Aug. 8, 1961 A. JANSSENS 2,995,356

PATCHING DEVICE

Filed Sept. 26, 1958 2 Sheets-Sheet 1

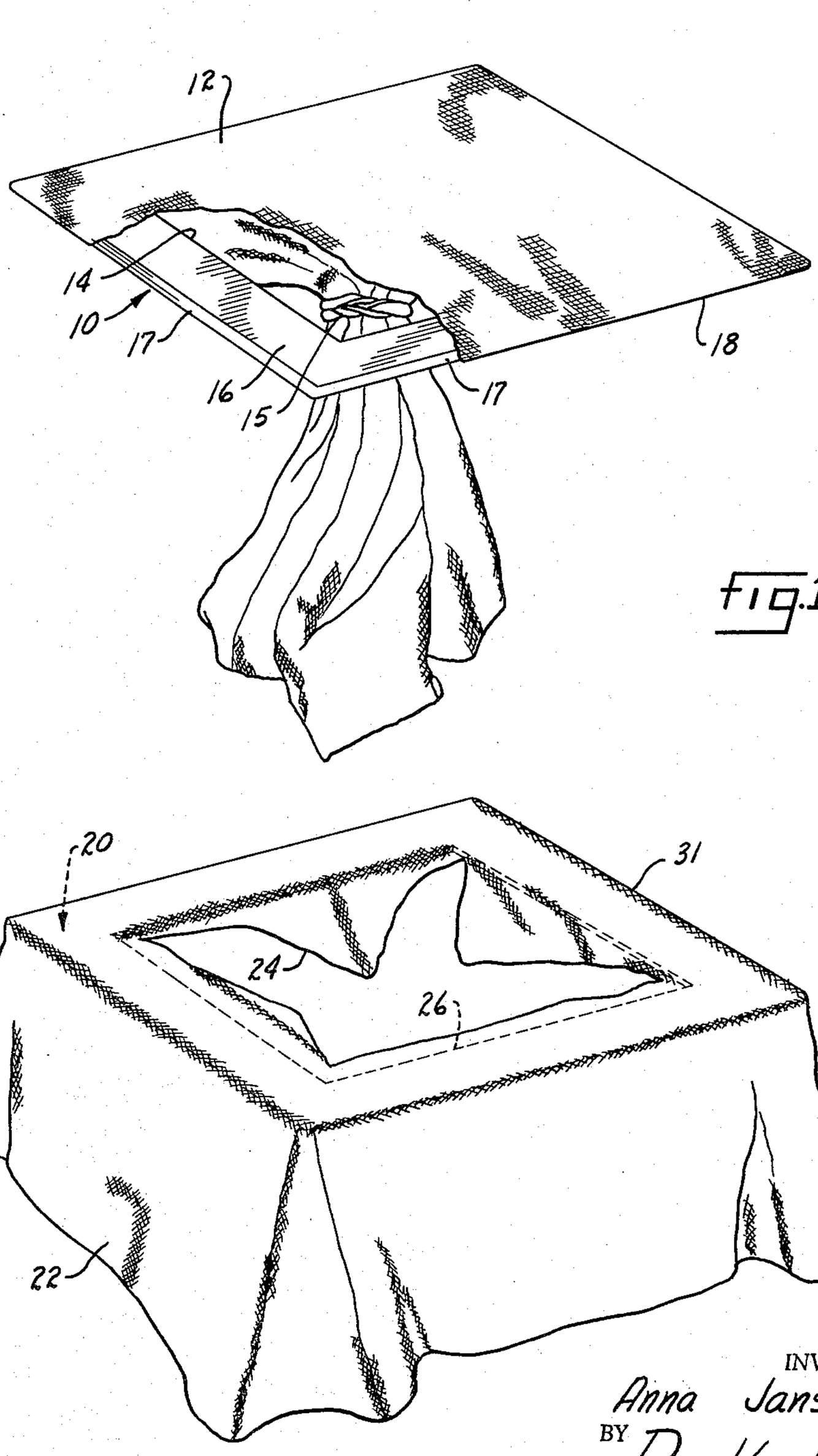

Fig. 1.

