LOOM MUSIC

Volume XXII, Number 1 January, 1965

4-, and 6-frame Drafts for 1965 Tables

Two Seniors of Weaving: Rosepath and Bronson

We send you New Year's Greetings, with the wish that your days may be filled to your hearts' content, and all be well in your personal and weaving activities. Ourselves, looking back over 1964 we have much cause for gratitude, to subscribers and to the many friends who write us. (Do be one). Mrs. Henderson is back in Alberta after 3 months with Mrs. Mooney in Ontario; the Sandins are able to look back on (and forward to) good camping trips in their pick-up camper. We are both planning to devote our continued interests to weaving affairs, in 1965 Loom Music issues.

January is our month for featuring various types of table linen, and our first group is a return to Rosepath, or Rosengång, used to show its adaptability to any era or place. Also, we never tire of the pure pleasure of weaving this versatile draft, using it to build color and design. The new weaver may follow our directions and build on them -- the experienced "pro" will try to go us several, rather than one better!

Although we have used all linen, one could use ramie, cotton, or even the finer jutes, but after having tired them all we are still recommending linen for its long wearing, superior appearance, and the air of luxury it imparts to any table.

TWO PLACE MATS
PLUS A RUNNER

The Warp: 12/1 or 14/1 (linen singles), 2 ends per heddle (1 natural, T unbleached), 2 ends per dent in a #15 reed, 13" wide, 193 double warp ends (386 singles).

 Curl Bros., 334 Lauder Ave., Toronto, have natural and white 14 lea Irish tow at $1.35 per lb.; Chas. E. Billard Ltd., 1579 St. Denis, Valleyfield, Montreal, P.Q., have #14 Irish (good for warp and weft), natural and bleached at $2.40 and $2.90 per lb.

The Draft

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Repeat draft 24 times, then a final pair of ends in harness l, to balance left side with right.

Tie-up is standard:

Counterbalanced or falling shed

Rising shed, "jack", or table loom

harnesses

treadles
#1 Yellows, brown and unbleached
on natural background

The wefts: Tabby background is a 5½ or 6 lea tow linen, white or bleached, heavy enough to ensure a beat of 15 ends per inch. (Elsie Ogston, 244 Balfour St., Winnipeg; Matwood Weaving Supplies, 10854 Whyte Ave., Edmonton). This linen gives excellent texture, easy to launder and yet extremely durable.

Colors used: unbleached tow of the same 6 lea weight; yellow and chartreuse 18/2 or 20/2 weight, double on the shuttle; and dark brown 20/2 weight, also double.

In these two mats we have placed a wider band of color at the left hand side of the plate, permitting the water glass, etc., to maintain the balance at the right side. If you wish the formal balance, duplicate wider band.

Treadling details

Weave 1¼" with fine linen (#14) for hem turn-unders
Weave 1" tabby (alt. treadles A and B) with #6 bleached, for 1/2" hems
Weave 6 tabby shots, dark unbleached #6
Weave 3 Tabby shots with doubled yellow mixture of 20/2
2 tabby shots with white #6
8 tabby shots (3/8") with yellow mixt.
1 tabby shot with white
Section C
2-1/8"
Treadle 3 (frames 3, 4) yellow, Tr.1 (frames 1, 2) white,
3 yellow, 1 white, 3 yellow
1 tabby shot with white
8 tabby shots yellows (as above)
2 tabby shots white
3 tabby shots yellows
6 tabby shots dark unbleached

With #6 bleached, 8 tabby shots
With #6 dark unbleached, 2 shots tabby
Treadle 3 brown, tr. 1 white, 3 brown, 1 white, 3 brown
With #6 dark unbleached, 2 shots tabby
With #6 bleached, 8 shots tabby.

Section A
Repeat "A" above, with yellow and white centre: 3 yellow,
1 white, 3 yellow, 1 white, 3 yellow
Weave desired length centre, using #6 bleached, all tabby (our centre was 14"
For final end, repeat Band "B", then "A", then 1" for hem, and 1/4" fine turn under.

Finishing: Machine stitch the fine tabby heading to prevent fraying, then turn under the 1/4" tabby, and hand hem ends back to the first shot of dark unbleached #6, for a 1/2" hem. Dip in mild soap suds, do not crease, rinse and let hang to drip excess water, then wrap in towel and iron when just damp.

#2 Golden tan and Brown,
tricky plays on light and dark

Warp and draft same as #1 mat
The Wefts: Golden tan 20/2 linen, used double on bobbin
Dark brown 20/2 linen, used double on bobbin
Bleached #6 tow linen for background, as for #1 mat

Pattern Treading follows the Scandinavian treading system of opposites, i.e., Treadle 1 of A color, followed by Tr.3, B color
Treadle 2 of A color, followed by Tr.4, B color
Treadle 3 of A color, Tr.1, B
Treadle 4 of A color, Tr.2, B color

No conventional type tabby is used.

Treading Details
Weave 1/4" fine tabby (14/1 like the warp) for turn-in
Weave 1-1/8" tabby, using double golden tan, beaten about 20 shots per inch (for a 1" hem

Section A
With double brown, tr. 3; with double tan, tr. 1, and repeat " tr. 4; " tr. 2, and repeat
" tr. 1; " tr. 3, and repeat
" tr. 2; " tr. 4, and repeat
(total of 16 shots

With double tan, 4 shots tabby
B {With white #6, treadle 3; double tan tr. 1; white tr. 3
With double tan, 4 shots tabby
C {With white tr. 4, tan tr. 2, white 4, tan 2
white 3, tan 1, white 3, tan 1
white 2, tan 4, white 2, tan 4
white 1, tan 3, white 1, tan 3
With white #6, 4 shots tabby
D {With brown tr. 2; white tr. 4, brown tr. 2
With white #6, treadle 12 tabby shots
With tan double, 2 tabby shots
With white 5 tabby shots
With dark brown 2 tabby shots
With white #6, treadle centre 14 3/4", tabby weave, beaten at 15 wefts per inch.

Final end
With dark brown tr. 3, white tr. 1, dark brown tr. 3
With white #6, 6 tabby shots
With tan, tr. 2, white tr. 4, tan tr. 2
With white #6, 6 tabby shots
With dark brown tr. 3, white tr. 1, dark brown tr. 3
With white #6, 6 tabby shots
With dark brown tr. 1, tan tr. 3, brown tr. 1, tan tr. 3
dark brown 2, tan 4, brown 2, tan 4
dark brown 3, tan 1, brown 3, tan 1
With tan, treadle tabby 1-1/8" for final hem, then 1/4" turn under with fine linen. Hem back to first row brown pattern.

#3 Runner with balanced bands of pattern

Bands feature white through beige to very dark unbleached linen, effectively contrasted, on the same
background as #1 and #2. We will suggest alternates in cotton sizes here, should you prefer to use them instead of our linens -- use same colors as the linens.

The Warp: Same as Nos. 1 and 2, same draft (or 20/2 cotton, double

Wefts: Bleached #6 tow linen (or 8/2 cotton doubled
Dark natural #6 tow linen "
White 10/2 mercerized linen (or white floss
Med. natural 20/2 linen, doubled (or 8/2 doubled

Treadling Details

This runner has a knotted fringe, 4 double ends per knot. Place folded heavy paper in tabby shed, 2½" wide for fringe allowance, extending at least 1" beyond warp edges. Beat, for tabby sections is 15 ends per inch.

With bleached #6, weave 2-3/4" tabby
With dark unbleached #6 weight, 3 shots tabby
With bleached #6, 3 shots tabby

Using white 10/2 mercerized linen and 20/2 nat. double,
beginning with white and alternating the colors, treadle
2, 4, 2, 4, 2,
3, 1, 3, 1, 3, 1, 3
2, 4, 2, 4, 2 (ends with white on tr. 2)
With bleached #6, 3 tabby shots

Using dark unbleached #6 weight and 20/2 natural double,
beginning with the dark and alternating colors, treadle
3, 1, 3, 1, 3, 1, 3, 1, 3, 1, 3
5 tabby shots using the dark unbleached, then repeat same color as above: 3, 1, 3, 1, 3, 1, 3, 1, 3
With bleached #6, 3 tabby shots

{Repeat pattern band "A" as above

With bleached #6, 3 tabby shots
With dark unbleached #6, 3 tabby shots
With bleached #6, 1-1/8" tabby

Using dark unbleached first, then double natural, alternate these treadlings: 2, 4, 2, 4, 2, 4, 2
3, 1, 3, 1, 3, 1, 3, 1
2, 4, 2, 4, 2, 4, 2, 4
1, 3, 1, 3, 1, 3, 1, 3
4 shots tabby with white #6

With white 10/2 and double natural, white first, alternate
these treadlings: 2 4 2 4 2 2
3 1 3 1 3 1
With dark unbleached, 3 tabbies
With bleached #6, 1-1/8" tabby weave

Using white 10/2 and double natural, white first, alternate treadlings 2 4 2, 3 1 3, 2 4 2
With bleached #6, 3/8" tabby

With dark unbleached and double natural, dark first, alternate treadlings 4 2 4 2 4 2 4 2 4, then with the dark unbleached, 7 tabby shots.
With bleached #6, 2 tabby shots
With dark unbleached, 2 tabby shots

With bleached #6, weave desired length centre in tabby weave
ours was 11" centre, end color band totalling about 8"

Then weave the final end exactly to match first end, by
reversing above treading directions, and leaving fringe
allowance on the final end.

6-Harness Bronson Lace Cloth,
**woven in 3 panels** (62" x 72" for an oval walnut table)

In the 40's at Banff we wove a 36" tea cloth and serviettes,
making use of this warping method. Mrs. Sandin, who was on leave
that year said -- "I know you said it worked well, but I have always
wanted to do it for myself, and as well want to weave a wide cloth
with a good seam joining planned for it." She used the method
and made the seaming, and it did work.

The warp: Knox's 25/2 (or use 20/2) linen, at 24 ends
per inch, 30" wide in the reed for the centre panel of the cloth.

**Profile draft for this total width is:**

```
<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>9</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>54</td>
<td>54</td>
<td>54</td>
<td>390</td>
</tr>
<tr>
<td>54</td>
<td>54</td>
<td>54</td>
<td>54</td>
</tr>
</tbody>
</table>
```

Warping plan, according to this sketch:
Warp 165 ends, 3 yds. long, for 7" sides
Warp 390 ends, 13 yds. long, for cloth
centre, sides, and serviettes
Warp 165 ends, 3 yds. long for 7" sides

Adjust lengths, if a longer cloth is
desired

**Method**

From beginning peg on warping board or mill,
warp 3 yards in length, to an ending peg, for the
165 ends.

Without removing warp from board, wind 390 ends,
13 yards long to a new ending peg; then continue and
warp a final 165 ends, 3 yards long.

Secure cross as usual, insert lease sticks and
beam warp before threading, beaming the full width
first on the beam.

When the 3 yd. limit is reached in beaming, secure
the cross in the 7" warps (by cords, or by lease rods
which will roll around warp beam); cut warp ends and
secure to warp roll with tape.

Continue rolling 16" centre of warp to its final
end.
Threading: Profile draft on page 5 shows the centre 390 warp ends all threaded on Block D, so threading is begin

\[
\begin{array}{cccc}
6 & 6 & 6 & 21 & 1 & 1 & 65 \text{ times} = 390 \\
\end{array}
\]

Sley these 390 ends in centre of reed and tie-in as usual. Make complete tie-up at this time.

Rising shed tie-up is

\[
\begin{array}{cccc}
5 & 0 & 0 & 0 \\
5 & 0 & 0 & 0 \\
4 & 0 & 0 & 0 \\
3 & 0 & 0 & 0 \\
2 & 0 & 0 & 0 \\
1 & 1 & 1 & 3 \\
1 & 1 & 1 & 2 \\
\end{array}
\]

Treading details, first, the centre 16" of warp

Weave 1/4" with fine tabby for turn-in of hem.

With linen like the warp (25/2 or 20/2), weave two lengths of tabby, each 2½ yards long, for the side panels of the cloth. The beat must be kept constant at about 21 warts per inch on the loom, and the seaming edge must be kept right out straight and true, with no drawing in.

Weave the balance of this 16" warp into serviettes. These may have a 1" hem, with a narrow band of lace treadlings all across above the hem (1/2" or so) -- treadled 4,B,4,B,A,B, and repeat once more. Treadle tabby centre for desired length, then repeat lace and hem.

Or, weave all tabby, 18", and hem all around with a 1/2 to 3/4" hand sewn hem, mitred corners, for a 15" square.

Threading for sides, which now appear on warp beam

Cut weaving from the loom, being sure to leave proper length of warp (or more, for safety) to match the edge warps, now that they are ready to be threaded in for the cloth's centre panel. Tie centre ends in front of reed.

Roll warp forward, secure 7" side warps on lease rods on back beam, and thread these 165 ends on each edge, threading from centre to edges.

Referring again to the profile, thread left edge first:

\[
\begin{array}{cccc}
\text{Block C} & 2 & 1 & 1 & 1 \\
\text{Block B} & 2 & 1 & 1 & 1 \\
\text{Block A} & 2 & 3 & 3 & 1 \\
\text{L. selvage is } 2 & 1 \\
\end{array}
\]

9 times, or 54 ends
9 times, or 54 ends
9 times, or 54 ends
once

\[
\begin{array}{cccc}
2 & \text{ends} & 164 & \text{ends} \\
\end{array}
\]

(1 end discarded)

Then thread right edge, Blocks C,B,A, reversing the unit threading above, with final selvage threaded \(2 \frac{1}{2} \)

= 165 ends
Treadling for centre panel of cloth

With fine linen, 1/4" tabby for turn-in.

With linen like warp, weave 19" tabby, keeping the same 21 wefts per inch beat as on the side panels woven first.

Our sketch shows the lace block arrangement used, with corresponding treadles. Circled blocks are to be treadled "square" on the loom.

(1) Treadle 4, B, 4, B, A, E, 8 times in all, for beginning lace section. Check beat in tabby sections to make sure original beat is always kept.
(2) Treadle 3, B, 3, B, A, E, 8 times
(3) Treadle 2, B, 2, B, A, E, 8 times
(4) Treadle 1, B, 1, B, A, E, for length of centre

Then reverse treadlings for final end.

Our measurements are: 7 1/4" for (1), (2), (3) above, lace treadlings 28" for (4) above, centre lace 7 1/4" for final lace treadlings, (3), (2), (1)

Finishing

We pinned our three lengths together carefully, and overcasted selvages together on the wrong side. We used the same 25/2 linen for the sewing, and made our stitches come at each weft turn on the edges. We then hand hemmed all around the cloth.

It was washed and rinsed carefully, no creasing, hung over a bar to drip out excess water, rolled in a sheet, and finally ironed damp. The arrangement of lace, centre, tabby edges, with seaming quite inconspicuous between the two, proved most pleasing.

