Nov. 8, 1927. 1,648,373

P. M. VILAS

MATTRESS AND SLEEPING BAG

Filed March 14, 1925

Fig. 1.

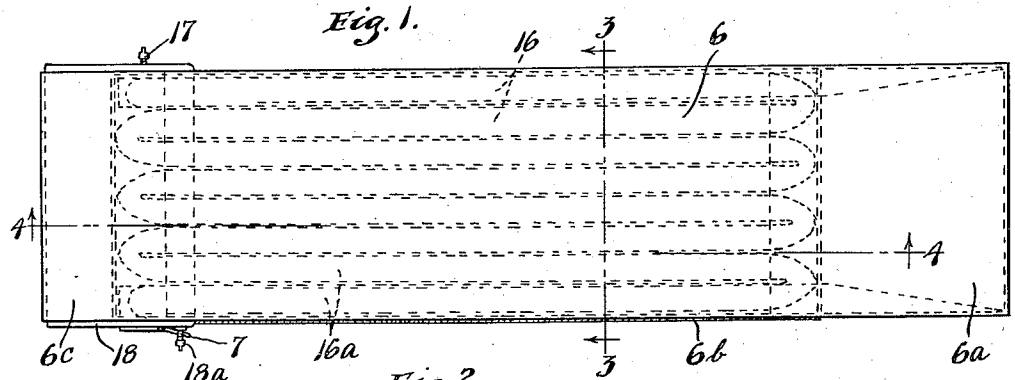


Fig. 2.

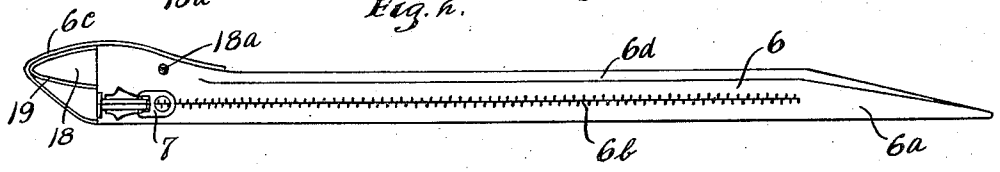


Fig. 3.

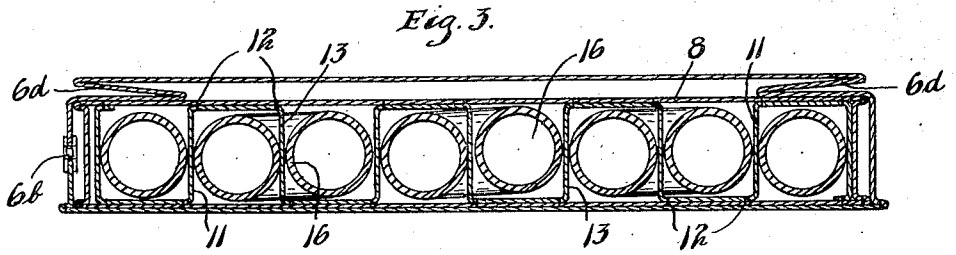


Fig. 4.

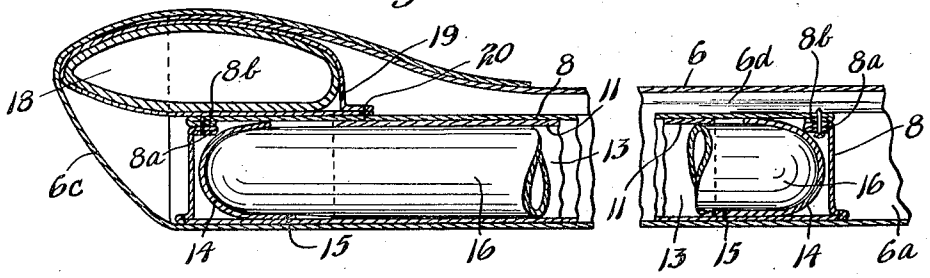
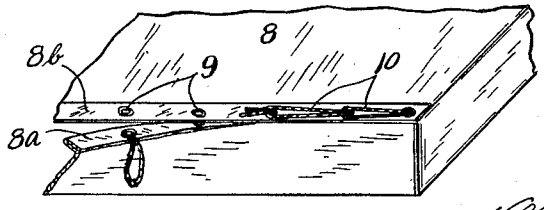


Fig. 5.



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UNITED STATES PATENT OFFICE.