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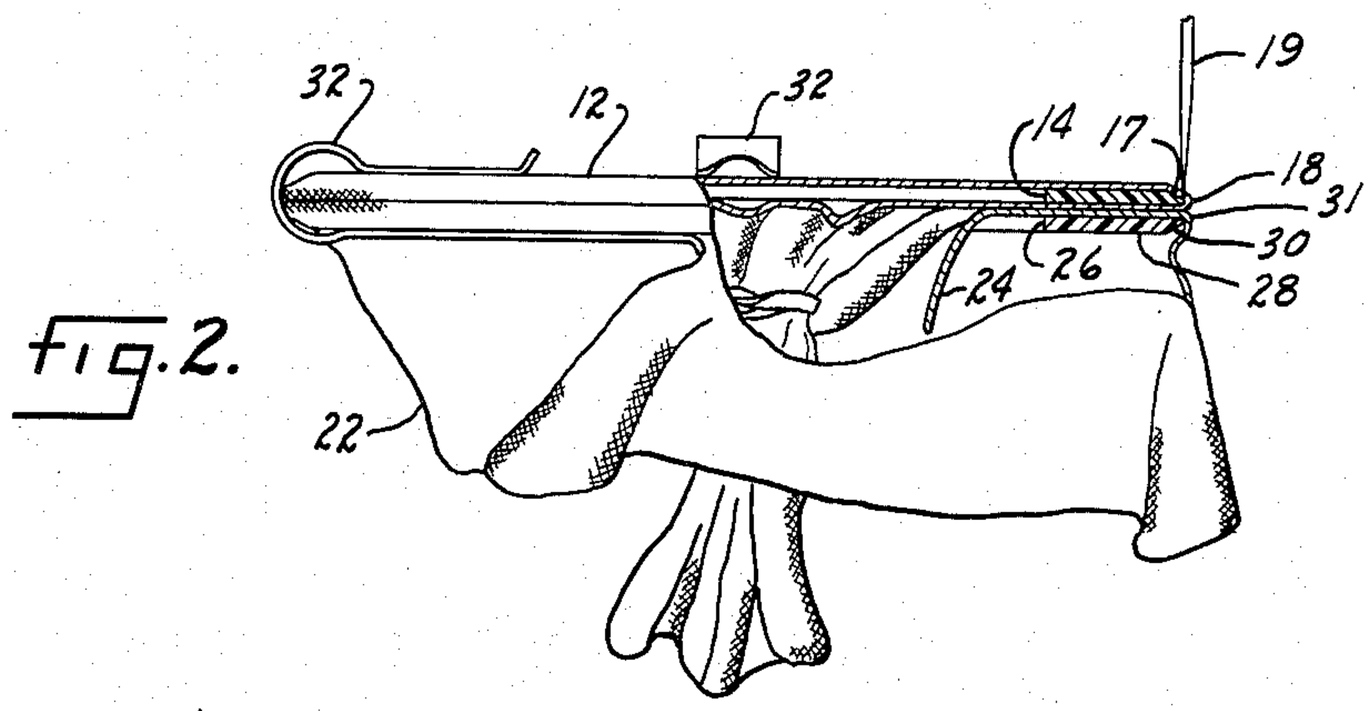

Fig. 2.

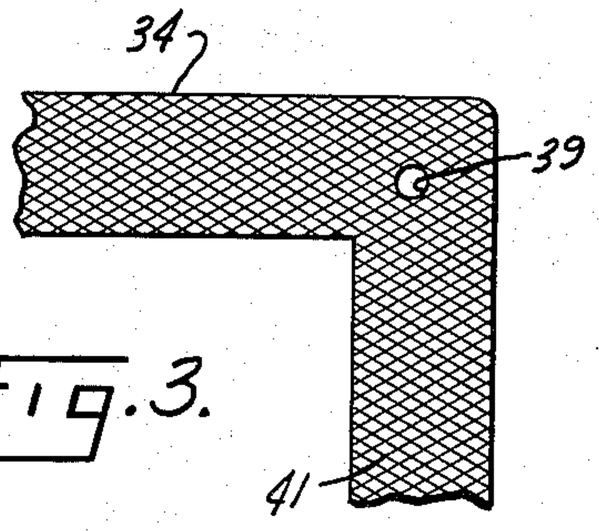

Fig. 3.