----------

Pride and pleasure, and a good feeling of accomplishment will be yours when you complete these fine examples of

GOOD WEAVING!

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

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

Don't forget your 1965 subscription renewal, please. We send you January, but revise our mailing list for February mailing, so do be found on it, please.

10 issues for 1965 - $5.00, to Mrs. G. Anthony, R. R. 4, Calgary, Alta.
1944 through 1964 - $3.50 per year
Rosepath, with patterns which follow the Scandinavian treadling system of opposites:

1. yellows, brown and unbleached, on natural background.
2. golden tan and brown, on natural background.
3. white, natural and dark unbleached, on natural background.
4. Corner of 6-harness Bronson Lace Cloth, woven in 3 panels.

LOOM MUSIC 1965
New Year Thoughts

Although the words we write will not reach you until one month of 1965 has passed into history, at the moment of writing it is just before New Year's, and fresh in our minds are the many Christmas messages, the hardships and disasters caused by the extreme weather conditions of December 1964, and the predictions for 1965 which abound.

In our weaving world, there has been a bit of sadness and much of hope in our mail. We have been filled with sympathy toward those friends who have written of this or that circumstance which has led to an end of their weaving -- but it is our earnest hope that other weaving interests than the activity of the weaving itself, will find a place in their days. There is much that the non-active weaver may do to aid the local group, and we will mention a few ways:

One. All weaving groups need a member to do the small, time-consuming business of keeping records in order, or helping to collate the issues of various publications as they arrive. An excellent covering for copies is used X-ray plates, folded and stitched to size and bound with masking tape. A bonus received by the workers who so help is "first look" at the various subjects covered.

Two. We would like to think that each weaving group, small or large, has a welcome and offers teaching aid for beginners, and here is a golden opportunity for the experienced weaver who finds weaving not possible. Should this experience, so hardly won, be lost? Why not offer to serve on an advisory committee to answer beginners' problems? How often a telephone call (if feasible), can solve for them an urgent question? These calls should be monitored so that no undue stress is placed on the volunteer, and of course made only with full consent of the advisor.

Three. Another small service to Guilds and groups, which is interesting and entails intermittent writing of simple letters, is that of collecting thread samples and mounting them with the aid of Scotch tape. This might be done twice or three times a year. Such a collection, to be kept with the group library, will keep members up to date and informed.

Four. On another subject, entirely removed from the above, is the social service work for active group members everywhere. More and more the plan of providing occupation for various individuals in our communities is crying out for aid. Arts and crafts for eager participants is becoming a "must" wherever people are gathered together, with one of their most noticeable assets being leisure time. And in hospitals for the chronically ill, for those in mental stress, in the convalescent homes, the schools for the mentally retarded, the many older group homes, -- the silent cries go up. Many of our
Loom Music weavers write us of their rewards at helping such as these. We are thinking of how weavers everywhere can supplement the work of the Service Clubs dedicated to the physical betterment of those mentioned, and many more we have not named. Let us indeed be alert to help, however small our contribution.

These observations lead us to ask a question -- "What does weaving mean to you?" For in the answer lies your editors' work of trying to meet the questions needing answers, and of supplying basic information to enable you to reach the goals you seek. We fail, of course, but not for lack of effort -- for us, as for all, it is the trying that is important.

We believe that what we weave is not too important, if the accomplishment fills a human need. That is to say, we must have respect for honest effort, and by praise where merited, gradually lead on to better craft appreciation. We notice a good deal of intolerance in some weaving circles, and a disrespect for useful articles from certain groups; and on the other hand, just as much disdain from those who weave the traditional, toward the experimental and "avant garde" thinkers. The fact, as we see it, is, we need both types, and what is fine and worthy in them will endure.

Lately we saw "Alice in Wonderland" via TV, and were transported back to our first reading so long ago. Then we thought, "Are we not, in our lives today, rather like Alice in our judgments?" "Eat this" and we become tall and too vast in our opinions, "Drink me" and we shrink to a small point of view. Like Alice, we need the magic ingredient that will enable us, by diminishing here and enlarging there, to become reasonable. Finis!

UPHOLSTERY, 1965

Upholstery fabrics are a constant need in every household, and never have we had so much freedom of choice in the type of furniture we purchase. There is a great mingling of the old and the new, and one always has a chair or other piece of furniture needing a new cover. The advance showings in handwoven (or simulated handwoven) show a decided trend to the simple designs based on tabby or twill, suggestions of texture by the use of boucles and rough spun wools, and much emphasis on color.

The "Tibor" touch

To the hand weaver, it is informative and exciting to see what professional weavers choose in color ranges, and see how they use weave and threads to work out themes. A famous English company of designs and weavers, "Tibor", who sell throughout the world, was reviewed in a 1964 number of the "Ambassador". One beautiful color cut showed part of their threads grouped into Brown Golds, Olive Blues, and Orange Reds. They are thick and thin, smooth and rough, dull and shiny. One may find duplicates in any large firm's sample collections. The resultant weaving is briefly shown, plain and two color warps in closely co-ordinated hues, arranged in one-and-one, four-and-four, and broken orders, such as: 10 grass green, 2 medium
blue, 1 yellow, 4 green, 3 blue, 1 yellow, 3 green, 4 blue, 1 yellow, 4 green, and so on. This cloth was woven with a green weft, striped at intervals in varying widths -- 1 shot or 2 shots in a fuzzy boucle thread, also in green. These all appear to be rayon or shiny cottons.

Another grouping shows weaves such as the following:

1. One colored warp, weft in tabby, wool boucle.
2. Tabby fabric, weft of many keyed colors in tabby of varying widths against tabby of warp color, closely set.
3. Fine closely set warp, two wefts, one heavy, one light, -- 2 shots of each to give a crosswise rib.
4. Worsted warp set to cover weft, for a warp face rep, all one color.
5. Twill warp, one color tabby weave, woven with homespun and lurex on shuttle, treadles 1&2 using warp material, 3&4 with lurex mix, throughout.

These basic plans are worked out in many color schemes, and this brief comment shows the emphasis on color and texture, combined with simple weave systems.

A TWILL, to use
up leftovers

This is an arrangement, used originally by Malin Selander at Banff for place mats, and one area of it appeals to us greatly to use as brilliant upholstery. It is best beamed first, then threaded.

The warp: Several weights of thread were used, from a 25/2 mercerized linen to 8/2 cotton, to Perle 3 or heavy carpet warp weight. Some of the originals were linens, but mercerized cottons will do as well. Four colors were used: a bright Perle 3 scarlet, a vivid cerise of 25/2 linen weight, a mauvy-plum also 25/2 weight, and a black 25/2 weight (two threads of 20/2 would substitute for 25/2 linen weight). These should be warped all at once (in 4-end fashion), then beamed; then threaded at random with no definite repeats, in ones or twos, in an overall setting of 20 ends per inch. Thread in twill $1^2 2^4 1^2 2^4$.

Denting, in a #20 reed: 1 0 1 0 1 1 1 0 2 0 1 1 0 2 2 2 0 2 2 1

in a #10 reed: 1 1 3 2 1 4 1 4 2 1

(in denting, pay no attention to weights or colors, as this has already been done in threading)

At the present moment, there is not much resemblance to a good functional upholstery warp, but the wefting takes care of this.
Weft and treading. The weft was a 25/2 cerise linen, used 4 ends together on the bobbin, treadled in a 3-1 weft face treading: frames 1, 2, 3 together, 2, 3, 4, 3, 4, 1, 4, 1, 2, and repeat, with a rather close beat -- (do not beat so that warp is completely covered). A mercerized 10/3 Lily cotton would be useful for weft.

The result is a smooth-surfaced, slightly undulated twill weave, with the warp ends giving a lively effect -- the irregular coloring and denting prevent any feeling of a formal striping (see photograph). The mauvey plum and black give a tremendous lift to the whole. Is it too bright? Not a bit -- a color that will tone in because it is subtly formed. A fine boucle would also make a good weft effect here. Do not be afraid to use vivid color, and what fun to sample!

BEDFORD CORD

While at Mrs. Mooney's we came upon an envelope with many small swatches in it, sent to her by Mrs. Nell Steedsman, experiments from her loom. Mrs. Steedsman is one of the "technically curious" weavers, and she dearly loves to work with drafts and put them on her loom to try out. She has a splendid mind for theory, and loves to put this and that together, to see if the combination works, a matter of conjecture until tried -- paper weaving and actual loom reproduction can be a great disappointment, as we ourselves well know.

This small group of swatches, however, were a group of draft arrangements not too commonly used -- the Bedford Cord. Those of you who have Lily Mills pamphlets will recall a couple of these used by our friend Edna Healey, Vol. 2, #58.

In England, P. Lindley Harrison has written a book "The West Riding of Yorkshire and its Worsted Industry" and it includes a glossary of terms used in the trade. Here we find this definition of Bedford Cord: "A cloth made from a combination of plain weave and a warp faced 3-1 twill (or can be plain) in which the interlacing is so arranged that a warp surface effect is produced with a rounded cord effect running the warp way. The floating weft on the back of the cloth forms the cords, between 2 ends working as binders, and these form the cuts or grooves between the cords."

Oelsner and Dale, p. 293, Corded weaves, state "The warp cords are usually produced by letting one pick float on the back under 4-16 ends, then raising it above one or two (seldom more than two) ends, while the next pick interlaces the warp with a plain, twill, or other weave."
To illustrate, we show two picks of weft and the way they intersect the warp:

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

A

B
```

**Draft is:** $1^21^22^34^33^43^4$

**Tie-up is:**

These unbalanced 3-1 treadlings work on a counterbalanced loom, but of course are better on a jack or rising shed loom.

**Shrinkage Caution**

There is one point to watch for in doing these cords, and that is the drawing-in because of the weft skips, and the shrinkage in finishing. The last is because the unwoven skips shrink more than the ones which intersect on the ribs on the face side. Allow about $1/6$ of warp width for pulling in and shrinking. If 36" is needed, have warp 42 to 45" width in reed. This is one time when a stretcher (used greatly by Scandinavian handweavers) would be useful to keep warp at full width during weaving. Lengthwise shrinkage -- be generous.

**EXPERIMENT I**

The first examples use the draft given above, and tie-up. The warp is 8/2 weight (or 10/3 Lily), 1 per heddle, 2 per dent in a #15 reed, 30 ends per inch. Size of ribs, 1/3", or 3 per inch. Experimental warp was dark olive green.

**Sample 1:** Weft is the same as the warp, beaten to a firm tabby. The separating line between ribs is depressed, and ribs appear to be padded. **Treadled 1,2,3,4 (see tie up above), and repeat.**

This draft may also be woven with a different colored weft -- on the olive green, a royal blue was a good mix.

**Sample 2,** oblongs and checkerd boards. Spaced oblongs may be achieved by weaving a good contrast against the blue green mix -- in
this case, an emerald green with a high sheen. Treadling then was 1/2" all blue, treadles 1,2,3,4; 1/2" or longer, treadle 1 blue
then 1/2" all blue, treadles 1,2,3,4.

Checkersboards are woven by treadling in equal amounts to square size of ribs:

- treadle 1 blue
- treadle 2 green
- treadle 3 blue
- treadle 4 green

then treadle 1 green
- treadle 2 blue
- treadle 3 green
- treadle 4 blue, and repeat

(Unfortunately the color change in the checkerboard does not show up in the photograph -- shows only a little texture change, if you will look closely at swatch #2).

Sample 3. Boucle ribs. A fine rayon boucle was also tried, with an accompanying shuttle of smooth, both in closely related light greens. This treadling was:

- treadle 1 smooth
- treadle 2 boucle
- 3 smooth
- 4 boucle, and continue throughout.

Result: one rib smooth surface, alternate rib boucle, very good where a vertical stripe effect is desired. All boucle would be most effective, too.

Sample 4. Separation between ribs more defined. The draft was rethreaded to Mrs. Steedsman's own variation, still dented 2 per dent:

1 2 1 2 1 2 3 3 3 3 3 4 4 4 4 4 . Same weft, same tie-up and treadling were used as for sample (1). The draft change caused the separation between ribs to be well defined and the ribs to appear well padded.

**EXPERIMENT II**

Draft is: 1 2 1 2 3 4 1 2 1 2 3 4  

Tie-up is:  

Sample 5 (Warp is olive green 8/2 weight, 1 per heddle, 2 per dent in a #15 reed, 30 ends per inch. -- as before)

Using olive green 8/2 as weft, using above tie up, sample was treadled 1,2,1,3, and repeat.

Here a different appearance was found, the small separations between ribs appearing as 2-thread ribs. This is very good, indeed, too
Sample 6 has the same set-up as #5 above, with Mrs. Steedsman's tie-up: It is treadled 1, 2, 3, 4, and repeat.

We liked this one because the tiny separating rib is not quite so regular as in sample (5).

There are many multiple harness drafts for Bedford Cord, as pages 156-160 Gewebe Technik, but we have concentrated on the 4's for this issue. If there are any multiple harness weavers who have not access to this book, we will be glad to copy out the drafts and mail them to you. (Write to Mrs. Henderson, who lives with Mrs. Anthony at R.R. 4, Calgary).

Our sympathy goes out to the recent sufferers from floods in the western U.S. Nature has not been kind this winter, and we here have had our share of cold and blizzards and long for liberation. Many friends have gone to warmer climes, and we hope they will share their findings, weavingwise, with us who do not go.

In the interests of GOOD WEAVING,

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

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

10 issues for 1965 - $5.00, to Mrs. G. Anthony, R.R. 4, Calgary, Alta.
1944 through 1964 - $3.50 per year
(Photographs are actual size)

Top: Twill upholstery, linen, with a weft-face treadling.
Nos. 1-6 Bedford Cord swatches, woven by Mrs. Nell Steedsman, Leamington, Ontario.

LOOM MUSIC 1965
The Theme is APPAREL WEAVING — Worsted, and Tweeds or Homespuns

Mrs. J. Train Gray  |  Mrs. Flora Marshall  |  Mrs. Jennie Snider
Vancouver, B.C.  |  Winnipeg, Man.  |  Linwood, Kansas

Over the years we have found that one of the projects giving most satisfaction to the weaver is a length of dress material, suiting, jacket length or coating. Each of these presents its own demands according to the thread chosen for the article, as well as the general rules applying to clothing textiles.

Generally speaking, the aim is a 50/50 fabric, but there are times when this is successfully contravened, as in the case of twills departing from the 45° angle. If the twill has a steep angle, the warp set is more than the weft filling shots, as for example, 60 warp ends to 30-40 wefts. If the twill angle is less than 45°, the warp set is lessened, and the weft filler shots increased. We have noticed in many of the Guatemalan and similar weavings, woven in plain weave, the fabric is not 50/50.

There has been a great use in the past few years of what is known as "high loft" fabrics, where there is an emphasis on surface interest, but now there is a return forecast to the flatter surfaces for day wear. The Ambassador announces this to be the strongest trend seen from the latest British fabric collections as a result of the Paris influence. Tweeds also have a smoother look. One prominent manufacturer is showing pearl greys, and beige tones from tortoise shell to camels, as well as jewel tones and especially raspberry pink.

Speaking of tweeds, we have an interesting item from the newspaper on the subject of Harris Tweeds. From the London Observer: "The Harris Tweed Association, after the longest case in Scottish legal history, it lasted 14 weeks, obtained a decision that tweed manufactured by Independent Harris Tweed Producers Ltd. could not properly be called Harris Tweed." Why the case and ruling?

The Harris Tweed Association marks all its material with the orb and cross mark of Harris Tweed, its registered symbol. Their yarn is spun on the Outer Hebrides Islands off Scotland. The yarn of the Independent Company is spun on the mainland. Both groups employed, and still will, the same weavers in the Outer Hebrides, and both were labelling their product Harris Tweed. Now the sole right to the name has been awarded to the Harris Tweed Association, and following the decision, which will not be appealed, the Independent Harris Tweed Producers Ltd. has dissolved. However, two of the companies involved, with mills at Oban and Keith, have formed a new organization, Highlands and Islands Tweeds, Limited. We quote again —

"Highlands and Islands will now send yarn spun from Scottish wool on the mainland by sea to Stornoway on the Island of
Lewis. There the yarn will be distributed around the Hebridean Islands to the crofter weavers. The tweed will be collected from them and brought back to the mills on the mainland to be finished.

The Harris Tweed Association has six mills on the Island of Lewis, five of them in Stornoway. The 1000 people employed there spin yarn from raw Scottish wool, brought by road and sea from Glasgow.

Most of the 1500 weavers have long been working for both the Harris Tweed Association and the mainland firms, since there is not usually enough of either's yarn to go around. Yarn spun on the Island is more expensive because of transportation problems. The weavers now will probably work one half of a 6-day week for Harris Tweed Association and the other half for other producers."

--------

We have saved for this issue some examples of very successful clothing lengths in three areas -- fine dress material in wool, a cotton beach cloth, and a tweed lace -- woven in Vancouver by Mrs. J. Train Gray, in Winnipeg by Mrs. Flora Marshall, and in Linwood, Kansas by Mrs. Jennie Snider.

First we give you 3 lengths woven by Mrs. Gray, a weaving friend met in Calgary many years ago, now making Vancouver her home. Mrs. Gray has long depended on imported Scottish wools for her weaving, and has dealt with two firms, one T. M. Hunter of Brora, Scotland, Sutherland Wool Mills; and James Porteous of Alva. Unfortunately the Porteous Mill has closed due to business conditions, and their fine yarns are not now to be purchased. (Perhaps a postcard to Mr. Porteous, late of Meadow Mill, may bring a recommendation from him of another mill.

The Hunter Mill has an attractive range of dyes, and offers Cheviots (like homespun) and Harris weaving yarn (note name!). You will love the colors -- mauves and wines, blues and hard to get greens, heathers, too.

Hunter sizes: 16 oz. Cheviot tweed, 3200 yds./lb., about 2/8 grist
11 oz. Cheviot tweed, 2200 yds./lb., about 4/8 grist
9 oz. Harris 1800 yds./lb. The Harris is a bit harsher in feel than the Cheviots.

Also try Yarn International, P.O. Box 123, Islip, New York, for imported wool yarns.

Speaking of Cheviots brings forth a comment, as a rule, on the use of wool yarns in the British Isles and Australia by hand weavers, contrasted with the use of wool yarns in Canada and the U.S. Most, not all of course, in North America accept the manufactured yarn as the first step of the weaving -- whereas British and Australian teaching generally begins with the fleece, and one learns about qualities, carding, and spinning to a greater extent. This we gather from wide reading, but the statement is open to discussion. Thus, when we speak of Cheviot yarns, they are yarns spun from the Cheviot breed of sheep and are like homespun in appearance.

The Worsted (fine quality, combed, long staple yarns) are smooth, strong, and weave into top quality dress goods. Our Canadian
Weavercraft 16/2 and 32/2 is worsted, as is Bernat's Fabri. The designation "Worsted" refers to the quality of combing given the long staple yarn. These worsteds do not need washing, as does a tweed which is still in oil, but for a long wearing top quality result, we recommend professional finishing.

We asked Mrs. Gray to give us in her own words, some hints as to her success, and we quote: "Of course I have woven so many yards I think my beating has become mechanical. I have a tight tension and the only time my warp is not tight is when I move it forward. I also leave it tight when not in use, as I find if I do this my beating seems to remain the same evenness throughout. I use a 10 Harness Macomber, and every time I sit down to weave I am so thankful to have it, but I am having 2 more treadles made for it.

"I always make my warp up 40 inches wide, and have 4 to 8 threads fine cotton at each selvage at same denting as material, and so have good selvages.

"You will notice I have used 36/2 worsted from the West Coast Woollen Mills, P.O. Box 2014, Vancouver, B.C. This is a firm twisted yarn, and I prefer it to Weavercraft. The firm is delightful to deal with."

First example, dark olive green (photographed as #1, page 25) worsted

The 36/2 worsted was set at 48 ends per inch, 4 per dent in a #12 reed, single in the heddle.

Any draft and tie-up to give tabby weave.

Treading: Weft is the same 36/2 worsted, but beaten 24 shots per inch, used single on the bobbin, in tabby weave.

The beating is very even, and after finishing (Trenton Dyeing & Finishing, Trenton, Ontario) the result is a light weight dressmaker quality for dress or suit. Entered in the London Exhibition, it took first prize; at the Toronto Exhibition the same year, Best in Show.

Why? We can give these answers: The excellent weaving supported by 1) the superb quality warp and weft; 2) the unusual warp setting. While the result is absolutely flat, there is a very subdued rib running weftwise, giving an interesting texture. 3) the handle, due to the expert finishing. When held against the light, objects could be distinguished dimly through it, in outline.

Example 2 (photographed as #3, page 25)

This same yarn, same color, was set at 40 ends per inch, 1 per heddle, 2 per dent in a #20 reed, and beaten almost 50/50 -- a lighter weight, more transparent cloth emerged, yet was firm and soft and attractive.
Treadling, using weft the same 36/2 worsted, 50/50 beat:

Treadle 1, 2, 1, 2, 8 times
Treadle 3, 4, 3, 4 8 times
Tabby A, B, (5, 6) 12 times
Treadle 7, 8, 7, 8 8 times
Treadle 9, 10, 9, 10, 8 times
Tabby A, B, (5, 6) 12 times continue throughout

Example 3, 10 Frames (photographed as #2, page 25)

Another length, another year, with a handsome texture effect with a sort of shadow stripe, won 1st prize again at Toronto. This at 40 ends per inch, almost 50/50 wefting, had the same good qualities.

Draft and Tie-up

Treadling, using weft the same 36/2 worsted, 50/50 beat:

Treadle 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and repeat.

Weavercraft yarn (trade name of Paton & Baldwin's worsted) has long been the standby for many weavers, and we have seen a tremendous variety of drafts, utilized for one purpose and another. More than once we have heard of tartan skirts woven of it in steady use with frequent washing for years, passed on from one child to another -- keeping its good appearance always.

Coating, Crackle Weave (photographed as #5, page 25)

A coating length we admired in use was the example we give you next, woven by Mrs. Flora Marshall of Winnipeg. As is usual when a patterned draft is employed, this requires the same beating skills as our first examples, but because of the design interest the occasional slip, very occasional, to be sure, will not be so noticed.
The Draft: Crackle Weave in twill progression, with blocks of varying lengths, as A 1/8; B 1/8; C 3/8; D 1/8. These lengths may be changed to suit your project.

(circled ends are added between blocks for proper continuity)

The tie-up is standard

Counterbalanced or falling shed

Rising shed, "jack", or table loom

harnesses

treadles

We have two pieces here, one beige and white, which we recommend for a lovely coating length. The photographed example is colored since it shows better in a photograph, so we have combined the two to be effective for you.

The warp has a surprising warp setting, but the results justify the use: 32/2 beige and white Weavercraft warped together, then 1 end per heddle, threaded alternately beige and white (not hit and miss), 2 per dent, in a #12 reed, 24 ends per inch.

The Weft. When a fine weight warp is set as open as 24 per inch, the weft must be a heavier weight to prevent the weft packing back on the warp, as in a tapestry. This packing technique might appear in a garment such as a ski jacket, for example, but not in the present project. So our weft is (a) double on bobbin beige wool weft, loop type, but small loops (or use a small looped mohair). Remember, less loft is predicted, especially in fine wools; (b) white 32/2 worsted, double on bobbin.

The treadling. The usual pattern shot and a following tabby, A and B, alternately, is not used at all, but a version of the Italian treadling type is employed.

Italian treadling does not have tabby treadled at all, except perhaps as a heading. Instead, one of the block treadlings is used as the key treadling for the unit, followed by the block treadling preceding it, then the key block treadling again, followed by the block treadling which follows it. As for example, if treadling used as key treadling is frames 1&2, or treadle 1
follow it with 1&4, or treadle 4
