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DEVICE FOR RAISING NAP ON FABRICS

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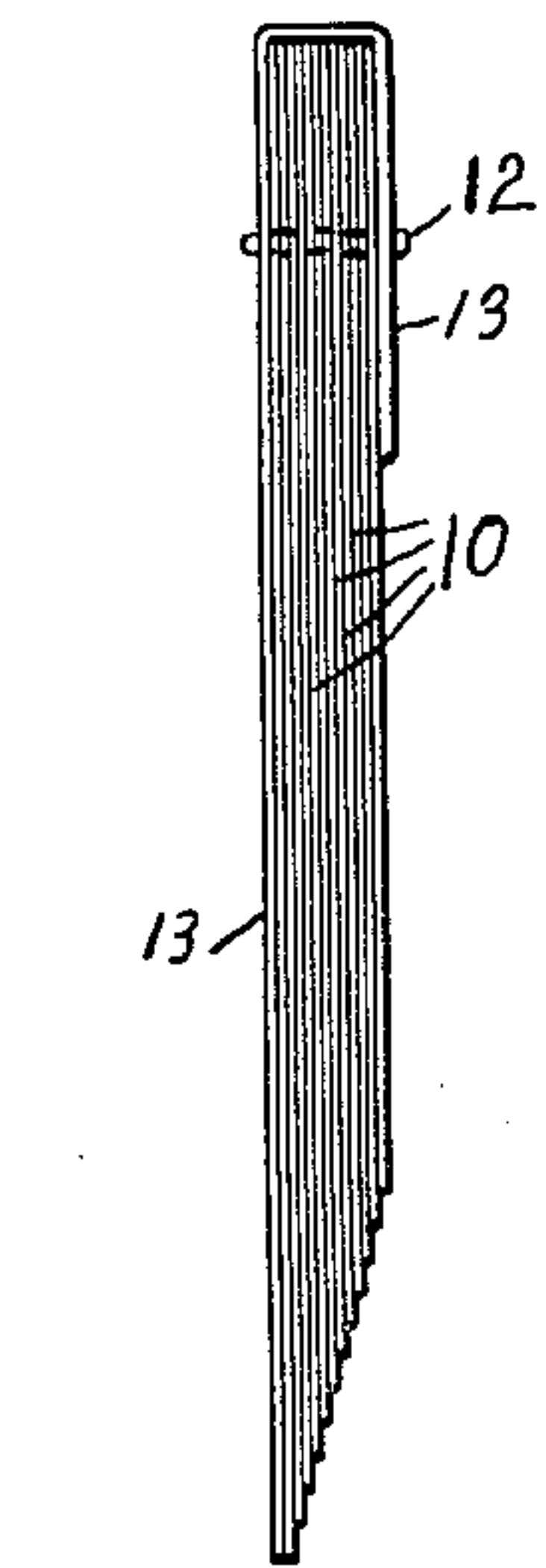


Fig. 1.

