

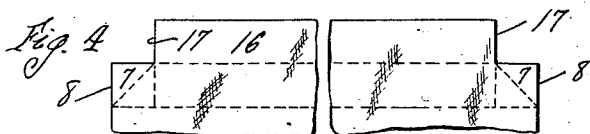
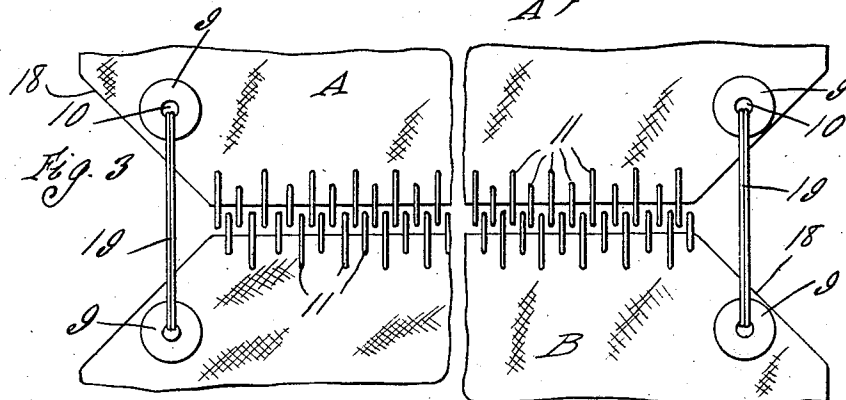
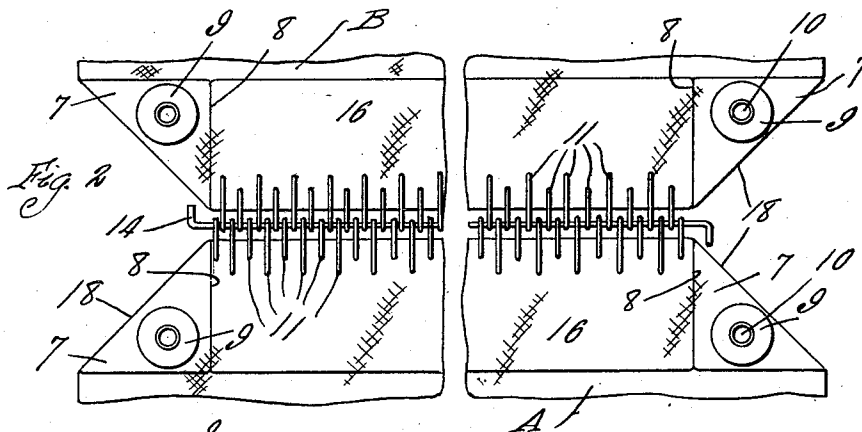
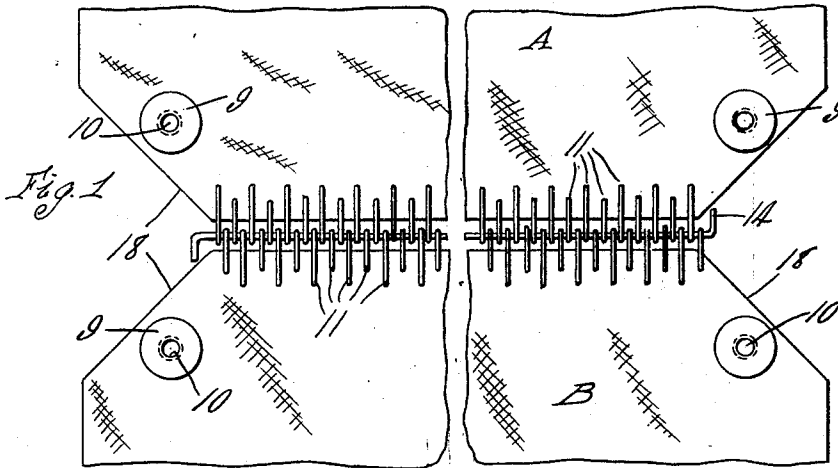
Jan. 12, 1932.

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1,841,303

CONNECTION FOR THE ENDS OF WEBS

Filed March 6, 1931



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CONNECTION FOR THE ENDS OF WEBS

Application filed March 6, 1931. Serial No. 520,745.

