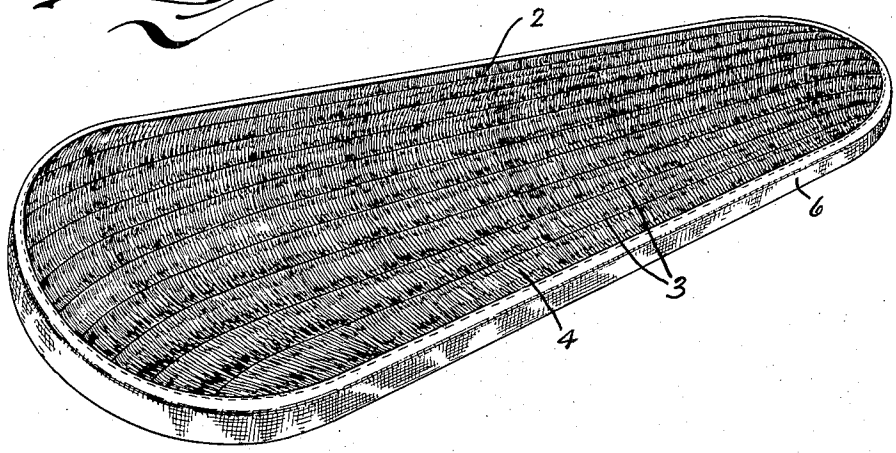
April 23, 1935. C. E. GALVIN 1,998,807

RESILIENT PAD

Filed Feb. 5, 1931

Fig. 1.



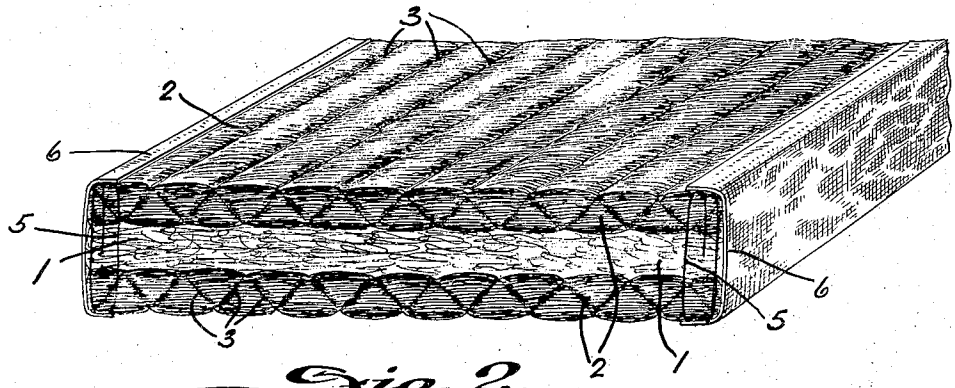


Fig. 2.

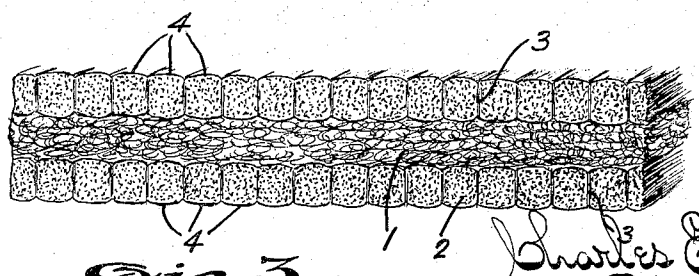


Fig. 3.

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RESILIENT PAD

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Application February 5, 1931, Serial No. 513,763

16 Claims. (Cl. 154—54)

This invention relates to resilient cushions or pads, and particularly to a pad formed from metallic fibers known to the trade as "steel wool" but which may be of material other than steel.

While the resilient "steel wool" pad forming the subject matter hereof has been illustrated in the drawing as shaped and proportioned to adapt it for use upon a conventional type of clothes pressing machine, it is to be understood that the invention is not limited to such application but that the resilient cushion or pad material constructed as herein described may be applied to a wide variety of purposes wherein a highly resilient durable pad is desirable.

The object of the invention is to provide an improved form of cushion or pad which will be highly resilient, of increased efficiency and durability, cheap in construction, highly resistant to heat and other deteriorating influences, and unlikely to get out of repair.

A further object of the invention is to provide a pad or cushion, the exterior surfaces of which will be comparatively flat, the material of which while resilient is confined and not subject to displacement to afford holes or spots of less density.

A further object of the invention is to provide means for utilizing a loose matted or felted body of "steel wool" possessing a higher degree of resiliency, but so confined as to prevent displacement.