then, key tr.again 1&2, or treadle 1
last following tr. 2&3, or treadle 2

Other blocks will be treadled:

| 2&3, tr. 2 | 3&4, tr. 3 | 1&4, tr. 4 |
| 1&2, tr. 1 | 2&3, tr. 2 | 3&4, tr. 3 |
| 2&3, tr. 2 | 3&4, tr. 3 | 1&4, tr. 4 |
| 3&4, tr. 3 | 1&4, tr. 4 | 1&2, tr. 1 |
Our particular choice has all the so-called "key" treadlings woven in beige loop, and the alternating treadles in the double white, using two key blocks only:

1&2 (tr. 1) beige then 1&4 (tr. 4) beige
1&4 (tr. 4) white 1&2 (tr. 1) white
1&2 (tr. 1) beige 1&4 (tr. 4) beige
2&3 (tr. 2) white 3&4 (tr. 3) white
end 1&2 (tr. 1) beige end 1&4 (tr. 4) beige

Repeat these two blocks throughout.

Beach or Summer Coat (photographed as #6, page 25)

There are many who might prefer a "union" fabric or a half and half, and Mrs. Marshall has produced a length of cotton ratine on a Weavcraft warp -- this was used as a beach coat, but would also make an excellent summer coat. For ratine, try the large U.S. dealers, as the loop is extremely small -- white on a light blue base.

The Draft is Thousand Flowers, an overshot, but a twill would also be good:

The tie-up is standard, as given on page 21.

The warp is azure 32/2, 30/2 or 28/2 worsted, 24 ends per inch, 1 per heddle, 2 per dent in a #12 reed.

The weft is cotton ratine (or a novelty viscose, etc.), 16/2 weight.

The treadling. The order used here produces a weft-wise elevation on the pattern shots, but if this is not desired, treadle tabby throughout. Treadle 1,2,3,2,1, then 4 shots tabby, repeated throughout. Result -- a good texture, will wear well.

---------

TWEED LACE

In our Christmas card from Mrs. Jennie Snider of Linwood, Kansas, she enclosed a swatch of tweed lace she was weaving in homespun, inspired by a skirting from Ireland. We have often heard of Sybil Connolly, the great Irish clothing designer, and she is the one who has used "Tweed lace". In a recent photograph in the Ambassador a "dishtag" lace tweed is seen. If you have a copy of "Designing at the Loom" by Mary Kirby; look up plate 2, p. 19, #2 arrangement given at bottom of p. 15, plate 2,1 -- you will see almost the same.

We wrote Mrs. Snider and she was most generous in sending us a 2-yard skirt length, and details of interest. (photo. #4, p.25)

These lengths are appealing to young people, and must be fully lined with silk to be worn. We asked about "catching" hazards, and were told that with reasonable wear it was not too
unpractical -- and who cares about that when one is young? The skirts are made up dirndl fashion, with gathered or unpressed pleats, and the selvages are used at waist and hem. (Tweed and lining are fastened together only at waist band.) This same length would make a very attractive stole.

The draft is twill, $\frac{3}{4}$, woven in tabby.

The warp and weft are both the Briggs and Little heather mix homespun warp-spin. Half the fun in weaving these lengths will be found in designing the color schemes, and there is such a good color range in this line. (Briggs & Little, York Mills, New Brunswick, and from Tranquillity Studios, West Cornwall, Conn.)

Warping plan and colors, with 7 ends per inch, calculated thus:

20 ends 1st color, 1 per dent in a #12 reed, 1 2/3", 12/inch
16 ends 1st color, 1 per dent, skip 1 dent, in the #12 5 3/4", 6/inch
16 ends 2nd color, 1 per dent, skip 1 dent, in the #12

52 ends for 7" = 7 1/2 ends per inch, overall

(For interest, the Mary Kirby book gives this denting plan:
#15 reed, 2 per dent for 6 dents
1 dent empty
1 per dent for 7 dents
1 dent empty

This would give 19 ends, overall, per inch, and would be used for a finer type homespun than the Briggs and Little noted above.)

Weft may be the same colors as warp, but if the Briggs & Little heather mix is used for warp, two other colors may be utilized, as all tones blend.

Weft order and treading: tabby weave, beating as drawn in:
20 shots, $\frac{12}{12}$ per inch; then 32 shots at 6 per inch, squaring off mesh.

Finishing: We recommend hand washing, as this yarn is in oil, and we also strongly recommend a trial warp to determine the shrinkage at this denting. Briggs and Little colors are quite fast, as long as length is not left soaking -- any yarn may bleed a little in this case. Also, colors are lighter and brighter after washing. (It might be possible to wash hanks or the made warp beforehand, with many ties and of course the lease to secure it.) Great care should be taken to handle very gently, no rubbing, just gentle squeezing, then hanging in a still place to dry.

Here are the Meadow Mills instructions for washing woven tweeds in the "oil" or "grease". Modify for lacy, open weaves where hand washing.

Material must be well washed. Use water up to $110^\circ$ in
warmth with a good detergent (Tide is named) in a washing machine for 5 minutes. Rinse off dirty water, then using same temperature water make a thick suds with Ivory Flakes or Snow -- see it is well dissolved, and wash well for 7 minutes. Rinse out all soap. An extra rinse with 1/2 cup white distilled vinegar is effective in softening the material and giving it extra sheen. Spin, or hand drip -- do not wring, until barely dry; or hang on clothes line by selvage, using many pins. Send washed material for good vacuum press. Some cloth finishers do not accept goods in grease. When dyeing white yardage, wash out grease beforehand.

Work for a good handle, or "feel" in your clothing lengths, -- it requires everything good each step of the way to turn out enviable yards of

GOOD WEAVING!

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

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

LOOM MUSIC
Current year of 10 issues, $5.00 per year
Back copies, 1944-1964, $3.50 per year

Subscriptions to Mrs. Lillian Anthony, R.R. 4, Calgary, Alberta

We have been asked to insert the following, for interest to our subscribers:

The 13th Annual Conference of the Northern California Weavers will be held at the Fresno Hacienda Motel, Highway 99 and Clinton, Fresno, California, May 1st and 2nd; guest speaker Harriet Tidball on May 1st. Registration date deadline is April 10th; enclose check for $3.75 (includes luncheon), to Mrs. Alma Iefever, 2120 N. Argonaut, Stockton, California.

Any weaver is welcomed -- wish L.M. editors could be there!
1, tabby; 2, 10-harness twill; 3, 10 harness draft, three worsteds by Mrs. J. Train Gray, Vancouver, B.C. .......................................................... p. 19

4, lace tweed by Mrs. Jennie Snider, Linwood, Kansas ........................................ p. 22

5, Crackle worsted; 6, cotton ratine on worsted, by Mrs. Flora Marshall, Winnipeg, Manitoba .................................................................................... p. 20

LOOM MUSIC 1965
A decision to visit the Banff hospital, on Mrs. Henderson's part, coupled with the fact that Mrs. Sandin is spending January through March on an extended camping trip (with mail contacts very uncertain) have led to a crisis in the make up of this bulletin. With Mrs. Henderson, an examination of affairs medical has led to a program of physiotherapy to try to restore loss of walking mobility. Parted so from books and weaving, has resulted in giving you one section of a LOOM MUSIC index which has occupied us off and on for two years. It is hoped it will not be found too inaccurate -- it has been double checked.

For personal use, we have wanted an index more detailed than our yearly sheet, so these index divisions were planned with that in mind. Those subscribers who know us well, will recall that our great interest has always been in theory and the teaching of it, so this first index division deals with this subject. If it proves as useful to you as it has to us, then this issue will not be all in vain -- and by next month we will be back to our usual form.

We should like to say that, much as we would like, we cannot undertake to supply individual copies of any issue. We have plenty of files of any one year, but to break them up would be too costly -- and we do like to sell yearly files. (Back copies are $3.50 per year, from Mrs. Lillian Anthony, R.R. 4, Calgary, Alberta)
### Weaving Techniques - Theory

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis</td>
<td>Twill and multiple harness</td>
<td>Feb. 1962</td>
</tr>
<tr>
<td>Apron chart</td>
<td>Warp settings and suitable drafts</td>
<td>Feb. 1954</td>
</tr>
<tr>
<td>Arranging drafts</td>
<td>for place mats</td>
<td>Jan. 1947</td>
</tr>
<tr>
<td>Baby blanket arr.</td>
<td>4-harness overshot, 1500 Snowballs</td>
<td>June 1963</td>
</tr>
<tr>
<td>Barley corn</td>
<td>April 46; May 47; as suiting</td>
<td>Mar. 1963</td>
</tr>
<tr>
<td>Beginners tests</td>
<td>How to weave</td>
<td>May 1952</td>
</tr>
<tr>
<td>Block theory</td>
<td>of drafts, 4-harness</td>
<td>Sept. 1956</td>
</tr>
<tr>
<td>Bound weaving</td>
<td>Rosepath</td>
<td>Feb. 47; Mar. 1950</td>
</tr>
<tr>
<td>Boutonner</td>
<td></td>
<td>Mar. 58; June 1951</td>
</tr>
<tr>
<td>Bronson,</td>
<td>4 harness:</td>
<td>Oct. 1957</td>
</tr>
<tr>
<td></td>
<td>July 46; May 49; Oct. 49; Jan. 57</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 harness:</td>
<td>July 46; Oct. 1962</td>
</tr>
<tr>
<td>Cannelle</td>
<td></td>
<td>Jan. 1958</td>
</tr>
<tr>
<td>Card weaving</td>
<td>Theory of drafting: Sept. 44; Sept. 51; Sept. 1958</td>
<td></td>
</tr>
<tr>
<td>Catalogue</td>
<td></td>
<td>Nov. 1945</td>
</tr>
<tr>
<td>Chenille</td>
<td>Beriau</td>
<td>Feb. 1945</td>
</tr>
<tr>
<td>Circular weave</td>
<td>On twill</td>
<td>Feb. 44; June 1949</td>
</tr>
<tr>
<td>Circular weave</td>
<td>On Rosepath</td>
<td>June 1961</td>
</tr>
<tr>
<td>Color</td>
<td>Color sampler or gamp tweeds</td>
<td>Oct. 1955</td>
</tr>
<tr>
<td></td>
<td>Kirby.</td>
<td>Mar. 1959</td>
</tr>
<tr>
<td>Color examples, Selander</td>
<td></td>
<td>Oct. 1960</td>
</tr>
<tr>
<td>Color in twills, designing</td>
<td></td>
<td>Mar. 1948</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jan. 1959</td>
</tr>
<tr>
<td>Color schemes, table linen</td>
<td></td>
<td>Sept. 1953</td>
</tr>
<tr>
<td>Color in upholstery, stripes</td>
<td></td>
<td>Oct. 1957</td>
</tr>
<tr>
<td>Color sampler on Rosepath</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coverlets</td>
<td>How to weave:</td>
<td>Apr. 44; Feb. 48; March 48</td>
</tr>
</tbody>
</table>
Crackle weave  Characteristics  Sept. 1948
Construction and treading  Nov. 1956
Drafting: assignment problem  Jan. 1947
  omitting one block  Nov. 1956
  from profile  Mar. 1950
Kirby draft and treading  April 1961
Review  Sept. 1954
Theory of: July 44; Jan. 47; Mar. 50;
  Sept.54: Sept.56;  Sept. 1958

Damask  Dec. 1945
Satin weave, 10 harness  Jan. 1952
   15 harness  Oct. 1963

Design  Jan. 1959
Advice on what to weave: table linen
Afghan design  Nov. 1964
African Velvet  May 1950
Applied design, Canadian Indian, Raitt  Dec. 1962
Application of various 4-harness weaves
   to one design plan  Jan. 1957
Apron history  May 1954
Belt color scheme chart for 5 belts  Nov. 1963
Bronson treadling designs  Oct. 1957
Choosing 4-harness overshot designs
   for place pieces  Jan. 1959
Color in tweeds:  Feb.50; Feb. 1963
   Designing :  March 1948
Course in Design: Mooney and Steedsman, Oct. 1962
8-harness design  June. 1947
Errors in design - table linen  Jan. 1959
Factors of design - upholstery  May 1959
Fundamentals of design: Golden oblong,  Oct. 1952
Hints on good design  Oct. 1952
Line design applied to place mats,  Oct. 52; Jan. 1963
Design

Measurements of table linen Jan. 1959
Overshot design motifs Feb. 1958
Place mat designs, traditional and modern Jan. 1955
Line space design Oct. 1952
Principles of design Oct. 50; Dec. 1950
Two block areas in design: Sept. 1956
Warp direction borders, skirt bands, etc. May 1963
Bands: spacing and color June 1955
Bags: master chart Dec. 1944
planning chart Sept. 1959
Card weaving (including humanesque) Nov. 1955
Clothing fabrics Mar. 1959
Darning to test color effects, wefts May 1956
Drapery June 56: May 1956
8-harness block designing Dec. 1958
Halkrus, Krabba, ½ Krabba, Flat weave April 1962
Monk's Belt halkrus April 1962
Name drafts June 1946
Place mats, 5 from one plan Jan. 1957
Errors in designing place mats Jan. 1959
Reversing twills April 1959
Rosepath, Brendt June 1958
Rya rugs March 1953
Stoles April 1952
Stripes, by mathematics Sept. 1953
Poor man's damask Dec. 1961
Theory of color Sept. 1953
Twills
Upholstery Mayo 1958
Kirby Aug. 44; May 1959
Warp brocade, 4 harness April 1961
6 harness March 1955
<table>
<thead>
<tr>
<th>Designing</th>
<th>Warp face</th>
<th>Nov. 1955</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Warp patterns</td>
<td>May 54; March 1955</td>
</tr>
<tr>
<td></td>
<td>Worsted suitings</td>
<td>Feb. 1962</td>
</tr>
<tr>
<td>Double face twill</td>
<td></td>
<td>Dec. 1946</td>
</tr>
<tr>
<td>Double weaving</td>
<td>4-harness theory</td>
<td>Mar. 45; Apr. 57; April 1960</td>
</tr>
<tr>
<td></td>
<td>4-harness tie ups, including Mexican</td>
<td>April 1957</td>
</tr>
<tr>
<td></td>
<td>8-harness theory</td>
<td>Oct. 1961</td>
</tr>
<tr>
<td></td>
<td>8-harness tie-ups</td>
<td>Apr. 1957</td>
</tr>
<tr>
<td></td>
<td>Inlay on double weaving</td>
<td>Apr. 1960</td>
</tr>
<tr>
<td></td>
<td>Padded technique</td>
<td>Apr. 1960</td>
</tr>
<tr>
<td></td>
<td>Zeilinski polychrome</td>
<td>Apr. 64; June 1964</td>
</tr>
<tr>
<td>Double width</td>
<td></td>
<td>Mar. 44; Dec. 46; June 1961</td>
</tr>
<tr>
<td></td>
<td>Striped tablecloth; checked blanket</td>
<td>April 1964</td>
</tr>
<tr>
<td>Dye colors</td>
<td>Raitt</td>
<td>Dec. 1962</td>
</tr>
<tr>
<td></td>
<td>Horn</td>
<td>Sept. 1962</td>
</tr>
<tr>
<td>Embroidery weaves: African inlay</td>
<td></td>
<td>June 1948</td>
</tr>
<tr>
<td>Brocades. general</td>
<td></td>
<td>Nov. 1958</td>
</tr>
<tr>
<td></td>
<td>Italian bag</td>
<td>Nov. 1947</td>
</tr>
<tr>
<td></td>
<td>rigid heddle</td>
<td>Aug. 1945</td>
</tr>
<tr>
<td></td>
<td>Roumanian runner</td>
<td>Dec. 1949</td>
</tr>
<tr>
<td></td>
<td>two harness</td>
<td>Sept. 1948</td>
</tr>
<tr>
<td></td>
<td>Ukrainian</td>
<td>Dec. 1947</td>
</tr>
<tr>
<td></td>
<td>Calabrian</td>
<td>Nov. 1958</td>
</tr>
<tr>
<td></td>
<td>Clasped wefts: E.M.H., Zielinski</td>
<td>Nov. 1958</td>
</tr>
<tr>
<td></td>
<td>Tapestry</td>
<td>Feb. 1949</td>
</tr>
<tr>
<td></td>
<td>Dukagong</td>
<td>Nov. 48; Dec. 1944</td>
</tr>
<tr>
<td></td>
<td>Formosan inlay</td>
<td>June 1946</td>
</tr>
<tr>
<td></td>
<td>French embroidery</td>
<td>Nov. 1958</td>
</tr>
<tr>
<td></td>
<td>Italian laid in</td>
<td>Oct. 51; Nov. 1958</td>
</tr>
<tr>
<td></td>
<td>Laid in borders</td>
<td>June 1948</td>
</tr>
<tr>
<td></td>
<td>Laid in shed</td>
<td>Jan.48; Oct. 51; Nov. 1958</td>
</tr>
<tr>
<td></td>
<td>on open mesh</td>
<td>Jan. 49; Nov. 1959</td>
</tr>
<tr>
<td></td>
<td>open mesh wall hanging</td>
<td>Sept. 1961</td>
</tr>
<tr>
<td></td>
<td>Laid in Overshot, Ecclesiastical cross</td>
<td>Dec. 1964</td>
</tr>
<tr>
<td></td>
<td>Russian embroidery</td>
<td>June 1948</td>
</tr>
<tr>
<td></td>
<td>Two harness chair seat</td>
<td>Nov. 1958</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sept. 1948</td>
</tr>
</tbody>
</table>
Guatemalan weave
Huck
Inkle looms
Interpreting Monsterblad drafts

Iaces
Brooks boucuet
Danish
Gauze weave
Greek lace
Mexican leno and Danish
Mexican leno
Peruvian leno
Point twill lace
Spanish open work

Leno weave

Matter

M's and O's weave
Draft principles and tie-ups

Multiple harness
List of weaves
Color and weave on 6 and 9 harness
upholstery, Steedsman
8-harness polychrome
8-harness theory

Name drafts

Notation of old drafts

4-Harness Overshot

Analysis of draft
Arrangement of drafts
As-drawn-in:
Balancing draft
Beginners draft sheets
Beginners tests, questions and answers
Block theory
Bound weaving on overshot
Construction of overshot