This invention relates to connections or means for securing together the two ends of a web, such as an apron, belt, or the like.

The objects of this invention are to provide means of improved construction, whereby the two ends of a web may be connected, so as to avoid damage to the edges of the connection by the flanges or other guide or guard means which hold the travelling belt or apron in its correct operative position; also to provide an apron or belt with means auxiliary to the regular connection between the ends, for making a temporary or emergency fastening for connecting the ends of the web; also to provide a method of forming an improved connection between two web ends; also to improve the construction of apron connections in other respects hereinafter specified.

In the accompanying drawings:

Fig. 1 represents a fragmentary face view of the ends of a web connected in accordance with my invention;

Fig. 2 is a similar view of the opposite or reverse face of the web;

Fig. 3 is a similar view showing how a temporary or emergency connection can be made between the ends of the web;

Fig. 4 is a face view, on a reduced scale, of an end of a web before folding the same.

A represents one end of a web, and B represents either the other end of the same web or an end of another web. This invention pertains particularly to securing the ends of travelling webs, such as aprons, for laundry ironing machines or power transmission conveyor belts, which are generally made of canvas or woven fabric.

In constructions as heretofore employed for connecting the ends of such webs, the connections ordinarily extended to the side edges of the web, and consequently, when an edge of the web rubbed against flanges or other guide devices for maintaining the apron or belt in correct operative position, the ends of the connecting means would at times catch on such flanges or guards, resulting in the ripping or tearing of the connecting means and consequent ravelling of the apron or belt at the edges. This ripping would soon extend farther crosswise of the

web until the same became useless, and the ravelling would form wads of fabric which would interfere with the proper functioning of the web.

In accordance with my invention, the corner portions 7 of the ends of the web are folded back on the web at an angle of approximately 45° to the length of the web. In webs of this kind, the sides of the web are usually selvage edges and the ends of the web, which are to be secured together, are cut edges, and consequently, are apt to ravel. By folding the corner portions over as described, they have their cut edges 8 arranged at a distance from the side edges of the web, where they are not exposed to contact with the usual guides or flanges, which cooperate with the sides of the web to keep the web in its operative position. These corner portions are secured in their folded positions by any suitable means. Preferably, grommets 9 are employed for this purpose, the relatively thin metal heads or disks of which lie in close contact with the opposite faces of the web. These grommets, in the construction shown, have holes or apertures 10 therein.

The securing together of the ends of the web may be effected by any suitable securing device or lacing. In the particular construction shown, a well-known form of lacing is employed, including the usual metal or wire loops 11, the outer ends of which are pointed and bent over to form hooks which are driven into the web from both faces thereof. The loop portions of these belt hooks of each web end are all in alinement, and by arranging the two web ends so that the loops of one web end lie between the loops of the other web ends, all these loops can be connected by means of a wire or rod 14 extending through all of the loops of the two web ends, thus forming a pivotal connection between the belt hooks secured to the two ends of the belt. This fastening for the ends of the web extends only to the folded corner portions 7 and the connecting rods 14 terminate at considerable distances from the edges of the web, and are, therefore, not apt to come into contact with guides or flanges for keeping the

web in its desired position. The ends of these wires or rods may be bent over as shown to keep the connecting members 14 from becoming disengaged from the loops of the fastening members 11. Any other means for connecting together the intermediate portions of the end of the web may, of course, be used in place of that shown.

In order to make a secure connection between the fastening devices and the web, the belt hooks 11 are preferably fastened to a doubled-over portion of the web, and for this purpose the web ends may be cut as shown in Fig. 4, thus cutting away substantially square portions at opposite sides of the end of the web and leaving a projection 16 in the intermediate portion of each web end to be connected, and this end flap or extension 16 is then folded backwardly against a face of the web. Preferably, this end extension or flap 16 is folded against the same face of the web as are the corner portions 7 and the edges 17 of the extension 16 will, therefore, lie in substantially abutting relation to the edges 8 of the corner portions 7. This arrangement results in a double thickness of the web at the end portions thereof, and avoids overlapping of the extension 16 with the corner portions 7 which would form an excessive thickness of material at the overlapped portions. The belt fastening devices 11 can, consequently, be secured through two thicknesses of web.

