

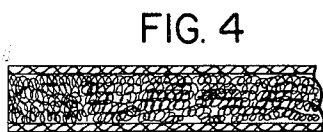
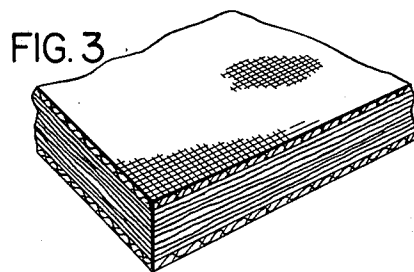
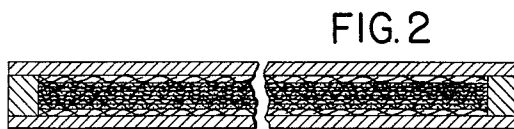
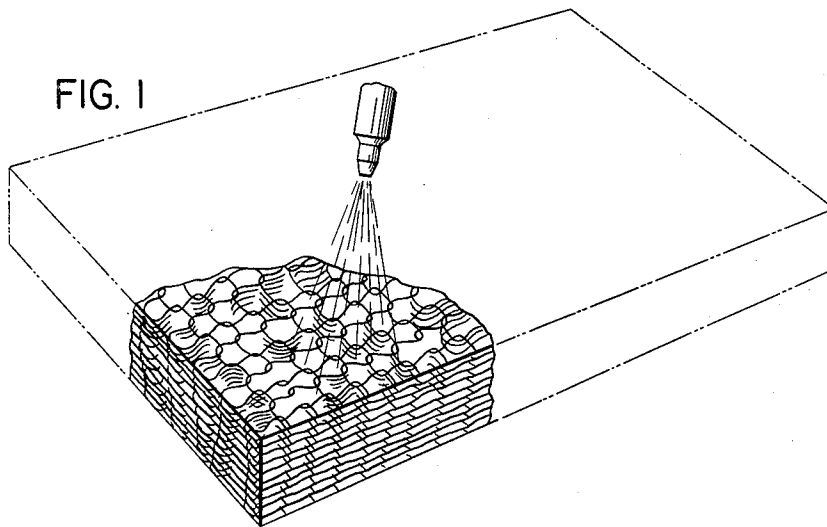
Dec. 21, 1954

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2,697,679

HEAT ABSORBENT RESILIENT PAD AND METHOD OF MAKING THE SAME

Filed June 7, 1950



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2,697,679

HEAT ABSORBENT RESILIENT PAD AND METHOD OF MAKING THE SAME

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Application June 7, 1950, Serial No. 166,724

7 Claims. (Cl. 154—127)

This invention relates to resilient pads, and in particular to heat-resistant, resilient padding, as for use on steam-heated pressing boards or blocks and to a method of making the same.

Heretofore, there has been on the market for this purpose a padding consisting of laminations of wire mesh material encased between outer layers of heat resistant or fireproof fabric. This material, while being satisfactory with respect to steam permeability and heat absorbing qualities was unsatisfactory for other reasons, such as that at least after a short period of use, the padding lost its desired resiliency. Also, the wire had a tendency to break up or crumble, due to repeated flexing in use with a resultant settling of the particles to the bottom of the pad, and in the case of pads used in a vertical plane the settling particles built up the thickness of the pad near the bottom edge thereof. Other materials having desired permanent resiliency could not be used for the present purposes because they lacked porosity necessary to permit passage of steam therethrough.

A general object of the present invention is to provide an improved pad or padding material which will have desired permanent resiliency as well as having necessary porosity, combined with heat-retaining and fireproof qualities.

Another object of the invention is to provide a pad of the character described utilizing a body of fine wire, wherein the wire will not break up and settle to the bottom to affect uniformity of thickness of the pad.

Another object of the invention is to provide a method of producing padding of the character described.

Another object of the invention is to provide an economical pad material of the character described which is moisture-proof and rust-proof.

Other objects of the invention will be manifest from the following brief description and the accompanying drawings.

Of the accompanying drawings:

Figure 1 is a top perspective view, substantially full sized and partly in full and partly in phantom, illustrating primary steps in the method of producing padding in accordance with the invention.

Figure 2 is a transverse cross-section, on the same scale, through a mold in which the padding is subjected to pressure and heat of vulcanization.

Figure 3 is a fragmentary top perspective view, on the same scale, of a portion of the finished padding made by the present method.

Figure 4 is a fragmentary cross-section, on the same scale, of a modified form of padding made in accordance with the invention.

Referring particularly to Figure 3, there is shown a portion 10 of the improved padding, composed of a multiplicity of layers 11, 11 of open mesh, fine wire woven material. The fineness of the wire of the mesh material, for example, may be approximately .002 inch in diameter although finer or coarser wire may be utilized depending on the metal of the wire and the purposes for which the padding is to be used. For steam tables stainless steel may be utilized because of its known resistance to rusting. These layers 11 are bonded into a substantially integral, compact mass or body 12, by means of resilient rubber or like plastic material impregnated through the mass and vulcanized or otherwise fused throughout the same in a manner which coats the wire without filling in the openings of the layers or which otherwise materially minimizes the porosity of the padding. The laminated

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structure 12 may be encased or adhered between layers 13 and 14 of porous, substantially fireproof material, such as square-woven asbestos fabric.

