Dear Handweaver:

Are you a subscriber to LOOM MUSIC? If not, may we bring a few facts about our bulletin to your attention?

1. LOOM MUSIC is issued monthly, except July and August, and each issue describes in detail, in clear and simple language, articles for the craftsman to weave. January, 1944, marked the first appearance of LOOM MUSIC, and since that date the issues have covered a great variety of subjects. Photographs appear in each issue, right along with the detailed instructions.

2. The year 1963 will see ten timely issues, selling for $5.00 per year. A sample copy may be had for fifty cents, this cost being credited against a subsequent subscription, if you wish to obtain the balance of the year's issue. Send orders to Calgary, please.

3. It has become necessary to keep available our back copies from 1944, since so many of our subscribers have found their copies of such value that they order complete sets. Any complete year sells for $3.50, a price which is possible only because they are reprints.

4. LOOM MUSIC has no connection with any firm engaged in supplying weaving materials, looms, etc., and maintains an open mind on all subjects devoted to weaving.

5. Our format continues in the same manner, year after year, because of the repeated requests to make no change except color photographs. These, alas, just cannot be, because of cost.

6. The editors are: Ethel Henderson, Graduate of Shuttle Craft Guild; President, Guild of Canadian Weavers, 1947-1955; and Mary Sandin, Master Craftsman, Boston Society of Arts & Crafts; Master Weaver, Guild of Canadian Weavers. Both have had a long association with the Banff School of Fine Arts, and both studied with Ulla Cyrus, in Borås, Sweden.

To those who have been our faithful supporters these many years, we give grateful thanks. To those who meet us for the first time, we give a hearty welcome. May we number you on our 1963 subscription list?

We greet you with our own special sign-off,

GOOD WEAVING:

Mary Sandin and Ethel Henderson
LOOM MUSIC

Volume XX, Number 1

January, 1963

1944 1945 1946 1947 1948
1949 1950 1951 1952 1953

1944-1962 Inclusive means that, with this issue, we begin our twentieth year of writing about Weaving and its allied train of subjects. One is tempted to look back over all these years -- all the good days, and the bad, we have spent in that time in the pursuit of knowledge. When we do, the good far outweighs the other. Therefore, we look forward to the future, and once again hope 1963 will present to us a preponderance of happy satisfactions, for all of us.

Now - Our annual issue of Table Settings

Our January issues throughout the years have presented many varieties of weaving, to be used as table settings. The roll call of these reads like any index in any comprehensive weaving text -- most of the loom controlled, embroidery, lace, and pick up techniques have been used at one time or another. We have developed strong personal leanings to the use of linen, with cotton as second best, but believe in experimental use of all our man made. We still think, though, that for time spent in weaving articles of linen and cotton, one gets the most in return in terms of beauty and durability.

To tempt you to weave, we offer again a variety of place pieces and larger cloths, with the accent on color and practical use, combined with quick and easy loom operation. We begin with some excellent twills.

TWILL CHECKS AND PLAIDS

We think one of the most familiar sights as one travels and patronizes small cafes the world over, is the red and white checked cloth. What could be more cheerful for a breakfast spread, either in a 36" square, runners, or mats? Towelling and curtains to match will create a gay ensemble.

Such a useful cloth needs a sturdy character, obtained by cotton of a 16/2 or 20/2 weight, for warp and weft, and close firm warp setting of 36 ends per inch, beaten to the same number of weft picks per inch: 2 ends per dent in a #18 reed. If a #18 reed is not available, you may use 3 ends per dent in a #12 reed, and if reed marks ensue, they will generally disappear after a few washings.

Design #1

Our sample has 4/5" squares, with an overcheck of grey, so the warp order will read:
30 ends red, 14 ends white, 2 ends grey, 14 ends white, and repeat, ending with red block.
The draft is twill \(123^4_{123^4}\) and woven in tabby throughout.

(You may obtain excellent colors and prices in many soft spun Canadian cottons from Curl Bros., 334 Lauder Ave., Toronto 10, Ont. A fine selection of offerings will be sent for \$1, of threads of many types. This \$1 will apply on your subsequent order. Curl will also make draperies of the Monk's Cloth type to your size and order, with less than a week's delivery promised.

(Charles E. Billard, 1579 St. Denis St., Montreal, Que., also carries all varieties of media, and we particularly like their Canadian linens: \$50\ for a sample card and price list. And, of course, Searle Gradn, in Winnipeg, Manitoba, too.)

Design #2

Our second is a gay peasant patio-summer-outdoors effect, still in 4/5" squares -- see photograph.

Warp and weft again are 20/2 or 16/2 cotton at 36 ends per inch; draft is twill, woven in tabby.

Warp order: 30 ends red, 14 ends white, 2 dark brown, 14 white,
30 bright blue, 14 white, 2 dark brown, 14 white,
30 bright green, 14 white, 2 brown, 14 white, ending with red block.

Weft order: 30 shots bright blue, 14 white, 2 brown, 14 white,
30 shots green, 14 white, 2 brown, 14 white,
30 shots yellow, " " "
30 shots red, " " "

Color effects where warp and weft colors cross:

1. red violet 7. red orange
2. solid blue 8. mostly blue
3. blue green 9. yellow green
4. dark green 10. bright red
5. blue green 11. dark purple
6. bright green 12. dark green

If the weave is not a 50-50 mesh, color values will change.

Design #3

This is a clever arrangement, utilizing "Simple Color and Weave effects". Here the background is white, with 5/8" squares crossed by color. This example illustrates what happens when we weave 2 dark, 2 light, in twoods, and get a "star" at crossings.

Warp setting is 36 ends per inch, using 20/2 or 16/2 cotton.

Draft is twill, woven in tabby weave, beaten for a 50-50 meshing.

Warp Order

23 ends white, 2 red, 2 white, 2 red, 2 white, 2 red
23 ends white, 2 blue, 2 white, 2 blue, 2 white, 2 blue
23 ends white, 2 green, 2 white, 2 green, 2 white, 2 green
23 ends white, 2 red, 2 white, 2 red, 2 white, 2 red
23 ends white, 2 yellow, 2 white, 2 yellow, 2 wh., 2 yellow, and repeat
Weft order and treadling: Same material and color order as warp, woven all tabby weave, 50-50 beat.

The color interplay that ensues is most interesting, and proves that in weaving color on color, we may take nothing for granted as an absolute rule: We see that

Where the yellow weft shots cross the other colors there is no special effect at all, just the normal \( \mathcal{X} \)

Where the red crosses the red, green, and blue, the stars appear \( \mathcal{X} \mathcal{X} \mathcal{X} \mathcal{X} \mathcal{X} \) a mixed color on green and blue.

Because of odd number of whites, which change the crossing order, star is also seen as \( \mathcal{X} \mathcal{X} \mathcal{X} \mathcal{X} \mathcal{X} \mathcal{X} \)

This phenomena gives an overcheck appearance to the yellow groupings, as sketched here:

Design #4, Linen, bleached and unbleached

We have had an interest in the textiles of pioneer days, and those who have seen old linens will remember that the twills were often employed. Much of our present table weaving has passed by these twills, but we want you to try one. This #4 is a Swedish arrangement, and we have not seen it used in just this manner elsewhere.

The warp may be linen, but could be cotton, 24/3 natural. For linen, the unbleached Canadian #14 warp spun is good, set at 32 ends per inch (2 per dent in a #16 reed); same setting for 24/3 nat.

(We are pleased to think that Canadian weavers are able to purchase linens right at home, so to speak. One of these is our "Quebec" linen, to be had in warp or weft-spun qualities, and in natural grey, or bleached, in 10/1 or 14/1, at not more than $2.30 per pound. See p.2, Billard's. In the U.S., linens from many suppliers, including Frederick J. Fawcett, 129 So. St., Boston 11, Mass.)

The draft

- omit last #1 on last repeat, then balance arrangement by adding the first 63-end group as at the beginning.

The tie-up is standard

Counterbalanced or falling shed loom

Rising shed, "jack", or table loom

harnesses

treadles
The Treadling: Weft is bleached #14 linen, beaten to a 50-50 mesh.

Treadle 1, 2, 3, 4, 3, 2, 9 times in all, which should weave the
diamond area square, end with treadle 1. (see photograph p.8
Treadle 4, 3, 2, 1, 5 times, to a square of straight twill,
 omission the final treadle 1
Treadle 1, 2, 3, 4, 5 times, to complete square of twill
Treadle 1, 2, 3, 4, 3, 2, and repeat as above, for the diamond area,
squared
Alternate these diamond and twill blocks throughout.

This cloth will require hemming only. We suggest warping
a width that will permit hems all around, 1" to 2" according to size.
This will give a handsome background without obstruction of design.

Design #5, Heavy Linen,
Huck and Twill

Still another, and a widely different textile, based on
the simple twill, comes when we use a many-plied linen twine --
salmon gilling twine or any of the fishing net sides which are usually
numbered by the ply: 3, 5, 6, 7, 8, etc. Because of the soft twist,
the plies flatten when washed and ironed, giving a rich appearance
and heavy weight on the table. It is too heavy for a cloth, but
luxurious in place pieces.

Our warp setting is 12 ends per inch, with a six- or seven-
ply giving the proper warp size.

If one does not have access to these heavy linens, an even
more interesting warp results by using three finer linens as one warp
end, e.g. 3 ends of 20/2 used as one; or 2 ends of 18/2 plus 1 end
of 10/2; or similar combinations of "left overs". Warp as one end.

The Draft

The tie-up is standard, as given on page 3, and treadlings given below
will refer to that tie-up.

To weave:

With fine linen weft, weave 1/4" tabby, for turn-under of hem.

With 6- or 7-ply linen, corresponding in size to warp, and beat-
ing to 11 ends per inch on the loom (for a 50-50 finished product):
Treadle 1, 2, 3, 4, 1, 2, 3 for underside of hem
Treadle 4, 3, 2, 1, and repeat 6 times in all, to square the twill
corner
Treadle 4, 1, 2, 3, 4, 3, 2, 1, and repeat, for the length of centre
desired (ours was 18" on loom), then
Treadle 4 once
Treadle 1, 2, 3, 4, and repeat 6 times in all, to match 1st end
Treadle 3, 2, 1, 4, 3, 2, 1 for underside of hem, then fine 1/4" for
turn-under.

It is well to remember these heavier mats, rather loosely
woven, tend to have a higher shrinkage, so be sure to allow for this.
To finish: Stitch twice on machine on each side of the cutting line between mats, before washing. Soak in warm soap suds, rinse well, but do not squeeze or wring, just drip out excess water. Roll in towel until damp only, iron until dry. Then cut apart and carefully hand hem.

(these heavy mats, photographed as #5, page 8, won honorable mention at the recent London, Ontario, exhibition)

Design #6, Turquoise Linen
Huck corners

Our mind now turns to a finer linen again, and the warp is a favorite of ours, 18/2 Irish linen from Searle Grain Co., Winnipeg, excellent for warp or weft, reasonably priced in pleasing colors. Our example used turquoise at 20 ends per inch.

On some place mats we like pattern interest held to the corners, and emphasized with an outlining of a heavy line. Working on paper, we place our lines and then fit a draft to suit. If we plan two or more variations on the same warp, we introduce our heavy outlining thread after the loom is set up, thus -

The introduced heavy thread is inserted into an already filled heddle, at the desired spot, pinned or tied down at the front of the loom, and weighted behind. If there are many of these added ends, we improvise a beam out of a heavy bar (or spaced in a spare reed), by tying all the ends evenly on it, rolling it up and holding the threads from unrolling by inserting a common pin where thread leaves the rolled up ends.

An example of our preliminary planning is sketched at the right:

We decided to use small spots of huck lace, so that we could either centre the interest by adding heavy ends through the lace spots, or to surround lace spots with added ends. We then plan for a 1-3/4" border at each side, then our corner and added line interest, and a tabby centre.

Turquoise 18/2 linen at 20 ends per inch, 13" wide, or 259 warp ends, single in the heddles, 2 per dent in a #10 reed.

Draft is adapted from Neher's Four-Harness Huck, B 1, p.14

Thread ends 1 to 39 as above 4 4 4 4, etc. 39 ends
huck band, ends 40 through 80 41 ends
centre, threaded as edge 99 ends
Huck band and edge, threaded as before 88 ends
259 warp ends
For our photographed mat, we used cotton boucle, turquoise, as the added ends. These were added along with the ends circled in the draft above, so that when woven they enclose the corner lace spots. i.e., with warp end #36, heddle #2; with ends 52 and 68, heddle #2 again; and with the 4th end of the centre, again heddle 2. Count the same ends in from the left for the other four inlay boucles.

The Tie-up is standard, as given on page 3, and treadlings given below refer to that tie-up.

Treadlings: use turquoise 18/2 or 25/2 linen throughout, except to line off the boucle as noted, and beat to 19 weft shots per inch on the loom, for the 50-50 finished mat.

With fine linen, treadle tabby weave, treadles 2 and 4 alt., for 1/4" for hem's turn under.

With turquoise, treadle tabby weave, 2 and 4 alt., for 2½", which will allow for a 3/4" hem and end tabby border to match side tabby borders, ending with treadle 2.

With turquoise boucle, 1 shot on treadle 4

With turquoise linen, 4 tabbies: 2, 4, 2, 4

With turquoise linen, treadle 1, 4, 2, 3, 2, 4, 1 (lace square

With turquoise linen, 4 tabbies: 4, 2, 4, 2

With turquoise boucle, 1 shot on treadle 4

repeat bracketed treadling twice more, then weave centre all tabby with linen, for desired length (ours 11"), then weave border treadlings in reverse for final end.

Design #7, Huck Corners

On our same turquoise set up, instead of adding boucle we added double linen warp ends, in heddle #3 of the lace area (the 9-end unit on the draft) -- giving 3 regular 18/2 warp ends in that heddle -- three lines in each side border.

These were treadled with turquoise linen as before, with a triple shot of weft thrown at the centre of the lace spot on tr.3. The mats, not photographed, were very excellent, perhaps a bit more reserved than #6, photographed on page 8.

We suggest the same set-up, with white or natural background, using strong contrasting color as added lines (e.g. black), or glitter, to good effect, with many variations possible on one warping.

We are sure that any one of these arrangements, together with much attention to details of beating, careful washing and finishing, will appeal on every count. A successful table textile depends on eye appeal for the first impression, and the "handle or feel" for the second, along with the sewing which can make or mar your weaving.

LINEN SOURCES

We must recommend two particular linens now offered for sale. The first is by Searle Grain Co., Winnipeg, in natural or
white, a splendid tow linen of about #5 size, which may be used as
weave and/or weft. (1600 yards per pound, white $2.10, natural
$1.85 per lb.) This is excellent set at about 16 to 18 ends per
inch and beaten 50-50, and takes to lace weaves with pleasure.

The second is also a coarse tow type linen, from Curl Bros.,
334 Lauder Ave., Toronto 10, Ont., called "spaced linen slub"
because it is thick and thin. This gives an excellent texture
when used as weft thread, $1.50 per lb., half bleached or boiled
(natural).

BACK COPIES

A word in closing. Remember all those years we inscribed
at the beginning of our issue? When we had to reprint 1944 and 1945
some years ago, we decided always to have enough printed to leave us
a surplus each month, and to sell them at the price of $3.50 per
year. These back copies are filled with all we have learned of
weaving during the years, and many subscribers tell us their ambition
is to own all of them. Each year will give you a picture of
varied aspects of weaving, and is filled with examples of how to
weave articles and why they are so woven. We'll be happy to help
you complete your set, of course!

They are a world of

GOOD WEAVING,

as we are told over and
over, and we consider ourselves privileged to have been able to write
them for you.

Mrs. E. M. Henderson
R.R. 4, Silver Springs
Calgary, Alberta

Mary Sandin
University of Alberta
Edmonton, Alberta

$5.00 per year of 10 issues; Subscriptions to Mrs. L. Anthony,

$3.50 per year for back issues, 1944 to 1962, with complete sets
still available.

WEAVERS ANSWER BOOK, by Dorothy Beck and Hazel Chase

This 106 page handbook for beginning and not-so-experienced
weavers answers, in a clear and generally illustrated form, many of
the questions and problems that are needing solutions when learning
to weave. There are good hints and precepts for all weavers to
follow, too. It is really an enlarged answer encyclopedia-type
reference book, and should be most useful. The illustrations are
large enough to be of good help. $4.50 per copy, from Bare Cove
Weavers, Box 183, Higham, Mass. Recommended.
1, 2, 3. Brightly colored cotton table cloth material, tabby weave
4. Linen and cotton table cloth, twill weave
5. Corner of heavy linen place piece, huck and twill weave
6. Corner of turquoise linen place piece, huck lace corners lined off with boucle

LOOM MUSIC, 1963
Suitings of Quality

The business or professional man's suiting presents a real challenge to weavers to attain the proper weight and handle, one that the tailor is happy to use. The cloth must be firm but not stiff, of a weight so as to tailor well, and be one that will hold a press.

It is well to remember when one begins, that nearly all suitings use a twill, but no two twills turn out alike -- each change in the placing of warp ends, or treadling, or color, will alter the final appearance. Therefore, each project, even using a well known draft, requires its own sampling, and this is the most interesting part of the whole, as once all the conditions are met, only mechanics remain.

SAMPLING

No two sampling projects will ever combine identical aims and purposes. We had need for a length of material, dark in color, conservative, using a favorite one-pound cone of 32/2 worsted heather mixture of black, medium blue and light brown. This yarn color alone, though quiet, was too "greenish" or turquoise in effect for a man's suiting. A similar weight black worsted, used in equal amounts, sounded like a good basis for sampling.

With a warp setting of 45 ends per inch, a 4 and 4 warp color alternation would give 1/12"-wide warp stripes, our first objective, and so we decided to begin our sampling: warp of 4 ends black 32/2 worsted, 4 ends heather, 45 ends per inch, 3 per dent in a #15 reed. (This means no denting trouble, as warp is beamed, threaded, then dented, in this case.)
We took advantage of a previous sampler, 6" wide, woven on a twill threading, 4 ends white, 4 ends charcoal, the colors planned especially to give full advantage in seeing the effect of the color changes. We treadled 6" of each change, to have enough to judge well. These orders of treadlings were taken from Watson's Textile Design and Color, Chapter XI, pages 144-164.

This simple sampler of ours has proved to be so useful that we include treadling directions, if you wish to have your own 4 and 4 master sampler for reference. We used white and charcoal, from Conlin Yarns, P.O. Box 4119, Philadelphia 44, Pa., sleyed 24 ends per inch, threaded using the standard tie-up:

\[
\begin{array}{cccc}
0 & 0 & 0 & 0 \\
X & X & X & 0 \\
0 & 0 & 0 & 0 \\
\end{array}
\]

Using the same weft as warp, beaten for a 50-50 weave.

Details of Sampler, photographed on page 16:

(If you are checking with a copy of Watson, our treadling details will vary from his, since his illustrations are sometimes threaded as above, 4321 light, 4321 dark, etc., but more frequently threaded 43 light, 2143 dark, 2143 light, etc.)