A further object of the invention is to provide a laminated or stratified cushion or pad of resilient material.

A further object of the invention is to provide a unitary pad of resilient metallic material wherein the superposed strata are characteristically different.

A further object of the invention is to provide a laminated or stratified pad marginally connected into a unitary body leaving the effective central areas of the laminations or strata free for resilient response.

A further object of the invention is to provide improved means for uniting superposed strata of fibrous resilient material into a unitary cushion.

With the above primary and other incidental objects in view as will more fully appear in the specification the invention consists of the features of construction, the parts and combinations thereof, and the mode of operation, or their equivalents, as hereafter described and set forth in the claims.

Referring to the accompanying drawing wherein is shown the preferred but obviously not necessarily the only form of the embodiment of the invention, Fig. 1 is a perspective view of a resilient cushion pad shaped and proportioned for use upon a conventional type of clothes pressing machine. Fig. 2 is a perspective view of a portion of the cushion or pad, one margin of which is exposed to disclose the superposed strata. Fig. 3 is a side elevation viewed at right angles to that of Fig. 2, that is, from the ends of the knitted rovings of steel wool.

Like parts are indicated by similar characters of reference throughout the several views.

The resilient cushion or pad forming the subject matter hereof, is formed from metallic fibers known to the trade as "steel wool" but it is to be understood that the material is not necessarily limited to steel alone but strands or fibers of other metal may be employed. Likewise while the pad or cushion illustrated in the drawing is shown so shaped and proportioned as to adapt it for use upon a clothes pressing machine, it is to be understood that the invention is not limited to such application but the resilient pad or cushion herein described is applicable to a wide variety of other purposes for which a resilient cushion is desirable.

The present cushion or pad consists of superposed strata of metallic fibers known in the trade as "steel wool", the intermediate stratum 1 of which consists of a body of felted or matted steel wool, wherein the strands or fibers are interentangled in an unsystematic and haphazard manner, while the exterior strata 2—2 of steel wool material disposed on opposite sides of such matted or tangled stratum comprise knitted mats or fabric wherein the fibers of steel wool are systematically arranged in parallel rovings and interconnected into a flat flexible resilient body of substantially uniform thickness by transverse tie wires 3 which are knitted about the rovings 4 of steel wool. The particular material comprising the exterior strata 2—2 is described and claimed in Letters Patent No. 1,773,455 of August 19, 1930.

It has heretofore been proposed to employ a loose matted or felted body of steel wool for padding or cushion purposes wherein the steel wool was confined by tie wire sewed to and fro through the felted mat, or such mat was confined between covers of wire mesh cloth or screen. It is found, however, quite difficult to distribute the tangled or felted material uniformly throughout such pad and especially difficult to maintain the distribution. Such pads always contain more or less holes or thin areas

which leave spots on a garment pressed over such a pad. The present construction wherein the tangled or felted body is confined between superposed layers of knitted steel wool, each of which layers in itself comprises a relatively thick resilient mat, overcomes the difficulty heretofore encountered and there is much less tendency for the loose or tangled material to become displaced in use and any unevenness of distribution is quite unnoticeable through the over and underlying layers or strata of knitted steel wool fabric.

The several layers or strata, are marginally interconnected into a unitary body by wire stitching as at **5**, which while confining the intermediate stratum of material, leaves the operative areas of the cushion free for unrestricted response to pressure and for resilient retraction upon the release of pressure. In addition to the marginal tie wires or stitching **5**, the margin of the pad is preferably, though not necessarily, enclosed in a binder strip **6**, which for pressing machine purposes is preferably made of asbestos fabric. This binder strip **6** is also stitched to the edge of the superposed layers or strata of steel wool material. While the pad illustrated in the drawing consists of but three layers or strata, it is to be understood that additional layers may be superposed to afford a cushion or pad of any desired thickness. Likewise the layers or strata may in itself be varied in thickness proportionate to the desired thickness of the composite body. As is illustrated in the drawing the succeeding layers or strata of the pad are of distinctively different character, the fibers or strands of steel wool comprising the exterior layers or strata **2** being systematically arranged in substantially parallel relationship and being formed into parallel rovings whereas the intermediate layer or stratum **1** is of characteristically different formation, the strands or fibers being interentangled in a haphazard manner which, however, affords an increased degree of resiliency. The material of the exterior layers or strata being confined by the knitted tie wires **3** presents uniform substantially flat surfaces.