Dräll, as drawn in and opposites on one
draft
Draw down
Picked up Ecclesiastical cross
First exercises, examples
Honeycomb
Italian method treadling
Miniature drafts (Periwinkle)
Name drafts
Nomenclature: A.B.C.D. interpretations
No tabby
Old drafts
On opposites theory
On opposites treadling
Overshot requirements
Overshot "petit point"
<table>
<thead>
<tr>
<th>Topic</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Harness Overshot Rose Fashion</td>
<td>Feb., 1958</td>
</tr>
<tr>
<td>Teaching beginners</td>
<td>Oct., 1947</td>
</tr>
<tr>
<td>Variations on overshot</td>
<td>April 1945</td>
</tr>
<tr>
<td>Ways to weave overshot</td>
<td>June 1959</td>
</tr>
<tr>
<td>Weft adjustment for getting diagonal</td>
<td>April 1944</td>
</tr>
<tr>
<td>Point twill drafting</td>
<td>April 1959</td>
</tr>
<tr>
<td>Profiles</td>
<td></td>
</tr>
<tr>
<td>Short draft theory and application, and draw down</td>
<td>April 1955</td>
</tr>
<tr>
<td>2, 3, and 4-row drafts</td>
<td>April 1955</td>
</tr>
<tr>
<td>Theory</td>
<td>March 1950</td>
</tr>
<tr>
<td>Draw down</td>
<td>June 46; April 1955</td>
</tr>
<tr>
<td>Reps</td>
<td></td>
</tr>
<tr>
<td>Unholstery</td>
<td>Nov. 1946</td>
</tr>
<tr>
<td>Theory, Mattor types 1 and 2</td>
<td>Dec. 1963</td>
</tr>
<tr>
<td>Rosenath</td>
<td></td>
</tr>
<tr>
<td>Turned drafts</td>
<td>May 1964</td>
</tr>
<tr>
<td>Summer and winter treadling</td>
<td>March 1955</td>
</tr>
<tr>
<td>Rug Technique Theory</td>
<td></td>
</tr>
<tr>
<td>Double weave padded technique, ribs</td>
<td>March 1950</td>
</tr>
<tr>
<td>First lessons, Swedish rugs</td>
<td>March 1950</td>
</tr>
<tr>
<td>Fossa, Sept. 45; Feb. 49; Apr. 51; Sept. 46; Sep. 45; May 1950</td>
<td></td>
</tr>
<tr>
<td>Fossa, African Velvet</td>
<td></td>
</tr>
<tr>
<td>List of techniques</td>
<td></td>
</tr>
<tr>
<td>Navajo rugs</td>
<td></td>
</tr>
<tr>
<td>Reversible rugs</td>
<td></td>
</tr>
<tr>
<td>Rya technique, Swedish: Sept. 45; Apr. 51; May 1953</td>
<td></td>
</tr>
<tr>
<td>Rug standards</td>
<td></td>
</tr>
<tr>
<td>Semi-Circular weave</td>
<td></td>
</tr>
<tr>
<td>Mar. 44; June 49; June 61; June 62; Jan. 1953</td>
<td></td>
</tr>
<tr>
<td>Sleying 2 warps into one: skirt</td>
<td>May 1954</td>
</tr>
<tr>
<td>Static electricity</td>
<td>April 1963</td>
</tr>
<tr>
<td>Stripes</td>
<td></td>
</tr>
<tr>
<td>Formosan</td>
<td>April 1947</td>
</tr>
<tr>
<td>How to arrange warp</td>
<td>Oct. 1947</td>
</tr>
<tr>
<td>How to design</td>
<td>Sept. 1953</td>
</tr>
<tr>
<td>Warp arrangements, woollens</td>
<td>March 1956</td>
</tr>
<tr>
<td>Summer and Winter: 4-harness, 2 block theory. May 45; June 47; June 1960</td>
<td></td>
</tr>
<tr>
<td>8-harness, June 47 and 56; Sept. 56; Sept. 1960</td>
<td></td>
</tr>
<tr>
<td>Short draft</td>
<td></td>
</tr>
<tr>
<td>Draft formulas</td>
<td></td>
</tr>
<tr>
<td>Explanation of --</td>
<td></td>
</tr>
<tr>
<td>Facts on Summer and Winter</td>
<td></td>
</tr>
<tr>
<td>Sampler threadings and treadlings</td>
<td></td>
</tr>
<tr>
<td>Tie-ups, June 47 and 56 and 60; Sept. 1956</td>
<td></td>
</tr>
<tr>
<td>Multiple harness tie-ups</td>
<td></td>
</tr>
<tr>
<td>Multiple harness and x-y tie-up theory</td>
<td></td>
</tr>
<tr>
<td>Treading methods</td>
<td></td>
</tr>
<tr>
<td>Swedish lace</td>
<td>Jan. 45; on point twill Dec. 1959</td>
</tr>
<tr>
<td>Synthetics</td>
<td>April 1963</td>
</tr>
</tbody>
</table>
Tapestry Weaves  Roläken  Feb. 1952:  Flamsk  March 1964

Tartans  Definition  March 1944
History  April 1949
Measuring template  April 1949
Standards  Dec. 1955

Teaching beginners  Oct. 1947

Tests, Guild of Canadian Weavers:  Beginners  May 1952
Intermediate  Dec. 1952

Threading and warping chart  Oct. 1947

Thread information

Chart, linen sizes and prices  May 1947
Chart, sizes and samples  Nov. 1948
Counts of thread  Nov. 1948
Counts of homespuns  Dec. 1946
Staples in threads  March 1949

Tieing-on warps  Dec. 1959

Tie-ups

Reading Scandinavian drafts  Nov. 1953
for M's and O's, S.& W., Warp and  Sept. 1956
weft reps
for Mattor, types 1 and 2  May 1964
for 6 and 9-harm. color twill,  l&l,  Sept. 1964
Steedman
also in all drafting lessons and weaving directions

Tie-up theory  2 block weaves  Sept. 1956
x-y tie up

Twills

See also drafts based on twill  Dec. 1946
Double face and double width
Explanation - twills  May 1958
How to sample  Feb. 1962;  Feb. 1963
How to weave  March 1944
Modern textures  Nov. 1954
Watson on twills, color and weave  Feb. 1950

Two Harness  See "draft" section I, Tabby weaving  Aug. 1945
Box loom techniques

Three Harness  Warp stripes  May 1951

Upholstery requirements  Aug. 1944

Waffle Weave  Dec. 1959

Warp Brocade  Drafting  March 1955
Warp covering  Dec., 1956
Warp rep  Theory  Sept. 1956
Weaving with fine warps and wefts
"Weaving for sale" methods
Weft Rep Theory
Wool How to weave
Wool Preparing for spinning and dyeing
Feb. 1951
Mar. 47; Nov. 1960
Sept. 1956
May 1960
Sept. 1962

Good references are an aid to
GOOD WEAVING!

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

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

LOOM MUSIC: Current year of 10 issues, $5.00 per year
Back copies, 1944-1964 3.50 per year
Subscriptions to Mrs. Lillian Anthony, R.R. 4, Calgary, Alberta
EXHIBITION TIME, and a Prize Rug by Suse Gruhl, Osoyoos, B.C.

plus, Comments on Warp Settings

This is the beginning of the summer round of Fairs and Weaving Exhibitions, and many craftspeople are working hard to meet the various deadlines for entries. The largest Canadian exhibition primarily for weaving is the one begun by the London (Ontario) and District Weavers. They sponsored it for several years, and in so doing made a significant contribution to the growth of high quality weaving, year by year. In 1963 Winnipeg weavers, both those of the Guild of Canadian Weavers and of the Canadian Handicrafts Guild, joined to sponsor a most successful show. In 1964 the weavers of Vancouver were the sponsors, and many hundreds of visitors enjoyed viewing the entries.

This year, 1965, Toronto Spinners and Weavers are sponsoring the event, and a few weeks ago we received the prize list and enjoyed reading the list of classes set out. One especially pleased us, open only to our Canadian Indian craftsmen, specifying three types of weaving: 1) bead weaving, 2) an article of handspun fibre, and 3) any article woven by a Canadian Indian.

The complete list of classes covers the wide field of the weaving craft, from rugs and tapestries, to hand spinning of wool, flax, dogs' hair and other animal fibres subsequently woven into articles.

We especially favor the sheet of instructions and hints for exhibitors, which will, if followed, ensure a more successful result to the exhibitor. These should cut down materially the mechanical defects, aid the screening committee's rejections, and lighten the task of judging.

A Vancouver winner,
Mrs. Suse Gruhl

Last year, at Vancouver, when the judging was completed, the name of Mrs. Suse Gruhl, now of Osoyoos, B.C. appeared several times, notably in the rug section. We have been very fortunate in receiving details from Mrs. Gruhl about her interest in weaving, and West Coast weavers of both Canada and the United States will recognize the weavers who helped Mrs. Gruhl begin. (These weavers have many others who owe much appreciation to them for sharing their knowledge) We refer to Mrs. Edith Field and Mrs. Honey Hooser of Cloverdale, B.C. About 1950, Mrs. Field instructed Suse Gruhl in spinning, and not too long after this, interest led to the purchase of a Hooser loom, made by Mr. Hooser, and a start in loom weaving. Mrs. Gruhl states, "I still consider myself a beginner and a Sunday weaver, as I have stayed with simple patterns and 4-harness loo
only. I love color and texture. In Osoyoos I am away from other weavers, and I miss the company of good weavers to spur me on."

We asked Mrs. Gruhl about her nature dyeing, as she won top prize in this also last year. She wrote, "I believe recipes cannot be followed (except generally, our comment), as time of year and water, and more or less mordant, will change the shades of colors. Each time it is a challenge to me, and a surprise. I love it."

On a sheet accompanying her letter was a small sampling of autumn dyed carded wool. It shows a wide range of colors, and a few comments will show the range of materials used. (She used enamel vessels throughout).

1) a greyed apple green, from coreopsis with alum and a dash of indigo;
2) a lovely corn yellow, from the old reliable onion skin;
3) a very soft old rose, from elderberry with alum;
4) a brilliant clear orange, from beetroot with vinegar;
5) a light brown from Concord grape with copperas;
6) a greyed mid blue from Concord grape skins only, with alum;
7) a true dark grey from Damson plum, with alum;
8) a light dark tan from elderberry, with iron crystals.

Rug, photographed on page 42. Size, 26" x 48" finished.

The above colors and many others form the wefts of Mrs. Gruhl's rugs. She begins with a seine cord warp (#9), 27½ to 28" wide, 6 ends to the inch, every other dent in a #12 reed; 12½4 twill draft, with the standard tie up:

Counterbalanced or falling shed loom

Rising shed, "jack", or table loom

harnesses

treads

The warp is fully covered as in a weft-face tapestry, and to give a wider warp spacing, treads 2 and 4 are used for background weaving.

Where two colors meet, joining is done on consecutive sheds around a common pair of warp ends, a flat join with no ridge (see sketch at right).

To begin the weaving, a heading is woven of spun yarn (or sometimes of seine twine), in tabby -- treads 5 and 6 alternately in above tie-up.

Color B:
over in same shed as A, to right of warp end "y", back on next shed. For diagonal, move one pair of ends right or left, each row. Firm beat.
Preparation of weft

Mrs. Gruhl formerly lived in Cloverdale (near Vancouver) and, as a food venture, sheep were purchased and raised on the property. She herself sheared them, washed, dyed, carded and spun the fleece, then weaving it into the rugs. Later, when this venture was concluded, prize fleeces were purchased at the Pacific National Exhibition, for the long staple wool. The carded wool used as weft is about 1/2" in thickness and up to 2" wide in the flat, which beats up to about 1/2" diameter thickness in the shed.

A small note says -- "The texture resulting from the use of carded wool is much softer and thicker than spun wool. The preparation time is about 3 times as much as the weaving time."

For those who cannot begin with the fleece, carded rolls may be purchased from Sifton Woollen Mills, Sifton, Manitoba; or Golden Fleece Woollens, Box 123, Agincourt, Ontario. The latter has many grades of wool, Australian and Canadian -- Merino like silk! Some of the hand spun yarn used was brought from San Miguel de Allende, Mexico, and is natural gray. Also try Condon's Woollen Mills, Charlottetown, Prince Edward Island, for spun yarn.

Carding

Eaton's of Canada mail order sell a carding machine, roller type at $32.50. The rollers on Mrs. Gruhl's are 7" in diameter and 7" across. The carded pads are about 16" long and as thick as one wishes, different fleeces acting differently. A strip of the thickness desired is torn off the pad (2"), rolled into a weft on the warp or on the knee, and then laid into the shed by hand, with a good overlap to ensure even texture. No shuttle is used.

The Flossa Knot (Ghiordes)

On the design plan and on the photograph of the rug, knots form the raised end bands and the diagonals separating colors.

Diagram shows the process. Mrs. Gruhl's gauge bar is wood, shaped thus, exact size

In her rug, two strands of loosely spun yarn are used for the knots, and this fills out pile well. The knot is tied around bar, and a tabby shed is used, the knot going around 2 strands. On diagonal, width of knot section is small. The unspun weft must wrap closely about knots so no hole is left. After background weft is firmly beaten, and knot is secure, cut.
Design Plan

Below is a design plan of the rug photographed on page 42, together with legend of colors used -- Flossa knots form the lines. Each section is solid color, no blending.

1 yellow
2 natural brown
3 white
4 madder
5 white
6 yellow
7 madder
8 natural brown
9 natural light grey knots
10 white
x natural brown

These rugs are so attractive you will love weaving and using them, and we hope you will see one in Toronto!

Warp setting suggestions

Recently we received a request for a few suggestions concerning warp settings. We can recall the time when these were done according to rather strict rules, but just as today's weaving is not yesterday's in interpretation, so today's warp settings vary with the particular use of the textile.

Over the years some standard 50/50 warp settings have emerged for certain threads. (When we say 50/50, we mean a warp setting that is based on the calculation that the number of ends per inch when wefted in plain or tabby weave, with the same thread, will have the same, or 95% of the number of weft shots per inch.)
To use some common cotton threads as examples:

A 16/2 or 24/3 cotton is at a 50/50 sett at 30 ends per inch.

An 8/2 cotton is similarly sett at 24 ends per inch.

A 12/4 (carpet warp) is at 50/50, at 15 ends per inch.

A 10/3 Lily (Frostone) is at 50/50, at 20 ends per inch.

We like a 20/2 or a 30/3 cotton at 32-34 ends per inch.

When warp ends and weft shots are balanced, shrinkage should be about equal in both directions.

In calculating threads other than these cottons, we compare the size of the new thread to them, and judge accordingly for a tentative warp setting.

It is important to realize that, the moment any one of these factors changes -- size of thread, similarity of warp and weft, or shed openings (i.e., any change from the tabby weave), the subsequent warp setting alters.

Intersections

Plain weave. When every other warp end, as in tabby, is lifted or lowered, according to type of loom, a space of one end between is created for the weft to occupy. One must realize the warp and weft curve into each other, as hence the need to consider this "take up" as it is called in the warp, and the laying in of the weft at an angle to compensate. Too much angle creates loops at edges -- not enough, edges pull in.

Twill weave. Consider now the twill weave, wherein a 2 and 2 treadling, 2 ends up, 2 down, is used. The spacing between is now changed to double that of tabby, while the weft will remain the same as the warp. But we will find that the weft packs on the warp ends because of the larger spaced intersecting and so, to maintain our warp and weft balance, we use more warp ends
per inch, cutting down the space occupied by warp ends. To illustrate, with our common 16/2 Weavecraft -- for a tabby weave we would set 24 ends per inch, but for the same elements in a twill the sett is stepped up to 30 ends per inch.

Sampling

The weaver who has not a wide experience with warp settings should take time to set up a series of one yard warps, on the same loom generally used. At least 3 reeds are essential for the variety of warp settings in general use today. Twenty-five years ago the order of importance suggested was, #15, #12, and #10; today if we were buying we would suggest a #10, a #15, and a #12 respectively. We find ourselves so often using a #10 at 2 per dent for all media. And if eyesight permits, a #18 is needed for higher setts. If for instance, 3 fine threads per dent are used in a #15, there may be slight reed marks; and more so for 4 ends in a #12.

Then, using the threads we have illustrated (page 39) in a 4" wide warp, weave (by rethreadings) to a 50/50 product, pattern and tabby sections on an overshot draft, a Huck, a Bronson, a Crackle, and a Summer and Winter, as in all of these a 50/50 is the basic standard for the tabby treadling, and the tabby sections are observed while weaving pattern, to control beat and to see errors.