1. Warpwise emphasis on dark stripe: dark weft, tabby, alt. treads 5 and 6.

2. Tabby check: weft 4 dark, 4 light, tredle alt. tr. 5 and 6

3. Warpwise emphasis on light stripe: light weft, tabby 5 & 6 alt.

4. Single warpwise dark stripe, barred effect: with light, tredle 1 twice with dark, tr. 3 twice and repeat

5. Simple hound's tooth: 4 dark, 4 light, treadled 1,2,3,4 twill

6. Single dark warp stripe, emphasis between stripes is on white: dark. tredle 2 twice, light, tredle 4 twice, and repeat
7. Twill, emphasis on light stripe: with light, treadle 2, 3
     with dark, treadle 4, 1
     and repeat

8. Broken dark and light stripes: light, treadle 5, 6
     dark, treadle 6, 5
     and repeat

9. Chain appearance on light stripe:
     light treadle 1, dark treadle 2,
     light treadle 3, dark treadle 4
     and repeat (i.e., tr.1,2,3,4,
     alternating light and dark weft)

10. "Feather" on light stripe: white, tr. 5
     dark, tr. 3 twice
     white, tr. 3 once
     white, tr. 6
     dark, tr. 1 twice
     white, tr. 1 once
     and repeat

11. Light warp stripe vs black and white
     between:
     light, tr. 2 twice
     dark, tr. 4 twice
     and repeat

12. Twill, light stripe emphasis: tr. 4 light,
     tr. 3 dark
     tr. 2 light
     tr. 1 dark
     and repeat

13. Double "star" figure: dark tr. 1 twice
     dark tr. 3 twice
     light tr. 1 twice
     light tr. 3 twice
     and repeat

One could go on to an infinite variety of treadlings -- and
then if weft colors are introduced -- a whole new set of samples.

WORSTED
WOOL Back, then, to our sampling for the man's suit length: twill
warp of 4 ends black, 4 ends greenish blue heather 32/2, 45 ends per
inch. 32/2, as you know, is a very fine worsted wool (often
purchased from Searle Grain Co., Winnipeg, Manitoba; also Golden Rule
32/2 worsted from Hughes Fawcett Inc., Box 276, Dunellen, New Jersey.)
It is well, once in a while, to review what is meant by worsted. It is, according to Pritchard's Textile Dictionary, "A variety of wool yarn or thread spun from long staple wool, which has been combed, not carded like woollen yarn. The fibres are of uniform length and lie parallel to each other. They are smooth, elastic and strong, and are used for making fine suitings and materials in which a smooth surface and close weaving is combined with comparatively light weight. The name comes from Worsted, in Norfolk, where it was first manufactured."

We have a sample here of 17 oz. pure worsted English flannel, the warp tightly spun about as thick as this line ____, 40/2 or finer, one black end twisted with one grey. The weave is a \(12\frac{3}{4}\) twill, 60 ends per inch finished. (17 oz. means 17 oz. yarn weight per yard of goods). Number of weft shots come as close as possible to number of warp ends, if weft weight matches warp. Handweavers are not interested in producing this type, however, as it is too difficult to obtain except by machine weaving.

**SAMPLING DETAILS**

An examination of our white and charcoal sample showed four treadlings most likely to produce the texture desired for a man's suitings -- firm but not bulky. These are listed on page 10, and photographed on page 16 -- numbers 6, 7, 11 and 12, and below we give sampling results on our 32/2 warp. (Worsted samples are not photographed, since the weave would not show up in the colors used.)

First of all we tried out warp setting and beat, to make sure of satisfaction there. Using one color 32/2 for weft -- for one-shuttle convenience, we wove four twill samples, treadled 1, 2, 3, 4 and repeat, beating (1) 32 ends per inch, (2) 34 wefts per inch, (3) 36 wefts per inch, (4) 38 wefts per inch. These were washed in mild suds, rinsed well, steam pressed, then judged for desirability
of finished product. The sample beaten to 36 wefts per inch, on the
loom, under weaving tension, was just what we wanted -- firm but not
stiff, with the twill diagonal somewhat higher than 45°, which was our
aim in beginning the samples at 45 ends per inch. The diagonal for
clothing twills runs from left to right, a point to watch when beginning
to sample.

With our beat established, we went ahead to experiment with
weft colors, 36 weft shots per inch.

**EXPERIMENT**

No. 1: Weft of blue-green heather mixture, like the warp, treadled
1, 2, 3, 4. After processing it had a good handle, but very
indistinct pattern.

No. 2: Weft of brown alpaca, a heathery mixture from Shuttlecraft
of Rhode Island, 28/2 weight, treadled 1, 2, 3, 4. Again a
good handle, still less distinct as to pattern, with a nice
overall brown effect.

No. 3: Weft of black 32/2, treadled 1, 2, 3, 4. The heather warp
stripe was quite pronounced, but somewhat monotonous and
not interesting to us for the present suit length.

No. 4: Weft same as warp, treadled: tr. 1 black
tr. 2 blue heather
tr. 3 black
tr. 4 blue heather, and repeat.

Very pleasing!

No. 5: Weft same as warp, treadled: tr. 1 black
tr. 2 black
tr. 3 blue heather
tr. 4 blue heather, and repeat.

Again, very pleasing, with a feeling of almost a check in
this sample, instead of a stripe.

No. 6: We tried then the "opposites" treadlings, as Nos. 6 and 11
on pages 10 and 11.

(old #6) Using 16/2 weight weft instead of double weft
shots: treadle 2 brown
treadle 4 black

This, beaten to 20 wefts per inch of this heavier weft,
gave an evenly surfaced product, fairly firm, with an
indistinct brown warp stripe emphasis. Nice, but not
especially interesting to us.

No. 6: (old #11) Using 16/2 weight weft again: treadle 2 black
treadle 4 brown

This had still more of an all-over effect, not much character.
FINISHING

Off came the warp, washed by dipping, without crushing or squeezing, in mild soapy water, rinsed and wrapped in a towel until just damp, then pressed under an old cotton cloth until dry.

We cut the various samples apart and mounted each on its own page, then submitted them to "the husband" for his choice. It was the twill, No. 4 on page 13: faintly striped, subdued as to color, the blue heather mix having a hint of brown, so the blending of the three was very close and harmonious.

Our own choice had been #5, which was just a little more "definite", but we must admit it was probably more suited to a sports jacket than to a suit.

WEAVING

Nothing remained but the final figuring, which was 32" wide in the reed, 45 ends per inch, making 1440 warp ends, 4 black, 4 heather. Faced with so many ends, the idea of warping 4 ends of one color, dropping them and warping 4 ends of the next color, was just too tedious. Therefore we took one end of each color and warped away, two together all through, then beamed the warp using an 8-dent reed as a raddle (6 ends per dent, with a missed dent every 1½ to 2" to bring warp to 32" width). The cross was retained throughout beaming, and with lease rods tied to warp beam, the ends were threaded to four dark, four light, picking ends from cross with as little warp end crossing as possible: \( ooo^0 \) heather, \( xx^x \) black.

A 13-yard warp gave 11½ yards, finished, ample for a 2-pant suit, with 1½ yards treadled like #5 sample, for a skirt length. The shrinkage in length allowance with these wools was just 3" per yard.

The length was finished in the same manner as the samples -- washed carefully in Ivory suds, rinsed well, both done with the least possible crushing or creasing. Our habit in winter is to spread
the cloth on sheets, on the basement floor, smoothing it out to even width to dry. We mailed it to Hughes, Trim Ltd., 2050 Bleury St., Montreal, who finished it well at 25¢ per yard.

The weaving is demanding, requiring much checking of the beat after each break of attention. But we are all pleased -- the man, the tailor, and not least, ourselves.

Too much trouble? One does nothing well without painstaking effort and the satisfaction is more than ample reward.

Hitch your loom and shuttle to a challenge, and earn the reward of

GOOD WEAVING!  

Mary Sandin  
Mrs. R. B. Sandin  
University of Alberta  
Edmonton, Alberta  

Ethel Henderson  
Mrs. E. M. Henderson  
R.R. 4  
Calgary, Alberta

SWEDISH SWATCHES by Malin Selander

A most welcome addition to our library is Malin Selander's new "Yellow Series" swatch book and accompanying drafts. There is a selection of 4- to 8-harness drafts, and Malin's flair for color is well shown. The presentation of the samples is extraordinary -- meticulous weaving, splendid binding, and superior make-up in the best Swedish tradition. Especially prepared for North America, it is completely in English. The price is $9.50, and in our opinion the book is well worth having. (Our copy from Craft & Hobby Book Service, Big Sur, Calif.)

The drafts are varied, and capable of being adapted widely by the able draft student, and we are especially interested in the several varieties of warp emphasis shown. We can see why this is a limited edition -- such quality does not come easily.

BANFF

It is time to make summer plans, and the Banff calendar is now at the printers. Mrs. Henderson is planning to be there as usual. Make Banff your 1963 study goal -- preparations in the weaving section are already under way.

Address inquiries for school calendar, etc., to The Director, Banff School of Fine Arts, Banff, Alberta.
Twill sampler, threaded 4 charcoal, 4 white, showing 13 treadlings. Treadling details appear on pages 10 and 11, LOOM MUSIC, 1965.
VOLUME XX       NUMBER 3
MARCH, 1963

Mary
Sandin
Edmonton

Ethel
Henderson
Winnipeg
The 1963 Glitter of Gold

The history of Man revolves around his love for the Sun, and in turn, objects using the color of the Sun -- and we today are no exception. Whether it be in the bright noonday light, or the many gradations of our geographical location, we live by the light and warmth of the Sun. We owe all color to the sun -- the flamboyant and subtle colors we see in Nature, enhanced by the neutral browns, greys, and blacks of her many toned palette. This winter we are living near the summit of a small hill on the cattle-grazing lands of Alberta, and today is a totally grey day. The rolling hills have tones of gold where the dead grasses wave above the snow, and the hills about the river are black and white. But only last week there was a most spectacular winter sunset of flaming color, so intense it was breathtaking. From these glorious sights, set off by sobering neutrals, we find color inspiration for our loom weaving.

There have been many times in history when the gayety of color has been denied, but today we are in the midst of an outburst of exciting jewel-like textiles. This was emphasized at Christmas when we received cards with woven swatches using metallic yarns, as part of the Christmas greeting card. A fairly recent (#5, 1961) issue of the Ciba Review, available at most large libraries or museums, on "Gold and Textiles", gave fascinating reading on the subject. This led us to review again "A Short History of Decorative Textiles" by Violetta Thurstan (order from London School of Weaving, Mary Mount, Flushing, Cornwall), and "The Romance of Textiles" by Rodier, to read the story of other times.

BRIEF MENTION OF EARLY GOLD THREADS

In the Ciba Review of March 1961, we read that the earliest form of gold thread was in long thin strips, obtained by beating the purest metal into flat, thin sheets. This was then cut into the width desired, generally very narrow, because of the cost. These were then used as wefts, along with other threads, to form the fabric. Another early method of preparing threads was to wind the gold strip around a white linen core. Still a third type was a drawn gold wire, used as an embroidery thread for belts. Mention should be made of Cypriot thread (or skin gold or membrane gold) which was widely used beginning with the eleventh century. It consisted of a narrow strip of gilt animal gut wound spirally around a fine core of linen, silk, or cotton thread. For gold thread, the core was dyed yellow or red, for silver, it was left white. Chinese gilt leather brocades appeared in Europe from the fourteenth century on, and ancient fabrics employing this type may be presumed to be of Far Eastern origin.

The great churches and museums of Europe are today the custodians of medieval and later early weavings and embroideries,
but it is easy to see why comparatively few have survived. One reason was the great use in wearing to which they were subjected, and a second, the subsequent re-use and melting down of the metal for new textiles.

MODERN METALLIC THREADS. We today have the privilege of using gold and silver and colored threads without the great cost, because of modern science. The latest threads are laminates. That is, they are made of a thin aluminum foil (or a clear plastic film vaporized with aluminum or otherwise metallized) sandwiched between two transparent films of plastic. This product is manufactured in sheets and then cut into the desired size strips.

Modern metallic yarns have improved tensile strength. They are non-tarnishing, are not harsh to the touch, and are odorless. If washed in use, they require a warm iron, not hot.

Any type of weaving may use these modern metallic yarns successfully. They are especially successful for many evening wear needs, such as lamé cloth, brocade type weaving, evening bags and stoles. Their use in drapery and upholstery will depend on the style of decor and the utilitarian needs. Because metallic threads are used more often as wefts, being more economical so employed, most textiles begin with a cotton, linen, silk, or wool warp. The Egyptian cottons are especially suited to metallic wefts, and we give you some examples.

A splendid small book marker, the size of which could be enlarged with ease, came to us one Christmas from Mrs. Flora Marshall of Winnipeg; we call it -- (photographed as #1, p. 24)

THE GOLDEN BRONSON CROSS. One of the satisfying qualities of metallic threads is their happy blending with other threads. This example shows a gold "Jewel" (about 1/64 Lurex) thread, on a warp of 30/3 or 20/2 eggshell Egyptian warp, set at 48 ends per inch. This is a very close setting, but the "Jewel", a nylon supported metallic thread, requires it. It beat in to about 43 shots per inch, and the Egyptian warp is almost invisible in the blend.

Draft

| 6 | 5 | 3 | 3 | 6 | 5 | 3 | 3 |

begin

to 12 ends x4 x4 x4 to 12 ends

Tie-up

| X | X | 6 |
| X | X |
| X | X | 1 |

sinking rising shed shed loom loom
The Warp is eggshell 30/3 Egyptian, 48 ends per inch, 4 ends per dent in a #12 reed: 96 warp ends -- 2" wide in the reed.

The Weaving: After a beginning heading, insert a card 3/4" wide for fringe. Weave 1/4" tabby with gold metallic, ending with B tabby, -- then
1. Hemstitch end fringe, in 5- to 6-end groupings, using a gold 20/2 or sewing thread.
2. With gold metallic, 1/64 width throughout, treadle 3,B,3,B,A,B, 3,B,3,B,A,B, -- pattern all across.
3. Weave 1-1/8" tabby. This metallic turns well at edges, so weaves an absolutely straight edge, plus your skill. Watch beat.
4. In pattern, treadle 2,B,2,B,A,B, continuing for 13 times, or 2", forming lower end of cross. Check to keep beat the same as in the beginning tabby area.
5. In pattern, treadle 3,B,3,B,A,B. 4 times in all.
6. In pattern, treadle 2,B,2,B,A,B, 4 times in all
7. In tabby, 1-1/2"
8. Hemstitch as at beginning. Finished length 6" plus end fringes.

A RIBBON
A small swatch of interesting color was on a ribbon from Miss Hilma Berglund of Minneapolis, and we give it so you may use the warp setting and idea. (photographed as #4 on page 24)

The warp is colored linen in a gay random mixture of colors, of a 40/2 weight, at 30 ends per inch, 1 inch wide, with an odd end of silver Lurex here and there. The ribbon is wefted with silver Lurex at 30 shots per inch. The color is subtly toned down by the silver, and the texture is firm but pliable. Woven wider, this would make handsome evening bag fabric. Or, a 6-inch length of this 1" ribbon, fringed, would make an attractive book mark.

CHURCH FABRICS
Many times weavers wish to weave hangings suitable for dossals, or fabrics to hang along the railing of pulpits in churches. These require rich, colorful effects, and a symbolic cross is not necessary unless desired. The cathedral textiles of the Middle Ages were the marvellous brocades and silks of the period, beyond our power to reproduce, but some of the geometric designs we can achieve are most suitable and satisfying. We suggest an idea which came to us through a swatch on the Christmas card of Mrs. Grace McDowell, Kincardine, Ontario. The draft is our own selection, however.

Draft: Gothic Cross, p.41, Marguerite Davison, Handweavers Pattern Book, new ed.

circled ends = red; others = yellow
Warp and setting: Rayon of 8/2 or similar weight, one end bright golden yellow and one end scarlet, alternated all through, set at 30 ends per inch.

The tie-up is standard

Counterbalanced or falling shed

<table>
<thead>
<tr>
<th>1</th>
<th>3</th>
<th>5</th>
<th>6</th>
</tr>
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<tbody>
<tr>
<td>X</td>
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<td>X</td>
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</tbody>
</table>

Rising shed, "jack", or table loom

<table>
<thead>
<tr>
<th>1</th>
<th>3</th>
<th>5</th>
<th>6</th>
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<tbody>
<tr>
<td>0</td>
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</table>

\} harnesses

\} treadles

The Treading: Follow any of the treadlings in the book, but use the above tie-up, and the color arrangements given below.

Three treadling orders are listed, to be treadled without normal tabby, alternating weft shots of red as the warp, and 1/64 width gold lurex -- i.e. odd numbered treadle with gold, then even numbered treadle with red, and so on through the treadling order:

#1: Treadle 1, 2, 3, 4, 1, 2, 1, 4, 1, 2, 3, 4, 1, 4, 3, 2, 1, 4, 1, 2, 1, 4, 3, 2, and repeat

#2: Treadle 3, 2, 1, 4, 3, 2, 3, 4, 3, 2, 1, 4, 3, 2, 1, 4, 3, 2, 3, 4, 1, 2 "" repeat

#3: Treadle 1, 2, 3, 4, 1, 2, 3, 4, 1, 4, 3, 2, 1, 4, 3, 2, 1, 4, and repeat

Woven in an all-over manner, this makes a lively colorful textile of good hanging weight. This warp setting and weft arrangement could also be used in blouses, in other colors and draft, as it is not stiff or harsh.

LUREX AND TWILL Mrs. Doris Shattuck of Laguna Beach also used a twill, which works out well, as a Christmas card inset - and adaptable to many other purposes. (photographed as #3, page 24)

Her warp is about a 20/2 weight, rayon or cotton, turquoise, set at 30 ends per inch, threaded Rosepath:

\[ \begin{array}{cccc}
  & 3 & 4 & 5 \\
 1 & 2 & 3 & 4 \\
 5 & 6 & 7 & 8 \\
 \end{array} \]

Treading:

For weft, again 1/64 gold Lurex, supported with nylon. Using the standard tie-up given on page 20 above, it was treadled 1, 2, 3, 4, 1, 2, 3, 4, etc., beaten to about 60 shots per inch. This gave a weft-faced twill with a faint trace of the warp. It is too stiff for draping, but is excellent for evening bags, having good body but not unwieldy. The weft faced surface gives many gleaming reflections of the Lurex, with a turquoise undertone.

FOR A GOLDEN WEDDING GIFT There is another occasion when the use of gold is very appropriate -- that of the Golden Wedding gift. A very handsome cloth may be woven using white and gold.
We have a swatch here from an unknown Nova Scotia weaver, arranged for evening dress material, using Marguerite Davison's Ancient Rose, as the draft. It would adapt very well for table use. (photographed as #5, page 24)

The warp is white 50/3 cotton, at 48 ends per inch. Because there are so many ends, we suggest weaving either one centre runner about 20" wide, or two side runners 10" wide each -- to lay over a white undercloth, or on the bare table for buffet serving.

Arrangement for a 20" runner, 967 ends at 48 ends per inch:

Selvage: 43 2
Border: ends 1 through 18 of draft above, x 5 90 ends
Centre: above draft, 50 ends x 15 750 ends
Balance: ends 1 through 29 of draft, once 29 ends
L.border: repeat first border, reversed 90
L.selvage: repeat first selvage, reversed 4

967 ends

Weft: For pattern, a fine white silk floss, about the size of 24/3 Egyptian. Suggested sources for floss are Troy Yarn & Textile, Pawtucket, R.I.; Eureka Yarn Co., Inc., 109 West 24th St., New York 11; Charles Y. Butterworth, 2222 E. Susquehanna Ave., Philadelphia 25, Pa. Tabby is gold Lurex, 1/54 width.

