March 4, 1930. T. J. KELLY 1,749,734

NETTED CORD FABRIC BAG

Filed March 28, 1928

Fig. 1

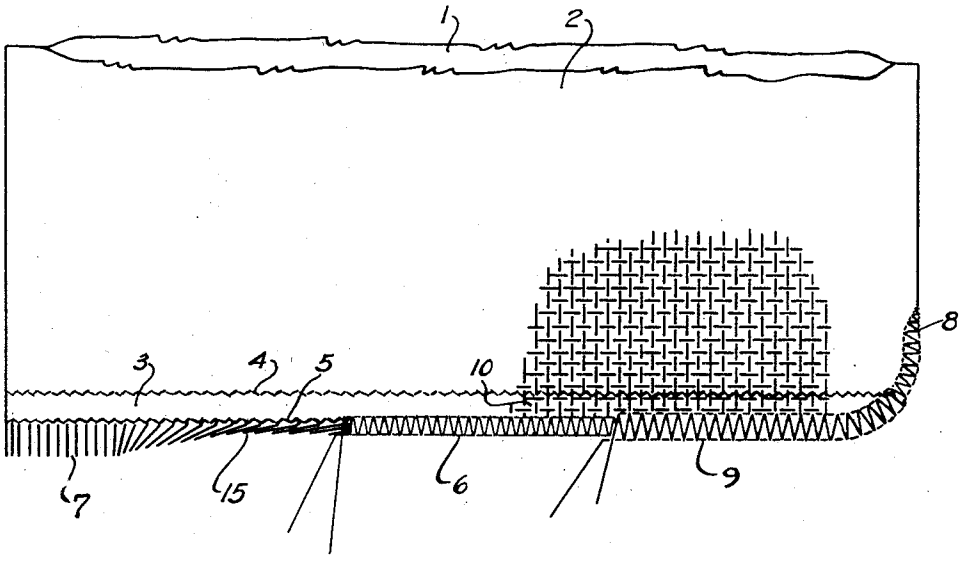
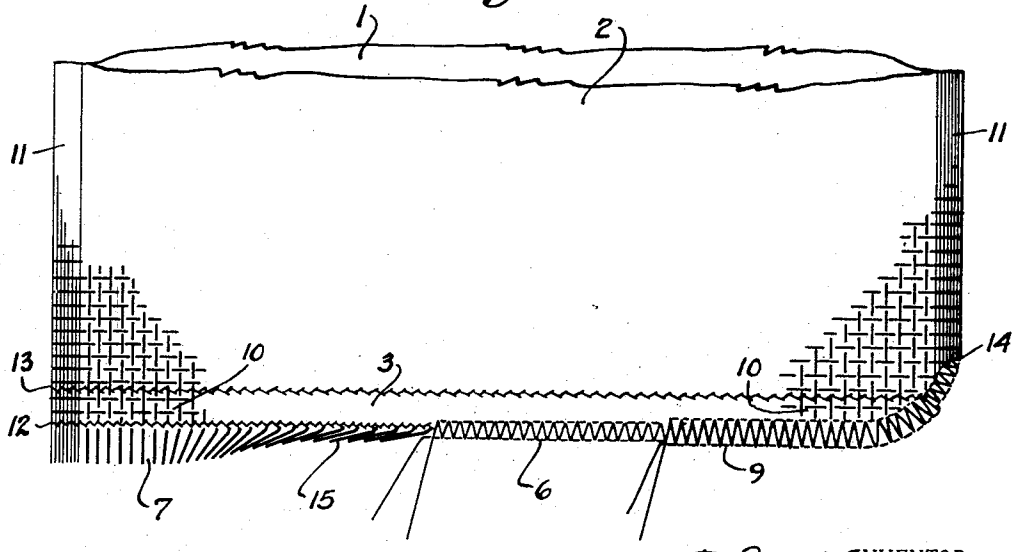


Fig. 2



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NETTED-CORD-FABRIC BAG

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The invention relates to a novel and useful bag of tubular netted cord fabric, such as laundry bags and the like.