While "steel wool" consisting of long silky fibers shaved from steel wire is the material generally used for the present purposes since such fibers are relatively strong and especially resilient, metallic wool is also made from other material including copper, aluminium, bronze, brass and nickel and other suitable metals, and the term "steel wool" as herein employed is to be understood as generically used to include metallic fibers of whatever material. Such metallic wool fibers are also produced in various grades or degrees of fineness. Thus the resilient metallic padding or cushion forming the subject matter hereof may be produced to meet a very wide range of conditions and different usage.

From the above description it will be apparent that there is thus provided a device of the character described possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modification in its form, proportions, detail construction and arrangement of parts without departing from the principle involved or sacrificing any of its advantages.

While in order to comply with the statute the invention has been described in language more or less specific as to structural features, it is to be understood that the invention is not limited to the specific features shown, but that the means and construction herein disclosed comprise the preferred form of several modes of putting the invention into effect and the invention is therefore claimed in any of its forms or modifications within the legitimate and valid scope of the appended claims.

Having thus described my invention, I claim:

1. A pliable laminated structure comprising superposed independent strata, including two parallel strata of steel wool, the strands of which are systematically arranged, and an interposed stratum of steel wool the strands of which are unsystematically disposed, the margins of the strata being held in a fixed relation throughout the periphery.

2. A pad of the character described, including two parallel layers of knitted steel wool fabrics, said layers including parallel rovings and an interposed layer of felted steel wool.

3. A pad of the character described, comprising two spaced strata of steel wool rovings disposed in parallel relation and interconnected into continuous bodies, and an intermediate stratum of steel wool in tangled mass, the superposed strata being interconnected into a unitary body.

4. A pad of the character described, comprising a mat of felted steel wool, and surface layers of steel wool arranged in parallel rovings confining the felted mat.

5. A pad of the character described, comprising a body of steel wool formed in distinctive parallel strata superposed one upon another, at least one of said strata including rovings arranged side to side throughout the strata.

6. A pad of the character described, comprising a plurality of strata of steel wool superposed one upon another, at least one of said strata including parallel rovings, and wire ties marginally connecting the strata one to another.

7. A pad of the character described, comprising a plurality of strata of steel wool superposed one upon another, at least one of said strata including rovings arranged side to side, and marginal connections between the superposed strata.

8. A pad of the character described, comprising a plurality of strata of steel wool superposed one upon another, at least one of said strata including parallel rovings, and marginal stitching interconnecting the superposed strata of steel wool.

9. A pad of the character described, comprising a plurality of parallel strata of steel wool superposed one upon another, at least one of said strata including parallel rovings, and marginally interconnected.

10. A pliable laminated padding material comprising superposed strata of metallic wool possessing characteristically different qualities, the strands of the different strata being differently arranged, the characteristically different strata being combined into a unitary form retaining structure.

11. A pliable laminated padding material comprising superposed independent strata of metallic wool, including exterior strata of fabricated form retaining character, and an intermediate stratum of unorganized tangled fibers and interconnecting means uniting the strata into a unitary structure.

12. As an article of manufacture, a pliable laminated flat body of padding material comprising a substantially flat body of unsystematically arranged metallic wool fibers and a parallel flat form retaining body of systematically arranged fibers, and interconnecting means uniting said flat bodies of systematically and unsystematically arranged fibers into a single unitary structure.

13. As an article of manufacture, a pliable laminated flat pad comprising a substantially flat body of felted metallic wool fibers and a parallel contacting substantially flat body of metallic wool fibers arranged in rovings interconnected with each other into a fabricated blanket, said felted body and blanket of interconnected rovings being interconnected with each other into a single unitary structure.

14. As an article of manufacture, a substantially flat pliable laminated pad comprising alternating substantially parallel strata of unorganized tangled metallic wool fibers and of metallic wool rovings systematically arranged in substantially parallel contacting relation, the outer strata being marginally interconnected to enclose the other material therebetween.

15. As an article of manufacture, a substantially flat laminated pad comprising a relatively flat stratum of unorganized tangled metallic wool fibers and strata extending on opposite sides thereof composed of a succession of rovings of metallic wool systematically disposed in substantially parallel contacting relation, the latter strata being interconnected about the margin of the first mentioned stratum.

16. A pad of the character described, comprising a plurality of strata of metallic wool superposed one upon another including at least one intermediate stratum thereof, and successions of metallic wool rovings forming exterior strata on opposite sides of the intermediate stratum, said exterior strata of metallic wool rovings being marginally interconnected to confine the intermediate stratum therebetween.

CHARLES EDWARD GALVIN.