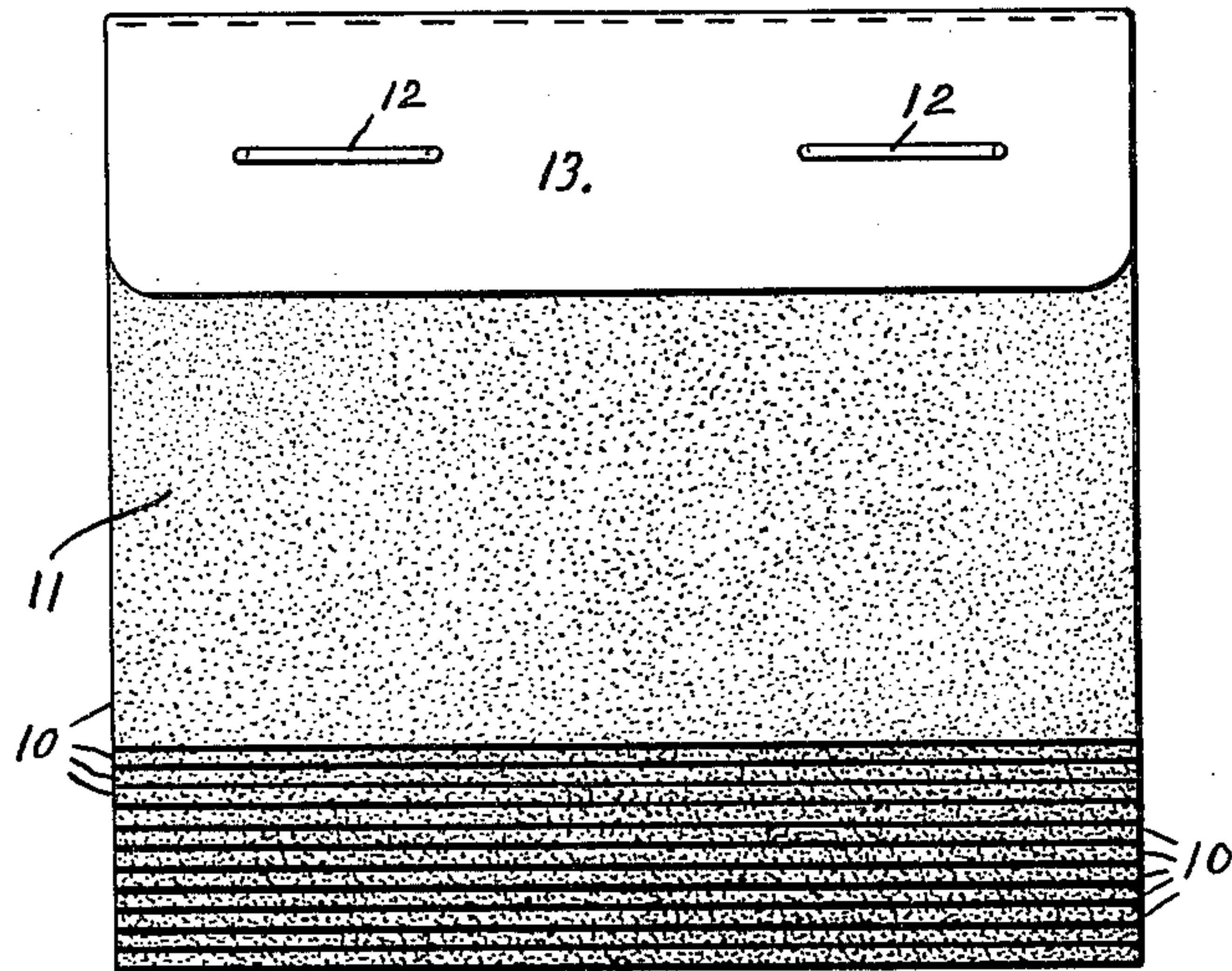


Fig. 2.

