tent, the outlines of the tent appearing in dotted lines.

Figure 2 is a vertical transverse section through the mat or ground cloth on the line 2—2 of Figure 1.

Figure 3 is a view showing the mat sections as they appear when in separated condition and arranged in proximity to each other.

Figure 4 is a detail view illustrating a mode of attachment of a mat section to a tent cloth section.

Figure 5 is a view showing a form of mat adapted for use in connection with another form of tent.

Figure 6 is a vertical transverse section on the line 6—6 of Figure 5.

In the practical embodiment of my invention, I provide a floor mat or ground cloth which is designed to cover the ground enclosed by the tent, and which may be coextensive in size with the area of the enclosed ground surface, so that the marginal portions of the mat will fit snugly against all sides of the tent. In Figures 1 to 3, inclusive, I have shown a type of floor mat or ground cloth adapted particularly for use in connection with an Army "shelter" or "pup" tent, the tent being indicated at 1 in dotted lines. For convenience in handling and transporting the mat when thus used, the mat may be divided longitudinally or composed of two similar mat sections 2, each consisting of a body made of some strong and durable air and water-proof fabric material, such as canvas or ducking, coated or impregnated with rubber or other suitable water-proofing material.

Each section 2, which is of a size to cover one-half of the ground floor of the tent, is provided with outer and inner longitudinal rim edges 3 and 4 and end rim edges 5 and 6. The rim edge 5 extends at right angles to the rim edges 3 and 4, while the rim edge 6 inclines at an oblique angle between the rim edges 3 and 4, the resulting mat composed of the two mat sections 2 thus having its side edges 3 straight and parallel to extend along the side walls of the tent, its end edges 5 straight and on a transverse line to extend along one end wall of the tent, and its opposite end edges 6 obliquely disposed and converging along the central line of the mat, making the mat at such ends substantially V-shaped to conform to the opposite end wall of the tent body. A tent of this type is, as is well known, composed of two sections carried individually by a corresponding number of soldiers who bunk together, which tent sections are joined together to form a shelter tent for the joint use of the soldiers at sleeping time. The

mat sections 2 are similarly designed to be respectively carried with their portions of the tent by the soldiers and to be laid down and joined to form the floor of the tent at the time of use. Such construction is of convenience in properly apportioning the equipment to the two users of the tent, as well as providing an individual mat section for the exclusive use of each soldier.

The marginal edges or rim portions 3, 4, 5 and 6 of each mat section are suitably constructed to form an upstanding kerb or water shed rim. This rim may be constructed so as to be inflated and distended with air for use, to give it proper rigidity when in use. while enabling it to be collapsed so that all portions of the mat may be packed in a substantially flat condition. This water shedding rim may be formed by rolling or turning inwardly a portion of the fabric, as indicated at 7, into tubular or substantially tubular form and stitching or otherwise securing the free edge 8 to the body of the fabric as shown, in which event the edge 8 may also be vulcanized to the fabric in order to provide an inflatable rim which will hold air at the desired pressure. In the present instance, however, I have shown the rim portion 7 as designed to form a casing for an inflatable air tube 9, of rubber or other suitable material, which may be inflated and deflated through the medium of an air inlet and exhaust tube 10, adapted to be closed air-tight by a cap or other closure 11. Through this tube 10, when the cap 11 is removed, air may be blown into the tube 8 to inflate the latter to the desired degree, and such air may be retained as long as desired by the application of the closure 11. Upon removing this closure 11, the air may be exhausted from the tube 9, allowing the latter to collapse so that the rim 7 may be substantially flattened out. This water shedding or guard rim 9 may exend upwardly above the level of the mat body a sufficient distance to effectually serve as a barrier against the flow of water over upon the mat, and to deflect the water away from the mat, the mat body itself protecting the sleeper and bed clothing from ground dampness, while the rolled pneumatic rim will prevent rainwater from flowing or trickling over upon the mat and wetting the sleeper or the bed clothing. By this construction the access of water to the bed surface will be prevented even in the event of heavy rains, and without the necessity of digging a protecting trench around the tent, as is customary, in order to cause the water to flow off.

As shown and described, the inflatable and deflatable rim 7 is an integral part of the mat and is formed by turning the marginal portions of the mat upwardly and inwardly and fastening the edges 8 of such portions so as to form an air-tight seam to the upper surface of the mat body. This construction or mode of forming the rim is a material and important feature of my invention, as by this construction the seamed edges 8 lie upon the upper surface of the mat on the inner side and at the base of the rim and are not exposed upon the underside of the mat as they would be if the same were formed on such side or if the rim were formed by turning the marginal portions of the mat outwardly and securing the edges 8 to the bottom surface of the mat body. Mats of this character must be constructed to withstand rough usage and the purpose of constructing the rim 7 as set forth is to give maximum protection to the edges 8, so as to prevent them from coming in contact with roots, stones and other extraneous objects, when the mat, for example, is drawn along the ground, and causing the edges 8 to be loosened or torn away from the mat body, with the result of causing leakage or disruption of the pneumatic rim. With my construction the mat if drawn along the ground with its bottom in contact with the ground surface, no possible strain can fall upon the edges 8 and no portions of these edges are exposed to catch in roots or to be torn by stones or other obstructions. On the other hand if the mat is drawn along the ground upside down, the upper surface of the rim will form a contact surface on which it will slide, the edges 8 lying below the same and thus being protected from contact with the ground. A mat provided, in a simple manner, with protective features, to prevent damage to vital portions, is thus produced, which may be manufactured and sold at a comparatively low cost, and which, at the same time, will stand rough usage and considerable abuse without destroying its usefulness or impairing its efficiency for the purposes for which it is designed. Moreover, by turning the marginal portion of the mat upwardly and inwardly, instead of outwardly and downwardly, and thus disposing the seam at the top of the mat and base of the inner side of the rim thus formed, the tendency of the rim to flatten unduly under pressure is resisted by the fold of the seam. Hence the form of the rim will be better maintained and its undue depression to an extent sufficient to allow water to flow over prevented in the event that a portion of the rim is used as a pillow or the pressure of the weight of any portion of the body of a person sleeping on the mat should fall upon the mat at any time.