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MATTRESS AND SLEEPING BAG.

Application filed March 14, 1925. Serial No. 15,505.

This invention relates to a sleeping bag and mattress and particularly to a sleeping bag and pneumatic mattress adapted to be used therewith. It is very desirable for motorists, campers, tourists, etc., to have a sleeping apparatus such as a mattress or sleeping bag which can be packed in very small space when not in use and yet can be expanded for use when needed.

It is an object of this invention, therefore, to provide a mattress comprising a casing having a plurality of partitions extending longitudinally thereof between its top and bottom layers and terminating short of the ends of said casing, together with an inflatable tube folded into parallel convolutions disposed between said partitions and extending around the ends thereof.

It is a further object of the invention to provide such a mattress having open ends and flaps at said ends adapted to extend over the ends of said convolutions of the tube, said mattress also having an inflated pillow connected thereto at one end.

It is also an object of the invention to provide a sleeping bag in which the mattress above described is disposed and secured, said sleeping bag comprising a flat casing substantially of rectangular shape in cross section having one of its sides open and adapted to be enclosed by a quickly operable closing means, said bag extending at its closed end beyond the mattress and having a flap at its open end.

These and other objects and advantages of the invention will be fully set forth in the following description made in connection with the accompanying drawings in which like reference characters refer to the same parts throughout the different views, and in which,

Fig. 1 is a bottom plan view of the sleeping bag with the mattress therein;

Fig. 2 is a view in side elevation thereof, as seen from the bottom of Fig. 1;

Fig. 3 is a vertical section taken on the line 3—3 of Fig. 1, as indicated by the arrows;

Fig. 4 is a vertical section taken on the line 4—4 of Fig. 1, as indicated by the arrows, a portion thereof being broken away, Figs. 3 and 4 being on an enlarged scale; and

Fig. 5 is a perspective view of one end corner of the mattress.

Referring to the drawings, the device comprises a sleeping bag formed as a flat casing 6 which is substantially rectangular in plan and in cross section, said casing being open at one end and being closed at its other end 6^a. The closed end of the casing 6 is tapered, the top and bottom layers thereof converging and meeting at the end of said casing. The casing 6 is provided with an opening 6^b extending along one side thereof substantially midway between its top and bottom layers, and this opening is provided with a closing and locking means comprising a series of engaging small fasteners adapted to be brought into holding position by a member 7 movable longitudinally thereof. Such fastening and closing means is now widely known and used and is not described in detail, the same being substantially of the type shown in the patent to Gideon Sundback, No. 1,219,881, granted March 20, 1917. The casing 6 has its bottom layer continued at the open end thereof to form a flat 6^c of considerable length, which flap is adapted to fold over the top layer of the casing when the same is in use. As shown in Fig. 3, the casing 6 is adapted to fold inwardly into bellows shape adjacent its top layer, as shown by the folds 6^d when the case is in collapsed condition.

Disposed within the casing 6 and preferably secured to the bottom layer thereof is a mattress of the pneumatic type. This mattress comprises a flat casing 8 substantially rectangular in plan and in longitudinal and transverse section, which casing is comparatively flat and comprises top and bottom layers. The ends of casing 8 are provided with folds of extra thickness or with heavy tape binding 8^a and the adjacent end of the top layer is provided with similar thickened folds or tape binding 8^b. The portions 8^a and 8^b are provided with closing means which, in the embodiment of the invention illustrated, comprise spaced eyelets 9 secured in portions 8^a and 8^b in aligning relation. The portions 8^a have secured thereto and projecting through the eyelets 9 therein loops of cord 10, which loops are adapted to be extended through the eyelet in portion 8^b and through the loop of the adjacent eyelet, as shown in Fig. 5. The adjacent loops of one side of the mattress being tied together so that the open ends of the mat-