Treading Details: Use standard tie-up given on page 20, and weave alternate pattern and tabby shots, in the conventional overshot manner. Treadlings are "Rose Fashion"

Repeat 5 times in all, for end border

Treadle 4, twice #1
Treadle 1, twice
Treadle 4, twice
Treadle 1, twice
Treadle 4, twice
Treadle 3, once
Treadle 2, once
Treadle 1, once
Treadle 4, twice
Treadle 1, once
Treadle 4, twice
Treadle 2, once
Treadle 1, once
Treadle 4, twice #2
Treadle 3, once
Treadle 2, once
Treadle 3, once
Treadle 4, twice
Treadle 1, twice
Treadle 4, twice #3
Treadle 1, twice
Treadle 4, twice
Treadle 1, twice
Treadle 4, three times
Treadle 3, twice #4
Treadle 2, three times
Treadle 3, three times
Treadle 3, three times

After completing the end border treadlings, weave through the entire set of treadlings for desired length of runner, ending with group #3.

Then repeat the final end border treadlings to match beginning, i.e. treadle group #2, then #1, and repeat to match first end.
The rose figure is sketched, since the photograph does not show the pattern well. The materials and beat should be adjusted so that when the material is on the loom under tension, the circle should be only just slightly elongated.

UNDULATING TWILL

We have a very clever use of the "Undulating Twill" for upholstery or a very heavy drapery, employing an added metallic thread. "Wide Basket Weave Stripes, Marguerite Davison, page 52, treading #3. The sample photographed as #6, on page 24, is woven in a warm terra cotta color with 1/64 gold Lurex, and the weave is not obtrusive at all.

Warp: 20/2 or 30/3 mercerized cotton, terra cotta, set at 48 ends per inch (4 per dent in a #12 reed)

Wefts: Firm cotton-rayon boucle, terra cotta color; Nylon or dacron-supported 1/64 gold metallic, or a color if desired.

Draft:

Arrangement: For one-direction movement / / / / / / repeat draft for width desired.

For change of direction, thread ends 1 through 52, then reverse, ends 53 back through to beginning, and so on, at each reverse being careful to avoid a doubled end.

The Treadling: One shot firm boucle and one shot metal, throwing a double shot of boucle at one inch intervals in the weaving. The treadling order, using tie-up given on page 20, is:

3, 2, 1, 4, 1, 4, 3, 2, 1, 4, 3, 4, 3, 2, 1, 4, 3, 2, 1, 4, 3, 2, 1, 4, and repeat.

You will find this material is smooth on the side where warp is predominate, and textured on the weft-predominate side. Very good. Warp is interestingly grouped because of the draft.

DOUBLE WEAVE AND METALS

Those interested in double weave designs will find great possibilities in allowing for metallic threads in the warp, to show at certain designated spots. These may employ many of the colors now offered, creating brilliant spots here and there.
SOURCES

We finish this issue with a glance at metallic thread suppliers. Searle Grain Co., Winnipeg, Manitoba, has two colored 3 oz. at $1.00; and silver, and copper $2.35 special; also guimpe (Lammette) which is metal twisted around a core in a 3-ply: $1.00 for 75 yards.

Gurl Bros. (No, we've no connection with any manufacturer or thread dealer), 334 Lauder Ave., Toronto 10, Ont., has 7 colors: emerald, Christmas green, Bristol blue, scarlet, violet, and white and gold, in Lurex 1/64 size, with 70 denier Nylon support: $2.50 gold, and $2.60 colors, 4 oz. spools. 1/32, one side silver, other gold Mylar, 4 or 8 oz. spools, $4 per lb. Many fancy yarns, gold, silver, on colored cores, $2.00 per lb.

Also Sutton Yarns, Sutton, Quebec.

U.S. readers will fine large selections from sources already listed on page 21. We might mention two others: (west) Grant Hand Weaving Supply Co., Box 178, Provo, Utah; (east) Shuttlecraft of Rhode Island, P.O. Box 6041, Providence 4, Rhode Island.

Now, it is bright weaving

for GOOD WEAVING!

Mrs. E. M. Henderson
R.R. 4
Calgary, Alberta

Mrs. R. E. Sandin
University of Alberta
Edmonton, Alberta

$5 per year; back copies $3.50; subscriptions to be mailed to Mrs. Lillian Anthony, R.R. 4, Calgary, Alberta. Copyright 1963.
1. Golden Bronson cross, bookmark, by Mrs. Marshall of Winnipeg
2. Red and gold metallic, from Christmas card of Mrs. McDowell of Kincardine, Ontario
3. Turquoise and gold metallic, from Christmas card of Mrs. Shattuck of Laguna Beach
4. Bright linen and Lurex ribbon, by Miss Berglund of Minneapolis
5. Upholstery in terra cotta color boucle, with gold metallic
LOOM MUSIC
Volume XX, Number 4 April, 1963

SYNTHETIC FIBRES
Casement and Drapery Cloths

One of the requests we received not long ago was for an issue on "Manmades", or, as the scientists say, synthetic fibres. Since that time we have spent uncounted hours on the search for the story of these fibres, and as many more hours on an understanding of what we were reading. Now we have mastered, in an amateur sort of way, a whole new vocabulary and facts related to this vast subject.

But hand weavers are not too concerned with the "hows" in the birth of a fibre -- their great consideration is what usefulness the product holds for them as a media for the loom. (However, if you are interested, you may write to Mrs. Henderson for some further notes which she has collected).

References:
THE AMBASSADOR, London, England
AMERICAN FABRICS, New York (Summer 1962)
CIBA REVIEW, Basle, Switzerland
APPLIED TEXTILES, by Linton Pizzuto

As early as 1664, Dr. Robert Hooke dreamed of a yarn made by chemical means, and scientists since that time have, until 1939, added knowledge to the dream at long intervals. The sum total of their discoveries was capped by the discovery of "Nylon 66" in 1939 by W. H. Carothers, the leader of the research team developing it. From then on, further developments led to the great discoveries of the last twenty years.

The early fibres required tremendous refinement and improvement of the product to reach the present moment of achievement, and this refinement is still progressing, both in natural and Manmade fibres. Refinement is said to be the current trend in textiles -- and when new fibres are introduced it is because they provide characteristics found in none of the existing types. As well, a great number of 1963 textiles in our shops have combined to blend into one the good qualities of each component.

So, we read in a dress goods sale sheet, dated early 1963, reference to the following blends: Fabrics of acetate rayon and nylon; Dacron and cotton; acetate rayon and cotton; viscose and acetate; rayon and silk. In the Summer 1962 issue of AMERICAN FABRICS we see advertised "Avril", a rayon and dacron blend; Klopman's 65% Dacron and 35% cotton gabardine; Creslan (an acrylic fibre) blended with wool, blended with cotton; and so on.

The different classes of synthetic fibres are Polyamides, Polyesters and Polyacrylonitrile, the names deriving from the process and bases used to produce them. The different classes of rayons refer to the type of process used to process the basic material.
What can we look for in these synthetics? (T.N. below means trade name)

**good qualities**

**NYLON** (polyamide fibre)
- Outstanding tensile strength
- High elasticity
- Excellent abrasion resistance, better than any other fibre
- Low water sorption (quick drying)
- Rot resistant
- Good affinity to all classes of dye
- Can be permanently pleated
- Not affected by moths or mildew

**poor or fair qualities**
- Yellows at temperatures over 120° C
- Sensitive to bleaching agents, acids, and sunshine
- Fats and oils penetrate to interior of fibre, hard to remove
- Prone to build up static electricity
- Prone to pilling
- Poor heat insulation

**hints on care**
- Wash often in hand-hot water
- Do not boil or bleach
- Wash colors and whites separately
- Do not expose to sun or direct heat
- Iron nearly dry and use low heat

**ORLON**, T.N. (polyacrylonitrile fibre, polyvinyl group) Acrylic, Zefran, Creslan
- Warm, exceptionally soft with light weight
- Strong, hard wearing
- Non-irritant
- Good resistance to creasing
- Can be durably pleated
- Easy to wash and dry
- Good warmth retaining power
- Unaffected by acids, insects or bacteria

Absorption of perspiration poor
- Develops static in processing
- Soils readily
- Fair abrasion resistance, but not for heavy duty uses
- Freedom from pilling

Type 64 improves this.

**Orlon Sayelle** is a crimped fibre which straightens when wet and crimps again on drying.

**TERYLENE** (Eng.), **DACRON** (U.S.) T.N. (polyester)
- Very strong
- High resistance to abrasion
- Resilient, shrink and stretch resistant
- Can be permanently pleated
- Not affected by sunlight or moths
- Resistant to mildew

Perspiration not well absorbed
- Certain degree of sensitivity to alkali
- Marked tendency to pilling
- Accumulates static electricity
- Heat insulating quality poor

Wash in warm water
- Do not boil
- Soiled spots can be rubbed with soap or detergent
- Do not wring, not needed
- Use cool iron, but usually not necessary

**Taslon** is a bulked fibre developed by DuPont using synthetic fibres as base.

**RAYONS**

**Acetates:** Arnel, Chromespun, Tricel, Celanese, etc. T.N.
Celaperm -- color added before spinning to make color fast
Celafil -- crimped acetate; Celaloft -- crimped acetate
Fortisan rayon is so classified, but is very strong and shrink resistant. Excellent warp.
Acetates - continued

rich and attractive in appearance
creases when wet
does not like hot wet conditions too well wash and wear qualities fair
wash frequently in warm water iron with cool iron if needed

TRiacetate: Similar to above, but weaknesses are overcome. More robust to wash and wear, can be permanently pleated; needs little ironing, dries quickly.

Viscose: Avisco, Avril, M 61 staple, Cordura. T.N.

accounts for 80% of manmade s in the world weak strength when wet poorer crease resistance poorer resistance to bacteria and insect attack
reasonably strong drying and ease of care not as good as some synthetics
pleasant handle, drapes well can be dope or spun dyed (color added before spinning) and has good color fastness if so treated.

Cuprammonium: Bembergs

extra fine fibre extra fine fibre
more expensive to produce than other rayons
good strength good strength
attractive handle attractive handle
good draping qualities good draping qualities

treat as other rayons

PROTEIN FIBRE, derived from casein: Fibrolane, Aralac. T.N.

when blended, warm soft handle must be blended with cotton, wool, nylon, etc.
high moisture absorption high crease recovery
comfortable to wear

wash like wool

GLASS: Fibreglass, Aerocor (Taslan textured glass, means glass yarn has been bulked). T.N.

washable, drip dry, no wrinkles may be brittle and not practical for handweavers as warp
fire-safe any blending with other fibres destroys fireproof quality
does not shrink, stretch or sag
very strong moth, mildew and rot resistance
not affected by weathering reduces sun heat on windows heavier fabrics absorb sound controlled quality
1963 yarns are soft and drape well.

hang damp after washing
do not dry clean check for splintering and shedding while weaving requires experimentation
SOME NEWER TERMS IN SYNTHETICS:

Dextrex: One of the non-woven type fabrics, DuPont.

Modacrylic: Cross between vinyl and acrylic fibres, fireproof. "Dynel" pile fabrics. Need special dry cleaning process

Polypropylene (textile fibre): similar to nylon and Terylene; high strength, floats on water, marine uses.

Polynosic: latest development in rayon; appearance and handle of cotton, with silky appearance; good crease resistance; very strong; nearest yet produced to natural fibre.

YARN SOURCES

Which of these yarns may be bought by the handweaver, and where? Here is a partial list:

Shuttlecraft of Rhode Island, P.O. Box 6041, Providence 4, R.I., offers a large selection, - acrylan, nylon, rayons, dacron, bulked Orlon, and blends

J.H. Glasgens Co., New Richmond, Ohio, advertise synthetic yarns.

J.C. Yarn Co., 109-111 Spring St., New York 12, advertise nylon.

Searle Grain Co., Grain Exchange Bldg., Winnipeg, carries Dacryl, nylon, rayons

Curl Bros., 334 Lauder Ave., Toronto 10, Ont., have acetate rayon, viscose rayon, Dacron, Terylene, and blends

Sutton Yarns, Sutton, Quebec.

Bureka Yarn Co., Inc., 109 West 24th St., New York 11

Troy Yarn & Textile Co., 603 Mineral Spring Ave., Pawtucket, R.I.

Chas. Butterworth, 2222 E. Susquehanna Ave., Philadelphia 25, Pa. are sure to have synthetic yarns and blends in their offerings.

Robin & Russ, P.O. Box 273, McMinnville, Oregon, sometimes offer Fibreglass boucle, rayons and blends.

(Starred dealers have mill clearance offerings, and so are likely to have unusual and up-to-date type of fibres).

STATIC ELECTRICITY

We have two hints for static electricity in your weaving and wearing of synthetic fibres:

From CIBA REVIEW, #132:  
1. If electricity is in loom, try grounding or "earthing" it, as a radio.

2. If in your warp, try (a) spray-wetting as we sometimes do linen; (b) make an ordinary salt solution and spray warp, keeping away from heddles.

From HELOISE, a syndicated newspaper column, we read that Margaret Bohanan, who owns a laundromat, recommends a fabric softener in the last rinse water to remove static electricity from garments before wearing. Why not try a fabric softener in water solution and spray on the warp?
Casement Cloth and Curtaining

We have a splendid opportunity to use synthetics (or man-mades, if you prefer), in casement curtaining. Todays yarns of all kinds, natural and synthetic, come in many forms, as boucles, thick yarns, and thin, combined with metal -- giving us a large choice. Also, we may mix or blend, remembering that in synthetics, except rayons, shrinkage has been eliminated, and if we do not use our second yarn in too large quantity at any one point, shrinkage differences will not be too hazardous.

Of course, sampling must be done to obtain exact data on loom loss, washability, etc.

#1 DRAPERY

A basic warp setting, for varied effects by change of weft; cotton or synthetics, or a combination of the two.

The Warp is a 50/3 natural Egyptian cotton, or fine viscose, set at roughly 19 ends per inch, with added ends of spun rayon such as "white satin", of approximately perle 3 size.

The draft and tie-up

twill: $1^23^4$ $1^23^4$

| 1 1 2 4 2 3 | 0 0 0 6 |
| 1 1 3 4 6 8 |
| 1 1 9 4 6 8 |

Counterbalanced loom Rising shed loom

Warp order: 12 ends fine cotton
1 end white satin (size of Perle 3
9 ends cotton
1 end white satin
6 ends cotton
1 end white satin, and repeat for desired width, calculating 19 ends per inch.

At each side add 14 ends fine cotton, for $1/2"$ selvage, to dent at 2 per dent in the 15-dent reed.

Denting: Use a #15 reed, always denting 3 fine cotton in one dent, heavy white single in a dent, with missed dents marked "o" (selvage is 2 per dent for 14 ends):

| 3 3 0 3 0 3 0 3 0 3 0 3 0 3 0 3 |
| 3 6 3 |
| 24 dents, 1 inch|
| 30 ends to here|

Treadling is tabby throughout, woven with natural colored rayon loop, with an open beat of 14 wefts per inch -- this gives a 50-50 weave with the missed dents.
#2 DRAPERY

**Warp:** Eggshell or deep natural rayon, shiny, alternated with dull finished cotton (or dull finish synthetic), natural color, of about 16/2 or 20/2 weight; sleyed 2 per dent in a #12 reed.

Weaving is tabby throughout, in a random arrangement for texture, using as weft: white shiny rayon about 16/2 weight
white rayon boucle or loop, medium weight

**Beat is 24 wefts per inch:**

\[
\begin{align*}
5 & \text{ tabby shots shiny rayon } \\
2 & \text{ tabby shots loop or boucle) repeat until 4 boucle bands woven} \\
9 & \text{ tabby shots shiny rayon, making the 4th or 5th shot double} \\
4 & \text{ tabby shots loop or boucle} \\
12 & \text{ tabby shots shiny rayon, making two or three of these shots double, e.g. 4th, 7th, 10th, or less} \\
6 & \text{ tabby shots loop or boucle}
\end{align*}
\]

Continue in a similar manner, but varying the number of shots to avoid too even repeats in the loop and tabby band groupings. If a random arrangement is woven, the overall effect makes matching of stripes unnecessary in adjacent widths.

#3 DRAPERY

Have you ever tried this? Overshot in a lacy texture.
We starched lightly when finishing.

**Warp** is Egyptian cotton or 20/2 cotton, natural, at 15 ends per inch, with 1" selvages at 23 ends per inch (sley selvage: 2,1,2,1, etc in the #15 reed)

**Draft:** An overshot draft without long skips, with a suggested one being Finnish Diamond, p.129 from Marguerite Davison's book:

```
1   2   3   4   5   6   7   8
3   4   5   6   7   8   9   10
11  12  13  14  15  16  17  18
```

**Arrangement**

- **Selvage:** repeat 6 times, sley 2,1,2,1, 15 dents, 1" 24 ends
- **Pattern:** 3 repeats, sley 1/dent 72 " 5" 72 "
- **Balance:** 4,3,4,3,4 (once)
- **Band:** once, sley 2,1,2,1 15 " 1" 23 "

Repeat across warp (each group = 6" in reed), ending finally with 24 ends, threaded 4321, dented 2,1,2,1 etc

**Weft:** Natural color, spaced linen or cotton frill of medium to heavy weight, or rayon boucle; tabby is same as warp.

**Weaving:** Using the tie-up given on page 29 (standard tie-up)
treadle the overshot as usual, alternating pattern shots with two tabbies, using the "as drawn in" treadle order (or just \(1, 2, 3, 4\), or \(1, 2, 3, 4, 3, 2\), and repeat).

In treadling, calculate the beat to weave 7 heavy pattern wefts and 14 tabbies per inch. Begin with a 1" band, alternating fine and heavy shots, tabby weave. Weave \(5\frac{1}{2}\"\) pattern treadling, using 1 pattern shot, 2 tabby shots, etc. Then weave 1" tabby band.

This gives a drape with 1" cross checks on a light weight background. Be sure to do a sample to check up on shrinkage, etc.

### SHEER CURTAIN

Where a sheer curtain with no pattern is desired, a slight thickening here and there in the weft is useful, using spaced weft.

**Warp:** 30/2 Dacron, or 24/2 natural cotton, at 24 ends per inch.

**Draft:** \(1^2 2^3 4^4\), using the standard tie-up, to weave tabby.

**Weft:** Spaced linen, \#10, or \#14, in natural or unbleached, beaten to 20 or 22 ends per inch, on the loom. (may be purchased at Curl Bros., Toronto).

### WITH COLOR

An interesting way to use color stripes in the warp is:

**Warp:** 40/2 natural cotton, or 30/2 Dacron; with stripes of the same weight, in gold, or other color preference.

**Warp order is:** 8 natural, 8 color, 6 natural, 8 color, 8 natural, 4 color = 42 single ends. As threaded and dented, calculate on 29 to 30 ends per inch in the reed.

**Draft and denting:** Where two ends occur on the same frame \(33 44 33\) use separate heddles, but in denting treat them as one end. This will mean some dents will have 2 single ends, some 3, and a few 4 per dent. Dented as noted below, in a \#15 reed.

![Diagram of weaving pattern](image-url)
The weaving: Weft is natural 40/2 like the warp, beaten to
30-32 ends per inch. Treadle, frames 1&4 OR, using standard tie-up
frames 2&4 given on page 29,
frames 1&3 treadle 4,5,6,2 and
frames 2&3 repeat
and repeat

#6 heavy
"Sheer"
A heavy weight drapery, but sheer in effect, is one we
tried out at Banff one summer. We used a very open denting, and
mixed cottons and rayons in the warp.

The warp: Natural carpet warp, heavy cotton boucle, and a gold
wrapped (node) rayon spiral. Warp order and denting in a #15 reed
are shown below:

xooxooRXooxoox o = missed dents
x = carpet warp
R = rayon and gold spiral
E = cotton boucle.

The weaving is tabby throughout, with a very light beat of
10 to 12 wefts per inch. For weft use white rayon boucle, or
white rayon boucle plied with gold, depending upon the amount of gold
desired in the finished product.

