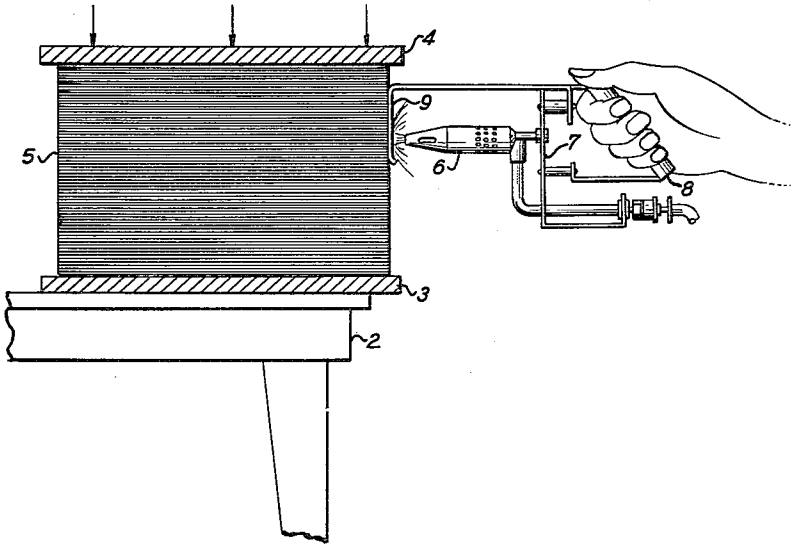
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METHOD FOR CUTTING PIECES OF FABRIC INTENDED FOR THE EXECUTION OF CARTRIDGE BAGS

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METHOD FOR CUTTING PIECES OF FABRIC INTENDED FOR THE EXECUTION OF CARTRIDGE BAGS

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5 Claims. (Cl. 26—1)

Cartridge bags which are to contain charges of gunpowder for artillery ammunition are constituted by bags the fabric forming which is generally made of natural silk.

Now, such fabrics lead to the drawback that they are readily frayed after they have been cut in accordance with a pattern, said fraying occurring along the edges of the piece of fabric which is to form the cartridge bag, as well before and after the cartridge bag has been actually executed. This drawback is all the more inconvenient since the elementary threads falling out during the various handling operations of the cartridge bag both before and after its filling hinder these handling operations and reduce the resistance of the seams.

The cutting of these pieces of fabric by means of a heated blade allows, it is true, removing this fraying effect by a carbonizing or charring effect on the edges of the cut, but this manner of operating which requires the different cartridge bags to be cut individually is not consistent with mass production as required for this type of articles.

My invention has for its object to remove this drawback and its chief object consists, while retaining the conventional method of cutting simultaneously superposed pieces of fabric forming a thick cushion by means of ordinary electric scissors, in preventing the fraying in the following manner: the edge of the cut formed in the cushion of superposed pieces of fabric is clamped inside a press and the section is subjected to the action of a very hot flame such as that of a blow-pipe or else to the action of a plate brought to bright red heat and the heat thus applied carbonizes both the warp and the weft thread lying in immediate proximity with the cut, so that the fraying is prevented by a crimping and crumpling effect.

The subsequent execution of the actual cartridge bags by means of pieces of fabric which have been submitted to this carbonization treatment along their cut edges is thus made much easier by reason of the absence of any fraying and furthermore the handling of such cartridge bags thus executed both before and after their filling does not produce any dropping out of thread elements which forms a considerable advantage for the working inside powder factories. The cartridge bags obtained have a better appearance and furthermore the strength of the seams is improved.

In those cases where a plate brought to red heat is used, said plate may be given a size corresponding to the outline of the superposed pieces of fabric, in which case it is applied against the section of the cushion and then removed or else its size may be smaller in which latter case it is applied in succession over the different portions of the section of the cushion of superposed pieces of fabric either through successive engagement with these different portions or through a sort of ironing movement, the plate being held in contact with the section of the cushion and being shifted throughout the surface of said section.

I have illustrated by way of example and by no means

in a limiting sense in accompanying drawing a preferred embodiment of an apparatus for treating cartridge bags in accordance with my improved method.

In the single figure of the drawing, 2 designates a table on which a large number of patterns 5 made of a suitable fabric and intended each for the execution of a cartridge bag are laid in superposition between two pressure plates 3 and 4 engaging the outermost patterns.

