METHOD OF WEAVING TEXTILE CONTAINERS

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1 Claim. (Cl. 28—72)

1. The present invention relates to a method of 
weaving textile containers, such as bags, pockets 
and sacks of seamless construction and the 
resultant article which is of uniform appearance 
and strength.

I am, of course, aware that the broad idea of 
weaving a bag or pocket in such a manner as to 
eliminate the use of seams is old. However, this 
invention possesses certain novel features not 
heretofore employed.

Broadly, the invention comprises weaving a 
multiple-façade fabric to form the walls defining 
the container, weaving a portion along each edge 
of the container of a single thickness, providing 
empty dents longitudinally of the fabric at the 
locations where the fabric is to be severed, 
cutting the fabric along these predetermined lines 
and thereafter severing the fabric transversely 
with pinking shears or blades to form an opening 
at the upper end of the container and leave the 
portion of single thickness along the bottom 
thereof.

The invention may be employed for making 
containers in one operation wherein the 
containers are of uniform width, and a particularly 
important aspect is that a plurality of containers 
of varying widths may be woven in one operation 
and each container is separated from the adjacent 
container by a split portion which will form 
separate containers after the containers are 
severed along longitudinally and transversely 
extending lines. In situations where it is desired 
to have the containers of different widths forming 
part of an integral structure such as tool kits 
and the like, it is unnecessary to employ a split 
portion. With respect to this latter situation, if 
more than one tool kit is being woven at the same 
time, it is, of course, necessary to leave a portion 
separating the respective kits longitudinally and 
the line of cutting will be indicated by dents at 
the midpoints of the selvage.

The container after being woven and cut as 
above described may then be turned inside out, 
disclosing no margins, and the article is of 
uniform appearance and of double strength along the 
sides and lower edge of the container.

Accordingly, an important object of the present 
invention is to provide a method of weaving in 
a single operation a textile fabric in such a manner 
as to provide a plurality of containers of varying 
widths without seams along the edges of the 
containers.

Another object of the present invention is to 
provide a method of weaving containers from a 
textile fabric, wherein the longitudinal edges of 
the fabric are so formed as to provide easily visible 
areas for designating the points where the fabric 
is to be cut to provide the finished article.

Yet another object of the present invention is 
to provide a method of weaving a textile fabric for 
forming one or more containers, wherein pinking 
shars are employed to sever the container transversely, 
thereby preventing raveling of the 
threads of the fabric.

And still another object of the invention is to 
provide a method of weaving bags of the above 
mentioned character which may be performed 
with a minimum of labor and at a relatively 
inexpensive cost.

The invention and the various objects thereof 
may be more clearly comprehended from the 
following drawings and specification.

In the drawings, wherein like characters denote 
corresponding parts in the several views:

Figure 1 is a plan view of a fabric manufactured 
in accordance with my inventive concept for pro-
ducing a plurality of containers of uniform length 
but of different widths.

Figure 2 is a sectional view taken along the line 
2—2 of Figure 1, looking in the direction of the 
arrows.

Figure 3 is a view generally similar to Figure 1; 
but, illustrating the invention used in conjunction 
with containers of equal width.

Figure 4 is an elevational view of a container 
such as a bag or pocket made in accordance with 
the present invention.

Figure 5 is a view similar to Figure 4, illustrating 
the container turned inside out, with the 
margins thereof being within the walls of the 
container.

It is to be understood that the number of con-
tainers which may be woven in a seamless fash-
on in a single operation in accordance with the 
present invention depends upon the width of the 
fabric that can be woven in the width of the loom 
used and on the particular width of the final 
article desired. Hence, the invention is not to be 
limited to the specific number of containers illus-
trated in the drawings.

With reference to Figure 1 of the drawing, 
wherein I have illustrated the weaving in a single 
operation of a plurality of individual containers 
such as bags, the numeral 10 denotes a plurality 
of areas of equal length but of varying width and 
each area 10 is separated from the adjacent area 
along its longitudinal and transverse edges by 
portions or margins 11 and 11A. The areas 10 are 
weaved of double thickness, thus providing walls 
12 and 18, whereas the portions 11 and 11A are
of a single thickness, as clearly indicated in Figure 2. The portions must be of such width after
the cutting operation as to provide sufficient strength along the longitudinal and transverse edges of the container. Many weaves may be
employed for the areas 10 and a plain weave is used for the portions 11 and 11A. For example, if
each area 10 includes forty warp and forty
felling threads per inch, then the portions 11 and 11A would be made up of eighty warp and eighty
felling threads per inch.

