April 13, 1943. D. H. LEVINE 2,316,440

INSPECTING DEVICE

Filed Dec. 24, 1941

Fig. 1.

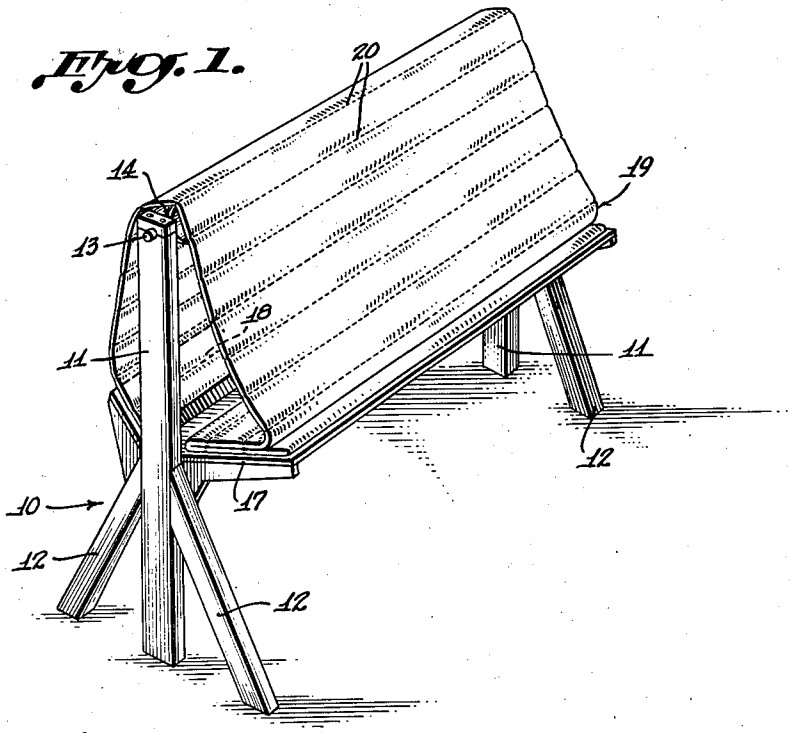


Fig. 2.

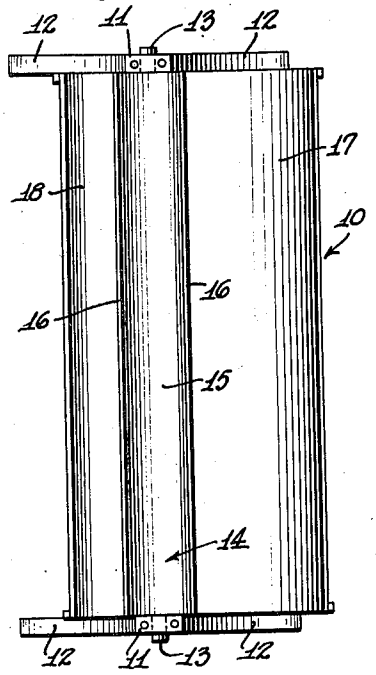
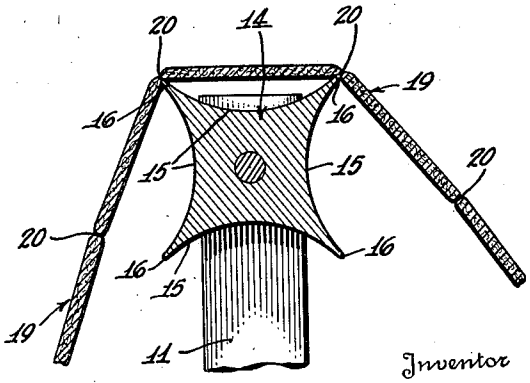


Fig. 3.



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INSPECTING DEVICE

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6 Claims. (Cl. 26—70)

The present invention relates to the manufacture of stitched articles and particularly to articles such as quilts, furniture pads and the like and has for its object to provide a novel and relatively simple apparatus for inspecting and searching the stitched article for defects and imperfections.

After the manufacturing operations on quilts and pads, particularly the sewing operation by which the quilts and pads are stitched, it is customary to inspect the stitching for skips and imperfections. This inspection is particularly necessary for army quilts since a flaw in the stitching will cause rejection of the quilt. Heretofore, the work involved in inspecting the stitching was slow and tedious. The present invention provides an apparatus for performing this inspecting operation and has for its main object to improve such apparatus with a view especially to improving the accuracy of inspection and materially reducing the labor involved.