Referring now to Figures 1 to 3, one method of making the padding is as follows:

The body 12 formed of superposed laminations 11 of open-work or open mesh, fine stainless steel, woven wire material is first impregnated with a vulcanizable rubber-like or resilient material such as latex. This step, for example, may be accomplished by spraying the latex through the laminated mass, or the latter may be dipped in a latex bath. In either instance, the fluid consistency of the latex is controlled so that the wire of the material is uniformly coated without substantially closing the openings through the wire mesh material. Other bonding materials of resilient nature may be utilized, such as synthetic rubber, and suitable synthetic resins having rubber-like resiliency and bonding qualities.

Next, the latex-impregnated laminated body 12 is placed between two platens 15 and 16 of a mold, which are pressed together to predeterminedly reduced thickness of said body 12, after which the mold is subjected to heat for vulcanization of the latex. The resultant structure is a heat absorbent, heat resistant, porous, laminated padding, wherein the wire mesh layers are bonded or adhered together into a unitary mass having substantially permanent resiliency. In said vulcanizing step, outer layers 13 and 14 of fireproof material, such as square-woven asbestos fabric may be included in the mold to bond the layers to the latex in the laminated body. Other suitable means, however, may be utilized to bond the asbestos fabric to the laminations, during or subsequent to the vulcanizing step. One or more layers of fine mesh or gauze wire may be applied as outer laminations on body 12, in which instance the asbestos fabric need not be used.

As shown in Figure 4, the method contemplates utilization of an agglomerated mass of steel wool, or similar loose, heat absorbent resilient material, for the body 12 of the padding. The steps of the method are otherwise as set forth above.

Thus, has been provided an improved method for producing a new material which is highly desirable in the clothes-pressing or laundry ironing field, for example. The improved padding will retain its resiliency for long periods of time and will not lose its porosity so highly necessary to the passage of steam away from work being pressed or ironed. Moreover, because a resilient coating completely covers the wire of pad body 12 the wire is adequately moisture-proofed and rust-proofed and, therefore, need not be of the expensive stainless steel variety. The resilient coating material minimizes or prevents breaking up of the wire into small particles, due to flexing and even if particles do break off they cannot sift to a bottom or bottom edge of the pad to affect the uniformity of thickness thereof.

Modifications of the invention may be resorted to without departing from the spirit thereof or the scope of the appended claims.

What is claimed is:

1. A heat absorbent pad material, comprising laminae of open mesh woven wire providing a relatively thick body, said body being impregnated with resilient plastic material surrounding the wire of the laminae without substantially closing the openings thereof, said resilient material bonding the laminae together in a composite mass of the body.

2. Heat absorbent padding, comprising a multiplicity of laminae of open mesh woven wire material providing a relatively thick body, said body being impregnated with vulcanizable resilient material surrounding the wire of the laminae without substantially closing the openings thereof, said resilient material being vulcanized to bond the laminae together in a composite mass of the body, the open mesh characteristic of said wire material being retained whereby said body is uniformly substantially porous.

3. Heat absorbent padding, comprising a multiplicity of laminae of open mesh woven wire material providing a relatively thick body, said body being impregnated with vulcanizable resilient material surrounding the wire of the laminae without substantially closing the openings

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thereof, said resilient material being vulcanized to bond the laminae together in a composite mass of the body, the open mesh characteristic of said wire material thereby being retained whereby said body is uniformly substantially porous, said body being attached between outer layers of porous heat-resistant fabric.

4. Heat absorbent padding, comprising a multiplicity of laminae of open mesh woven wire providing a relatively thick body, said body being material impregnated with vulcanizable resilient material surrounding the wire of the laminae without substantially closing the openings thereof, said resilient material vulcanized to bond the laminae together in a composite mass of the body, the open mesh characteristic of said wire material thereby being retained whereby the body is uniformly substantially porous, said laminated structure having attached to at least one side thereof a layer of porous asbestos fabric.

5. A method of making heat-resistant padding, comprising the steps of providing a body composed of laminations of open mesh woven wire material, impregnating said body with vulcanizable resilient material without substantially closing the open-work of the laminations, compressing the impregnated body to predetermined reduced thickness, and vulcanizing the compressed body into a unitary mass which is resilient and porous.

6. A method of making heat-resistant padding, comprising the steps of providing a body composed of laminations of open mesh woven wire material, impregnating said body with heat-bondable resilient material without

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substantially closing the open-work of the laminae, compressing the impregnated body to predetermined reduced thickness, and applying heat to the compressed body to bond the same into a unitary mass which is resilient and porous.

7. A method of making heat-resistant padding, comprising the steps of providing a body composed of laminations of open mesh woven wire material, impregnating said body with vulcanizable resilient material without substantially closing the open-work of the laminae, compressing the impregnated body to predetermined reduced thickness between layers of porous heat-resistant fabric, and vulcanizing the compressed body into a unitary mass which is resilient and porous.

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