In this type of drapery, unless unshrinkable yarns are
used, sampling is most essential. Once shrinkage is calculated, it
is a very successful type drapery.

----------

The Banff School has recently received an exceptionally
beautiful publication from India, -- the September 1962 number of
the magazine MARG (U.S.A. $6 per year, single copy Rs 5.50, which
we presume is about $1.00).

MARG is a magazine of the arts, and the issue mentioned
is entitled Handlooms. The content is tremendous, telling of
traditional and modern Indian weaving, as well as giving information
on the looms of India. It is fully illustrated with fine printing,
both black and white and color. You will never regret owning this
number, we are sure.

Address: MARG Publications, 34-38 Bank St., Bombay, India.
----------

We close with this note on

GOOD WEAVING!

Mary Sandin
Mrs. E. B. Sandin
University of Alberta
Edmonton, Alberta

Evelyn Henderson
Mrs. E. M. Henderson
R.R. 4
Calgary, Alberta
DRAPEY SAMPLES IN ACTUAL SIZE — LOOM MUSIC, 1963

1. Natural with added white warp ends, boucle weft  
2. Natural, with random stripes of boucle or loop yarn  
3. Overshot, in a lacy texture, heavy cross-bars  
4. Sheer curtain, spaced linen weft for texture  
5. Color stripes with a simple warp pattern strip;  
6. Heavy "sheer", using carpet warp, boucle, metallics
On the subject of Borders -- the ideal form of casual weaving for summer days

Textiles of practical use fall into two loose categories: the first, where the design is all over, or diaper; the second, where the design is formed by borders -- either placed at the ends, parallel to selvages, or around the four sides of a square or rectangular project, which may or may not have a diapered centre.

Borders are most ancient. Every early civilization, whether primitive or highly developed, shows these bordered and diapered examples in the textiles which collectors have gathered. Techniques found include the early tapestry forms: color and design achieved through the use of dyed threads; or the art of the great draw looms of the old Chinese, Persian, Italian and Spanish weavers. One cannot weave today without feeling that, in our small way, we are participating in an activity that has been basic to the needs of man through-out the ages, serving to satisfy both his aesthetic and utilitarian needs.

THE BORDERS

They supply a sense of completeness -- while an all-over design has no definite beginning or end. Borders supply excitement in the form of a patterned area in the design as a whole, and supply it either with a pictorial effect or a colorful one, or both. A border may be wide, or narrow, dominant or supporting, able to demand all the interest, or merely supply a small contrast.

When we stop to consider, our household textiles are largely bordered. Towels -- both bath and kitchen; table cloths; many glass curtains; rugs; draperies with borders spaced or placed in key positions; skirts of the dirndl or western type; coverlets of the colonial era, and so on.

DESIGNING FOR WARWPWISE BORDERS

Almost any draft set into our looms will weave end borders for us, but on a plain weave we may choose to have the interest placed in the warp, by either colored or thicker or finer warp ends added near the selvages. If we use boucles or similar threads, we may have a textured band. In designing, we consider how little or how much; evenly spaced or graduated; one color, a contrast or harmonious blending; or a rainbow band. To do this visually, we take brown paper the width of the warp, plus a contrasting sheet -- anything will do. Scissors in hand, we try out selvage border sizes, and place and replace the positions until satisfied.

The next step is to measure the border bands and decide upon color and weight of border warp ends. One can utilize the
scrap basket contents here, and tape on the actual colors we have in mind to judge their impact on the warp color and on each other. This will determine the number of ends needed to obtain the desired borders, and they may be now set down in the warp order.

Warp-wise interest may be added at any time to a tabby foundation, by tying in new ends in addition to, or in place of warp ends already in place. It takes more explaining than actual operation!

Method I. Where new ends go along with ends already in the warp. Use the prepared brown paper pattern, placing it over warp ends in front of the reed, and mark areas where added warp ends are desired.

Warp the ends to be added (about 1 yd. longer than project) take off with lease rods as usual and bring to front of loom. Thread them into the reed and heddles already used by main warp, then pull added warp from front of loom to back. Stop when front ends are even with beginning of warp, and tie new ends onto front rods.

If added ends, now at back of loom are long. Scotch tape them to a spool or a stick, after having stretched them out to get even, and roll up to warp beam. Then tape the roll to prevent unrolling, and weight the spool, to match background warp tension, and let hang below warp beam.

Method II. Putting the new warp ends in with originals makes the fabric thicker at this area, and mutes the color. If not desirable, after marking areas, cut original warp ends at front, tie the new ends to original ends, then pull both back through reed and heddles. (To pull knots through easily, grasp tied warp ends tightly in front and behind reed, and saw up and down, moving the knots backward. Do same through heddles.) Cut across at knots.

Tie in new warp ends at front bar, and roll warp behind on spool as above. The original discarded warp ends may be chained and tucked temporarily into warp roll, and continuing to chain as warp is unrolled. Sounds complicated, but is simple, as you will find.

Now for some Borders worked out on various threading drafts

Example 1.
Black skirt, bright bends used vertically

In designing skirts, if one plans carefully, the border may be turned to run in a vertical direction after making. Woven thus when sewn it may appear so or

Borders may be at one side at the edge of front fold in a wrap-around, or may outline pleats if pleated. Plan the warp wide enough to include a hem. For example, if skirt needs to be 25" from top to bottom, allow 3" extra, plus 2¾" for shrinkage and narrowing in, making a reed width of 30¾".

Warp: black wool, 32/2 Weavcraft or similar weight, at 30 ends per inch. Or, use 20/2 black cotton for a cotton skirt.
Draft: \textsuperscript{1234} twill, using standard tie up given below:

<table>
<thead>
<tr>
<th>Counterbalanced loom</th>
<th>Rising shed, &quot;jack&quot;, or table loom</th>
</tr>
</thead>
</table>
| \begin{tabular}{|c|c|c|c|}
| XX & X & X & X \\
| X & X & X & X \\
| X & X & X & X \\
\end{tabular} | \begin{tabular}{|c|c|c|c|}
| 0 & 0 & 0 & 0 \\
| 0 & 0 & 0 & 0 \\
| 0 & 0 & 0 & 0 \\
\end{tabular} |


Wefts: Background weft is black \textsuperscript{32/2} like warp, woven in tabby, for a 50-50 woven product.

Border uses color as the design force:
1. a bright purple rayon boucle, almost twice the weight of the warp
2. a forest green \textsuperscript{16/2} weight wool
3. a scarlet \textsuperscript{16/2} weight wool
4. a maroon \textsuperscript{16/2} weight wool
5. a light pink \textsuperscript{32/2} weight yarn
6. a shocking pink fine rayon boucle, and
7. a fine white rayon boucle

Very small amounts of each color are needed, less than 30 yards in all, unless border is repeated more often.

Border detail -- weave black tabby, for hem area and edge of wrap-around type.

<table>
<thead>
<tr>
<th>Band 1</th>
<th>4 shots purple, tabby weave</th>
<th>1/4&quot; wide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3/8&quot; black tabby</td>
<td>3/8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Band 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treadle 1, treadle 2, green</td>
</tr>
<tr>
<td>Treadle 3, scarlet</td>
</tr>
<tr>
<td>Treadle 4, treadle 1, maroon</td>
</tr>
<tr>
<td>Treadle one shot tabby, using pale pink, shocking pink, purple and green, wound together</td>
</tr>
<tr>
<td>Treadle 1, treadle 4, maroon</td>
</tr>
<tr>
<td>Treadle 3, scarlet</td>
</tr>
<tr>
<td>Treadle 2, treadle 1, green</td>
</tr>
<tr>
<td>nearly 1/2&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Band 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>as Band 1</td>
</tr>
<tr>
<td>3/8&quot; black tabby</td>
</tr>
<tr>
<td>1/4&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Band 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>as Band 2, except using shocking pink boucle instead of scarlet on tr. 3</td>
</tr>
<tr>
<td>nearly 1/2</td>
</tr>
<tr>
<td>3/8&quot; black tabby</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Band 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 tabby shots purple rayon boucle</td>
</tr>
<tr>
<td>1 tabby shot very fine white rayon</td>
</tr>
<tr>
<td>2 tabby shots purple rayon</td>
</tr>
<tr>
<td>3/8&quot; black tabby</td>
</tr>
<tr>
<td>1/4&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Band 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treadle 1, treadle 2, forest green</td>
</tr>
<tr>
<td>Treadle 3, scarlet</td>
</tr>
<tr>
<td>Treadle 4, maroon</td>
</tr>
<tr>
<td>Treadle 3, scarlet</td>
</tr>
<tr>
<td>Treadle 2, treadle 1, forest green</td>
</tr>
<tr>
<td>3/8&quot; black tabby</td>
</tr>
<tr>
<td>1/4&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Band 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>as Band 5</td>
</tr>
<tr>
<td>width of band \textsuperscript{4\frac{1}{2}}&quot; approx.</td>
</tr>
</tbody>
</table>

(This example did not show up well enough in the photograph, so was not included with other examples on page 42)
Towel examples, which may serve equally well in planning dirndl skirts, place mats, patio runners, and little girls' skirts

The first and second examples, on the same warp, use a Monk's Belt draft. The first example won First Prize in the 1962 All Canada, London Ontario, Exhibition, as a towel entry for Mrs. Sandin. We see it also as a stunning band on a summer skirt, using various colors in the pattern repeat.

Warp is a random mixture of white, natural and light beige Egyptian cotton, odds and ends varying in weight from 50/3 to 20/2, set at 45 ends per inch -- 3 per dent in a #15 reed, 900 warp ends. The warp was wound 3 ends together, then sleyed and threaded in random order. No doubt about it, these mixed warps give interest to the background -- avoid regularity in threading the colors.

Ours is a generous size hand towel, 20 x 30", a good 2 x 3 proportion.

The Draft

```
 | Selvedge | balance | 34 | 30 | 20 | 10 | 10 | 10 |
```

Thread selvage once
Thread draft through 26 times, 34 ends x 26 = 884 ends
Thread first 8 ends of draft, then left selvage 12 ends 900 ends

TOWEL

# 1 Wefts: Background tabby weft is 18/1 natural linen

Pattern: red linens of 20/2 and 25/2 weights -- four "reds", ranging from a very dark rose-red to crimson and scarlet.

white linen, mercerized, 10/2 weight

Treadling details -- treadles refer to standard tie-up on p.36

With natural 18/1 linen, weave 2½", tabby weave, for a 1" hem, firm beat.

Band 1, at hem line, Treadle 1, Treadle 3, with white 10/2 1½" tabby as before, natural 18/1 weft

Repeat Band 1
4 shots natural 18/1 tabby
using the three darkest reds, wound together on shuttle,
treadle 3, 8 times, using 18/1 tabby between pat. shots, for a 1/2" red band
4 shots tabby. 18/1 natural

Repeat this sequence until six red bands are woven (see photograph on page 42). The first red band uses the 3 darkest reds wound together as pattern; the second red band uses the 3 lightest reds wound together as pattern; alternating thus for the 6 bands.

Treadle Band 1, to complete end border.
Body of towel is woven: 1½" tabby of 18/1 natural, then Band 1; these alternated throughout.

Final end border is narrower, just two of the red bands

You might say -- there's certainly nothing unusual about these directions -- why the prize? Well --

it is beautifully woven
the linen weft gives a fine handle
the color is arresting
the proportions are good
the finishing (sewing, washing, ironing, etc.) is excellent
it excites envy -- both to the wish of having woven it, and the desire to own it.
Enough?

SKIRT BORDERS
For a bright skirt, we suggest a color scheme taken from a Guatemalan piece, collected more than 30 years ago -- it positively blazes with color, analyzed thus:

<table>
<thead>
<tr>
<th>Color</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>turkey red</td>
<td>1/10</td>
</tr>
<tr>
<td>mustard yellow</td>
<td>1/10</td>
</tr>
<tr>
<td>magenta</td>
<td>3/10</td>
</tr>
<tr>
<td>violet</td>
<td>1/10</td>
</tr>
<tr>
<td>grey</td>
<td>1/10</td>
</tr>
<tr>
<td>dull purple</td>
<td>3/10</td>
</tr>
</tbody>
</table>

On this present Monk's Belt draft, one could get a brilliant effect by the following treadlings, using a tabby of lighter weight to get a solid pattern effect:

Treadle 1, 4 times, with purple, red tabby
Treadle 4, 2 times, red with red tabby
1, 4 times, purple with red tabby
4, 4 times, yellow with mustard tabby
1, 4 times, magenta with dull red tabby
4, 2 times, dull purple with red
1, 4 times, violet with dull purple
4, 6 times, magenta with dull red tabby
1, 2 times, yellow with mustard
4, 2 times, grey with yellow, and so on

TOWEL #2
But Towel #1 was a hand towel, and each year about this time we weave a camping or beach towel, with rougher linen and of a generous size. As there was just warp enough from #1 left on the loom, we re-sleyed and re-rolled -- 900 ends at 30 ends per inch = 30" width; 2 ends per dent in a #15 reed.

Our Monk's Belt on the first towel was treadled to appear thus, but on the under side were evenly spaced groups of three. We used this appearance for our beach towel.

Weft: Background is #5 tow linen, unbleached
Pattern is Lily's Stranded Filler Art 514, red, black.

Treading details -- again, treadles refer to standard tie up on page 36.

With fine linen, weave 1/4" tabby turn in for hem.
With #5 tow linen, weave 2" tabby weave. This allows for a half inch hem -- narrower than usual for quicker drying.
Pattern Band

With Lily's red Stranded Filler, treadle 1, 3 times, using the #5 tow as tabby between
With tow, 2 shots tabby
With Lily's black Stranded Filler, treadle 3, treadle 1, no tabby between
With tow, 2 shots tabby
With Lily's red, treadle 1, 3 times, with tabby
10 shots tabby, using #5 unbleached tow

Weave the above red and black band, 3 times in all, separated by the 10 tabby shots.

Body of towel is woven: 4⅛" #5 slub tabby
then one red and black pattern band,
these alternated for the entire length. Our finished size 27" x 48"

Other uses. As we look at this towel it seems perfect for
beach or summer cottage window curtains, or lengths for using in
doorways. This excellent weight will never wear out, and will
relish hard wear and washing. Fine for boat cushions, or for porch,
in your own color scheme, even a dandy chair covering or couch throw.

The following examples were woven as guest towels, but
we believe their coloring and borders have many other uses --
charming place mats, unusual summer skirts, cushions, and aprons.

TOWEL #3
Warp in
Blues

Here is an unusual color scheme for a warp, based on a blue
scheme, which we again recommend for use of odds and ends.
All weights are about a 20/2 mercerized cotton, 30 ends per inch in
a #15 reed, warped and threaded at random. Our warp colors are teal
blue, dull turquoise, delft blue, a reseda green which was so fine it
was used double for one end, a medium grey which looks quite mauve
when combined thus. We'd love the skirt --
The draft is Crackle:

The Draft

Threading: edge, threaded once 6 ends
draft, 56 ends, repeated 6 times=336 ends
balance, draft ends 1 to 47 47
left edge, reversed 6 395 warp ends

Wefts: Background is turquoise 18/1 linen, with
Pattern of white 10/2 mercerized linen, used
double on the shuttle. (6-strand white
floss would be very usable here)
Treading details -- using standard tie up given on page 36

With turquoise linen, weave 1\(\frac{1}{2}\)" for a \(\frac{1}{2}\)" finished hem, ending with tabby B

Band: \(\begin{cases} 
\text{treadle 4 with white linen double} \\
\text{tabby A} \\
\text{treadle 4 with white linen double}
\end{cases}\)

The 2\(\frac{1}{2}\)" end band of the towel uses this one white band treading, separated by varying widths of tabby, thus (see photo. p 42)

Band, 3 tabbies, Band, 5 tabbies, Band, 7 tabbies, Band, 9 tabbies, Band, 11 tabbies, Band, 15 tabbies -- thus Tabby A is constant at the centre of the band.

Towel body is all turquoise tabby, with the second border to match the first end.

TOWEL #4
Warp in Yellows We made a similar warp in yellows and golds, and tied it onto the turquoise warp. This is another random arrangement, of pale yellow, darker yellow, yellow gold, and a very fine dull gold and beige used together as one end.

Weft was yellow linen, 18/1 weight, with pattern bands of the white linen. The photograph will show this as a variant of the treading given above in detail for the blue towel.

TWO ROSEPATH BORDERS The last two towels are on a 24/3 natural Egyptian cotton warp, 30 ends per inch, threaded in Rosepath, with a doubled warp end used at 1" intervals for interest:

\[ \text{# 5} \]

Wefts: Background is chartreuse 20/2 linen, with bands of white 20/2 linen
20/2 unbleached linen
25/2 or 20/2 linen in bright medium green
" in bright rust
" in medium brown

Treading details -- using standard tie up given on p. 36

Weave 1/4" with fine linen for hem turn-in
Weave 1" chartreuse linen tabby, for a \(\frac{1}{2}\)" hem
Weave 2 shots white 20/2 tabby
6 shots unbleached 20/2 tabby
10 shots white 20/2 tabby
2 shots unbleached 20/2 tabby
13 shots brown, double on shuttle, treadle 1, 3, 1, no tabby
2 shots unbleached 20/2 tabby
Weave 5 shots white tabby
Repeat bracketted band, using bright rust instead of
shots white brown
Repeat bracketted band, using bright green
10 shots white 20/2
6 shots unbleached
2 shots chartreuse
2 shots white 20/2 The above gives a total band
2½" wide

Weave body of towel in tabby, using chartreuse linen.

Band for second end is as above, except that only the rust
band is used, omitting the green and brown, for a total width of 1-5/8"

TOWEL

This second Rosepath towel has a background of medium yellow
18/2 linen, with pattern of white 20/2 linen.

Weave yellow tabby for a ½" hem, ending with A tabby (2&4 down)
{With white, 1 shot with treads 3 and 4 together (frames 1,3,4
down
With yellow, 1 shot treads 3&4 together
With yellow, tabby A,B,A
With white, 1 shot with treads 1 and 2 together, frames 1,2,3
With yellow, 1 shot treads 1 and 2 together
With yellow, tabby A,B,A

Continue the above alternation for a band 1-3/4" wide.

Weave centre tabby of the yellow 18/2 linen, ending with
A tabby, then repeat the white pattern band.

Simple, but charmingly so!

---------

It is now late enough in the year for summer plans to
have become definite, but if not, why not make this a Banff summer?
Already we are planning the loom dressing, and Mrs. Henderson is
expecting to preside, as usual. Even a two week session has not
the pressure of a short conference, and much can be gained by
advance planning.

If you have already made Banff your summer 1963 goal, we
are happy to welcome you to another session of

GOOD WEAVING!

Mrs. E. M. Henderson
R.R. 4
Calgary, Alberta

Mary Sandin
University of Alberta
Edmonton, Alberta
1. Monk's Belt, prize-winning towel, red linen bands
2. Rough linen beach towel on the same warp
3. Crackle weave, turquoise with white pattern bands
4. The same draft, yellow with white pattern bands
5, 6. Two uncommon treadlings on a Rosepath draft

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p. 39
p. 40
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VOlume XX  NUMBER 6
JUNE, 1963

Mary Sandin
Edmonton

Ethel Henderson
Winnipeg
LOOM MUSIC

Volume XX, Number 6

Crib Coverlet  Carriage Cover  Baby Blanket

Draft Sources
One of our favorite articles of weaving is for a baby's carriage or bed -- the project is not too large, and there is such variety in draft choice. This month we give you four very different examples: a fancy twill, a colonial coverlet in miniature, a texture effect, and a fancy weave. Three of these drafts we used differently over twenty years ago, but we have always liked them. They have a close connection with Mary Atwater, going back to the days when we were so fortunate as to be able to spend weeks in her company on three different occasions. Hence, this issue has many ties with that great teacher.