As hereinabove mentioned, an important feature
of the present invention is the provision during
the weaving process of points along the longitudinal edges of the fabric indicating clearly the
lines along which the fabric should be cut to pro-
vide longitudinal edges of the container. This
is accomplished by eliminating certain warp threads
at predetermined intervals and these points form
empty dents. As shown in Figure 1, a dent 14 in-
dicates the cutting line for separating the con-
tainers along their longitudinal edges. The cut-
ting may be accomplished on the loom by dispos-
ing a cutting blade on the loom at the locations
designated by the dents 14.

The fabric is severed transversely along a line
parallel to the portion 11A defining the bot-
tom of each container, and this location is one
of the salient features of my contribution. In
other words, the cut is made so as to provide an
opening for the upper end of the area 10 and yet
leave the portion 11A along the bottom for
strengthening purposes.

More specifically, the top and bottom of the
finished container are formed by cutting the
fabric along the line A—A and the cutting opera-
tion is performed with pinching shears or a pin-
kling blade. The use of such shears will positively
prevent raveling of the edge and, as a conse-
quence, overcome the usual practice of sewing
the edge which, of course, requires additional labor
with the attendant expense. However, by making
the necessary severances with shears of this type,
no additional steps are required which, of course,
is highly desirable from the economic viewpoint.
As above indicated, the fabric is cut along the
line B—B, thereby defining the longitudinal edges
of the container, and in view of the fact that these
dges are formed of a plain weave, the filling
threads at the edges tend to open or ravel, there-
fore preventing the tightly woven warp threads from
slipping, etc. The container now has the con-
figuration shown in Figure 4 and the upper end
of the container is open and formed with pinched
dges 15, whereby there is little or no unraveling
of the upper open end, and the portion 11A of
single thickness is along the lower edge. The
container may then be turned inside out, thus
concealing the portion and providing a strong attrac-
tive container.

While the embodiment shown in Figure 1 illus-
states the weaving of fabric for forming a final
product having a plurality of interconnected
pockets such as used for tool kits, carpenters'
aprons or the like, it is, of course, to be under-
stood that individual pockets or containers may
be fabricated by severing each area 10 from the
adjacent area through the portion 11 along lines
defined by the dents 14 extending longitudinally
of the fabric.

The method of weaving the pockets illustrated
in Figure 3 is substantially the same as that shown
in Figure 1, with the exception that pockets of
uniform width are being made. Hence, it is not
seen necessary to describe in detail this form,
and the same reference characters are applied
with the exception that they are primed.

The longitudinal cutting operation may be
performed either on or off the loom and the trans-
verse cutting with the pinching shears or pinking
shear is accomplished off the loom. These latter
cutting tools may be power or hand operated, but
I have found that the use of the power operated
shear blade is more desirable, due to the speed
with which the cutting may be accomplished.

From the foregoing description, it is thought
apparent that by the present invention it is pos-
sible in one operation to weave a container of
the seamless type. By weaving the empty dents
at predetermined positions longitudinally, the
operator may easily and quickly sever the fabric with
a cutting blade and by severing the fabric trans-
versely with pinching shears, it is unnecessary to
sew the finished article along the lines of sever-
ance. The container is uniform in appearance
and possesses great strength, and by turning the
container inside out, the selvages will be con-
cealed.

I claim:

A method of making textile fabric containers
comprising weaving fabric areas having varying
widths of double thickness, joining the areas by
a portion of single thickness along each longi-
tudinal and transverse edge of the areas, forming
an indicating line by omitting warp threads in
the desired longitudinal portions of single thick-
ness, severing the fabric longitudinally along the
indicating line, and cutting a pinched edge in the
fabric transversely along a line parallel to the
transverse portion of single thickness to provide
an open upper end and a lower end having a por-
tion of single thickness.

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file of this patent:

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