This invention relates to a new and improved padding, such as for mattresses, seats or upholstery in general, and the principal object of the invention resides in the provision of a resilient padding or mattress that is substantially fireproof due to the novel construction thereof, which is substantially all metal, and is resilient vermin-proof, extremely long-lasting, both as to resiliency and wear in general, without increase of cost over that of conventional padding or mattresses.

Another object of the invention resides in the provision of a padding or mattress comprising a plurality of conventional springs in the form of coils, which may be conical, and which may present two opposite surfaces, i.e., top and bottom, either one or both of which has directly cemented thereto a layer of resilient compressed metalic wool, such as steel wool, which is of a nature to completely prevent curling of the same due to the springs and also preventing cutting of the metallic wool padding by the springs such as commonly occurs in conventional mattresses whether made of rubber, steel, tula, hair, etc.; the new padding being thus fireproof, vermin-proof, resilient, long-lasting and porous, so that it is extremely cool in hot weather or in warm climates due to the porosity thereof and rapid heat-conduction inherent therein.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings, in which

Fig. 1 is a vertical section through a mattress illustrating the invention;

Fig. 2 is a top plan view with parts folded back and cut away illustrating the invention applied to a padding or a mattress;

Fig. 3 is a sectional view illustrating the porosity of the mattress and the applicability thereto of a fan for cooling the same; and

Fig. 4 is a detail view illustrating the action of the fan due to the deflector shown in Fig. 3.

The main novel portion of the present invention resides in the provision, as padding, of a layer of resilient metallic wool such as steel wool which has been coated or dipped in a tacky substance such as latex or neoprene and somewhat compacted and compressed to a desired degree, leaving the material a cohesive porous mass which is strong, rugged and resistant to abrasion and cutting and which is resilient and easily handled for the purposes of the present invention. The steel wool is originally made up of a large mass of disoriented resilient steel shavings or fibers which are curled and intermingled in a type of helter-shelter loose fluffy pad.

As shown in Fig. 1, there may be provided a series of coil springs or the like 10 which may go to make up a mattress, a seat pad, padding in general, or any upholstery material. These coil springs are provided with co-planar parallel enlarged end coils 12 which may be reinforced at the edges of the unit by wires 13 and they may also be connected by clips as are conventional bedsprings, although this is not necessary in this invention, which completely avoids the necessity for any means interposed between the large coils 12 and the padding material such as is conventionally used to attempt to prevent a cupping of the felt, hair or vegetable padding and also to try to prevent the coils 12 themselves from cutting through the padding and thus rendering the mattress or padding useless.

This invention contemplates the cementing of a resilient, somewhat compacted and generally homogeneous layer of metallic wool 14 directly onto the parallel co-planar coils 12, and this of course not only forms an indestructible vermin-proof and fireproof padding, but it also ties the coils together in a single strong unit that may be handled as is any other padding or upholstery material to be covered with the upholstery cloth 16.

In some cases, it is preferred to use a felted layer 18 of material interposed between the metallic wool 14 and the exterior upholstery material or ticking 16. The material 18 may also be a more highly compressed thin layer of metallic wool but in most cases it is preferred that this material take the form of felt, rubberized felt, glass fabric or some other similar material.

The resultant mattress is of course completely porous and will conduct body heat away from the surfaces thereof much more rapidly than would such material as hair or vegetable fiber and therefore it is possible to arrange a fan such as that at 20 preferably provided with a deflector 22 to cause currents of air to flow through the mattress itself and cool the occupant of the bed.

The present invention is applied not only to mattresses and padding in general but to any upholstery material as for instance car seats, airplane seats, etc. as well as domestic furniture, and provides the strongest, longest lasting material of this nature possible, and which will not lose original shape by sagging, matting-down, etc.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed otherwise than as set forth in the claims, but what I claim is:

1. Padding comprising a relatively soft fluffy layer of metallic wool in loose stranded form wherein the strands are inter-connected by a tacky latex material covering all of the strands.

2. Padding or the like comprising a series of coil springs arranged to present a pair of opposite spring formed resilient surfaces, a continuous resilient padding of fibrous metallic wool secured to each of said surfaces, all the fibers of said metallic wool being coated with a tacky, rubbery material, and a cover for the entire padding.

3. Fireproof padding or the like comprising metallic springs arranged to form a spring unit and a layer of tacky coated fibrous metallic wool secured directly to the springs at each side of the unit, the metallic wool being light, fluffy, and resilient, and all exposed fibers thereof being coated.

References Cited in the file of this patent

UNITED STATES PATENTS

1,835,212 Fowler 12 Dec. 31, 1931
1,998,807 Galvin Apr. 23, 1935
2,020,060 Hunter Nov. 5, 1935
2,512,007 Benda June 20, 1950
2,610,338 Taylor Sept. 16, 1952