A Current Trend
We have, too, explained in detail several steps along the way to getting a project on the loom. More than ever before, weaving is moving into the area of occupational therapy, the work with patients in need of rehabilitation, and the education of mentally retarded children. Here, we think, weavers have much to offer -- either as part-time teachers, advisors, or even helpers in chores to be done, and unused weaving materials and equipment to donate. Lately we have been able to give assistance to a new school for mentally retarded children, in supplying information as to type of equipment, supply sources, and so on. Any help Loom Music can supply is yours for the asking, and we can speak with fifteen years' experience in the teaching of retarded children.

The projects, now ---

#1 Checkerboard Blocks in Twill

This blanket was woven for a crib, and is about the weight and handle as ladies' suiting material. It can be made heavier with changes in warp and weft, and if wool is not desired, a Nylon or Dacryl warp might be used. In using these threads, be sure to sample and to watch shrinkage records.

Warp. Our blanket uses white 16/2 Weavcraft wool at 30 ends per inch, 1080 warp ends for a 36" reed width, 34" finished.

The Draft

![Diagram]

Arrangement:

Thread A,B,A,B,A,B,A,B,A,B,A = 1080 warp ends
The Tie-up is standard

Counterbalanced or falling shed loom

Rising shed, "jack", or table loom

harnesses

treadles

The Weft is yellow 16/2 Weavcraft, beaten to 22 wefts per inch, so that the fabric would not be too stiff.

Linen Tester
Once you have woven, measure with a textile glass.

or Textile Glass

The tester folds flat into a square carrying case, and opens thus: \( A \odot B \). \( A \) is a magnifying glass, \( B \) is a 1-inch square opening, marked off on each side in quarter inches. The square opening sits on your cloth, so it is simple to see warp end count and weft end shots per inch. Excellent ones are made by Bausch and Lomb Optical Co., but there is a much cheaper and quite adequate Japanese one to be had at about $2.50.

The Treadling

Tieing-in and beginning a warp

Starting off this treadling reminds us of a favorite way of beginning a new warp. We are exacting in our tieing-in, as the easy beginning of the weaving depends upon it. We tie at the centre with about an inch of slack (if you are a devotee of the knot and lashing method, keep your knot groups to not more than 1" of warp in the reed). Next we tie the two edge groups, never more than ½" width of warp in the reed, and tie them tighter by a bit than the centre. Then the intervening groups. For each we tie a single knot. As each group is tied, press down on the tieing lease rod, which puts tension on all your groups. By patting each with your fingers, the evenness of tension may be gauged. Keep edges a bit more taut, remember. When all are tied once, put final tension on with loom ratchet, and test again. When tension is uniform all across, make a further tie on the single knot, to produce a square knot.

Then, what we started out to say, we never use rags or heavy weft to put in the shots that bring the warp together evenly. We keep on hand a cone of the roughest possible tow linen, about 5/1 in size, pliant but shaggy. A few shots of this, tightly beaten, draw the warp groups together, and after about 8 shots your warp is perfectly ready. If you are a novice weaver, and find a wave - after this beating, it denotes uneven tension. This should be noted after the first 3 or 4 shots of tow, which should be taken out and the tension corrected.

Ready to begin the blanket?

Weave 1/4" in tabby, treadles 5 and 6, for hem turn in.

Then weave twill, treadles 4,3,2,1, and repeat until corner block is squared.

Treadle 4,1,2,3,4,3,2,1, and repeat, until diamond block is
squared, then treadle 4, once.

Treadle 1,2,3,4 and repeat until twill block is squared.

Treadle 1,2,3,4,3,2,1,4, and repeat, until diamond block is squared, omitting final treadle 4.

Repeat the above alternation of twill and diamond blocks, for desired length blanket, 48" or 52" of weaving, then tabby turn in as at beginning.

To finish: Wash in soap flakes without squeezing, rinse well, hold up to drip out excess moisture, then wrap between towels. When almost dry, press with a damp cloth and just enough heat to steam. Blanket stitch edges over a narrow hem, with a 4-ply matching wool, turning corners with 3 stitches in the same hole.

#2 Overshot A baby crib blanket should, we think, use a draft where the skips are small, and we have one of Mrs. Atwater's given in her January 1942 bulletin, called "Fifteen Hundred Snowballs". She referred to it "a simple -- almost a simple minded pattern, but one with a good deal of charm".

The draft consists of two motifs, a square figure, and a rose:

Square figure
Part A, ends 1 -24
Part B, ends 25-32

Rose figure
Part C, ends 1-24
Part D, ends 25-32

Note the following points:

1. Each group has 32 ends,
2. Each group is divided into two parts, making it an unbalanced figuration,
3. In repeating, draft ends 1 through 24 must be added before changing to the alternate group, to balance.

Arrangement: This cover may be woven traditionally, using a cotton or linen warp. Our arrangement below is for a 36" crib cover, using natural 24/3 Egyptian warp at 30 ends per inch:

Right selvage \( \frac{43}{2} \) once
Right border ends 1-24 of square draft 24 ends
ends 1-32 of rose draft 32 ends
bal. 1-24 of rose draft 24
ends 1-32 of square 32
bal. 1-24 of square 24
ends 1-32 of rose 32
bal. 1-24 of rose 24
ends 1-32 of square 32
* bal. 1-24 of square 24

(continued)
Centre, ends 1-32 of rose, repeated 17 times 544 ends
  bal. 1-24 of rose, once 24
  568 ends, 19" centre

L.border: begin at * and reverse
  back through right hand border,
  i.e. ends 24-1 of square, then
  ends 32-1 of square, and
  so on, including selvage 252 ends
  1072 ends total

The Weft: Pattern weft may be 16/2 yarn, or an 8/2 or
  10/3 cotton. In sampling, the weft and tabby (tabby weft same as
  warp) should beat in to 26 pattern shots per inch, to square off
  properly -- i.e., to have diagonal through squares at 45°.

Alternate tabbies 5 and 6 throughout, between pattern
  shots. Use standard tie-up given on page 44.

Treadling order for crib coverlet follows the threading
  order, and is

Hem turn under, and matching underside of 1" hem, then

End border:
  Treadlings 1 square figure (details below
  Treadlings 2, 2A, 2 Rose "
  Treadlings 1, 1A, 1 square " 
  Treadlings 2, 2A, 2 Rose " 
  Treadlings 1, 1A, 1 *

Centre:
  Treadlings 2, 2A for desired length,
  ending with 2
  about 32"

Second end border: Reverse treadlings of first end
  border from * above, then hem and turn-in.

Treadling details, for the above treadling order:

Underside of a 1" hem: Treadle 3, 3 times (use tabby
  Treadle 4, twice ) continue for eight
  Treadle 3, twice ) treadlings,16 pattern
  Treadle 4, twice shots
  Treadle 3, 3 times
  24 pat.wefts and tabbies

(matches underside
  of pattern)

1. Square figure:
  Treadle 1, 3 times (use tabby
  Treadle 2, twice ) 4 times, or 8 tread-
  Treadle 1, twice ) lings, 16 pat.shots
  Treadle 2, twice
  Treadle 1, 3 times

This figure should be square, with a little more than a
  45° diagonal, so stop and measure your small square figure at right
  hand side, and adjust if necessary: by 1) changing pattern weft, or
  2) changing beat, or
  3) adjusting numbers of times
  of treadling repeats.
1A. Second unit of "square" draft:
Treadle 4, 3 times
Treadle 3, twice
Treadle 4, 3 times

2. Rose figure or snowball:
Treadle 3, 6 times
Treadle 4, 5 times
Treadle 3, 2 times * centre
Treadle 4, 5 times
Treadle 3, 6 times
24 patterns and tabbies

2A. Second unit of "rose" draft:
Treadle 2, 3 times
Treadle 1, 2 times
Treadle 2, 3 times

#3 TEXTURE
BLANKET

A very useful draft, for many purposes, is one from the May 1940 Atwater Shuttlecraft Bulletin. There given as a texture example of a drapery from Sweden, it is an excellent way to combine dissimilar threads. We like a fine, smooth, shiny one, alternated with a thick, dull, rough one, which may blend or contrast in color. If the fine thread you have seems too much so, double it and treat it as one end, as in the photographed example on page 50.

This is a good draft for a carriage cover, with a hem or binding. Try various ways of denting, too. While we have packed our fine threads and spaced the coarse ones, the opposite can be done -- crowd the thicker ones a bit and space the fine. The uniformity of the meshing will hold the ends in place. Sample, though, to determine shrinkage before the final product.

The Draft and Tie-up and denting

Warp material and setting: We use a #10 reed, 2 ends per dent for part 2, the fine warp, which is a rayon or nylon; and 1 end per dent for part 1, the coarse warp, which is a 3-ply worsted.

Warping plan

We prefer to make two warps, the heavy first, 244 ends; then a fine warp of 232 ends. Heavy ends are threaded \( \frac{43}{21} \), fine are \( \frac{11}{1} \), and from the above draft we calculated our warp:

<table>
<thead>
<tr>
<th>Selvage, 4 ends heavy, sleyed 1 per dent</th>
<th>4 ends 4 dents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st 30 dents, 3&quot; of reed, as above: 20 heavy 20 fine</td>
<td>220 heavy 220 &quot;</td>
</tr>
<tr>
<td>For 3&quot;, above 3&quot; count x 11 = 220 each wt.</td>
<td>220 light 110 &quot;</td>
</tr>
<tr>
<td>Calculating for 36&quot; width, last 2&quot; of reed, 1st 20 dents graphed above</td>
<td>14 heavy 14 &quot;</td>
</tr>
<tr>
<td>Balance, add 3, 4 heavy (pat.ended 1,2 heavy)</td>
<td>12 light 6 &quot;</td>
</tr>
<tr>
<td>Left selvage, 4 ends heavy</td>
<td>2 heavy 2 &quot;</td>
</tr>
<tr>
<td>4 heavy 4 &quot;</td>
<td>244 heavy; 232 light 360 &quot;</td>
</tr>
</tbody>
</table>
Sleying: Fasten warp #1 to front beam of loom and dent heavy ends: 8 ends, 1 per dent; miss 2 dents and fill 4 dents, all across, beginning denting at extreme end dent of reed, ending with 8 heavy. Tie heavy ends behind reed in groups.

Then place warp #2 on top of warp #1, and dent 2 ends per dent in the empty spaces of 2 dents, all across. You may now beam directly, both warps will fall together with a shake. Or, you may thread through heddles and then beam.

Weft and treadling: The wefts are the same as the warp, and the beat should be a 50-50 one, length as desired. Using the tie-up given on page 47:

Treadle B,2,1,A with heavy weft
Treadle B,A,B,A with fine weft
Weft squares square the warp squares.

#4 Bulky Blanket Our last example, used at the Banff workshop with Mrs. Atwater back in 1941, is one which at that time she called a 6-harness blanket weave, and produces a fluffy type weave. In bulletins of Southern California's TIE-UP, it is called shell and extended twill.

On six frames it weaves a poor selvage, so our arrangement weaves a tabby border on frames 7 and 8, for weavers with an 8-frame loom. (We have not had a chance to try the border for a complete blanket length, so suggest it as an experiment to weavers, and hope to hear reports from them. Should undesirable tension differences occur -- the edges might be warped longer as a separate warp to allow for more take-up, with the edge warp on a weight behind the loom. Or, for a second blanket, edges could be re-threaded on frames 1 and 2.

The warp is 3-ply, or similar, knitting worsted in three colors: white, pink and blue, 15 ends per inch, 1 per heddle, 1 per dent, in a #15 reed; 36" wide = 536 warp ends.

The Draft and tie-up
Warping and threading

Right selvage  7,8,7,8,7,8,7,8  color A  8 ends
Centre  1,2,1,2,1,2,1,2  color B, 8
        3,4,3,4,3,4,3,4  color C, 8
        5,6,5,6,5,6,5,6  color A, 8
repeat centre 22 times, omitting the
final 8 ends on last repeat (5,6, etc.)  520 ends
Left selvage  7,8,7,8,7,8,7,8  color A  8 ends  536 ends

Treading and Weft:

Use weft colors same as warp, and weave 8 shots of each

color in turn, beating for a 50-50 finished product:

Tabby heading:  A,B, alt., as wished, color A
Treadle 1,2, alt. to 8 wefts total, color B) for
Treadle 3,4, alt. to 8 wefts total, color C) length
Treadle 5,6, alt. to 8 wefts total, color A) desired

Final color A is treadled in tabby, to
match beginning end.

A simple ribbon binding all around is probably the best
finish for this blanket.

GOOD WEAVING!

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$5 per year; back copies $3.50; subscriptions to be mailed to
Mrs. Lillian Anthony, R.R. 4, Calgary, Alberta. Copyright 1963
1. Baby blanket: checkerboard blocks in twill
2. Crib coverlet: fifteen hundred snowballs
3. Baby blanket: texture and color change
4. Six harness blanket, from Mrs. Atwater’s 1941 Banff workshop

LOOM MUSIC 1963
Fun with Summer and Winter Designing on Four Frames

We believe it is essential for every weaver to spend time at the loom, just learning the ways of many drafts, and adding the knowledge gained to one's repertoire of tunes to play on the loom. Our choice of the name of "Loom Music" was one of the best decisions we ever made, and we have offered a large variety of tunes over the years, BUT --

We have often wondered why Summer and Winter has such little appeal to the average weaver. We wonder if it is mostly because the weave is so much associated with the traditional geometrical interpretations, limited to two blocks on the 4-frame loom. We hope you will use this issue to discover the infinite variety of treadlings to which you can put it otherwise. September is the time to begin group or individual study projects, and we suggest a series of Summer and Winter samplings.

10 POINTS TO PONDER

Your early notes on Summer and Winter will contain the following statements:

1. On 4 frames the design is limited to 2 blocks. This is true, but there is no need to draft or treddle the symmetrical checkerboard interpretation.

2. The warp generally recommended is a 24/3 Egyptian, or similar grist, the pattern weft the same, and the tabby somewhat less. Why? Summer and Winter is a weave requiring 4 pattern shots and 4 tabbies to equal the space occupied by 4 warp ends. This cannot be done except by adjusting weights of weft and tabby; 8-4 is the ratio.

3. The above weights were given in Colonial and the early days of weaving in this century, with coverlets in mind. Today we may, for study purposes, make the warp as coarse as need be, so that we see the weave's behavior; and also to use for drapery, upholstery, household articles and skirtings.

4. The two blocks of the weave are threaded $A_{123}$ and $B_{424}$. This threading is constant, so that a short form draft is used, with the symbol $\equiv$ used to represent one block, so

- This reads, Block A. 3 x (12 ends)
- Block B, 3 x (12 ends)

5. Either block may be repeated indefinitely, because the pattern is formed of skips of never more than 3 ends long. We say, the tie-down end occurs every 4th end.

6. Writing 2 repeats of each block, one can discover 4 sets of 3-thread skips, 2 for each block:


Block A (or Block 1) circles 131, and 232
Block B (or Block 2) circles 141, and 242

Odd ends are all on 1 and 2, even ends on 3 and 4, which gives us the key to the tie-up for this weave:

<table>
<thead>
<tr>
<th>Sinking Shed</th>
<th>Rising Shed</th>
</tr>
</thead>
<tbody>
<tr>
<td>( X \times X \times X \times \frac{3}{4} )</td>
<td>( 0 \times 0 \times 0 \times \frac{3}{4} )</td>
</tr>
<tr>
<td>( X \times X \times X \times \frac{1}{4} )</td>
<td>( 0 \times 0 \times 0 \times \frac{1}{4} )</td>
</tr>
<tr>
<td>( 1 \times 2 \times 3 \times A B )</td>
<td>( 1 \times 2 \times 3 \times A B )</td>
</tr>
</tbody>
</table>

7. When we weave, a block repeated need not be squared along a diagonal according to its drawing in. We may depart from the "As Drawn in" rules entirely in our treadling.

8. For a small design, we may avoid the blocky effect altogether by drafting each block once alternately, instead of repeating either block. This alternation as upholstery for chair covering, is a good diamond diaper.

9. The most fascinating factor of Summer and Winter is the way in which pattern shots interact with the tabby background shots, which follow each pattern shot; and the way one block weaves the three-thread skips on the under side, hence the dark and light, or Summer and Winter, aspect of the design. This appearance, to be most noticeable, needs one of the two blocks to dominate the drafting.

10. Here is a drawing to illustrate the pattern shots weaving (no tabby shown):

```
  4 4 4 4
  3 3 3 3
  2 2 2 2
  1 1 1 1

1-3
2-3
3-4
4-4
```
Notice that (a) when 1-3 is treadled, Block A begins and ends with a broken group;
(b) when 2-3 is treadled, Block A weaves complete groups.

The same holds true for 1&4 and 2&4 rows when Block B is treadled.

(c) While A Block weaves, B block shows only single ends of weft with 3 spaces between.

(d) The second treadling of either block shows the 3-thread groups weaving under and between the 3-thread group of the first treadling.

If each is repeated, groups will show more:

But, as 1&3 and 1&4 have broken groups at beginning and end, to facilitate squaring we usually treadle only one of each at beginning and ending of a treadling group.

TABBY CHOICE
BETWEEN PAIRS The final, most interesting and most baffling feature of Summer and Winter treadling, in pairs after the first single, is the change in appearance of the background or light block, according to whether one treadles the A or the B tabby shot between pairs of pattern shots.

Notice the difference in grouping on the light blocks of these drawings:

Tabby and Pattern Weave, Sinking Shed, with B tabby between pairs:

Tabby and Pattern Weave, Sinking Shed, with A tabby between pairs:
And, if we change our pattern treadling order, we change the appearance of the pattern block design.

NOW TO WORK -- FOR A SPLENDID FOLIO OF REFERENCE SWATCHES

Warp. We suggest 8/2 cotton in natural, 20 ends per inch, 2 per dent in a #10 reed. Make it 14 to 16" wide, 10 yards long -- there's so much enticement in experimenting.

If this is to be strictly a sample warp, do have it more than one color -- use half of one and half another, or in thirds. Then as you use wefts, you can study the interplay of color as well as treadling effects. Our suggestion: one neutral, one vivid, one dull: beige cerise raisin or orange olive

Draft. Make up your own -- draw 3 lines for two blocks, then mark into squares: 288 ends ÷ 4 ends per group = 72 groups or units.

You may use any progression, or random, as you like of block repeats: 1,3,5,7; or 2,5,8,11; or 1,5,9,13. Try varying the larger blocks with one-and-one grouping, so you may have lattice treadling.

You may have the centre the largest group and plan a symmetrical arrangement, thus

Don't use this -- do your own -- and it can be asymmetrical if desired.

Threading: To your draft arrangement apply the unit formula:

Block A = \[
\begin{array}{l}
1 \\
3 \\
2 \\
1 \\
\end{array}
\]

Block B = \[
\begin{array}{l}
1 \\
4 \\
2 \\
4 \\
\end{array}
\]

Weaving

Use a pattern weft the same weight as warp -- a dominant color for emphasis, in wool, rayon, or cotton, but not nubby at this point. Use a tabby finer than the warp, and for the beginning heading weave 1" tabby. Next, to arrive at the proper beat: weave one round of pattern: 1,A,2,B,2,A,1,B = 8 shots.