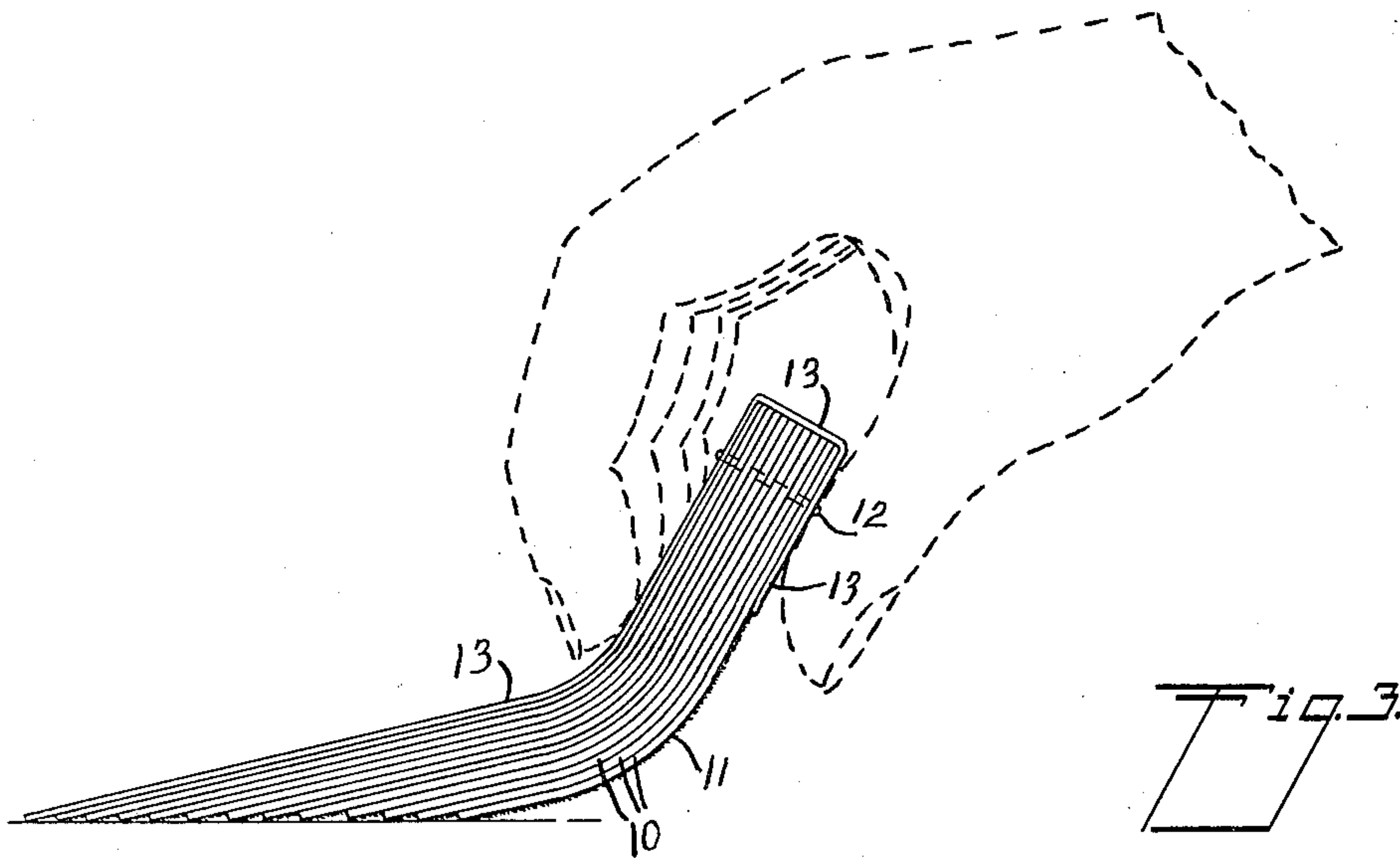


Fig. 3.

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DEVICE FOR RAISING NAP ON FABRICS

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My invention relates to devices for use in restoring the nap or normal outstanding fibres on the surfaces of fabrics which have become shiny or glossy by reason of wear thereof causing the surface fibres to be detached or pressed down against the body of the fabric. Garments made from hard-weave fabrics, such as serges, are particularly liable to the development of shiny or glossy surfaces upon portions thereof subject to greatest wear, so that after a limited period of use the appearance of the garments is seriously marred by the difference in character of the original or unworn surface-portions and those from which the nap has been displaced. It is well-known and customary to restore the appearance of such fabrics by the application thereto of mild abrasion, which serves to lift the flattened fibres or to loosen fresh fibres from the body of the fabric to replace those which have been detached by wear. The successful application of such means for restoring the nap has heretofore required a considerable degree of skill and judgment upon the part of the user, in avoiding excessive abrasion and consequent damage to the garment or fabric. It is the object of my invention to provide a device for the purpose described, which may be successfully applied and used without especial skill or experience upon the part of the user, and with which slight irregularities of the surface treated will not result in greater abrasion of one portion of the surface than another. A further object of my invention is to provide a nap-raising device of simple and inexpensive construction, having an abrasive surface of flexible and resilient character, adapted to conform readily with the surface contours of the fabric on which it is used, whereby to avoid excessive pressure upon and abrasion of any portions of the fabric surface.