Objects and advantages of the invention will be set forth in part hereinafter, and in part will be obvious herefrom or may be learned by practicing the invention; the steps and instrumentalities by which the same are effected and realized being set forth in the appended claims.

The invention consists in the novel steps, articles, arrangements and improvements herein illustrated and described.

The accompanying drawings, herein referred to and constituting a part hereof, are diagrammatic, and illustrate one embodiment of a bag constructed in accordance with the invention; said drawings together with the description serving to illustrate the principles of the invention and the present preferred manner of practicing the same.

Of the drawings:

Fig. 1 is a diagrammatic view of the invention as applied to "leno" fabric; and

Fig. 2 is a similar view showing the invention applied to the fabric of Patent No. 1,576,191.

Heretofore, laundry bags made of tubular netted cord fabric, have been made by folding back the two superposed edges of the fabric upon the tube, and stitching this two-ply folded edge to the tube, to constitute the closed bottom of the bag. This folded-over bottom seam is very wasteful of the material, as it frequently constitutes from 10 to 15 per cent of the entire material in the bag, thereby causing a corresponding waste of material, and a useless increase in the weight of the bag relatively to its capacity. A seam of this kind has not only the sidewise projection of the folded over material, but frequently the seam extends beyond the side edges of the bag. These projections and rough and uneven ends frequently cause trouble by catching on the movable parts of the washing machines. These ends also are likely to unravel or to become loose at the seam, as they are not well secured, and frequently holes are caused in the bottom corners of the bag. Furthermore, with this form of bag bottom, it is practically impossible to keep the folded over bottom edges even while sewing them together in the doubled over seam. Due to the looseness of mesh of the fabric the material tends to creep at various points, thereby causing the edges to lie unevenly and as a result the bottom is frequently uneven and weak in various places, and these weaker places are apt to give way under strain, such as a load of wet clothing, the less securely sewn portions often pulling out from the seam.

The present invention is directed primarily to providing a tubular netted cord bag having an unusually strong and secure closed bottom edge, which is neat and compact, and in which no material is wasted in forming a folded edge. Furthermore, the edge is sewn in such manner that the loose ends of the cords of both the superposed plies of the tubular material are intertwined and folded down into a single dense and compact edge within an over-cast seam, thereby both strongly uniting both plies of the material and also forming a strong and dense reinforcement for the bottom edge, and the seams are so interrelated as to form a permanently locked construction.

In carrying out the method of my invention, I employ woven tubular netted cord fabric, one such fabric being the well-known "leno" fabric, and another the fin-edge fabric described and claimed in United States Patent No. 1,576,191, dated March 9, 1926; although in its broader features the invention is applicable to other kinds of tubular netted cord fabric.

In cutting the tubular netted material into bag lengths, it is preferably stretched tight on a pronged rack or bed, the material being stretched snugly and evenly over the prongs and thereby held firmly in position. While so firmly held, the material is cut across by a traveling knife, whereby an even and clean transverse cut of the two plies 1 and 2 of the tubular material is effected, and any creeping of the fabric during the cutting is prevented.

In closing the cut bottoms of the bags when made of "leno" fabric, these evenly cut edges

of the bag are superposed, as shown at 3, and are sewn or basted together by one or two lines of flat stitching, preferably two parallel lines 4 and 5 spaced apart about a half-inch, and extending from one side edge to the other of the tubular material, the material being held firmly by the operator and fed through the machine to secure an even sewing along an undistorted edge of the superposed fabric as cut on the pronged table. This flat stitching holds the material firmly and symmetrically together preparatory to the subsequent steps to be taken.