At a warp setting of 20 per inch, 4 ends occupy 1/5 of an
inch. Measure your 8 shots of weaving (textile glass if possible). They should also measure 1/5". If not, change (a) tabby weight, or (b) pattern weight. Our sample used Briggs & Little homespun for pattern, with a 14/1 linen tabby, and balanced well.

Experimenting is an excellent way to use up wound bobbins, and try out color schemes. This will give experience, too, in providing various counts of threads, and show what is suitable. At your Guild meeting, have a bobbin trading time -- an easy way to have the opportunity of using a wide variety of wefts.

At last we have decided on wefts, and we are away!

OUR SET OF SAMPLES

We drafted a symmetrical arrangement with a wide centre, for two reasons: (a) to provide each of us a set of samples by cutting up the centre, and (b) to finish up the warp with woven lengths for Christmas articles, e.g. bordered mats, wash purses, etc.

Samples were woven 3 1/2" in length, with 1" linen tabby between samples, for a cutting margin.

SAMPLE #1: "Star" or "Cross-Stitch" Pairing order

(a) This is probably the most common treadling, with B tabby between pairs: (treadles refer to tie-up on page 52)

<table>
<thead>
<tr>
<th>Pattern</th>
<th>1 2 2 1 1 2 2 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tabby</td>
<td>A B A B A B A B</td>
</tr>
</tbody>
</table>

etc, for Block A, always in units of 4 pattern, 4 tabby

<table>
<thead>
<tr>
<th>Pattern</th>
<th>3 4 4 3 3 4 4 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tabby</td>
<td>A B A B A B A B</td>
</tr>
</tbody>
</table>

etc, for Block B

Let's weave our sample to the square -- for each unit of draft on our threading, 8 shots of the respective treadling. Weave at least 3 1/2" to 4" of each type. Then tabby area to separate the samples, as shown on the photograph.

(b) Many weavers prefer the same treadling, with A tabby between pairs of pattern:

1 B 2 A 2 B 1 A for Block A of the threading draft
3 B 4 A 4 B 3 A for Block B of the threading draft

We weave our sample with the same number of treadlings as in sample (a) above. Now examine the light block in each -- (a) background will show a diamond figure made by the warp, with a spot of pattern color at centre (b) shows warps \( \frac{1}{2} \) alternated with \( \frac{1}{4} \)

SAMPLE #2: "Rose" or Needlepoint Pairing Order

Now the change is in the pattern units -- we now have groups of "roses" instead of "stars", while the background blocks weave in the same manner as the first pair of samples.

Weave the same numbers of treadlings for two samples -- as woven for 1a and 1b, with tabby cutting space between.
2 (a)  Treadle  2 A 1 B 1 A 2 B 2 A 1 B 1 A 2  
Treadle  4 A 3 B 3 A 4 B 4 A 3 B 3 A 4 B  

for Block A 

Treadle  4 A 3 B 3 A 4 B 4 A 3 B 3 A 4 B  

for Block B 

2 (b)  Treadle  2 B 1 A 1 B 2 A 2 B 1 A 1 B 2 A  
Treadle  4 B 3 A 3 B 4 A 4 B 3 A 3 B 4 A  

for Block A 

for Block B 

SAMPLE #3:  Single Pattern shots 

Now another sample, the fifth, using a similar number of 
shots and the same order of blocks.  For this we shall weave one 
pattern shot only instead of pairs, alternately.  The appearance is 
the same using either A or B tabby alternation, but the same alter-
nation must be used throughout: 

Treadle  1 A 2 B 1 A 2 B  or  1 B 2 A 1 B 2 A  

for Block A 

Treadle  3 A 4 B 3 A 4 B  or  3 B 4 A 3 B 4 A  

for Block B 

It will be seen that the dark pattern is less distinct and 
covers in a quite different manner. 

Treading an uneven number of pattern shots will produce 
block areas which begin and end the same. 

This treadling system often makes "squaring" of a given 
area possible with more leeway in choice of pattern and tabby weights, 
since units of four pattern and 4 tabby weft shots are not necessary, 
as they were in #1 and #2 above. 

SAMPLE #4:  Single tie-down, or Dukagong effect. 

In working out some designs for borders on towels, or 
designs where the repetition of any of the foregoing treadlings 
interfere with the proportion, we may treadle on one of the block's 
combinations only.  This enables us to work out our design in a 
"dukagong" effect. 

The choice of tabby alternation (as in #3) has no effect, 
but the choice of pattern treadle does affect the appearance, so 
again we weave two samples to show this difference: 

4 (a)  Treadle  2 B 2 A 2 B 2 A  or  2 A 2 B 2 A  
Treadle  4 B 4 A 4 B 4 A  or  4 A 4 B 4 A  

for Block A 

for Block B 

4 (b)  Treadle  1 B 1 A 1 B 1 A  or  1 A 1 B 1 A  
Treadle  3 B 3 A 3 B 3 A  or  3 A 3 B 3 A  

for Block A 

for Block B 

On page 53, attention was called to the fact that when 
Treadle 1 is used, Block A begins and ends with a broken group; also 
Treadle 3,  Block B begins and ends with a broken group. 

This is well illustrated when comparing samples 4(a) and 
4 (b) above.
SAMPLE #5: Bound fashion

Summer and Winter may be woven without a tabby, and this is useful where a solid pattern without definite design is applicable. Say, in a striped upholstery, or drapery, or in working out exciting color contrasts by color play.

Those of you who have Malin Selander's YELLOW SERIES, will see an example combined with tabby bands, on page 12. In the alternating color bands she has used the no tabby system.

5 (a) Two colors only. Use same number of treadlings as all along in our sampling, i.e., an 8-thread unit. Use strongly contrasting tones, but not of same intensity, i.e., dark brown and medium blue; or light gray and black, etc., to avoid cancelling into gray at a distance.

Treadle 1 with dark, 3 light, 2 dark, 4 light, for Block A
Treadle 1 with light, 3 dark, 2 light, 4 dark, for Block B

i.e., treadling is constant throughout: 1,3,2,4, etc.

This will give solid light blocks, alternating with solid dark blocks.

5 (b) Using many colors. This again uses alternate colors, for producing color bands with no pattern in evidence -- colors in desired width bands, using the treadling 1,2,3,4 throughout -- for example:

Treadle 1 purple, treadle 2 red, 3 purple, 4 red = red and purple
Treadle 1 green, treadle 2 purple, 3 green, 4 purple = green & purple
Treadle 1 mauve, 2 yellow, 3 mauve, 4 yellow = yellow and mauve
Treadle 1 yellow, 2 red, 3 yellow, 4 red = red and yellow
Treadle 1 purple, 2 cerise, 3 purple, 4 cerise = cerise and purple.

We can see this used on a bright varied warp, with startling bands of wefts for a wonderful skirt. We are going to set up a color gamp in Summer and Winter, using all the warm colors in groups: light red, pink, orange, dark blue
then orange, mauve, purple, green
then red, magenta, orange, purple, and so on, and go crazy using bound fashion treadlings, interspersed with tabby!

TO STUDY
YOUR NINE SAMPLES  Last of all, we suggest you make a set of picture frames from light weight cardboard, with openings 1" square, 2", 3" and 4".
When you wish to plan a Summer and Winter textile, whether diaper or borders or stripes, place frames over your samples, and move them around until you visualize a pleasing arrangement. Then read the pattern of block alternation seen in the frame -- and your draft is ready for use, either in repetition or at each side of a wide
centre, and apply the particular treadling system you prefer.

By varying your warp settings, and wefts to suit, you can weave every texture from glass curtains (tabby with bound fashion bands) to drapery, table linen, and upholstery.

MORE SAMPLES

Of course there should be warp left on our sample loom to disregard all conventions -- use boucles and nubs, frills, and thick pattern warps against thin tabbies, dull against shiny.

Then, too, your Summer and Winter threading is an excellent one for several of the pick-up or embroidery weaves -- more samples!

Also, try samples using the usual treadlings of some other weaves: twill, M's and O's, Bronson, etc.

Last of all, duplicate your most interesting sample, for your two Loom Music editors -- we'd love to get them for our collection.

This is why we are weavers -- there's unlimited opportunity for thrills in

GOOD WEAVING!

Mrs. E. M. Henderson
R.R. 4
Calgary, Alberta

Mrs. H. B. Sandin
University of Alberta
Edmonton, Alberta

$5.00 per year of 10 issues;
$3.50 per year for back issues, 1944 to 1962, with complete sets still available. Subscriptions to Mrs. L. Anthony, R.R.4, Calgary, Alberta. Copyright 1963
Samples of Summer and Winter weave: eight treadling examples:

1 (a) "Star" or "Cross-stitch" pairing order, Tabby B between pairs,
(b) The same, with Tabby A between pairs.

2 (a) "Rose" or "Needlepoint" pairing order, Tabby B between pairs,
(b) The same, with Tabby A between pairs.

3 Single treadlings, rather than paired treadlings.

4 (a) Single tie-down, or "Dukagong" type, Treadles 2 and 4 used,
(b) The same, using treadles 1 and 3.

5 (a) Bound fashion treadlings.

LOOM MUSIC 1963
As we write, it is once again a beautiful sunny Sunday Banff morning -- and in a few minutes the bells of the various churches will ring out their call to worship. The sky is cloudless, the air has an early morning coolness and a promise of an ideal day to come. We have not had too many of these unforgettable days during July -- it has been a showery, and at times, a really wet period. At the present moment we are far removed from the world of tourists that imposes itself upon the valley, and surrounded by Nature in its most peaceful mood.

Our weaving studio has had no peaceful aspects; we have had busy days, at times rising to moments of hurry. After two 2-week periods of study for short term students, we are looking forward to a week of hard weaving with the full term core.

On reviewing the students as a whole, we are left with the conclusion that seldom have we had such a variety of weaving experience in terms of student knowledge. We have had beginners, students of all degrees between beginners and intermediate, plus seniors. In many cases, students had had no training in general knowledge of loom operation and good weaving habits, and theory was very new to them. Thus, much precious time was lost, both to students and teachers, in trying to supply these lacks. We think the teaching of fundamentals should come together with facility in shuttle-pushing, resulting in more satisfaction and skill for the student.

Our classes had a truly international feeling -- one student coming directly from India, while another lady, a medical
missionary, had spent her life before retirement in India. Each of these students showed us fine examples of Indian craftsmanship, and we learned how to wear a sari, modelled on a tall young member of the class. A third student was Australian, and delighted us with examples of her weaving, with fine Australian wools. We get a 2/32 Weavcraft from Paton and Baldwin, while Australians purchase 2/30 from the same firm. California, central U.S., and the East coast sent representatives, while Canada was not forgotten with six provinces on our roll.

Then, of course, we had a fine mixture of our methods with those of Malin Selander, our teacher for the summer from Sweden. Malin would say, "Shall I begin Swedish or Canadian/American?" The answer was, "As you like", so in observing Malin in action we noted many points we could incorporate into our methods. In turn, Malin would ask the student, "Are you counting by American or Swedish?" This resulted in a versatility in using both ways.

You will be anxious to know what we wove. To save time, we had most of our warps ready, and so the first days of the session were spent in threading and beaming for the seniors, and warping beginning warps for the others. Several looms were 90% ready to use.

The seniors had expressed a wish for multiple harness experience, so for our two looms -- 12-, and 16-frames, Malin made arrangements, as the 8- was already prepared for threading. On the 16-harness Macomber we put a 3-block damask, using 15 frames. The warp: 60/2 Knox linen at 60 ends per inch, width 13". The weft: 40/2 Knox linen.

For those with 16-harness looms we append the tie-up, numbering method is Swedish. You will notice pedals 1 through 5 weave blocks A, B, warp face, the right side; pedals 6-10 weave Block C warp face; while pedals 11-15 weave all blocks in weft-face, or background.
The profile
(Swedish notation)

Thread draft as many times as desired, ending with B, A, B, and C, once, for balance.

Meanwhile, the seniors were studying satin weave and its tie-ups with Mrs. Henderson, to be prepared for the weaving of the damask. This group also studied 4- to 8-harness Summer & Winter, 4- to 8-harness Bronson, multiple harness twills to 16 frames, and other multiple harness weaves, with some suitable cloth analysis.

The 12-harness loom was threaded to a 10-harness arrangement, an 8-harness diagonal twill with a fringe on four sides. This threading was so popular its life was all too short -- the yards seemed to disappear so quickly.

Warp: #10 Canadian unbleached linen, 2 per heddle, 4 per dent in a #10 reed. Weft: various linens, used double: Canadian, Lily 20/2, Knox 3-cord, Irish 18/2, etc.

On our 8-harness we put an 8-harness Summer and Winter, to be woven in the Finnish manner with linen pattern and weft, for wide runners, etc.

Warp: 20/2 Egyptian cotton, mercerized, 30 per inch, 27" wide.

Wefts: Canadian linens, 18/2 Irish linens, etc. Our favorite combination was lime 18/2 for tabby, used single on the shuttle, 5½ lea white, double on the shuttle, for pattern.

Profile and Tie-up
(N. American notation)

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Thread: Block A: 1, 3, 2, 3; Block B, 1, 4, 2, 4; C, 1, 5, 2, 5, etc.

However, these were but three looms out of 24, so the emphasis was on 4-frame looms. Some 7 of these looms were given over to beginners to weave off the experience we hold imperative for first time weavers. Our beginners received much attention from our third instructor, Mrs. Shirley Kean of Calgary, a Banff weaving student of 1946, 47 and 48, together with theory lessons with Mrs. Henderson. Mrs. Sandin was with for two weeks, "just to keep her hand in" was her phrase. Students, and teachers, had little leisure!

Malin sent over a warp of hemp, about 8/2 cotton size, which is enjoying use in Sweden now. Of a deep blue, with a lighter for blending in the stripes, it used a lime green for accent. Set up in twill, it was woven off for runners in either tabby or twill.
Warp arrangement -- blues are a sapphire tone

| Medium blue         | 60 ends                  |
| Light lime green   | 12 ends                  |
| Medium blue         | 12 ends                  |
| Darker blue         | 148 ends                 |
| Medium blue         | 12 ends                  |
| Light lime green   | 12 ends                  |
| Light blue          | 60 ends                  |

#10 reed, 2 to a dent
1 to a heddle
316 ends, 15" wide

Other looms had 24/3 Egyptian in twill, 18/2 linen in Bronson and also one in Huck, a "Poor Man's Damask", a 4-harness Summer and Winter, a miniature Overshot, a 32/2 Weavcraft in a Huck spot for baby blankets, wefted variously with nylon, wool, or silk; belts with brilliant coloring, wool scarves, studies in color and weave in twills -- all the weaves necessary for varied experience.

An interesting warp was one of Canadian #10 unbleached linen set at 10 ends per inch for transparent wall or window hangings, 27" wide. A variety of inlays was used, from wools plus mercerized linen for highlights, to textured threads to give texture interest.

As the days went by, a student on a hemp rug warp produced such appealing sample squares, 12" x 12", that another warp was set up to accommodate the demand from other weavers. In these warps the design and weaving was supervised by Malin. Our own samples, done in Borås thirteen years ago under Ulla Cyrus, were available for showing the technique, but today's design has undergone a great change, both in feeling and coloring.

All the techniques were woven: Soumak, Rölaken, Flossa, Rya, and a newer type called "Linen Rya". Malin's other name for this was "Fox Terrier dog". In this, the pile was of mixed bleached and unbleached linen, about 1½" long pile, 8 to 10 strands per knot -- thrums of old warps which we never throw away, bless our hoarding instinct! Here the tabby foundation was strips of old sheeting about 1 inch wide, knots about 1" between rows. These made an extremely firm backing.

Warp: hemp about 0 in size, set 5 ends per inch, every
other dent in a #10 reed, 60 ends in all. Our LeClerc looms, sturdy as they are, were considered as being too light in construction for adequate beating, but full strength was used and results were very satisfactory. Then the various finishes were applied -- the oriental braided edge, and other braids. These are all fully described in LOOM MUSIC, April 1951.

There was another warp that was never idle -- the 24/3 Egyptian twill, 30 ends per inch, 13" wide. Here the linen stock pile was constantly raided, as many interesting weft arrangements evolved. The place mats or runners from this warp used a 2-and-2, and 3-against-1 twill, for maximum surface interest. Against natural backgrounds, many color blendings were worked out, in dramatic combinations. One of our favorites was black and white, and here is the detail on this admired place mat:

**Wefts:** spaced linen (approx. carpet warp weight): Curl Bros. black 25/2 Knox mercerized linen

<table>
<thead>
<tr>
<th>Tie-up</th>
<th>1/4&quot; hem turn in, fine natural linen, tabby weave</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>1&quot; hem, natural spaced linen, tabby weave, to give</td>
</tr>
<tr>
<td>3 x x x x</td>
<td>a 3/8&quot; finished hem; narrow but looks well</td>
</tr>
<tr>
<td>3 x x x</td>
<td>6&quot; with spaced linen in 3-1 twill, treadle 1,2,3,4 and</td>
</tr>
<tr>
<td>1 x x x</td>
<td>repeat, using the tie up given at left.</td>
</tr>
<tr>
<td>1 x x x x</td>
<td>1/4&quot; with black linen, treadled 1,2,3,4</td>
</tr>
<tr>
<td>1 x x x x</td>
<td>2-5/8&quot; treadled 1,2,3,4, using 2 shots spaced linen</td>
</tr>
<tr>
<td>1 x x x x</td>
<td>2 shots black linen, alt.</td>
</tr>
<tr>
<td>1 x x x x</td>
<td>1/4&quot; with black linen, treadled 1,2,3,4</td>
</tr>
<tr>
<td>2-5/8&quot; black and natural as above</td>
<td></td>
</tr>
<tr>
<td>1/4&quot; with black linen, treadled 1,2,3,4</td>
<td></td>
</tr>
<tr>
<td>6&quot; with spaced linen, 1,2,3,4</td>
<td></td>
</tr>
<tr>
<td>1&quot; hem with spaced linen, tabby weave</td>
<td></td>
</tr>
<tr>
<td>1/4&quot; hem turn in, fine linen</td>
<td></td>
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</tbody>
</table>

A beautiful skirt, blouse, and stole, in beige and white 16/2 Weavercraft wool, with accents of copper metal, was a special project for one student. And then there were warps for bags -- in all we had about 32 or more warps working.

We think you will be interested in a few of our supplies, to permit this great variety of weaving:
Linens:
25/2 Knox mercerized in a dozen colors from pale to brilliant.
(May be bought at Searle Grain Co., Winnipeg
60/2, 40/2, 3-cord and 5-cord linens (Searle Grain
Canadian warp linens (spun from Quebec grown flax), bleached,
half bleached, unbleached, tow -- in sizes 10, 12, 14 singles
(Billard & Co., 1579 St. Denis St., Montreal)
5½ lea, white and unbleached (may be bought at Searle Grain
Spaced linen slub, natural, from Curl Bros., 334 Lauder St.,
Toronto, Ont.
18/2 linen, Irish, in 6 or 7 colors (Searle Grain
Wools:
16/2, 32/2 Weavercraft worsteds (Searle
Heather mix Canadian Homespuns from Briggs & Little, York Mills,
New Brunswick, in a good variety of colors.
Rug wools in greys, blacks, colors from the same firm.
Cottons:
Good variety, all weights and colors, Canadian and American source:

Curl Bros. Specialties, 334 Lauder Ave., Toronto 10, Ont.