tress are then tightly closed. The casing 8 has secured therein a a layer of material 11. This layer of material is formed into zigzag shape being bent successively at right angles, the adjacent portions thereof being alternately stitched by stitching 12 to the top and bottom layers, respectively, of casing 8. In this manner a plurality of spaced partitions 13 are formed in the casing 8 extending longitudinally thereof and substantially perpendicular to the top and bottom layers thereof when the mattress is in expanded condition. The layer of material 11 terminates short of the ends of the mattress, as shown in Fig. 1, so that a space is left at the ends of casing 8 beyond the ends of the partitions 13. Flaps 14 of soft material extend across the ends of the casing 8 and are secured along one of their edges to the bottom layer of the casing 8 by the stitching 15. An inflatable tube 16, preferably of resilient material, is provided, which tube is folded into parallel convolutions 16^a extending between adjacent partitions 13, the top extending around the ends of said partitions at each end of the casing 8. Said tube 16 is provided with a valve-equipped inflating stem or nozzle 17 which projects at one side of the mattress adjacent the end thereof and it projects through the open side of the casing 6. The casing 8 has secured thereto an inflatable pillow 18 substantially of rectangular shape in plan and this overhangs the casing 8 at one end thereof, as shown in Fig. 4. The pillow 18 may be attached by enclosing the same in a cloth casing 19, the closed end of which is attached to the top layer of casing 8 by stitching 20, as shown in Fig. 4. The casing 8, as stated, preferably is secured to the bottom of casing 6 by lines of stitching extending longitudinally adjacent the edges thereof.

In operation, when the mattress and sleeping bag are arranged for use, the tube 16 will be inflated by attaching an air pump or air supplying device to the valve stem 17. The tube will assume its cylindrical form, as shown in Fig. 3 and the casing 8 will be expanded, as shown, the partitions 13 being substantially vertical. The mattress so inflated, makes a very comfortable support on which to recline and the person using the same may, if desired, merely recline on the top thereof and on the top layer of casing 6, the device being in position, as shown in Fig. 3.

When the weather is cold or when the device is used for sleeping out at night, the casing 6 can be opened by sliding the member 7 longitudinally of the open slit 6^b and the flap 6^c will then be thrown open. The blankets or other bed clothing to be used can now very conveniently be placed in the casing 6 and the occupants will dispose themselves in the casing 6 on the casing or mattress 8. After the occupants are comfortably disposed, the side opening or slit 6^b can be closed by again sliding the member 7 to the open end of the casing 6. The casing 6 forming the sleeping bag is now closed and the flap 6^c can be brought over the heads of the persons in the casing 6. There will be plenty of opportunity for getting fresh air out of the side openings beneath the flap 6^c. It will be understood that when the device is to be packed and collapsed the tube 16 will be deflated and the whole apparatus can then be rolled and disposed in a very small space. The pillow 18 can be inflated through valve stem 18^a and this stem and stem 17, preferably will be equipped with closing caps. The casing 8 enclosing tube 16 and forming the mattress can be detached from the casing 6 and the mattress used alone, if desired.

From the above description it is seen that applicant has provided a very simple and efficient sleeping bag and mattress. The mattress, when the tube 16 is inflated to the proper degree, supports the body with great comfort. It has been found in practice that the convolutions 16^a extending longitudinally of the mattress give a very effective support and fewer bends are necessary in the tube than if the tube were disposed with crosswise convolutions. The pillow 18 partially overhangs the end of the casing 8 and furnishes a very comfortable support for the head and, in effect, increases the length of the mattress. The casings 6 and 8 are made of pliable and strong canvas and the whole device is of simple construction and very easily made and assembled. The device has been amply demonstrated in actual practice and found to be very successful and efficient.

It will, of course, be understood, that various changes may be made in the form, details, arrangement and proportions of the parts without departing from the scope of applicant's invention, which, generally stated, consists in a device capable of carrying out the objects above set forth, in the novel parts and combinations of parts disclosed and defined in the appended claims.

What is claimed is:

1. A pneumatic mattress comprising an elongated flat casing of flexible material having spaced top and bottom layers, a series of spaced partitions extending between said top and bottom layers longitudinally of said casing, said partitions terminating short of the ends of said casing, a continuous inflatable tube folded into parallel convolutions extending between said partitions and successively reversely bent around the ends thereof, flaps secured to one of said top and bottom layers and extending across said casing adjacent the ends thereof, said flaps being of sufficient width to cover the bent ends

of said tube at the ends of said casing, said mattress being open along its end edges, and means for closing said ends.

2. A sleeping bag comprising an elongated substantially rectangular casing, an inflatable mattress secured in said casing and extending to within a short distance from the foot thereof, said casing slanting downwardly from the foot of said mattress to the foot thereof, and having an opening at the head end and an opening at one side thereof, there being a flap adapted to extend over the head end of said casing and quickly operatable closing and fastening means adapted to close the opening at the side of said casing.

In testimony whereof I affix my signature.

PERCIVAL M. VILAS.