The use of grommets for securing the corners of the web in place is desirable, since when secured in place, the opposite faces of the grommets lie closely to the surfaces of the web and the edges are not sharp so that when the web is used as an apron in an ironing machine, these grommets have no tendency to cut the work which is being ironed. The grommets have the further advantage that they can be used to form a temporary or emergency connection between two web ends, particularly, if the regular connection between these ends is damaged. In order to form a temporary connection of this kind, two pieces of wire or cable 19 may be threaded through the eyes of the grommets to form a connection, as shown in Fig. 3. A connection of this kind, for example, may be found to be very useful in placing a new apron on an ironing machine to replace the worn out one, in which one end of the new apron is connected by means of the wires or cables 19 to an old apron, so that the new apron may be drawn through the ironing machine by the operation of the machine. This emergency connection may, of course, also be used when for any reason the other connection becomes damaged or inoperative.

By means of the construction described, all parts of the ends of the web are folded over so that there is no tendency of the edge of the web to ravel. The recesses in the sides

of the web, formed by folding over the corner portions, also terminate in folded-over edges 18 of the corner portions of the web, and consequently, as these folded-over portions contact with guides or flanges for guiding the web in its travel, these folded-over portions offer a high resistance to wear. By locating the ends of the connecting rods or wires 14 well within the recesses formed by folding the corners of the web, these connecting members are guarded against damage resulting from contact with and rubbing against flanges or other means for guiding the traveling web.

I claim as my invention:

1. A web having a cut end having the corners at said end folded inwardly against the web at an angle to the longitudinal end and to the edges of the web, so that the cut edges of the corners lie at a distance from the edges of the web, and connecting means secured to the end of the web between said folded over corners and terminating at a distance from the edges of the web and adapted for connection to another web end.

2. A web having a cut end having the corners at said end folded inwardly against the web at an angle to the longitudinal end and to the edges of the web, so that the cut edges of the corners lie at a distance from the edges of the web, means for securing said corners in their folded positions, and connecting means secured to the end of the web between said folded over corners and terminating at a distance from the edges of the web and adapted for connection to another web end.

3. A web having a cut end having the corners at said end folded inwardly against the web at an angle to the longitudinal end and to the edges of the web, so that the cut edges of the corners lie at a distance from the edges of the web, grommets for securing said corners in their folded positions and having apertures extending through said web and folded over corners, and connecting means secured to the end of the web between said folded over corners and terminating at a distance from the edges of the web and adapted for connection to another web end.

4. A web having an end, the edge portions of the end being cut away, leaving an intermediate portion, which is folded back on said web, said edge portions of the end of the web being cut out approximately to the line of fold of the intermediate portion, the remaining corners of the web being folded backward against said web along lines of fold extending at an angle to the longitudinal edges and to the line of fold of said intermediate portion of said end, means for securing said corners in their folded positions, and connecting means secured to the intermediate folded portion of said web end and adapted for connection to another web end.

5. A web having an end, the edge portions

of the end being cut away, leaving an intermediate portion, which is folded back on said web, said edge portions of the end of the web being cut out approximately to the line of fold of the intermediate portion the remaining corners of the web being folded backward against said web along lines of fold extending at an angle to the longitudinal edges and to the line of fold of said intermediate portion of said end, fastening devices for securing said corners in their folded positions and including parts extending through said web and said corners, and connecting means secured to the intermediate folded portion of said web end and adapted for connection to another web end.

6. A connection for two web ends, including means secured to the intermediate portion of each web end for forming a connection between said intermediate portions, the corners of said web ends beyond said intermediate portions being folded backwardly against the web along lines of fold extending at an angle to the longitudinal edges of the web and to the web end, the two adjacent folded corner portions of two adjoining web ends forming a V-shaped recess in the side of the web at the connection and presenting folded edges to the wear to which said corners are subjected.

7. A connection between two web ends, including corners of the webs folded along lines of fold inclined to the side edges and the end of the web, means for securing the corners in folded relation to the web, and a connection between the intermediate portions of said web ends between said lines of fold.

8. A connection between two web ends, including corners of the webs folded along lines of fold inclined to the side edges and the end of the web, means for securing the corners in folded relation to the web, and including portions by means of which temporary connections between said web ends can be made, and connecting means secured to those portions of each web end lying between said lines of fold, for connecting said web ends.

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