We are informed by Mr. William A. Curl that in issuing
their latest price lists, certain changes have been made to hold the
prices of yarn at the same levels as have been used for the past two
years, with a few exceptions. These changes are necessary to hold
the current levels in spite of the rapidly rising costs and our 92½
cent purchasing dollar. These changes are: the withdrawal of
the one dollar cost of samples allowance formerly applied to $10.00
orders; a 10% surcharge on all orders less than $5.00; and 10%
charge on yarn which has to be broken down from original packages to
smaller lots. This surcharge applies only on the yarn that has been
EXHIBITION OF WEAVING AND CERAMICS
Banff, 1963
Arranged by Malin Selander
Photographs by G. A. Newman, New Delhi, India
November brings our annual request for renewals, and we have always been gratified by your steady and continued support. This 1963 has been a year in which we have gained many new friends, and we are certain many of these have joined us because of the good offices of other subscribers in our behalf, and for this we thank you.

To those who have been subscribers for many years, we send our appreciation, and tell you we are always greatly encouraged when your words of commendation are received.

We please ask you to re-subscribe early to avoid conflict with Christmas mail, and to enable us to send your gift subscriptions with a card in good time -- perhaps a 1964 subscription, or one of your favorite previous yearly issues.

1964 - $5.00; 1944-1963 inclusive - $3.50 each.

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Subscription rate to LOOM MUSIC is $5.00 per year of 10 issues -- $5.15 if payment is made by cheque (for the bank exchange). Back copies, 1944-1963, are available at $3.50 per year's issues; hard covers are $2.00 per set. Subscriptions should be mailed to Mrs. Lillian Anthony, R.R. 4, Calgary, Alberta.
CHRISTMAS WEAVING -- Geared for time and utility

The past year has demonstrated to us the difficulties of finding really new ideas in this large and ever-growing branch of the weaving craft. There are many ideas, to be sure, -- but not all of them pass the standards we set up for any woven article, which are: well designed as to color and eye appeal; of good quality for usability and saleable if so desired, because of an eye-catching appeal. We have been fortunate in having ideas sent to us by generous subscribers, and we have worked out some versions of others in our own weaving. As with most things, the basic concept is old and familiar, but we hope you will find a new interpretation interesting.

As well, we have had in mind the many weavers who are assisting or supervising weaving with the handicapped members of our communities. We would make a small plea here on behalf of those being helped -- First, as to equipment. Do see that it, in itself, does not present unnecessary hazards. Any "old" or discarded loom will not do for them; we would ask you to try out all equipment personally and assess what extra difficulties it presents to your worker. It is not fair to expect a handicapped person to use what you personally would reject.

Secondly, choose your warps with understanding for the individual's need. The warp itself should not be so fine, or so coarse, as to present difficulties in itself, and the weft should help with beating problems.

Thirdly, choose the articles to be woven with care, and have them such that if they are intended for sale, the article sells itself. Above all, suit the sale aspect to the worker to avoid pressures, remembering that what is normal for us may be mountainous to one under par. Do let your pupil set the pace.

BELTS.
AND BELT DEVELOPMENTS

We begin our Christmas weaving suggestions with belt warps, but warps with carefully planned color schemes. During the Banff classes, Malin Selander spent time with students working out their individual color scheme needs. Thus, Mrs. Doris Rubenfire of Cedar Glen, California, worked out 4 color schemes, to add to the one which we had already worked out early this year and woven, as a preliminary guide for this project.

A rather substantial warp was desired, calling for coarse warp material. A setting of 8 ends per inch was planned, threaded twill to weave tabby, and materials varied from 12/4 rug cotton, one end per dent, down to less coarse cottons which were doubled or tripled to give the needed bulk. This permits using greater color variety from yarns on hand, also blending and employing glitter occasionally.
We have constructed a chart showing the 5 belt warps, planned for an 8-dent reed, using 16 dents, or just over 2" wide. To adapt the chart, we suggest that you follow the colors listed, and in using your own supplies you will double or triple (or more) the finer weights as needed. (An overall guide to warp weights would be that half the dents should carry candlewick weight, and half the dents carry 10/3 or carpet warp weight, these distributed in hit and miss order across the warp).

As you will see by the chart on page 70, the threads and numbers per dent are what you choose to make them.

Belt Warp
No. 1: ITS USES AND WEFTS

Weaving is tabby, with two wefts used alternately -- a fine and a heavy stiff one, for a firm belt. This alternation serves the purpose of bringing the color scheme into full play, with the warp of one tabby shed in a continuous color line and the heavy weft of a color which will enhance that portion of the warp on the top shed. It is great fun to see how the color scheme alters with the choice of heavy weft color -- one can hardly believe the warp remains constant. Black is a good color for the fine weft on this warp.

Belt #1: Heavy weft is turkey red 1½ lea linen (or similar Fine weft is black 8/2 weight cotton (or similar

Weave in tabby, alternate heavy and fine weft, using a firm beat.

Belt #2: Heavy weft is dark jade 1½ lea linen (or similar Fine weft is black 8/2 weight cotton (or similar

Lily's heavy jute comes in a wide color range, and gives excellent stiffness when used as the heavy weft in such belts.

Finishing

Belt #1 began with a heading of 4 shots black fine, firmly beaten, with 16" left for fringe. Braid this into 6 or 7, 4-strand braids, for 5 to 7 inches variously, and leave balance of ends hang.

The buckle end of the belt was machine stitched for strength, then bound with light weight black cotton cloth or tape. This end was passed through a pair of copper wire ovals, of the approximate shape and thickness shown at the right, then the end hemmed down by hand to hold the ovals firmly in place.

To fasten belt, insert fringe ends through both ovals, then back through the topmost oval, and let ends hang down.

(Our 3/16" diameter copper wire came from scraps of covered copper wire left in our back lane after linemen had been doing repair work there. The covering was stripped off, and the wire bent into shape around a convenient dowel rod, then smoothed and cleaned with fine steel wool, and polished.)
<table>
<thead>
<tr>
<th>1 dent</th>
<th>2 dents</th>
<th>3 dents</th>
<th>4 dents</th>
<th>5 dents</th>
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<tbody>
<tr>
<td>1 fine red candlewick</td>
<td>1 light henna carpet warp</td>
<td>1 turkey red carpet warp</td>
<td>1 crimson 8/2 cotton</td>
<td>1 red violet candlewick</td>
</tr>
<tr>
<td>1/2 red rayon</td>
<td>12/4 rug cotton</td>
<td>1 purple cotton</td>
<td>1 red violet candlewick</td>
<td>1 pale pink heavy chenille</td>
</tr>
<tr>
<td>2 red carpet warp</td>
<td>1 heavy purple cotton boucle</td>
<td>3 light orange 20/6</td>
<td>1 white &amp; gold rayon boucle</td>
<td>2 rose raisin rayon chenille</td>
</tr>
<tr>
<td>4 red carpet warp</td>
<td>2 delft blue, 2 wine red carpet warp</td>
<td>3 deep beige 20/6</td>
<td>1 white &amp; gold rayon boucle</td>
<td>2 rust 8/2 cotton</td>
</tr>
<tr>
<td>1 white cotton boucle</td>
<td>fine copper metal</td>
<td>1 light orange 20/6</td>
<td>1 white &amp; gold rayon boucle</td>
<td>1 crimson 8/2</td>
</tr>
<tr>
<td>turquoise 8/2 cotton</td>
<td>purple boucle</td>
<td>1 mauve pink 10/3</td>
<td>1 white cotton boucle</td>
<td>1 white &amp; gold rayon boucle</td>
</tr>
<tr>
<td>1 red violet heavy candlewick 12/4</td>
<td>blue violet 10/3</td>
<td>4 yellow orange or corn 8/2</td>
<td>1 turquoise 8/2 cotton</td>
<td>1 white &amp; gold rayon boucle</td>
</tr>
<tr>
<td>1 white cotton boucle</td>
<td>1 fine copper</td>
<td>1 pale pink heavy</td>
<td>2 blue &amp; gold metal</td>
<td>1 white &amp; gold rayon boucle</td>
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<tr>
<td>turquoise 8/2 cotton</td>
<td>magenta 12/4 cotton</td>
<td>chenille</td>
<td>1 crimson 8/2</td>
<td>1 white &amp; gold rayon boucle</td>
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<tr>
<td>same</td>
<td>medium green 12/4</td>
<td>1 gold rayon boucle</td>
<td>1 purple cotton</td>
<td>1 crimson 8/2</td>
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<tr>
<td>1 red violet 12/4</td>
<td>hyacinth blue</td>
<td>2 burnt orange 20/6</td>
<td>2 blue &amp; gold metal</td>
<td>1 white &amp; gold rayon boucle</td>
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<tr>
<td>heavy candlewick</td>
<td>12/4 cotton</td>
<td>3 rose pink 20/6</td>
<td>2 crimson 8/2</td>
<td>1 white &amp; gold rayon boucle</td>
</tr>
<tr>
<td>1 mauve purple 12/4</td>
<td>3 spring green</td>
<td>4 true yellow 10/3</td>
<td>1 deep turquoise</td>
<td>1 white cotton boucle</td>
</tr>
<tr>
<td>1 white cotton boucle</td>
<td>2 fine blue and gold metallic</td>
<td>1 coral carpet warp</td>
<td>6 orange 20/6</td>
<td>1 red violet carpet warp</td>
</tr>
<tr>
<td>turquoise 8/2 cotton</td>
<td>1 light turquoise</td>
<td>2 crimson 8/2</td>
<td>4 corn yellow</td>
<td>1 blue &amp; gold metal</td>
</tr>
<tr>
<td>1 red violet 12/4</td>
<td>12/4 candlewick</td>
<td>2 blue &amp; gold metal</td>
<td>carpet warp</td>
<td>1 deep turquoise</td>
</tr>
<tr>
<td>1 spring green 12/4</td>
<td>jade green 8/2</td>
<td>metallic</td>
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<td>metallic</td>
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<tr>
<td>1 white cotton boucle</td>
<td>1 yellow green 12/4</td>
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<tr>
<td>black and gold</td>
<td>2 delft blue carpet warp</td>
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<tr>
<td>1 spring green 12/4</td>
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<td>1 white cotton boucle</td>
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<td>1 spring green 12/4</td>
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<tr>
<td>1 spring green 12/4</td>
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<td>18 ends</td>
<td>26 ends</td>
<td>31 ends</td>
<td>53 ends</td>
<td>46 ends</td>
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<td>32 ends</td>
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in the next tabby shed, extending 1/2" to the left of the warp and full length to the right. Throw red weft in next tabby shed, then next long length of bamboo in next shed, this time extending 1/2" to the right of the warp and long length to the left. Alternate shots of bamboo and red strawcraft, and alternate the long bamboo ends first to one side of the warp and then to the other -- being careful to bring red warp around bamboo for neat and firm edges.

Continue weaving until tree top is narrowed to about 4" width, throw a couple of firm tabbies to hold end until finishing, then leave about 7" for top fringe.

Our bottom fringe was overcast by hand; top ends were divided in two, these rolled in opposite directions, and a square knot tied about 2" above the last bamboo. This loop provides the means of hanging the tree -- we suspended ours from the ceiling by means of fine light colored linen thread.

**RULER HOLDER**

Earlier this year we received two excellent ideas, based on a belt type warp, from Mrs. Win Grear of San Mateo, Calif., the product of ReHab personnel at the centre where she is a volunteer worker. These are excellent "tuck in" gifts. The warps vary, as much of the warp material is donated, or bought at clearance prices.

Warp: Thread of about 10/3 size, or light weight carpet warp, general setting of 12 ends per inch, 2" wide. Heavier, contrasting threads will give added warp interest, placed each side of centre, giving three, 5/8" sections.

Weft: 12/4 cotton or heavy candlewick, to give firm weave.

Weave 28" and machine stitch across ends. Turn a 3/8" hem at each end, overcasting by hand -- one hem end turned to the right side, the other hem end turned to the wrong side. Fold the band over itself, leaving 2" single thickness at top end (hemmed under) and 1 1/2" double for ruler pouch. Overcast edges with matching thread. Attach a 5/8" bone ring at top for hanging. Make two tassels from the weft material and tease them to be fluffy, then attach one at top of pocket and one at bottom. Insert ruler-tape measure in pocket. (see photograph on page 76)

Ruler: Sand flat side of ruler to remove varnish, then attach the "final" 12" of a 36" tape, pasting it flat with Bondfast paste or glue. Wind remaining tape around ruler lengthwise and slip into the pocket of the holder. Suggested price is $1.25.

**YARDSTICK HOLDER**

The idea here is identical, as shown in the photograph, with a longer holder to accommodate the yardstick, and a larger ring for hanging.

The interesting warp used here is of two colors, turquoise and royal blue, alternately 1 and 1. About 8/2 weight was used, double, with a warp setting of 20 double ends per inch. Weft was of a lighter turquoise, fine candlewick weight. Many other two-color combinations would be effective.
Belt #2 (see photograph p. 76), was finished in a manner similar to #1, except that the black cotton end-binding was wider, to make a 1" casing beyond the end of the woven belt, for inserting this belt's buckle. This buckle used the same weight copper wire, and is sketched actual size here. Again, the bending was done just with hands and pliers around the size dowel to give the bends the proper widths. The ends were filed smooth and flattened with a hammer, as were the round portions also flattened for interest. Finally, the buckle was bent back at the two end loops to fit the contour of the waist, and the centre bend bent upward slightly at the bottom. After polishing, the centre copper loop was slipped into the casing at the end of the belt, and tacked at the bottom for firmness. To fasten, the fringed ends are slipped through as shown on the photograph, a very secure closing when the belt is of this good heavy firm weight.

CHRISTMAS TREE or MOBILE

This No. 1 warp was made for the primary purpose of trying out the "swirling" trees which we admired in exhibition transparencies from the Portland Weavers' Guild. We are indebted to Mrs. Pat Harris of that Guild who mailed us the excellent directions for cutting matchstick bamboo mats efficiently, so that one 12" x 18" table mat would provide the bamboo for one "tree".

These trees, which may hang flat against a wall, or be twisted for a 3-dimensional shape and hung in space, were most effective additions at the Banff School exhibition of student work last August, and one Kentucky visitor was so pleased with the effect that she paid $5 for one of them. When the centre strip is quite stiff, as ours was, the tree retains its twist -- hold ends of the woven strip firmly, tree outstretched, then twist one end (or both ends in opposite directions) -- tight twist as possible, then it will unwind itself slightly.

Wefts: Black matchstick bamboo place mats, cut as directed, alternated with red strawcraft, or red candlewick, or similar material, choosing color with reference to the warp used. These two wefts alternate, tabby treadling throughout.

To cut bamboo mat: With chalk, draw a line from one corner of the mat to the centre of the opposite end, and cut along chalk line with heavy scissors, not removing the warp ends until weaving is done. Begin weaving with the 12" length and progress through the mat to the 6" end, then through the remaining section of the mat from the 6" end through to about the 2½ to 3" lengths of bamboo.

To weave: Leave 4" or 5" for fringe, throw two tabby shots of red strawcraft for a heading, firm beat, then the first 12" bamboo
WOOL  NECK  SCARF

Skiiers and Northern people will welcome a scarf of this weight -- even Mid-westerners and Southerners, after last winter:

Warp: 16/2 Weavcraft or Fabri at 24 ends per inch, twill draft.

Warp arrangement:

36 ends white, 6 ends red, 12 ends white,
8 ends yellow, 12 ends white, 6 ends black,
2 ends white, 4 ends red, 4 ends white *
10 ends blue, 6 ends tartan green & blue alt. (6 total
20 ends white, 10 ends blue, 6 ends green and blue alt.

White is centre

Begin at star above and warp back to beginning. (Yes, colors on each side of centre are not similarly placed)

Weft: White 16/2 wool as warp, tabby weave, watching beat very carefully to keep a 50-50 finished weave. (If desired, end bands of creamy white heavy wool may be added at ends, using a 1-3 twill treadling, and positioning them as shown on our example). Finish by knotting 3 warp strands together for a 3" fringe.

Christmas WALL BANNER or "SWAG"

We have seen many of these small banners, and they do lend a note of Christmas cheer when placed on a door or in an entrance hall. We decided to have some fun evolving one that was easy and quick to weave, and which would take its theme from whatever was placed on it for added decoration: fir twigs (as the one photographed), holly, or Christmas bells, perhaps a combination of each. Furthermore, we wanted to use threads within everyone's reach.

Warp: White carpet warp (8/4) at 15 ends per inch (12 would do also), 18" wide, 270 ends.

Draft is from Beriau's HOME WEAVING

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>33</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>1/6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tie-up

Wefts: Ordinary cotton boucle, near white or natural for background. Patterns, 4-strands crimson red 8/2 wound together on a bobbin, and a rayon gold wrapped boucle on another bobbin.

Planning: When we were trying out treadlings, one looked rather like a fancy candle, so we began with these in mind, sketching some arrangements, using the weft stripes up and down in the finished banner. We liked an asymmetrical arrangement, as our photographed one

We decided on a bottom hem finish, plus a fringe at the bottom edge. The fringe could be done after hemming, but we thought it easier to add fringe at the loom, so will describe that method.

The Weaving: We set up a beat of 12 boucle tabby wefts per inch. We found a great tendency to narrowing, so took care not to
pay in weft at all tightly. Weave 1-3/4" boucle, to allow for edge hem, and 1" surface edge. After 3/4", begin tying in fringe, and continue that process all across the weaving, tying at every 3rd weft. Fringe method: Wind 1 end cotton boucle and 1 end red 8/2 around a card 3" deep, and cut down one edge. Use 1 end each for fringe, which is tied over the 17th double warp end from the right hand edge:

Treadlings: Each band in our photographed example consists of 9 treadlings per pattern band, in this order:

<table>
<thead>
<tr>
<th>with falling shed tie-up on page 73</th>
<th>frames used</th>
<th>with rising shed tie-up</th>
<th>frames used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pedal 4</td>
<td>4th down</td>
<td>Pedals 2,5 together</td>
<td>1,2,3 up</td>
</tr>
<tr>
<td>2. Pedal 3</td>
<td>3rd down</td>
<td>Pedals 1,6 together</td>
<td>1,2,4 up</td>
</tr>
<tr>
<td>3. Pedal 5</td>
<td>2,4 down</td>
<td>Pedal 5</td>
<td>1,3 up</td>
</tr>
<tr>
<td>4. Pedals 4,6 together</td>
<td>1,3,4 down</td>
<td>Pedal 2</td>
<td>2nd up</td>
</tr>
<tr>
<td>5. Pedals 2,6 together</td>
<td>1,2,3 down</td>
<td>Pedal 4</td>
<td>4th up</td>
</tr>
<tr>
<td>6. Pedals 4,6 together</td>
<td>1,3,4 down</td>
<td>Pedal 2</td>
<td>2nd up</td>
</tr>
<tr>
<td>7. Pedal 5</td>
<td>2,4 down</td>
<td>Pedal 5</td>
<td>1,3 up</td>
</tr>
<tr>
<td>8. Pedal 3</td>
<td>3rd down</td>
<td>Pedals 1,6 together</td>
<td>1,2,4 up</td>
</tr>
<tr>
<td>9. Pedal 4</td>
<td>4th down</td>
<td>Pedals 2,5 together</td>
<td>1,2,3 up</td>
</tr>
</tbody>
</table>

Following the above treadling order:

1. Bring red (4 strands on bobbin) from right edge into shed and up to top of shed about 3" from left edge. Come up between a narrow skip of pattern just after a wide one. Lay shuttle toward left edge.

With gold and white rayon boucle, enter shed left to right and come to top of shed through the same opening as the red, laying shuttle toward right edge. The single rayon boucle may not beat in as firmly as the red, but this is of no detriment to the finished piece.

2. Open second shed: with red, enter shed and come out to right hand edge; with gold enter shed and come out to left hand edge. The laying of the shuttles allows wefts to interlock at turning point.