These samples should be about 6' to 8' long, washed and pressed, and measured before and after finishing, as well as on and off loom for take up -- i.e., with and without tension.

Next, re-thread to a twill, and increase warp sett by 25% -- i.e., from 30 to 36 ends per inch; 24 to 30; 20 to 24, etc., depending upon material being used. Weave again, matching weft shots to warp ends per inch.

For open setts, as in lacy weaves, 75% of tabby, or even more on occasion, will be good -- beat lightly to 50/50 again.
For linens, compare feel of thread to known cottons, and sample for shrinkage.

Reps. Many present day weaves use the reps: warp face where sett will be packed to completely (or almost so) cover weft; weft face as in tapestries where sett is spread to allow weft to pack easily, but firmly, to cover warp. These can be sampled easily on the same warp as the 50/50 examples, by resleying -- and in these reps, remember that warp and weft will not necessarily coincide at all. A very fine warp set close at 48 to 60 may have coarse wefts of quite another thread; and a spread warp also varies in materials employed in warp and weft.

Upholstery sets vary, aiming always for a firm fabric with stretchability in both warp and weft directions, as wefts are often entirely different to warps. Many use very fine warps at a close setting.

Rug warps need to be from 6 to 10 per inch, and should be sturdy in character.

These are all very important factors in your

GOOD WEAVING!

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

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

The Victoria Hand Weavers' Guild will hold its annual exhibition June 22-26 inclusive in the Douglas Room of the Hudson's Bay Company store. The theme selected is "New Trends in Weaving" and there will be some articles for sale. Out of town weavers are most welcome.

A smaller exhibition will be hung at the beginning of November in the Victoria Art Gallery.
Prize winning rug, by Mrs. Suse Gruhl of Osoyoos, B.C.

LOOM MUSIC 1965
FOR SUMMER CAMP; and HANDICAPPED WEAVERS

Adaption, Indian Bead Weaving

Headbands and coverings to intrigue any weaver

Indian
Bead
Weaving

Our good friend, Winnifred Mooney of Massey, Ontario, is in
a favored spot to observe traditional Indian bead weaving,
living as she does between Sudbury and the Soo, not far
from Manitoulan Island, and with Indian Reserves of northern Ontario
close by. Although few of the younger generation are interested
in the native crafts, some classes are being formed, with a few in
action, to preserve these vanishing arts. It is still possible to
procure necklets and moccasins and other goods in certain craft
shops, in nearly every province of Canada.

The bead necklet weaving is well known, and there are
excellent illustrated books outlining it. One easy to purchase is
Indian Crafts and Lore, by W. Ben Hunt, a Golden Hobby Book. Any
museum will have on file a list of authentic articles by Clark Wissler,
and other scientists on Indian crafts.

In an entry to last year's Canadian Exhibit of Hand Weaving,
Mrs. Mooney sent a wall hanging which used the bead loom weaving
technique. This earned an Honorable Mention, and her hanging was
selected for a photograph, along with other interesting entries, which
appeared later in the Saturday magazine section of Canadian newspapers.

Because we think the adaption as done in this article,
capable of many developments, we have asked permission to use it in
this camp number. (photographed on page 51)

BEAD LOOM WOVEN DESIGN ON RAFFENE (synthetic) WARP

Although raffene is about three times as expensive as
ordinary raffia, it has advantages:

<table>
<thead>
<tr>
<th>ordinary raffia</th>
<th>Raffene</th>
</tr>
</thead>
<tbody>
<tr>
<td>bundles of individual strands</td>
<td>24-yard length in one skein</td>
</tr>
<tr>
<td>natural and colors</td>
<td>matt and lustre finish, natural</td>
</tr>
<tr>
<td>colors not fast when wet, rub off on hands</td>
<td>and many colors</td>
</tr>
<tr>
<td>$1.50/bundle natural; $1.75/ colors. Many yards in bundle.</td>
<td>fast colors</td>
</tr>
<tr>
<td>Dyes easily with commercial dyes. No advantage gained by dyeing.</td>
<td>35¢ per skein</td>
</tr>
<tr>
<td>Longest strands give woven length of 24 inches.</td>
<td>24 yards to work with in one strand.</td>
</tr>
</tbody>
</table>
Design
Plan

In this adaption it is most important to have the design plan carefully worked out before warping is started. A small pilot warp by the instructor is strongly recommended, to be able to plan the warp accurately, as the warp setting will be governed by the size of the square of the bead, seed, or other design element. The same factor will dictate the weft beating.

Keep the first design very simple -- a square or oblong, and plan on graph paper, indicatting color scheme. Be prepared, when weaving comes out enlarged -- to a degree!!

for example

| x | white |
| o | green |
| o | blueberry |

W O O D E N  B E A D  S I Z E

8 mm

$2.75 per 1000 50¢ per 100
LEWIS CRAFT, TORONTO
28 King St. West

The 1" square on the graph, using the above size bead, came out to a square 2 1/4" per side. Note even number of warp ends and uneven number of beads.

By the inch, this worked out to 4 warp ends and 3 beads for each inch -- therefore a #8 reed was used, one end every other dent, in areas where there was to be beading.

For best results plan a panel of design (or, design in a panel) where warping will be 4 per inch, with plain borders at left and right, warped 8 per inch. (A #6 reed, or even a #12, may be useless in certain sizes of warp and design elements).

Mrs. Mooney's warp: 12 ends raffia @ 8/inch, natural -- 1 1/2"
26 ends raffia @ 4/inch, natural -- 6 1/2"
12 ends raffia @ 8/inch, natural -- 1 1/2"

Length on loom, 30" if possible, using usual floor or table loom.

Dressing the loom

Instead of conventional warping, strands are threaded individually through reed and heddles. Knot several ends together, tie one end of a heavy string about the knot and the other end to back rod -- or use one piece of string for two bundles looped first around the rod. Have strings of uniform length and keep knots in line across.

Roll warp onto back beam, covering knots well with flat
sticks or heavy paper to prevent lumping of warp. In front of reed, tie warp in knots, and use string through these in zig zag looping for even tension, thus

Mrs. Mooney's design graph

Geometrical flowers, red in centres, green outlines, deep yellow for diagonals
Background natural.
(photo. p. 51)

The weaving:

Begin with two or three rows of tabby, against knots, to fold over a small dowel after cutting -- use raffia or raffene weft.

Bead technique may be begun right to left, or left to right. Follow graphed pattern row by row horizontally, selecting beads accordingly, on a long thin-eyed needle, or a strong thin wire with a loop, threaded with a strong linen thread about #10 size, your choice of color. (As needle and stringing weft must go through each bead twice, the first time going under warp on beginning the row, secondly, over the warp when returning to beginning side -- select weft thread and needle with this in mind.)

This weft thread should be 2 yds. or so long, fastened invisibly to the innermost warp end of the border.

Thread on beads for row 1. With fingers, space one bead between each warp end, going under whole centre warp and shoving beads up into place. Go through last design warp end with weft, to fasten securely and
neatly; then run needle and thread back through beads, over warp this
time. Then with extra lengths of raffia for weft, one to right and
one to left, weave in and out to selvage again over side borders.

Continue with centre design panel, and built-up borders,
ending with a bottom finish as photographed -- warp ends tied across
a small dowel and left as fringe.

Can't you see this method, using exotic seeds or fruit pits,
shells or other conversational objects -- in a large screen or room
divider? Of course, that is too ambitious for camp, but 8" squares
would make small wall plaques, using indigenous design ideas.

HEAD BANDS AND COVERINGS

At an October Coffee Party and Sale of Handweaving (Edmonton
Weavers’ Guild), LOOM MUSIC’s November 1964 Christmas Tree was given
as door prize.

The brightly colored centre band attracted the attention
of a visitor from the Museum of Arts, who asked whether head bands
could be woven on such a warp, as articles to be sold at their
forthcoming "Art Mart" (Museum sale). These were desired in order
to interest their young people in crafts, good design and color; and
not least, to make money for the organization. All these aims
were fulfilled, bands were supplied and made up, and sold very quickly.

In addition to the bands, woven narrow, warpwise, experiments
were made with weftwise bands, on an 18" cotton warp. Drafts,
details and patterns follow, for the two types.

TYPE I

**Band 1** uses the original "tree" warp, repeated here for
those who may not have our November 1964 issue.

Warp of 12/4 cotton, heavy candlewick, 8/2 and 8/4 cottons
(the 8/2 and 8/4 used double) -- almost any mixture, at 10 ends per
inch, 2" wide. **Thread** 12 34, use a #10 reed, and sley single or
double, depending on weight of warp used.

A color order: red violet, skipper blue, navy, leaf green,
hyacinth blue, light jade, light and dark green, orchid, pale green,
etc. Wind short ends of these on a card, as a trial scheme, repeating
color now and then to get a pleasing array.

**Wefts**: heavy dark jade jute, or 1½ lea colored linen,
and black or dark blue of carpet warp weight.
Weave tabby, throwing alternate shots of heavy and fine wefts, to give a firm band.

Band was woven 18" long. Ends were machined well and cut, then bound with narrow tape (black or matching color). A 4 1/2" length of black 1/2" elastic was fastened at points to give a completed band, as sketched

**TYPE II, weftwise**

The next 5 bands were woven across the 18" cotton warp, and wove up very quickly. Warp was shades of gold 8/2 weight, mixed with double ends of a slightly finer thread (treated as 1 end), single in the heddle, 1 per dent in a #15 reed.

The draft on this loom was \( 1^23^4_21^23^4_21 \), but almost any small overshot could be used, using opposites in treadling, to get the weft pattern prominently to the surface.

**Tie-up was standard**

Counterbalanced or falling shed loom

<table>
<thead>
<tr>
<th>X</th>
<th>X</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Rising shed, "jack", or table loom

<table>
<thead>
<tr>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

harnesses
treadles

Weft for underside of band may be any yellow cotton or linen, to give a 50/50 tabby mesh, and be not too stiff.

To begin: Weave 1/4" fine for seam, then 1" yellow tabby, 50/50, before beginning pattern for surface of band. The surface pattern uses treadles 1 and 3 throughout, sometimes with tabby, sometimes not -- as noted in directions to follow for each band. Heavy wools were used, 3- or 4-ply weight (or finer wools used double or triple on the shuttle), a good way to use up odd ends.
Band 2

\[
\begin{cases}
31/4" \\
1.75"
\end{cases}
\begin{align*}
&\text{Treadle 1 using heavy green wool, with yellow linen or cotton} \\
&\text{8/2 weight tabby, a,b, alt., as Tr.1, a, l, b, l, a,} \\
&\text{etc., to 5 pattern shots} \\
&\text{Treadle 3 with heavy green wool, yellow tabbies, to 3 green shots} \\
&\text{Treadle 1 with heavy green wool, } " " \text{ to 4 } " " \\
&\text{Treadle 3 with heavy green wool, } " " \text{ to 3 } " " \\
&\text{Treadle 1 with heavy green wool, } " " \text{ to 5 } " "
\end{align*}
\]

Weave 1" yellow tabby, then 1/4" fine, as at beginning, then a line of color as a marker between projects.

To make up: Machine stitch on each side of marker line, then cut bands apart.

Bring cut edges together, with right side of band inside, and machine stitch lengthwise, just inside the fine 1/4" tabby; or, so yellow underside is same width as pattern band.

Turn inside out and press. Shape the open selvage ends by pushing in the corners and overcasting. Insert elastic \(A\) at "A", and overcast selvages firmly over elastic.

Band 3

Pattern wefts: white 3-ply wool doubled, white rayon boucle wrapped with gold

Weave fine 1/4" and 1" tabby at beginning and end of band, as in band 2 above.

Treadle 1 white wool, Tr. 3 boucle, alternately, for a total of 10 shots (ends with boucle)
Treadle 1 boucle, Tr. 3 white wool, alt. for total of 9 shots (ends with boucle)
Treadle 3 with boucle, Tr. 1 whitewool, for total of 10 shots.

Band 4

Rust brown 2-ply wool, double on shuttle; and gold wrapped rayon boucle, lighter brown in color.

Treadle 1 with brown wool, alternated with treadle 3 with rayon boucle -- continue for desired width, ending with tr. 1.

Band 5

Lime green wool, 3 ply, double on shuttle; alternated with gold wrapped white rayon boucle.

Treadle 1 with lime wool, treadle 3 with rayon boucle, and continue this alternation for half the width of the band, ending with treadle 3 boucle.

then Treadle 1 with boucle, treadle 3 with green wool, and continue this alternation for the final half of band.
Band 6

White 3-ply wool, single on shuttle,
Deep gold 2-ply, double on shuttle
Light brown rayon boucle wrapped with gold metallic.

{Treadle 1 gold wool, Tr. 3 white, Tr. 1 gold wool, no tabby
Treadle 3 tabby shots with the rayon boucle wrapped with gold

Repeat the bracketted treadling for desired width band, ending
with the gold, white, gold band, as at beginning.

Other Bands

Don't forget that both card woven bands and inkle loom bands
provide excellent bands for this purpose, plus marvellous scope for
exciting color schemes, so don't be conservative in this color-
conscious world.

HEAD TRIANGLES

These triangles -- the original was bought in Europe --
require a loom set up with a 27" wide warp, with wool or suitable
synthetics to produce a light weight material. Each 27" square
makes two triangles, allows for a narrow hem or fringe, shrinkage
and take-up, giving a minimum of 24" finished,
If wool is washed carefully then steam pressed
for finishing, rain and snow pose no worry when in use. The warp
may be plain or striped, to give plaids, etc.

An excellent feature of these squares, which gives
attractive shaping when worn, is a small lining of adhesive pellon,
$6\frac{1}{2}'' \times 15''$, ironed onto the under side.
The bias edge may be faced with seam binding and straight edges
fringed. Wefting may be as varied as imagination and good design
permits.

Braids and Fringes

Because braids and fringes are excellent camp projects, to
be made on the Inkle loom, or any 2-harness loom arrangement, our
second triangle was planned with this in mind.

A hand made braid or fringe on a triangle of one colored
material provides opportunity for imaginative design, and is not too
difficult a project, once uniformity and precision is mastered.

Our Inkle band uses 11 ends of 20/2 linen, red and white ends
alternately, with red at edges. Weft was pulled in to give 1/4" to
3/8" width of warp, in the woven braid. (If a regular loom is used, omit the reed so that warp can be pulled together to this width, and do beating with flat shuttle or ruler).

Wefts consist of alternate shots of 1 1/2 lea linen, red and white, to give a continuous red line and a continuous white line. In our examples, photographed on page 51, the white weft was allowed to make loops, in a variety of ways, while the red weft went just from side to side in a normal manner. The photographed triangle has white loops all on one edge, the red and white braid used on a plain navy blue triangle.

Given the opportunity, teenagers will evolve versions here that astonish -- and get a tremendous thrill out of creating much