According to my invention, the section of said superposed fabric patterns i. e. the lateral surfaces of the cushion formed by the superposition of the patterns is subjected either directly to the flame of a gas blow-pipe 6 carried by a support 7 and provided with a handle 8 or again indirectly to said flame with the interposition as illustrated of a plate 9 extending in a plane perpendicular to the blow-pipe 6 and to the front of the latter so as to be heated thereby.

When the blow-pipe is operative, the plate 9 is brought to bright red heat. It is then sufficient for the operator to urge said plate 9 under pressure into successive engagement with different portions of the lateral surface of the cushion formed by the superposed pieces of fabric 5 inside the press constituted by the plates 3—4 until the entire area of said surface has been treated.

It should be remarked that, in accordance with the preceding disclosure, said plate 9 may be subjected either to a succession of forward movements applying it against the lateral surfaces of the fabric cushion and of withdrawing movements with reference to said lateral surface or else it may be shifted over said lateral surfaces after the manner of a laundry iron.

In the case where the lateral surfaces are subjected to the direct action of the blow-pipe flame, it is obvious that the flame should be shifted so as to sweep over the entire surface of the section of the superposed fabrics.

It will be readily apparent that my invention is by no means limited to the sole embodiment disclosed of the apparatus, which embodiment has been described solely by way of exemplification; it covers on the contrary all the modifications thereof falling within the scope of the accompanying claims, whatever may be in particular the outline of the hot plate urged against the section of the superposed pieces of fabric forming the cushion and also whatever may be the manner of heating said plate.

On the other hand, I have mentioned more particularly hereinabove cartridge bags made of a fabric of natural silk, but obviously my improved method of carbonizing the edges of the pieces of fabric is applicable to fabrics of rayon or the like fibres, provided they are not self-weldable.

What I claim is:

1. A method for preparing pieces of fabric adapted to be used for the making of cartridge bags, consisting in cutting said pieces of fabric to the desired pattern, superposing said cut pieces of fabric to form a thick cushion, submitting at least one edge of said cushion to a compression directed perpendicularly to the surfaces of the superposed cut pieces and carbonizing the lateral surface of said cushion, formed by said compressed edge, to an extent such as will carbonize the warp and weft thread elements lying in immediate proximity with said lateral surface and produce thereby a crimping and crumpling effect adapted to prevent any subsequent fraying.

2. A method for preparing pieces of fabric adapted to be used for the making of cartridge bags, consisting in cutting said pieces of fabric to the desired pattern, superposing said cut pieces of fabric to form a thick cushion, submitting at least one edge of said cushion to a compression directed perpendicularly to the surfaces of the superposed cut pieces and subjecting the lateral surface of said

cushion, formed by said compressed edge, to the direct action of a very hot flame to carbonize the warp and weft thread elements lying in immediate proximity with said lateral surface and produce thereby a crimping and crumpling effect adapted to prevent any subsequent fraying.

3. A method for preparing pieces of fabric adapted to be used for the making of cartridge bags, consisting in cutting said pieces of fabric to the desired pattern, superposing said cut pieces of fabric to form a thick cushion, submitting at least one edge of said cushion to a compression directed perpendicularly to the surfaces of the superposed cut pieces and subjecting the lateral surface of said cushion, formed by said compressed edge, to the direct action of a blow-pipe to carbonize the warp and weft thread elements lying in immediate proximity with said lateral surface and produce thereby a crimping and crumpling effect adapted to prevent any subsequent fraying.

4. A method for preparing pieces of fabric adapted to be used for the making of cartridge bags, consisting in cutting said pieces of fabric to the desired pattern, superposing said cut pieces of fabric to form a thick cushion, submitting at least one edge of said cushion to a compression directed perpendicularly to the surfaces of the superposed cut pieces and applying directly over the lateral surface of said cushion, formed by said compressed edge, a red hot metal plate to carbonize the warp and weft thread elements lying in immediate proximity with said lateral surface and produce thereby a crimping and crumpling effect adapted to prevent any subsequent fraying.

5. A method for preparing pieces of fabric adapted to be used for the making of cartridge bags, consisting in cutting said pieces of fabric to the desired pattern, superposing said cut pieces of fabric to form a thick cushion, submitting at least one edge of said cushion to a compression directed perpendicularly to the surfaces of the superposed cut pieces, applying directly over the lateral surface of said cushion, formed by said compressed edge, a metal plate, subjecting said plate to the heat of a flame to bring thereby said plate to red heat to carbonize the warp and weft thread elements lying in immediate proximity with said lateral surface and produce thereby a crimping and crumpling effect adapted to prevent any subsequent fraying.

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