In the accompanying drawing Fig. 1 is a side view of a device embodying my invention, Fig. 2 is a front view of the same, and Fig. 3 is a diagrammatic side view showing the device in use.

In carrying out my invention according to the illustrated embodiment thereof, I pro-

vide a plurality of sheets 10 of flexible and resilient material, each having upon one side thereof a coating or layer 11 of fine abrasive material. The abrasive sheets may be ordinary sand-paper, or special varieties thereof, such as garnet paper, emery paper, or pounce paper. The sheets 10 are of uniform width and are superposed to form a pile wherein the sheets are in register at one end and along both longitudinal edges. The sheets are secured together at points along a transverse line adjacent to the registering ends thereof, by suitable means such as the stitching or staples 12 passing through the pile, and said fastening means may serve also for securing a cover or binding 13 of any desired flexible sheet material, extending over the back, around the bound end, and partly over the front face of the bound pile or book of abrasive sheets. Preferably the sheets 10 are of different lengths, varying uniformly in the successive sheets of the pile, the longest sheet being at the back and the shortest sheet being at the front, so that the free edges, which are opposite the bound and registering ends of the sheets, have a stepped relation by which portions of the coated or abrasive side of each sheet are exposed to form successive elements of a substantially continuous yieldable working surface.

In the use of the described device, the same is grasped at the bound end thereof, the exposed abrasive faces adjoining the free edges of the sheets are pressed against the surface to be treated, as shown in Fig. 3, and the surface is stroked or lightly brushed therewith until the desired raising of nap thereon is effected, which will be known by the disappearance of the gloss or shininess of the surface.

By the pressure exerted in applying the abrasive faces to the work, the sheets are bent backward along transverse lines intermediate the ends thereof, and, because of the greater radii of curvature of the sheets at the front of the pile, a greater length of the abrasive face of each sheet is caused to be exposed than when the device is in normal flat formation. The difference of length of the successive sheets may be made greater or less ac-



ording to the stiffness of the sheets, and if the sheets are very flexible they may be of equal length, and a sufficient exposure of the abrasive faces effected by the bending of the  
5 sheets in applying the device to the work.

It will be seen that by the use of the book-like assemblage of flexible and resilient sheets, each presenting a relatively small area of abrasive surface for contact with the fabric surface, excessive pressure upon and  
10 abrasion of any portion of the fabric will be avoided, as any slight irregularity of the treated surface will be automatically compensated by yielding of the flexible sheets to conform with the surface, without appreciable  
15 variation of the pressure thereon. The device as a whole may be considered as a brush, formed by a plurality of flat, laterally flexible and resilient elements, having abrasive  
20 side surfaces which contact with the surface of the work as the elements are bent laterally to press the same thereon.

Now, having described my invention, what I claim and desire to secure by Letters Patent  
25 is:

1. A device for raising nap on fabrics, comprising a pile of sheets of sand-paper affixed together at one end and having their opposite ends free, said free ends being in  
30 stepped relation whereby to expose an adjacent portion of the abrasive side of each sheet as an element of a working surface.

2. A device for raising nap on fabrics, comprising a pile of sheets of sand-paper, and  
35 means binding the same together at one end, the opposite ends of the sheets being free, whereby upon lateral bending of the pile between said bound and free ends relative longitudinal displacement of said free ends may  
40 occur to expose portions of the abrasive sides of the successive sheets adjoining said free ends.

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