In order to adapt the mat sections 2 to be united against shifting out of proper relative position, attaching flaps 12 are secured at their inner edges to the mat bodies and projecting at their outer edges beyond the rim portions 4. These outer edges of the flaps 12 are designed to be disposed in lap-

ping relation and, in order to adapt them to be coupled together, each flap is provided with pairs of buttons or studs 13 and button-holes 14, arranged in reverse order on the respective flaps, so that at proper points the buttons of each flap may be engaged with the button-holes of the other flap, thus uniting the two mat sections in a secure manner. When the two mat sections are so joined to form the moisture-proof floor of a tent, they will not only protect the sleepers against the dampness of the ground and the entrance of moisture into the tent, but will provide individual bed mat sections for the respective occupants, the advantages and conveniences of which will be apparent.

When the pneumatic guard rims of the mat sections are deflated and the flaps 12 of the mat sections detached, each mat will lie substantially flat and may be folded or rolled in compact shape for storage or transportation. By simply providing suitable buttons and button-holes upon the tent sections, similar to the buttons and button-holes 13 and 14, or utilizing those which may be upon the tent sections, each individual mat section may be attached to its individual tent section 15, as shown in Figure 4, so that it may be folded or rolled therewith for convenience in transporting each tent section and mat section as a working unit.

In Figures 5 and 6 I have shown a slight modification in the construction of the mat or ground covering, in which each mat is shown as of oblong rectangular form, having straight and parallel outer and inner longitudinal rim edges 3^a and 4^a and the straight and parallel transverse end rim edges 5^a and 6^a, the mat sections 2^a when so formed being adapted for use in connection with a tent of different shape from that previously described. The outline form of the mat, of course, may be varied to suit any particular condition of service to which it is to be applied, or any particular form of tent in connection with which it is designed to be used, the forms disclosed being shown as examples of those which may be employed in practical use in connection with tents of certain well known forms. It is preferred, however, to make the mats for all purposes in sections of any suitable size so as to secure convenience in handling and transporting them, as well as enabling them to be folded or rolled and attached or packed away with certain portions or sections of the tent. As the mats are designed for outdoor use, and to withstand more or less rough usage, their construction as a whole of rubber alone would not be satisfactory, and therefore they are preferably made of canvas, ducking or other suitable durable fabric coated or impregnated with rubber or other suitable water-proofing material.

As stated, the mat is designed to provide a floor or ground cover for a tent which will ensure to the occupants a dry surface to sleep upon, and which is provided with rolled rim or guard edges which may be inflated with air to turn away any water which would otherwise find an entrance and trickle or flow from without over upon the mat or floor cloth. This rolled rim will deflect the rain and streams of water so that they will flow under and around the ground floor, thus keeping the upper surface of the bounded portion of the cloth dry even during heavy rains. By this means the sleeper will be protected and rendered more comfortable and less liable to colds, pneumonia, rheumatism and other diseases or troubles due to exposure and wet blankets and clothes, and in this way protect the health of soldiers and render them more efficient; and it will also add greatly to the comfort, enjoyment and well being of campers generally using the same.

Having thus fully described my invention, I claim:—

1. A camper's sleeping mat comprising an imperforate body of impervious sheet material having the edges thereof rolled upwardly and inwardly to provide a hollow inflatable form sustaining water shedding rim, with the major portion of the latter disposed within the confines of the marginal edges of said body portion, and the free edges of said rolled rim being secured to the upper surface of the body portion and arranged to be held spaced from the ground when either side of the mat contacts the latter.

2. A two-part sleeping mat of the character and for the purpose described consisting of two mat members placed side by side with their adjacent edges in juxtaposition and attached together, each mat section comprising an integral body of impervious sheet material having the entire marginal portions thereof inturned and secured to the body thereof to form a fixed hollow inflatable and deflatable water-shedding rim vertically continuous with the sheet body so as to leave no spaces for the flow of moisture between the said body and rim, and means for inflating and deflating said rim, the said adjacent edges of the mat sections being provided with attaching flaps extending under and beyond the adjacent rim portions thereof, each flap being provided with spaced pairs of buttons and button-holes, the buttons and buttonholes of said flaps being arranged in reverse order, whereby either flap may be tucked under and fastened to the other flap.

In testimony whereof I affix my signature.

SAMUEL C. MOREHOUSE.