GOOD WEAVING!

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

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

LOOM MUSIC, Current year of 10 issues, $5.00 per year
Back copies, 1944-1964, $3.50 per year
Subscriptions to Mrs. Lillian Anthony, R.R. 4, Calgary, Alberta

Don't miss, At Annapolis, Nova Scotia
Western Nova Scotia Handicraft Exhibition, Annapolis District
Community Centre, July 14th, 15th, 1 pm to 10 pm daily.
A tremendous program, sale and many craft demonstrations.
Head triangles, one with handwoven braid, one with Pellon .................................................. p. 49
Wall hanging, Indian bead technique, by Mrs. Mooney, Massey, Ont. ........................................ p. 43
Six head bands (read right to left for corresponding numbers in the text) ..................................... p. 46
Variations of the Inkle belt braid used on head triangle (photo enlarged to half actual size, for detail) ........................................................................................................................................ p. 49

LOOM MUSIC 1965
WITH INTERIORS IN MIND --

Upholsteries in today's threads, adaptable for cushions; all in 1965 color schemes

AND, A 14-harness point twill with a tabby border, in linen

We have an urge to weave -- good solid shuttle throwing to give a real sense of weaving and satisfactory achievement. There is always a chair needing attention, all-over covering or chair seats; and it is remarkable how cushions can be decorative and useful in any room.

We chose these examples with certain factors in mind: simple drafts with clever treadlings, coloring adaptable to any decor, suitable for utilizing today's blends that are synthetic but resemble wool, and, with a change of beat, giving a good cushion weight. As we go along, we will say why each was chosen.

COLOR COMMENTS

First we will comment on the two colors which, we think, express the unrest and demonstrative actions of the sixties -- both based on red, with its tremendous power over us. These are orange and fuschia, and may be found in a range of several tones. We have seen these two used together in living room accessories, and by winter, as we have seen in advance fashions, we shall be seeing them in our coats and suits, in various twills and tabbies. They are arresting, but when well done are very wearable.

For instance, in a recent color page in the Ambassador, we see a hound's tooth warped 4 ends blueberry blue, 4 ends fuschia-mauve, and 4 ends a scarlet red to bring in the orange feeling. Shown as the designer's inspiration is a playing card, the Queen of Diamonds. This check is wefted in the same order, 50/50 beat, on a 4,3,2,1 draft, about 24 ends per inch.

Also shown is a red, very slightly scarlet warp, combined with a fuschia weft, in a twill 4" deep:

Again, on a plain twill, 4 ends orange loop or mohair, of subdued hue, with 4 ends also loop or mohair in fuschia; woven hound's tooth in same color order.
Last, a textured yarn of a 4-ply fingering weight is warped with fuschia and wefted with orange, all tabby.

Names of great designers in weaving always attract interest, and in a recent issue of House Beautiful a color photograph was shown of a room in Dorothy Liebes' New York home. Here reds and fuchsia-mauve were used as accents against parchment colored walls, a settee in parchment, and beige and brown scatter rya rugs. There are lovely reds in chests of various sizes, the bookshelf uses scattered reds in books, a wall hanging is in reds to browns, and on the settee are square cushions in reds and fuschia. The flowers, too, carry out this color scheme -- one of mauve and red flowers, the other we see of white and pale yellow. The overall impression is restful and luxurious, and the skilfully used warmth of the color stimulates in just the right degree. We do admire it.

The main point we are trying to make is, do not over-use these colors, and do sample first to ascertain how the hues you have chosen blend. Use them in varying tones together, and set them off with accents of mahogany, raisin, and dark browns. If glitter is used, make it seldom and just a hint.

On the subject of cushions, we have been observing these for a long time, and of all we have seen, the simple square shape we like best, with a twill or diamond as the extent of pattern. Stripes are good, without obvious repeats to catch the eye. Be sure your cushion forms are soft and comfortable, and do not overstuff covers to plumpness, since they are not kind to one's back.

UPHOLSTERY #1
Monk's Belt

We give the original colors, and upholstery beats and settings. The settings will make your cushions too -- keep comfort and touch in mind here. This upholstery example is all cream color, the warp an 8/4 carpet warp weight alternated with very fine cotton. Use any good warp to gain your own color effect, and be sure to send for sample cards before planning, from both U.S. and Canadian houses. Remember, if the available weight is not heavy enough, use sufficient strands in one heddle to produce a carpet warp weight.

Warp: a) 8/4 weight, and b) 40/2 weight cotton, cream or chosen color, warped both together. Sley 30 ends per inch, 1 heavy 1 light (2 per dent) in a #15 reed, 1 per heddle.

Draft
\[
\begin{array}{cccccccc}
\text{begin} & 4_3 & 3_4 & 3_4 & 3_4 & 3_4 & 3_4 & 3_4 & 3_4 & \text{Selvage} \\
4_3 & \text{etc.} & 2_1 & 2_1 & 2_1 & 2_1 & 2_1 & 2_1 & 2_1 & 2_1 \\
\end{array}
\]

Thread heavy and light ends alternately, with heavy ends in heddles 1 and 3, light in 2 and 4.
Tie-up is Standard

<table>
<thead>
<tr>
<th>Counterbalanced or falling shed</th>
<th>Rising shed, &quot;jack&quot;, or table loom</th>
</tr>
</thead>
<tbody>
<tr>
<td>x x x</td>
<td>x x x</td>
</tr>
<tr>
<td>x x x</td>
<td>x x x</td>
</tr>
<tr>
<td>&quot;j&quot; &quot;j&quot; &quot;j&quot;</td>
<td>&quot;j&quot; &quot;j&quot; &quot;j&quot;</td>
</tr>
</tbody>
</table>

Weft is same as the heavy 8/4 size warp used, beaten 20 wefts per inch.

Treading: Using above standard tie-up, 
Treadle 2, 5, 2, 4, 5, 4, and repeat

Now, you ask, why recommend this well known draft and treading?

First, the heavy and fine threads create heights and depths on the surface of the web, causing an interplay of light;

Second, the effect is of an all-over design;

Third, synthetic threads in these weights are plentiful;

Fourth, there is a rich opportunity to experiment with color combinations. Try it!

UPHOLSTERY #2

This example gives again the effect of an all-over design, a spot about a 1/4" square size, placed 1 inch apart. Here the warp gives the opportunity in color choice to suit any color scheme.

Warp. Use the very fine 60/2 and 70/2 cottons, 3 ends per heddle, 20 triple ends per inch, i.e., 2 groups of 3 ends per dent, in a #10 reed. Color of triple ends: 1 each of yellow, white, and medium dark greenish grey.

The draft

\[ \begin{array}{cccccc}
34 & 34 & 34 & 34 & 34 & 34 \\
1 & 2 & 1 & 2 & 2 & 2 \\
1 & 2 & 1 & 2 & 2 & 2 \\
1 & 2 & 1 & 2 & 2 & 2 \\
1 & 2 & 1 & 2 & 2 & 2 \\
1 & 2 & 1 & 2 & 2 & 2 \\
\end{array} \]

Repeat draft as desired, ending with 19 ends \( \frac{2}{1} \), to balance, then final selvage.

Weft is cream colored, or desired color, #3 perle weight, any media.

Treading: Using the standard tie-up given above --

For background, use perle 3 weight single on shuttle and treadle tabby: treadles a, b, alternately, ending with tabby a, for 1 inch of weaving.

For spot, use perle 3 weight, double on shuttle:

- Pedals 3 and 4 together (frames 134)
- Pedal 2 (frames 23)
- Tabby pedal b (frames 13)
- Pedal 2 (frames 23)
- Pedals 3 and 4 together (frames 134)

then 1" tabby: a and b alternately, ending with a
The above, for upholstery, a good firm beat for a stiff fabric.

**UPHOLSTERY #3**
Rosepath draft

Example 3 is rich in autumn tones, combining reds, brown, orange, tan, with a grey accent line in weft every inch, giving a general impression of dark red fabric.

The warp is 16/2 corn yellow cotton\{warped together and 70/2 dark gold\} used as 1 end

Thread 1 pair of ends per heddle, 2 pair per dent in a #12 reed, or 24 pair of ends per inch.

Draft is
Rosepath

\[
\begin{align*}
3_1 & 3_2 & 3_4 & 4_1 \\
2 & 3 & 4 & 1 \\
\end{align*}
\]

Tie-up

The wefts are homespun type wool of about 8/2 weight, and for accent a medium grey 2-ply wool.

Pattern weft consists of 3 ends wound together on shuttle: 1 end rich rust red, 1 end a bit brighter, same hue, 1 end walnut brown

Tabby shots, between pattern groups: the brightest rust red, used single on shuttle

Treadle

\[a,b,a\ (tabby)\ using\ single\ bright\ rust\ red\]

Using pattern weft (3 ends described above),

\[\text{treadle 3, tr. 4, tr. 2, tr. 1 (no tabby between a,b,a, using single bright rust red)}\]

Repeat bracketed treadlings two more times, then

\[\text{treadle 3, treadle 1, using grey and rust wound together a,b,a, using single bright rust} \]

This is a good treadling, with the grey lining-off as described above, giving a cross-stripe about every 3/4" of weaving.

With the grey cross-stripe omitted, we again have an all-over feeling, with the yellow warp presenting a tiny rhythmic design of interest. Use the all-over or striped plan, to suit your own purpose.

**UPHOLSTERY #4**

**Twill**

Our fourth is a 12\[\text{5}\]4 twill, woven with a herringbone, but the stripe so produced is 1\[\text{5}\]4 unobtrusive and very suitable for any chair or larger piece of furniture. The color is a rosy coral, using for weft an 8/2 size single homespun -- synthetics such as silk and rayon blends are excellent; and in the same color, a perle 3 size mercerized cotton.
The Warp: 8/2 cotton, 1 light green, 1 copen blue, used alternately: 1 per heddle, 2 per dent in a #10 reed: 20 ends per inch.

The draft is

\[ \begin{array}{cccc}
1 & 2 & 3 & 4 \\
1 & 2 & 3 & 4 \\
\end{array} \]

The tie-up is as given on page 55, with the Rosepath draft, for a 3-1 weft-face fabric.

Treading: with coral fine homespun, double on shuttle, treadle 1, 2, 3, 4, 1, 2, 3, 4

with the same color, perle 3 size, treadle 1, 4, 3, 2

with coral double: 1, 2, 3, 4, 1, 2, 3, 4

with perle 3 size coral: 1, 4, 3, 2, and repeat

This is one of the most usable "bones" we have seen, in these particular weights. Keep to one color wefts, and 2 colors in warp.

Tabby-bordered runner on 16 frames

This is a 14-harness point twill draft (frames 3 through 16) with tabby border on frames 1 and 2. The tie-up produces alternate diamonds, one with a tabby centre and border of warp ends, the other with a diamond centre and border of weft ends.

Draft and tie-up

The warp is 18/2 linen (or 20/2), natural, set at 24 ends per inch, 405 warp ends; for a finished width of 16", 24" long.

The weft is chartreuse 18/2 linen; beaten for a 50/50 weave.
Treading details

With fine linen, weave 1/4" tabby for turn-in.

With chartreuse 18/2 linen, weave 4" tabby, which will provide a 1" hem, and a border to match side borders. End tabby area with treadle 15. (tabbies are arranged here on treadles 15 and 16, but you may wish to change them to the left side, or elsewhere, as you find most suitable to your own loom)

Treadle for pattern: 14,13,12,11,10,9,8,7,6,5,4,3,2,1,
then 2,3,4,5,6,7,8,9,10,11,12,13,
then 14 through 1, etc. for desired length.

Ours has 17 diamonds lengthwise.

**Final end treading is**

2 through 14,
then tabby 15, 16, 15, 16, etc. for 4"

Points to note

In the tie-up, each treadle is tied to either frame 1 or 2 so that tabby sides will weave along with centre.

Some difference in tension will be found to occur between the side and centre portions as weaving progresses, since the tabby intersections use more take-up than pattern. We found it necessary to wind the warp forward more frequently than normal, so that the slight tension changes were distributed more evenly, and were scarcely visible in the woven piece. The tabby border at the final end also serves to re-adjust tension changes.

If two warp beams are available, put sides on one beam and centre on the other. Or, as the centre section of the warp loosens, insert a sturdy rod under centre section only, fastening it to back floor beam with snitch knots. (See L.W. for illustration, Feb.1961; described in Feb. 1955, Jan. 1957, Dec. 1958).
WHEN FRIENDS MEET --

July 15th finds Mrs. H. again at Banff, and receiving visits from Mary Sandin and Malin Selander, as well as former students again attending the Weaving Division -- while enjoying a short stay at the Y.W.C.A. Chalet (and as a note of interest, finding the Y ideal for a person who has recently acquired a wheel chair for full time use).

Next month we hope to pass on to you news of Malin, and this year's Banff School as she experienced it.

Mrs. Henderson also plans to go to Mrs. Mooney's home in Massey, Ontario, for a long visit early in August, and hopes to have first-hand news of the Toronto Exhibition of Canadian Hand Weaving in June, Mrs. Mooney having been one of the judging committee.

You can well imagine the good conversations taking place on the subject of

GOOD WEAVING!

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

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

LOOM MUSIC, Current year of 10 issues, $5.00 per year
Back copies, 1944-1964 3.50 per year

Copyright, 1965

Subscriptions to Mrs. Lillian Anthony, R.R. 4,
Calgary, Alberta
Upholstery materials
1. One color Monk's Belt, coarse and fine warps alternating.
2. All-over design: a small spot on a tabby background.
3. Striped effect, weft face treadling, on Rosepath.
4. Weft-face twill.

Bordered linen runner
5. Tabby border around a 14-harness point twill treadling.

LOOM MUSIC, 1965
VOLUME XXII    NUMBER 8

October 1965

Mary Sandin
Edmonton

Ethel Henderson
Calgary
LOOM MUSIC

Volume XXII, Number 8 _____________________________ October, 1965

The Theme is Red -- Warp building, and some woven examples

An important announcement on page 64

It is difficult to imagine our many worlds without the reds and their close relatives, to try to realize how much we would be deprived of what warms and enlivens our lives and fashions our moods. Think of a world without sunrises and sunsets -- a world without the strong passions of love and hate -- all of which we associate with red. In the world of Nature, reds bring us many messages -- the reds of fruit and berries, the reds of autumn leaves, the reds of Christmas, of holly berries and poinsettias.

COLOR BUILDING

I. In our weaving world we have changed our ideas of the presentation of red in textiles. Long ago we reached for a cone or hank of a red thread, warped it, and when dissatisfied with the color we deplored the meagre range of dyes offered for our use. Then, to us, red was red -- without any study of the components. Study and the examples of skilled colorists has taught us that red is not a case of one hue of red, but a mixture of related hues to build up the exact red we have in mind. When we plan a warp in 1965 we may have five or six cones of reds to blend together. A warp may be a true red full strength, blended with cerises and magentas in one case; in the next the true red with wine and maroon hues; and in a third a blend of the true red with the yellows -- hennas, light and dark orange itself, and even red browns. This color mixing begins the moment we take down the threads to place them on a table, and begin to group them, to let our eyes see blends and contrasts.

II. Next, to further the eye appeal, we take 2, 3, or 4 ends and twist them together, placing the strand around our fingers to judge the effect.