3. Open third treadling and bring colors back to original spot on surface.

4. Open fourth treadling and take colors back to edges.

5. At end of 5th treadling, when turning, leave both red and white in a loop 2½" long, allowing this to remain on surface of web.

Continue this order for the nine treadlings, remembering to tie fringes at every 3rd weft pass. On final pass which ends at an interlocking spot, leave a 3" length of each weft at the surface, and cut.

On the red band just woven, we have 13 circles above the fringe -- you may follow your own band arrangement.

Weave one inch of white cotton boucle in tabby, then second pattern band, this band with 10 circles above fringe.

Continue with 1 inch white cotton boucle, then 3rd pattern band, 14 circles above fringe, 1" boucle, 4th band, 8 circles; 5th band, 11 circles; 6th band, 10 circles.

End with 1-3/4" boucle as at beginning.
Using bondfast glue, lay a thin line of glue along beginning and end and let dry, then cut along this line.

**Finishing:**
1. Press with damp cloth and hot iron
2. Turn in raw edges and press down, leaving 1" boucle surface to edge the hanging. Stitch down without a turn-in, using stitch XXXX.
3. Overcast a 1/2" hem at top, for a rod -- ours was a heavy white knitting needle
4. Press in bottom hem, fold at fringe line, and overcast hem. Slip in a strip of thin plywood or something else heavy to weigh down. Trim fringe evenly.
5. Make a twisted cord of red and white (4 red, 2 boucle) and attach to ends of knitting needle, for hanging.
6. Decorate as desired: We cut pine twigs with cones, and using the loose ends left at the top of red bands, tied twigs loosely to the web. These may top the red bands, as in ours: or a wreath shape might be designed, etc., etc. Design your own arrangements!

You will find it is much fun to decorate -- and perhaps it may give you an idea to build on.

GOOD WEAVING to you

Mrs. R. B. Sandin
Mrs. E. M. Henderson
University of Alberta
R.R. #4
Edmonton, Alberta
Calgary, Alberta

"BOOKS FOR THE WEAVER", Basic catalog 1963-64

The above catalogue was mailed to us in September, by Craft & Hobby Book Service, Big Sur, California, along with the suggestion that weavers who have not received their copy, write to them asking for one.

New postal regulations there will not forward third class mail, unless authorized at a very large cost. Thus, weavers who move and do not inform Craft & Hobby of their new address, do not get their catalogues and they are wasted, entailing a loss to both parties. Those wishing this latest catalogue will be sent one upon application to the above address.
1. Bamboo Christmas tree, to be used flat or to swirl, as a mobile
2. Wool neck scarf
3. Ruler holder, from a belt type warp
4. Yardstick holder, from a belt type warp
5. Belt with handmade copper buckle, made on the same warp as No. 1
6. Christmas swag, with fir twigs attached

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Dear Subscriber:

November brings our annual request for renewals, and we have always been gratified by your steady and continued support. This 1963 has been a year in which we have gained many new friends, and we are certain many of these have joined us because of the good offices of other subscribers in our behalf, and for this we thank you.

To those who have been subscribers for many years, we send our appreciation, and tell you we are always greatly encouraged when your words of commendation are received.

We please ask you to re-subscribe early to avoid conflict with Christmas mail, and to enable us to send your gift subscriptions with a card in good time -- perhaps a 1964 subscription, or one of your favorite previous yearly issues.

1964 - $5.00; 1944-1963 inclusive - $3.50 each.

May we hear from you soon, please?

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I have a full set of Loom Music, 1944-1963. Yes □ No □

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city and zone __________________________ province or state

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Name (please print) __________________________ street and number

_________________________________________________________
city and zone __________________________ province or state

Subscriptions rate to LOOM MUSIC is $5.00 per year of 10 issues -- $5.15 if payment is made by cheque (for the bank exchange). Back copies, 1944-1963, are available at $3.50 per year's issues; hard covers are $2.00 per set. Subscriptions should be mailed to Mrs. Lillian Anthony, R.R. 4, Calgary, Alberta.
WARP SETTINGS FOR WARP FACE REPS, ON TWILLS

Reps of this type have so many uses, -- upholsteries, bands for outdoor furniture, patio table runners, draperies, bag lengths -- the list is legion, and the wonder is, on looking back over LOOM MUSIC that we have not used them more often. There is much pleasure in designing color combinations in this type of weave, and in arranging color changes to one's own satisfaction.

The reps are a division of plain or tabby weaving, and we are using them any time we depart from a 50/50 warp and weft meshing. Beginners in weaving, especially those weaving coatings or suitings, will often, to their dismay, achieve a warp faced or weft faced rep by this deviation of the warp setting. As warp settings vary from one thread to another, trial warps are the only answer to the exact combination needed.

It is not often that a warp face material uses coarse warp material (one exception is a coarser warp in some warp face rugs), so we find our threads will be 20/2, 16/2, or 8/2, and once in a while a 10/3 for some special effect. Smooth threads should be chosen, because when the shedding operation occurs we do not wish the warp to "cling" and prevent the opening of a good shed.

There may be a few weavers who do not experiment with the warps on their looms, because of rule inhibitions, and we do wish they would forget the rules once in a warp and try the most unlikely procedures, even to achieve little but the fun of so doing.

We are happy to see in the current magazines a return to the use of cushions, as many of the warp face reps can be utilized with good effect, and provide weaving which entails a lesser amount of time than yards of upholstery or drapery. All of our examples in this issue may be adapted to these uses.

A SIMPLE WARP-FACE REP

This and the following example were worked out by Mrs. Mooney of Massey, Ontario, in her preparation for a Canadian Guild test.

The Warp is 16/2 cotton (20/2 for U.S.) in royal blue, mid green, and corn yellow. (The difference between the Canadian 16/2 and U.S. 20/2 is that the former is soft and unmercerized, whereas the 20/2 is a bit firmer and shiny; 16/2 runs 6720 yards per lb., 20/2 runs 8400 yards per lb.

The warp face reps are not for the impatient, as the set per inch here is 72 ends per inch, 4 per dent in a #18 reed.
Warp arrangement, for 13" width:

184 ends royal blue
12 ends mid green
64 ends yellow and mid green alternately
56 ends yellow
64 ends yellow and mid green alternately
28 ends mid green
120 ends royal blue * centre, reverse to beginning, starting with 28 ends mid green, and up
936 ends

Draft and tie-up: Draft is twill, with standard tie-up

\(1^{234}1^{234}\)

Counterbalanced, falling shed  Jack type, rising shed

(While this is a 2-harness weave, we put it on 4 frames rather than 2, to facilitate shedding process.)

Threading plan

46 repeats of \(1^{234}\), using royal blue (it is easy to make errors in threading twill, so check carefully

3 repeats of \(1^{234}\), using mid green
16 repeats using yellow on 1 and 3. green on 2 and 4
14 repeats yellow
16 repeats using green on 1 and 3, yellow on 2 and 4. Note change from first order, this is important.
7 repeats using green
30 repeats using royal blue CENTRE then start with 7 repeats using green, and reverse to beginning, exactly as first half

Example 1: Wefts

This warp setting gives a perfect cover to the weft, and no trace of the weft shows on contrasting color warp.

Using 16/2 royal blue weft, weave tabby treadles A and B alternately. The beat here is 20 wefts per inch, giving an excellent cloth with a fine handle -- firm but pliable, strong, and yet pleasant to the touch.

Example 2: Other wefts on the same warp  (see photograph p.84)

Wefts: Nylon selvage cuttings in delft blue
16/2 cotton in royal blue

Treadling possibilities. With color arrangements such as
in this warp, the treadling of fine and coarse wefts will affect the appearance of the cloth. In the example sketched below -- go over the lines with colored crayons, please, to see the effect:

(a) When 1&3 is treadled, we see

\begin{align*}
& \text{threaded yellow and green alt.} \\
& \text{green} \quad \text{yellow} \quad \text{yellow, alt.} \\
& \text{green} \quad \text{yellow} \quad \text{yellow, alt.} \\
& \text{blue}
\end{align*}

(b) When 2&4 is treadled, we see

\begin{align*}
& \text{threaded green and blue} \\
& \text{yellow} \quad \text{yellow} \quad \text{green} \quad \text{green} \quad \text{blue}
\end{align*}

Thus, if we use a fine tabby on 1&3 and heavy nylon on 2&4, we have all the heavy ribs caused by the heavy nylon appearing as (b) above, which would dominate the coloring, the fine rows of the 1&3 treadling not appearing. Therefore, to get more interest in the cloth, 2 tabbies are thrown between each heavy nylon, accentuating the heavy color ribs to appear ________________

As well, it was found there is a slight wavy appearance to the heavy ribs which adds texture interest. This example would be splendid as stair carpeting because of its strength, yet it is not stiff, so could also be used as bag lengths or cushions.

**Treadling:** Tabby heading, alt. shots A and B treadles, as desired, in 16/2 blue, ending with tabby shot 1&3

**Pattern:** heavy nylon trimmings, or similar weight such as cotton rug yarn, etc., one shot tabby 2&4
With royal 16/2, throw 1&3, 2&4
With heavy, tabby 1&3
With royal 16/2, throw 2&4, and continue

**SWEDISH WARP FACE**

A very attractive color arrangement came to us in a sample from a Swedish Hemslojd last spring. The color scheme here is modern Swedish in feeling, and the following colors are used:

\begin{align*}
& \text{border} \\
& \text{black} \quad \text{metallic green} \quad \text{black} \quad \text{metallic green} \quad \text{black} \quad \text{metallic green} \quad \text{black} \quad \text{metallic green} \quad \text{black} \\
& \text{brown and green alt.} \quad \text{brown and green alt.} \quad \text{brown and green alt.} \quad \text{brown and green alt.} \quad \text{brown and green alt.} \quad \text{brown and green alt.} \quad \text{brown and green alt.} \quad \text{brown and green alt.}
\end{align*}


Warp is 16/2 cotton, used double as one end

Warp setting: 2 ends per heddle, 8 per dent in a #12 reed (i.e., 48 double ends per inch). If you have sufficient heddles, it is better to thread 122344, otherwise thread 2 per heddle, 1234.

Warping order, and threading plan

<table>
<thead>
<tr>
<th>Border</th>
<th>thread 1234</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 double ends black</td>
<td>3 times</td>
</tr>
<tr>
<td>24 double ends brown</td>
<td>6 times</td>
</tr>
<tr>
<td>12 double ends black</td>
<td>3 times</td>
</tr>
<tr>
<td>24 double ends med. yellow green</td>
<td>6 times</td>
</tr>
<tr>
<td>120 double ends, 2 1/2&quot; wide</td>
<td></td>
</tr>
<tr>
<td>12 double ends black</td>
<td>3 times</td>
</tr>
<tr>
<td>24 double ends med. brown</td>
<td>6 times</td>
</tr>
<tr>
<td>12 double ends black</td>
<td>3 times</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>one pattern repeat</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 double ends green and brown alt., 4 and 2 green, 3 and 1 brown</td>
</tr>
<tr>
<td>12 double ends black and royal alt., 4 and 2 black, 3 and 1 blue</td>
</tr>
<tr>
<td>4 double ends darker green</td>
</tr>
<tr>
<td>28 double ends green and brown alt.</td>
</tr>
<tr>
<td>4 end 2 green, 3 end 1 brown</td>
</tr>
<tr>
<td>72 double ends green and brown alt., 4 and 2 brown, 3 and 1 green</td>
</tr>
</tbody>
</table>

Repeat pattern for desired width, omitting the final 72 double ends of the last repeat, to balance, then repeat border as above.

Wefts: Fine is 16/2 green, double on shuttle. Coarse is a soft white cotton about 4/4 weight with very little twist, double on shuttle.

Color treading changes: For lengthwise color stripes, throw alternate fine and heavy shots, tabby treading throughout; e.g., tabby A fine, tabby B heavy, and so on.

When a band across, of the under-side color is desired, throw 2 fine tabbies, and then heavy and fine alternately until next change is desired.

Rule: As long as fine and heavy alternate, as 1&3 fine, 2&4 heavy, appearance is uniform in lengthwise stripes. Two fine tabbies together, 1&3 fine, 2&4 fine, throw off this alternation, and Treading will then be 1&3 heavy, 2&4 light. To go back to original, throw 2 fine tabbies.

WARP FACE FABRICS IN VIBRANT COLORS

Again, these are excellent upholstery weights, with hard wearing qualities. They can be useful in dozens of ways, in every part of the home, and even suitable for sports wear. These, too, were included in our Hemslöjd parcel (Hemslöjd being the government aided Homecraft Society of Sweden). All these are warp stripes, not completely warp face.

Example 1 has a yellow, orange, white color scheme -- 9 color stripes as noted on the following page. Warp is 8/2 size, set at 36 ends per inch, 2 per dent in a #18 reed; 536 warp ends, nearly 15" wide in the reed.
narrow lines between are very dark brown.

The Draft is twill, and the tie-up is direct, i.e. treadle 1 tied to frame 1, treadle 2 to frame 2, etc.

The warping plan: All colors are warped 2 at a time, but in threading through heddles are mixed at random for a blended effect.

46 ends yellow and pale yellow green
4 ends very dark brown
72 ends white
4 ends very dark brown
40 ends light brown and red-orange
4 ends dark brown
52 ends orange and yellow
4 ends dark brown
centre
84 ends yellow and pale yellow green
4 ends dark brown
reverse from centre to beginning

536 warp ends

To enlarge width, repeat colors but do not change size of stripes.

Treading: The weft is unbleached linen, about #14 weight. The tie-up is direct, treadled in broken twill fashion, so that the warp threads are tied down once in 4 treadlings, giving full value to the colors. Treadle: frame 1 alone, 3 alone, 2 alone, 4 alone, and repeat.

Example 2 is a similar fabric, a blue, blue green and white color scheme. Warp is again 8/2 cotton at 36 ends per inch, threaded twill.

4-3/8" spruce blue-green centre stripe
1-3/4" white and cream
1-1/16" mixed blues
1-7/8" green

the lining-off is very dark brown.

Warping plan: 524 warp ends, 14-2/3" wide in the reed:

52 ends green -- about a lilac leaf tone
4 ends dark brown
40 ends of 2 blues, a copen and a darker tone
4 ends dark brown
64 ends white and cream, random mix
4 ends dark brown
156 ends spruce blue green Centre, repeat upward
4 ends dark brown

524
Treadling: The weft is unbleached linen, about a #14 weight. The tie-up is direct, using a broken twill treading sequence: Treadle, frame 1 alone, 3 alone, 2 alone, 4 alone, etc.

Example 3 is a cheery yellow and green, white, and copen blue color scheme, intended as a festive table runner, as it is only 7½" wide. These runners, kept for special occasions, give an air of celebration, whether used on the bare wood or over a basic table cloth. It is not as heavy as the two former examples, but still firm enough for the same purpose.

The draft is twill \( \frac{3}{4} \) with a direct tie-up.

The warp is linen, 18/2 weight at 32 ends per inch.

Warping plan

- 56 ends lemon yellow
- 2 ends sky blue
- 16 ends yellow green
- 2 ends sky blue
- 4 ends white
- 6 ends yellow
- 4 ends white

Alternate the two bracketted groups for a total of 9 groups, then end with 56 ends lemon yellow.

This totals 268 warp ends for the 7½" runner. For a wider runner, repeat stripes for as many times as desired.

Treadling: The weft is yellow 18/2 linen like the warp. Using the direct tie-up, it is treadled: 1, 4, 2, 3 and repeat. The feeling on the right side should be of completely vertical lines.

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With this issue, we come to the end of another year, and like most years it has had its share of ups and downs. On the "up" side is the wonderful interest shown by our subscribers in our monthly issues, and the brisk demand for back copies -- more and more weavers tell us they have a complete set of LOOM MUSIC. We have been excited also by the number of subscriptions from widely separated countries -- indicating a quickening interest in weaving all over the
world. For our generous support from all of you, we send our grateful appreciation.

Year-end brings a message, too, that for us personally is a very sad one -- there will be no more issues written about the Banff School by us. In the future our scene of action -- or, it should be said, Mrs. Henderson's, will be confined to home entirely, due to an ankle and leg muscle disability which is still undiagnosed. But, on the bright side is the fact that her ability to weave or write is not affected, so LOOM MUSIC will be carried on as usual by its two editors, and your inquiries and letters will be most welcome.

The best of Christmas greetings to you, and we hope you will stop by when in Calgary or Edmonton, and say "Hello".

Let us make 1964 the best "Good Weaving" year yet!

Mrs. E. M. Henderson
R.R. 4
Calgary, Alberta

Mrs. R. B. Sandin
University of Alberta
Edmonton, Alberta

$5.00 per year of 10 issues;
$3.50 per year for back issues, 1944 to 1962, with complete sets still available. Subscriptions to Mrs. I. Anthony, R.R. 4, Calgary, Alberta

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HAS YOUR 1964 RENEWAL SUBSCRIPTION BEEN FORWARDED?
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2. The same warp as No. 1, woven with heavy and fine wefts  p. 78
3. 4. Vibrant colors in warp stripes, two Swedish examples  p. 80
5. Rug weight material, warp face weave, from Sweden  p. 79
6. Festive table runner, warp stripes, from Sweden  p. 82
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<tbody>
<tr>
<td>Baby blankets: 4- and 6-8 harnesses</td>
<td>XX</td>
<td>6</td>
<td>47-49</td>
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<tr>
<td>Banff 1963</td>
<td>XX</td>
<td>8</td>
<td>60-67</td>
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<tr>
<td>Belts, and small articles on belt type warps</td>
<td>XX</td>
<td>9</td>
<td>68-73</td>
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<tr>
<td>Book mark: Golden cross in Bronson weave</td>
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<tr>
<td>Borders for towels, skirts, etc.</td>
<td></td>
<td>5</td>
<td>34-42</td>
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<tr>
<td>Casement and drapery cloths</td>
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<td>29-32</td>
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<tr>
<td>Christmas card, woven insets</td>
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<tr>
<td>Christmas weaving: &quot;tree&quot; or mobile; belts; ruler and yardstick holders; wall banner</td>
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<td>68-76</td>
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<tr>
<td>Crib blanket or carriage cover, overshot weave</td>
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<td>Gold metallics: in book marks, church fabrics, table cloth, upholstery</td>
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<td>Huck corners, linen table mats</td>
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<tr>
<td>Huck and twill, heavy linen table mats</td>
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<tr>
<td>Linen table mats: twill, heavy huck and twill, huck corners</td>
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<td>3-7</td>
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<tr>
<td>Plaid cotton table settings</td>
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<td>1-3</td>
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<td>Rep: warp face, for table settings, cushions, upholstery, rugs</td>
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<td></td>
<td>77-84</td>
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<td>Skirt, vertical stripe arrangement</td>
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<td>Stripes for warp face weaving</td>
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<td>Suiting, man's 4-4 twill, including a 4-4 sampling procedure</td>
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<td>Summer and winter: sampler of common 4-harness treadling systems</td>
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<td>51-59</td>
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<td>8-harness draft as woven at Banff</td>
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<td>Synthetic fibres: table of characteristics and sources</td>
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<td>25-28</td>
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<td>Table settings: plaid cottons, twills in medium and coarse linen, huck corners</td>
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<td>cloth or runner, overshot with gold 3-block damask hemp, in blues</td>
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<td>warp face stripes</td>
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<td>Towels: Monk's Belt, crackle, rosepath</td>
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<td>Upholstery: cotton, rayon and metallics</td>
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<td>Warp face weave for table settings, upholstery, cushions, rugs</td>
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