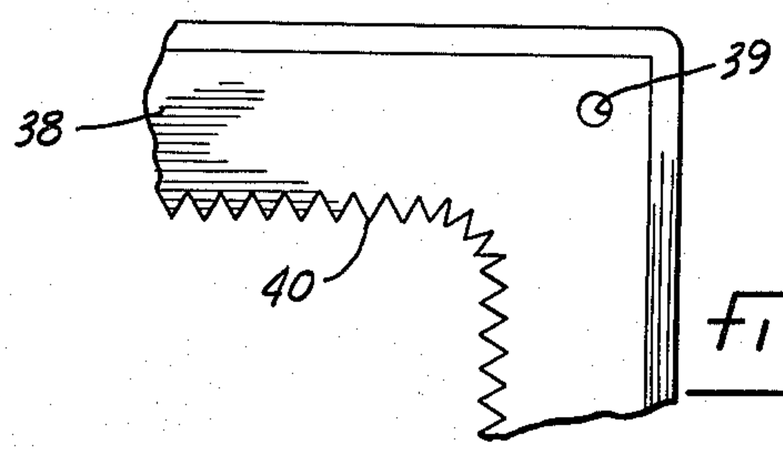

Fig. 4.

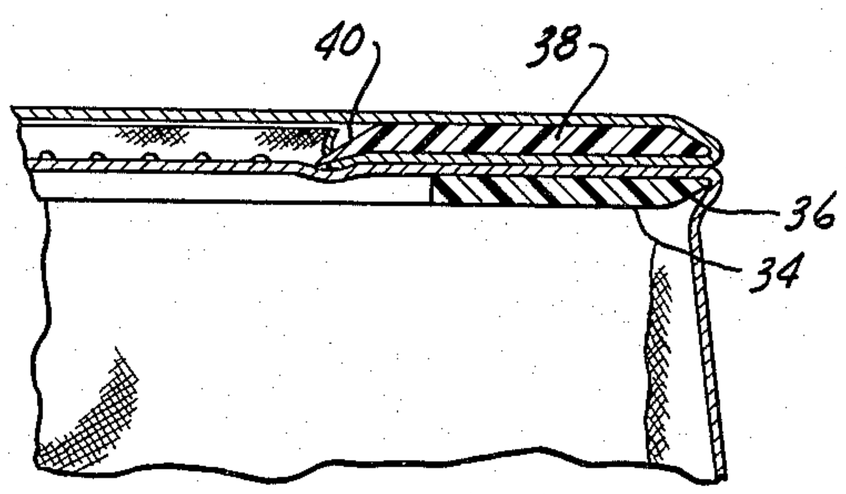

Fig. 5.

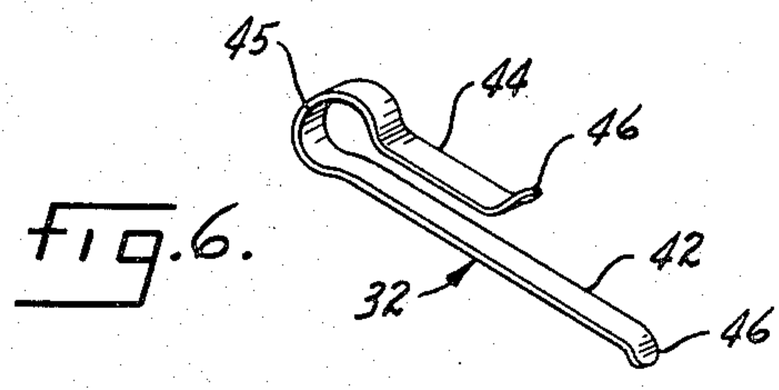

Fig. 6.

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PATCHING DEVICE

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2 Claims. (Cl. 269—102)

This invention resides in the field of fabric patching devices.

A primary purpose of this invention is a device for patching garments or other fabrics which is simple in construction.

Another purpose is a patching device for use in patching garments or other fabrics which is easy to use.

Another purpose is a patching device or the like which holds the patching material and the material to be patched firmly while the patch is being made.

Another purpose of this invention is a patching device which is adaptable for use with large or small amounts of patching material.

Another purpose is a clip for firmly holding a pair of patching frames together while a patch is being made.