The basted edge of the material is now over-cast, the over-cast seam 6 as it is made causing the loose cord ends 7 of both of the superposed plies of the fabric to be intertwined and folded down together very densely and compactly within and inclosed by the over-cast seam, as shown at 15, thereby forming a strong, dense and rounded bottom edge in which the wrap cord ends, projecting beyond the filler threads and not secured thereby, are firmly held in overlapping relation by the overcast stitching. This seam preferably takes in also the outer line 5 of basting or flat stitching. The over-cast seam is also preferably begun at a point a short distance back along the side edge of the tubular material, as shown at 8, and at its termination is likewise preferably turned up and run along the opposite side edge of the tube for a short distance. This serves to securely lock the ends of the basting or flat stitching within the over-casting, and also produces a rounded, dense and compact reinforced bottom corner at either side of the bag, thereby avoiding loose seams, sharp corners and corner projections of the material. As a further reinforcement, I prefer to run a second over-cast seam 9 from a point a little back on the side edge, this second over-cast seam inclosing, interlocking with and sewing through the first and underneath overcast seam and through the inclosed, intertwined, turned down and compacted cord ends of both plies of the fabric. This provides an exceedingly dense, compact, rounded, and very strong seam without any folding over whatever of the side edge, without any projections whatever. When the bag is loaded and under strain, the inner line of basting or flat stitching 4, when used, tends to move down the intervening filler cords toward the seam, as at 10, and to compact and strengthen the fabric just within and at the edge of the overcast seam, and further tends to prevent any tearing or pulling out of any particular cord.

When my invention is applied to producing bags from the fin-edge material of Patent No. 1,576,191, that is, using the tubular material with the side edge fins 11, but without the transverse compact fin portion, the general method is similar to that already described, excepting that the flat stitching is begun and terminated at the outer edge of the dense side fins, as shown at 12, (and at 13, when the double stitching is used), and the over stitching likewise begins a short distance back on one dense side edge fin, as shown at 14, and is similarly terminated a short distance upward on the outer edge of the opposite side fin.

When the tubular netted material of said Patent No. 1,576,191 is used with the transverse fin extending across between the side edge fins, the flat stitching is unnecessary and may be dispensed with.

The open top end of the bag is finished in any desired manner, as for instance by a double overcast seam.

By my invention, the excess weight caused by the doubled over bottom seam of the old style bags is eliminated, thus reducing the cost of material, and the overhanging edges of the old bottoms are done away with by turning up the bottom overcasting along the sides. Danger of unravelling and of catching in machinery is thus greatly reduced. The strength of the bag is greatly increased, since the closure is very strong and even and there is little danger of the bottom breaking out, as the fabric has been prevented from creeping during the overcasting. Furthermore, the running up of the overcasting along the side edges, for a short distance, eliminates a point of weakness which existed in the old form at the junctions of the sides and bottom, and also eliminates the weak and troublesome bottom corners.

The net is held in shape by this new bottom, since it is perfectly even and straight throughout and the turned up overcast edges prevent distortion at these points.

The overcast bottom serves to make fast the basting. The basting ultimately draws down into the bottom, thereby strengthening the closure.

Above all, a very neat, strong, dense, compact and stable bottom edge has been provided without wasting any of the fabric for folds and seams and at the same time effecting an intertwining of the cord ends of the two superposed plies of the tubular fabric.

The invention in its broader aspects is not limited to the specific article, steps and interrelations of steps shown and described but departures may be made therefrom within the scope of the accompanying claims without departing from the principles of the invention and without sacrificing its chief advantages.

What I claim is:—

1. A tubular netted laundry bag having its closed end overcast, a line of stitching spaced from the overcast closure and the loose cord ends turned down into a dense compact edge within said overcast stitching.

2. A tubular netted laundry bag having

its closed end overcast and the loose cord ends at the end of the netted fabric turned down in overlapping relation and enclosed within the overcast stitching, said overcast stitching being continued along the side edges of the tube to provide rounded and reinforced corners.

3. A tubular netted laundry bag having a closed end, the closed end being overcast, a line of flat stitching spaced from the overcast closure with a plurality of filler threads intermediate the flat and overcast stitchings for compacting the filler cords between said stitchings while the bag is in use.

4. A netted laundry bag made from transversely cut tubular material having warp cord ends of substantial length not secured by the filler threads, the ends of the warp cord ends of the two superposed, transversely cut plies of the fabric being turned down, intertwined and held in overlapping relation by overcast stitching to form a dense, compact edge closing the end of the bag.

In testimony whereof, I have signed my name to this specification.

TIMOTHY J. KELLY.