Further objects of the present invention are to provide an apparatus which is relatively simple in construction, inexpensive to manufacture and easy to operate.

To the accomplishments of these objects and such others as may appear hereinafter, the various features of the present invention reside in certain devices, combinations, and arrangement of parts fully described hereinafter. The illustrated embodiment of the present invention will be readily understood from an inspection of the accompanying drawing showing a preferred embodiment of the invention.

In the drawing, wherein like numerals refer to like or corresponding parts throughout the several views,

Figure 1 is a perspective view of a quilt or pad inspecting device constructed in accordance with the present invention;

Figure 2 is a plan view of the device shown in Figure 1 with the pad removed;

Figure 3 is a sectional view through the roller and pad.

The apparatus shown comprises an inspection stand generally designated by the numeral 10 and includes two uprights 11, supported by legs 12. The upper ends of uprights 11 are suitably constructed to rotatably support ends 13 of roller 14. The support for the roller is such as to permit ready removal of the roller in the event it is desired to substitute a different sized roller.

The main feature of the present invention resides in the specific construction of roller 14. As seen in detail in Figure 3, the roller 14 is formed with four sides, the surfaces 15 of which are made concave resulting in raised edges 16 for a purpose which will appear hereinafter.

A table portion is provided midway of the stand 10 and comprises inclined portions 17 and 18 which are rigidly secured to uprights 11 and serve to hold the article to be inspected and also serves to reinforce the inspecting stand. As shown in Figures 1 and 3, a quilted pad 19 having stitches 20 is shown in position for inspection.

The operation of inspecting the pad is as follows: The operator places the pad on table section 17, the inclination of this section serving to keep the pad from slipping off the table. The operator then places one edge of the pad on roller 14 with edges 16 fitting into stitched portions 20. The distance between adjacent edges 16 is substantially equal to the distance between adjacent stitches. By merely advancing the pad, the cooperation between edges 16 and stitched portions 20 will cause the roller to rotate with each subsequent edge striking a stitched portion until the opposite edge of the pad is reached. If desired, a crank may be provided on one or both ends 13 of the roller and the pad may be advanced by merely rotating the crank. As seen in Figure 3, engagement of the edges with the lower side of the pad at the stitched portions will cause the material of the pad to part at the stitched portion and a quick glance on the part of the operator or inspector will indicate whether any skips or imperfections are present in the stitched portions. As seen in Figure 1, the edge of table portion 18 will serve to catch the forward edge of the pad and the inclination of the said portion will serve to guide the pad towards the center of the table.

From the above description, it is readily apparent that the present apparatus is well designed to accomplish the objects set forth. It is obvious that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes being restricted only by the scope of the following claims.

Having thus described the invention, what is claimed is:

1. Apparatus of the character described comprising a stand, a roller rotatably mounted on said stand for supporting a stitched article, a stitched article and means on said roller cooperating with said supported article whereby rotation of the roller will cause movement of the article.

2. Apparatus of the character described comprising a stand, a roller rotatably mounted on said stand for supporting a stitched article, a stitched article, said roller having raised portions thereon cooperating with the junction of adjacent stitched portions of the article to cause movement of the article upon rotation of the roller and to cause an angular bend at the junction of two adjacent stitched portions.

3. Apparatus of the character described comprising a stand, a roller rotatably mounted on said stand for supporting a stitched article, a stitched article, said roller having a plurality of concave surfaces forming raised edges, said edges cooperating with the junction of adjacent stitched portions of the article to cause movement of the article upon rotation of the roller and to cause an angular bend at the junction of two adjacent stitched portions.

4. An inspecting device for quilted pads and the like comprising a pair of uprights, a table portion connecting the two uprights, said table portion formed of two inclined sections, and a roller rotatably mounted at the upper ends of the uprights.

5. An inspecting device for quilted pads and the like, comprising a pair of uprights, a roller mounted at the upper ends of the uprights, a table portion connecting the two uprights, said table portion comprising two inclined sections, the outer edges of the inclined sections extending beyond the diametrical limits of the roller.

6. An inspecting device of the character described in claim 5, the roller having a plurality of longitudinal raised portions circumferentially spaced thereon.

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