

May 8, 1928.

J. H. TAYLOR

1,668,614

PADDING

Filed April 18, 1924

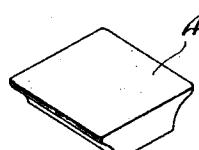


Fig. -5

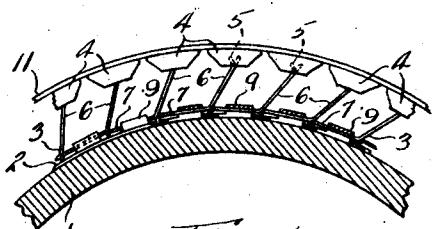


Fig. -1

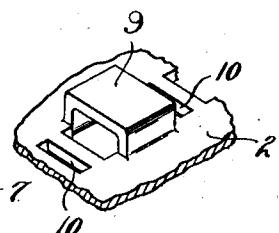


Fig. -7

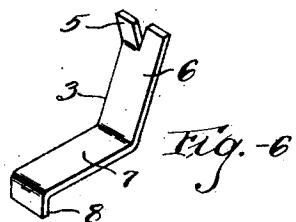


Fig. -6

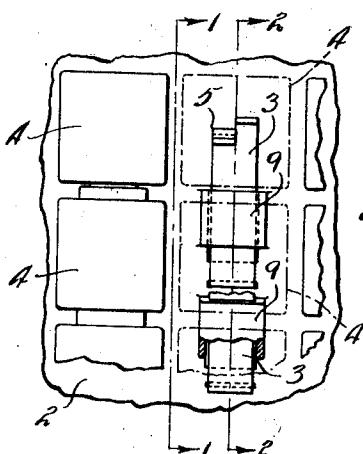


Fig. -3

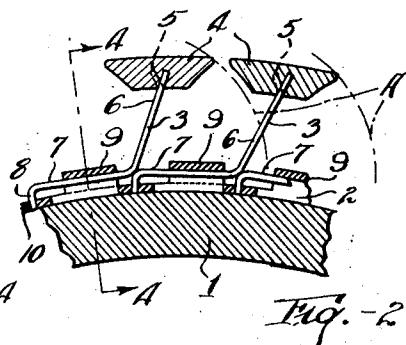


Fig. -2

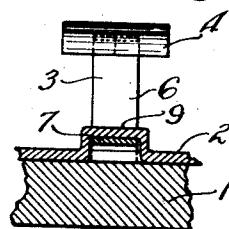


Fig. -4

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UNITED STATES PATENT OFFICE.

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PADDING.

Application filed April 18, 1924. Serial No. 707,458.

This invention relates to yielding or resilient padding such as is used on pressing or ironing machines, either of the relatively movable upper and lower platen type, or flat work ironers including padded rolls cooperating with heated concave platens or the like.

The object of the invention is to provide improved resilient padding adapted to be carried by or mounted upon a suitable support, either curved or flat, and including a plurality of individual yieldable and preferably composite members which may be individually placed, replaced or repaired, and which together provide the necessary uniformly yielding pressure receiving surface to receive the material or fabric to be pressed, and which need only be covered by relatively light cover material, thereby doing away with material of appreciable thickness of cellulose padding of the usual form.

Further objects of the invention will be more apparent from the description to follow.

In the drawings, Fig. 1 represents a detail cross section through a portion of the roll of a flat work ironer, the section being taken on the line 1—1, Fig. 3; Fig. 2 is a similar section on the line 2—2, Fig. 3; Fig. 3 is a plan view of a portion of a roll, some of the yieldable members or buttons being shown in skeleton form by dot and dash lines to more clearly illustrate the underlying construction; Fig. 4 is a detail section on the line 4—4, Fig. 2; Fig. 5 is a perspective view of one of the spring tops or buttons; Fig. 6 is a detail perspective view, illustrating one of the metal springs; and Fig. 7 is a similar view illustrating the supporting plate and the parts for attaching thereto the metal springs.

In the drawings, 1 indicates a portion of a hollow cylindrical wall of the roll of a flat work ironer, or in other words, the member upon which the yieldable padding is mounted and which may obviously be a flat or plain surface member in the case of a platen type press. Supported thereon is a plate 2, preferably of relatively thin metal and with a smooth inner surface so that it conforms closely to and snugly fits the roll body 1. Said plate forms the support which carries a plurality of like individually and independently yieldable or resilient com-

posite pad members, each of which preferably includes two independently resilient parts, either or both of which may be heat insulating and heat resisting. In the form shown in the drawings these resilient pad members include a lower metal spring 3 of strip or plate form, as shown in Fig. 6, the lower end thereof being adapted to be attached to and carried by the plate 2 and the upper end thereof forming a support for the upper pad member or button 4, shown in Fig. 5. Members 4 are inherently resilient to any desired degree. They may be made of any suitable material for the purpose, preferably some material which is heat resistant or heat insulating to the extent that they oppose or retard transmission of heat to the parts which support them and withstand the effects of the heated platen or member with which the padding contacts without destruction or breaking down within a seasonably durable life. Several materials are suitable for the purpose, such as cork, compositions containing cork or other like materials and a binder, rubber or rubber compositions or asbestos with or without the necessary binder to hold it together and give it the required resiliency. Usually these members or buttons 4 are made of a material which can be molded, thereby enabling them to be attached to the supporting springs 3 by a molding operation. The drawings show for this purpose the upper end of each spring 3 slotted longitudinally with one of the ears 5 thereof formed or bent out of the plane of the other ear so that the molding operation solidly and non-removably secures each button to its spring.