Other purposes will appear from the ensuing specification and drawings wherein:

FIGURE 1 is a partly cut away perspective view of a patching device with the patching material and the material to be patched placed in position,

FIGURE 2 is a partially cut away side view of the patching device of FIGURE 1,

FIGURE 3 is a partial top plan view of a modification of the bottom frame of a patching device,

FIGURE 4 is a partial top plan view of a modification of the top frame of a patching device,

FIGURE 5 is a partial sectional view showing the frames of FIGURES 3 and 4 as used in a patching device, and

FIGURE 6 is a perspective view of a clip used with a patching device.

Referring now to the drawings, and more particularly to FIGURE 1, a frame for a patching device indicated at **10** has been covered over by a suitable patching material shown at **12**. The frame encloses a generally central aperture **14**, below which the patching material has been gathered together and secured into a knot **15** to hold the material tensioned on the frame.

The frame **10** may be made up of a plurality of side members **16**, four such side members being shown in the drawings. These side members are shown as having a width substantially greater than their thickness, but the particular shape of the side members may vary somewhat as long as they form a strong and durable frame. The upper outer edge of each of the side members **16** has been beveled or chamfered as at **17** to form the patching material into an edge **18** which can be easily sewn with a needle indicated at **19**.

A lower frame indicated at **20** may be covered with a material to be patched, such as **22**, which has an irregular tear or hole **24**. The tear or hole **24** should be generally aligned with an aperture **26** in the lower frame **20**.

In the preferred form the lower frame may be constructed of four side members, indicated at **28**. The lower side members **28** are substantially identical to upper side members **16** with their width being somewhat greater than their thickness. The outer lower edge of each of the side members **28** has been beveled or chamfered as at **30** to form the material to be patched into an edge **31** which is adjacent the edge **18** and can easily be sewn thereto by the needle **19**.

In FIGURE 2 the upper and lower frames are shown in working position, with their outer edges and central apertures generally aligned, the frames being held firmly together by a pair of clips **32**. The excess patching material covering the upper frame is drawn tightly together

and then secured into a knot so that the patching material will be tensioned on the upper frame, the material then being allowed to hang through the generally aligned apertures **26** and **14**. The material to be patched is draped over the lower frame and the tear or hole to be patched generally aligned with the central aperture **26**, the remaining material hanging along the outside edges of the lower frame.

In FIGURES 3, 4 and 5, a modification of the invention is shown. The lower frame **34** of FIGURE 3 has the same general shape as described earlier, the width of the side members being substantially greater than the thickness, and the outer edge being chamfered as at **36**. The width of the lower frame side members however, instead of being equal to the width of the upper frame side members, as in FIGURE 2 is somewhat smaller. In FIGURE 4, the inside edge of the upper side members **38** have a row of teeth **40** formed thereon. The teeth project outwardly and downwardly as shown in FIGURE 5 and are adapted to secure the patching material to the upper frame whereby the material can be held in a tensioned position on the frame.

In both FIGURES 3 and 4, the frames are shown with a small aperture **39** near the corner. There may be one of these apertures at each corner of the frame, or they may be spaced at any desired position along the periphery of the frames. When the two frames are mounted, one upon the other, the apertures **39** will be aligned so that a suitable fastening means or clip, not shown in the drawings, may be inserted through the apertures to hold the frames firmly together.

In FIGURE 3, the lower frame upper surface or face **41**, which is adapted to abut the upper frame, is knurled or roughened to form a gripping surface for the material. In my invention, I may knurl or roughen the abutting faces of one frame or both frames. It is also possible to knurl the frame faces such that the raised portions of the faces would form a tongue and groove arrangement which would securely hold the frames from slipping.

In FIGURE 6, a clip **32** for use in my patching frame is shown. In the preferred form the clip may be made of a material having a spring-like or yielding quality. The clip **32** may consist of two parallel bars, a lower bar **42**, and an upper bar **44** somewhat shorter than the lower bar. Each of the parallel bars having their ends outwardly flared as at **46**, so that the clip may be easily slipped on to the frames. The two parallel bars are joined together by a U-shaped member **45** which completes the clip and forms it into an integral unit.