The springs 3 are bent to approximately L-form having arms 6 which stand out nearly radially from the ironing roll and arms 7 terminating in bent tongues 8, said arms 7 being adapted to be threaded or passed through loops 9 struck up from the metal of the support 2. Having threaded said arms through the loops 9 a suitable tool may be introduced beneath the free end of arm 7 to raise the same and snap the tongue 8 thereof into a slot 10 in the support 2 at one end of the loop 9.

Fig. 2 shows several of the resilient pad members assembled with the support 2 and with their tongues in the recesses 10. It will be observed that the bend in each spring 3 between arms 6 and 7 thereof rides on

tongue bend of the next spring, as a consequence of which pressure applied to each button 4 radially of the roll causes it to spring downwardly on an arc represented by the dotted line A, Fig. 2. All of the buttons, which are spaced equally and uniformly over the roll, as shown in Fig. 3, have similar movement so that the complete structure is uniformly resilient or yielding throughout the roll with no variation in the smooth continuous yielding pressure receiving surface presented to the work.

Usually the spring padding so far described is covered with a cover cloth 11 which may be one or two layers of relatively thin material and need not of itself supply the resilient or yielding properties.

If any one of the yielding pad members is broken, either as to its button 4 or its lower spring member 3 it may be easily removed without interfering with other pad members by inserting a tool beneath the arm 7 near its tongue 8 and releasing the tongue from the locking slot, so that the arm 25 7 can be unthreaded from the loop 9. A complete new resilient pad member can then be easily substituted therefor, or one of the removed parts, with a new co-operating part, can be returned.

30 What I claim is:

1. An ironing device, comprising a body, a plurality of adjacent resilient members secured at one end thereto and individually removable therefrom, and individually resilient and heat-insulating members carried by the adjacent members at the other end thereof and providing a resilient pressure receiving surface.

2. An ironing device, comprising a body, a plurality of adjacent leaf springs having bearing engagement at one end with said body, and individually resilient and heat-insulating members carried by the adjacent members at the other end thereof and providing a resilient pressure receiving surface.

3. An ironing device, comprising a body, a plurality of adjacent inclined leaf springs having bearing engagement at one end with said body, and individually resilient and heat-insulating members carried by the adjacent members at the other end thereof and providing a resilient pressure receiving surface.

4. An ironing device, comprising a body, a plurality of adjacent inclined leaf springs having bearing engagement at one end with said body, and individually resilient and heat-insulating members carried by the adjacent members at the other end thereof and providing a resilient pressure receiving surface, said parts being spaced so that sufficient clearance is provided for movement of said heat-insulating members without interference therebetween.

5. An ironing pad, comprising a support composed of a plurality of adjacent resilient members secured at one end, and individually resilient and heat insulating members carried by the adjacent members at the other end thereof and providing a resilient pressure receiving surface.

6. In an ironing pad, a fabric covering, and a resilient supporting structure therefor composed of a plurality of pairs of superimposed resilient members and the respective members of the pairs being independently resilient and one of each pair composed of heat-insulating material and in direct contact with the fabric covering.

7. An ironing device, comprising a body provided with an upwardly extending loop forming a passageway therebelow, a resilient member extending upwardly from said body, and a pressure receiving member mounted upon the upper end portion of said resilient member, said resilient member being provided with an arm extending through said passageway.

8. An ironing device, comprising a body provided with an upwardly extending loop forming a passageway therebelow and with a recess adjacent said loop, a resilient member extending upwardly from said body, and a pressure receiving member mounted upon the upper end portion of said resilient member, said resilient member being provided with an arm extending through said passageway and with a portion depending from said arm and engaging in the recess of said body.

9. An ironing device, comprising a body provided with a plurality of upwardly extending loops forming passageways, a plurality of resilient members extending upwardly from said body, and a plurality of pressure receiving members mounted upon the upper end portions of said resilient members, each of said resilient members being provided with an arm extending through one of said passageways, the arms of adjacent resilient members being in engagement.

10. An ironing device, comprising a body provided with a plurality of upwardly extending loops forming passageways, a plurality of resilient members extending upwardly from said body, and a plurality of pressure receiving members mounted upon the upper end portions of said resilient members, each of said resilient members being provided with an arm extending through one of said passageways, the rear end portion of the arm of one resilient member lying in engagement with the forward end portion of the arm of the following resilient member.

In testimony whereof I hereby affix my signature.

JAMES H. TAYLOR.