The use, operation and function of my invention is as follows:

A patching device such as described herein is extremely useful in repairing rips, tears or holes in garments or other materials. The device consists of a pair of substantially identical frames which can be made of wood, plastic or any other suitable material. The frames can be purchased in a variety of sizes depending upon the type of work they will be used for.

When using the device, a suitable patching material is first draped over the top frame. The patching material is gathered in beneath the frame and pulled tightly until it is tensioned on the frame. The material is then secured into a knot underneath the frame so that the material will stay in its tensioned position. The material to be patched is then draped over the second or bottom frame such that the tear or rip is generally aligned with the aperture **26** in the bottom frame. The tear or rip is trimmed until it is generally the same size as the aperture in the bottom frame. Next the top frame is placed upon the bottom frame and generally aligned with it, the excess patching material and securing knot being allowed to fall through the generally aligned apertures in the two

frames. One or more clips are then slid onto the device so as to hold the frames tightly together, while a suitable needle, such as 19, is used to sew the patching material to the material to be patched.

The outside upper edge of the top frame and the outside lower edge of the bottom frame have both been beveled so that the materials draped over the frames form a pair of adjacent edges. These edges provide a smooth, clearly defined line for the tailor or whoever might be using the device to follow while sewing the patch.

After one side or one section of the patch has been sewed, the clips can be removed and placed in a new position of the frames so that a new edge can be sewed.

I have knurled or roughened one or both faces of the frames of my patching device so that these faces may form a gripping surface to firmly hold both the patching material and the material to be patched. In particular, I have found that when using such materials as nylon, which is very thin and very slippery, gripping surfaces, such as I have described, prove extremely helpful. It is possible to knurl the faces so that there are alternately, projections and indentations, the projections and indentations of the opposite frame faces forming a tongue and groove arrangement.

Instead of using the clip described above I can place apertures near the outer periphery of the frames, as shown in FIGURES 3 and 4, which apertures can receive a suitable fastening means. When the frames are in seating relation and ready for the patch, these apertures will be aligned with each other.

In FIGURES 3, 4, and 5, a modification of the invention is shown which is particularly adaptable for use with small patching materials, where there is not enough material to be gathered into a knot underneath the upper frame. Therefore, the upper frame has a series of inwardly depending teeth which are adapted to hook into the patching material and tension it on the upper frame. The side members on this frame are slightly wider than the side members of the bottom frame so that the depending teeth will extend inside the bottom frame and allow the adjacent sides of the frames to seat flush upon each other.

After the patching material has been so tensioned on the top frame, the patch is completed in the manner described above.

The drawings and specification should be taken as broadly diagrammatic and illustrative of the invention. For example, the frames have been shown with four side members, however, a pair of frames with three or five side members would also be satisfactory as would a frame that was circular or elliptical in shape. I have also found it desirable to make the shape of the frame correspond to a particular season of the year, for example, a heart or a Christmas tree. Although the clip has been shown as having two generally parallel bars, one being shorter than the other, the invention is not limited to a clip of this particular shape as there are many other designs for clips which would also work satisfactorily. For example, a clip with a pin and socket would work satisfactorily with the apertures 39.

Also of importance is the fact that after a patch has been completed using my device, the excess material from both the fabric patched and the patching material may be trimmed away leaving a patch having a double thickness of material for only a minute area around the seam.

As there are many modifications, alterations, and substitutions possible without departing from the scope of the invention, I wish only to be limited by the following claims.

I claim:

1. A patching device suitable for use in patching garments or the like including a pair of generally flat frames, each of said frames having the same outer dimensions and a generally central aperture, said frames being seated, one upon the other, such that the outer edges and central apertures are generally aligned, means for securing said frames together, one of said frames being adapted to be covered by material to be patched such that the area to be patched is generally aligned with said aperture, the other of said frames being adapted to be covered by patching material, means for tensioning said patching material on said frame, each of said frames having beveled outer edges whereby when said frames are seated, one upon the other, and aligned said beveled edges define a single outer circumferential sewing line.

2. The structure of claim 1 wherein the means for tensioning said patching material includes a plurality of teeth projecting from said frame adapted to have the patching material placed thereon and adapted to pierce said patching material, said teeth being generally parallel to said frame and projecting inwardly towards said aperture.

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