These exercises are but quick trials, when we choose and discard according to the elusive effect we are trying to achieve. Often we may err too much on the blending side, losing altogether the vibrancy possible; or go too much to the contrasts which destroy the harmony. Do not be afraid to go to other colors for a lift or accent -- remember twenty years ago the use of orange and magenta together was frowned upon in America.

III. The third step in the warp building is the closest to our final result. We do this hopefully, but there is no guarantee it will be successful the first, or even the fourth time. We use the results of our experimenting in I and II and make a quick estimate of the incidence of any one hue chosen:
It may be one and one of two hues, as, R,0,R,0
It may be one and two of two hues, as, R,R,0, R,R,0
It may be one and one and two, as, R,0,henna,henna, and repeat
It may be random, avoiding repetition of any regular order

Not to be forgotten is the use of spacing and packing threads in the dents -- spacing will minimize the warp hues, while packing will intensify them.

On a cardboard, say 2½ by 4 inches, wind the warp threads to approximate the hoped for result and fasten down. Again, choose and discard, spread and/or crowd, and criticize. Much can be learned by searching out the reasons for satisfaction or otherwise in the various windings. Keep these cards in a filing box -- they can be tremendously useful.

The Wefts. Every textile begins with a warp, but the end result depends on the factors of warp setting, the beat, and the weft hues. The first two factors are conditioned by the destined use of the web, while the third is governed by taste. Therefore, we must take a needle and weave in various wefts to find their effect on the warp, generally darning 1 and 1 as for tabby weaving.

The weaver who is genuinely anxious to be successful in using color will not find these exercises "too much bother", but will consider them among the most valuable times spent in weaving, after the mechanics of a loom have been mastered.

**OUR WARP**

In general, the draft used on color warps is kept as a tool to have at one's fingertips, rather than the chief factor of the textile -- therefore a twill or a simple overshot is our choice.

Our own warp selection evolved to three sizes of warp, employing a 20/2 cotton in wine, an 8/1 cotton in a true red, and a slightly darker red in 20/2 mercerized cotton. The two bright reds were mixed at random, but the warp order was:

1 end wine, 3 ends reds, 1 end wine, 5 ends reds, and repeat.

This was used: 1 per heddle, 2 per dent in a #15 reed, 30 ends per inch, 32" wide in the reed.

<table>
<thead>
<tr>
<th>begin</th>
<th>4 4 4 4 4 4 4 4 4 3 3 4 3 4 3 3 2 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 3 2 3 4 3 4 1 2 1 2 1 1 1 2 1 2 1</td>
<td></td>
</tr>
</tbody>
</table>

one repeat = 1½", at 30 ends per inch.

Repeat draft as many times as desired, omitting the last 3 threads on the final repeat, and adding a final selvage in reverse.
Tie-up is standard:

Counterbalanced or falling shed

Rising shed, "jack", or table loom

harnesses

treadles

A 15" square cushion

One weft effect we liked very much was the use of a scarlet homespun from Briggs and Little, used double on the bobbin for the pattern, and for tabby a turkey red 32/2 Weavcraft wound with another fine wool of a little darker red (making tabby double on the bobbin also).

For a restrained pattern, we treadled a little all-over spot effect, weaving 17" on the loom for a square cushion.

Treadling:

1 1/2" red tabby (the two fine reds, double on bobbin)

2 shots treadle 2 (scarlet homespun, double on bobbin), with tabby between shots

2 shots treadle 3

2 shots treadle 2

Continue, alternating 1 1/2" tabby with pattern band, ending with the tabby as at beginning.

A suit length

On mulling over other possibilities, using threads on hand, we considered a black 7/2 spun silk from Robin & Russ (McMinnville, Oregon), and tried out a sample in tabby. This is an uneven flaky silk, and we liked the effect so well we have made a ladies' suit length, with most pleasing results. To finish, we washed it in Ivory suds without creasing, drip dried it flat until just damp, then steam pressed.

An apron

We never seem able to keep enough aprons on hand, with uses from gifts to our annual Guild sale items, and these reds are so appealing that we plan to weave several -- varying the weft each time
so that each apron will bring new pleasure to the weaver and planner! When we took this one in to be photographed, the gentleman wished to buy it out of hand.

For the photographed example, the weft was on the fuschia tones, using Lily's Fine Spun 50/3 double on the shuttle as background. For pattern: 1) a 25/2 black linen, used double on bobbin, and

2) a fine black cotton wrapped with 1/64 gold metallic.

**Treadling**

1/4" fuschia, single on bobbin, for hem turn-in
2½" tabby, using fuschia double on bobbin

\[
\begin{align*}
1 & \quad \text{tabby shot using black and gold wrapped thread} \\
1 & \quad \text{tabby shot using fuschia double} \\
1 & \quad \text{tabby shot using black and gold} \\
3 & \quad \text{shots fuschia tabby}
\end{align*}
\]

2 shots treadle 3 (black linen double on bobbin), using double red fuschia tabby between
4 shots treadle 1 using black double, red alt. tabbies
2 shots treadle 3 using black double, "

Repeat bracketted treadlings, in reverse = 3/4" total band

Weave 2-3/4" tabby, using fuschia double on bobbin.

Weave a total of 8 pattern bands, separated by 2-3/4" tabby bands, weaving a final tabby band of 3-3/4".

**Making up:** The apron is made up with the weft running vertically, so we discarded a strip from one side of the weaving, leaving a width of 25½" to use. We machine stitched edges before cutting, also machine stitched ends of the piece, to prevent fraying. We hand hemmed 1/4" side seams and a 1½" bottom hem. The other cut edge was pleated for apron top: Beginning with the edge having narrowest tabby, fold the border over the next tabby in a pleat the width of the border -- and continue across with a pleat under each border. Stitch down for 1" on wrong side. Still on under side, bind top edge, with pleats all running in the same direction, with black seam binding.

Using 9 strands of Lily's fine candlewick, black, make a 3-strand braid for top finish and ties, about 48" long with knotted ends.

Hand stitch this braid over the top of the black binding. Have the braid under a little tension when attaching, so that the apron has a very slight fullness between the pleats, for a good fit.

At this point, we wish you, on these warps,

GOOD WEAVING!
Our Announcement -- NO 1966 LOOM MUSIC -- alas!

It is sometimes hard to realize that twenty-two years, 1944-1965, of our lives have been concerned and enjoyed with our publication of LOOM MUSIC.

These two decades have seen tremendous changes in the growth and conceptions of hand loom weaving, and also in us as editors. As so often happens in life, many experiences are concentrated in various periods, and ours has been particularly so in the past three years. Now we find ourselves older, and while Mary Sandin still enjoys robust health, she spends more months away from her desk now in camping travel; Ethel Henderson is waging a losing battle with Muscular Distrophy. Now that her general health necessitates the use of a wheel chair, the deadlines of a monthly bulletin demand more time and vigor than we can muster.

What, then, of the future? Our interest in weaving will carry us along other lines than heretofore. We can still weave and write, but schedules must be forgotten. We hope to sell as many back copies as we can, and for these, please write direct to Mrs. R.B. Sandin, University of Alberta, Edmonton, Alberta.

We have an index, for which we have been asked many times, of all the articles we have given directions for in all our issues. It makes one realize that LOOM MUSIC is, and has been, a storehouse of ideas and directions valuable to all. We do hope many who have partial sets will be impelled to complete them. Remember, $3.50 a year, 1944-1965.

We have always depended greatly on the good letters our subscribers have sent us telling of the help they have found in our offerings, and it is our earnest desire they will still write us often and continue to keep us in mind.
Many thanks for all your encouragement and support in the past, and every good wish for your progress in the future, and the best to

GOOD WEAVING!

Etel Henderson
Mrs. E. M. Henderson
c/o A. W. Mooney
Massey, Ontario

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

Back copies, 1944-1965, $3.50 per year, to Mrs. Sandin, please
for your interest

A survey of the directions for woven articles to be found in
LOOM MUSIC, 1944-1964 (1965 in preparation)

A count of the number of articles, using at one time or another
a wide selection of techniques

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghans</td>
<td>7</td>
</tr>
<tr>
<td>Antependium</td>
<td>1</td>
</tr>
<tr>
<td>Antimacassars</td>
<td>1</td>
</tr>
<tr>
<td>Aprons</td>
<td>24</td>
</tr>
<tr>
<td>Baby blankets and shawls</td>
<td>16</td>
</tr>
<tr>
<td>Bags, purses, carryalls</td>
<td>73</td>
</tr>
<tr>
<td>Bath mats</td>
<td>2</td>
</tr>
<tr>
<td>Belts, bag handles, cords</td>
<td>20</td>
</tr>
<tr>
<td>Blankets, knee and regular</td>
<td>6</td>
</tr>
<tr>
<td>Christmas weaving, gift shop, summer camp</td>
<td>20</td>
</tr>
<tr>
<td>Coverlets</td>
<td>15</td>
</tr>
<tr>
<td>Drapery and blinds</td>
<td>60</td>
</tr>
<tr>
<td>Ecclesiastical</td>
<td>6</td>
</tr>
<tr>
<td>Glass curtains</td>
<td>21</td>
</tr>
<tr>
<td>Pillows</td>
<td>5</td>
</tr>
<tr>
<td>Place mats</td>
<td>about 200</td>
</tr>
<tr>
<td>Rugs</td>
<td>20</td>
</tr>
<tr>
<td>Runners and squares</td>
<td>65</td>
</tr>
<tr>
<td>Samplers, studies</td>
<td>27</td>
</tr>
<tr>
<td>Scarves and stoles</td>
<td>24</td>
</tr>
<tr>
<td>Tapestries, screens, wall hangings</td>
<td>17</td>
</tr>
<tr>
<td>Tartans, setts</td>
<td>33</td>
</tr>
<tr>
<td>Ties, men's</td>
<td>4</td>
</tr>
<tr>
<td>Towels</td>
<td>45</td>
</tr>
<tr>
<td>Upholstery</td>
<td>60</td>
</tr>
<tr>
<td>Yardages, coatings, suitings, skirtings, jackets</td>
<td>98</td>
</tr>
</tbody>
</table>
Apron, reds with black bands, black ties  

Red pillow top at bottom left, and red and black suit length at bottom right  

LOOM MUSIC, 1965
BELTS: A Message from the North, - the Arctic

The arrival of these belts set off a train of reminiscence, and we are sure you will be interested.

When we first met Mary Atwater about thirty years ago, she had the practice of never teaching a weaving workshop without including card weaving, Inkle, and the techniques of Mexican Guatemalan and Peruvian belt weaves. We as well, at Banff carried on these skills and spread them still farther.

Those who are familiar with the out-of-print copies of Bernat's "The Weaver" will recall the beautiful belts of the Osage braid types. We, ourselves, from Mrs. W. J. McGougan of Winnipeg (who in turn learned from Quebec nuns) learned the Ceinture Fléché technique of Quebec, and knew as well the burden straps and garters of the North Eastern Indian groups. All of these latter were "finger" weaving, no loom being required. Now to see the techniques transferred to the Arctic is fascinating -- proof that they are still active. Now to our story --

About twenty years ago an Edmonton nurse attended Banff as a weaving student and started a card belt, taking it home to complete. Many events prevented its completion, and note that the cards were never disposed of, but tucked safely away with the unfinished belt. Our nurse married a doctor, who entered Government service and is posted to Cambridge Bay, Northwest Territories (western Arctic). For her own parka, the card belt was remembered, brought out and at last finished, and the Eskimo women were much intrigued. On a visit to Edmonton, our friend reported to Mrs. Sandin with satisfaction about the completed belt; and on hearing of finger woven belts seen in the North, Mrs. Sandin asked to have some these Eskimo examples, to be purchased if possible. A few weeks ago the parcel arrived, -- the loan of 3 belts and a pair of cloth mittens which were embellished with a braided cord (the mittens worn by our friend's young daughter and made by an Eskimo woman).
#1 from Eastern Arctic, probably via Northern Quebec

This first belt, photographed on page 76, is a meticulously braided flat checkerboard, nearly 2 yards long, 2½ inches wide, each strand consisting of 5 ends of 3-ply fingering wool. This technique had been taught the Eskimo women by nuns.

The braiding is as firm as upholsterers' seat tape, and the edge turnings are of a machine-like perfection. Enormous tassels are at each end of the belt, as shown in the photograph. We should note that none of the skills are native to the Eskimo people, but how skilful their fingers are!

The belt colors are red and yellow checks, with 2 strands (5 ends per strand) of navy outlining the squares. There are 18 "weavers" in each direction, and the precision of the whole is impressive, the braiding of these into place being so firm and regular, exactly 50/50.

Method. We are sure this exact belt is too involved for present day civilization, so we will not include too much detail here. The shedding and wefting are the same as for Belt #2 (below), but they differ in the manner of beating: belt #1 is a 50-50 product, #2 is a warp-face weave.

#2 technique introduced by an Eskimo who had been a patient at Charles Camsell Hospital, Edmonton

An Eskimo woman who had been a patient at the Charles Camsell Hospital, returned this summer with a much less demanding belt technique, more like the Peruvian braid which Mrs. Atwater has photographed on page 65, "Byways in Hand-Weaving". This example #2 is 1½" wide, from 30 strands of 3-ply fingering wool, warped in alternate colors.

Details. Make a warp of desired length, with a regular cross. While warp is still on the warping board, place small lease sticks through the cross (use small pick up sticks, pencils, knitting needles, etc.), and secure ends of sticks firmly together with rubber bands, wound around and around.

For the belt photographed, warp
2 ends light navy
8 ends yellow and red alternately (4 each color)
2 ends pinky beige
2 ends peacock
8 ends peacock and navy alternately (4 each
8 ends yellow and brown alternately (4 each

Tie a stout cord very firmly around the whole warp, about 4" from the beginning end of the warp. Wind cord around several times to prevent slipping, when belt is put under tension.

Secure the lease as mentioned above, and cut warp through at beginning end.
1. Attach tied end firmly to a stationary object, with the two lease sticks pushed up close to the beginning end knot.

2. Pick up Shed A with the fingers, 1 and 1 warp order (the shed made by the lease stick closest to beginning knot).

3. Through this shed, draw the first warp end from the left edge (brown), passing from left to right. After passing through shed, this brown "weaver" is allowed to hang down at the right hand side, where it becomes the right hand edge warp thread.

4. Pick up next Shed B with the fingers, 1 and 1 order, and through this shed draw the left edge warp end, yellow; which yellow will then become the right warp end. In picking up shed B, and subsequent sheds, be sure that these "new" right hand warp ends weave in the regular 1 and 1 warp order.

5. Continue weaving from left to right, sheds A and B alternately.

At the opening of each new shed, with the forefinger in the shed, a firm push upward will keep the wefts beaten firmly upward.

Since the belt is warp-faced, "wefts" are pulled tightly enough so that warp ends lie side by side, and wefts are covered. The belt width will be kept constant, by regulating the amount of pull given to the wefts.

Belt #2 has a total length of 40", the ends being finished with a 4-strand Indian round braid.

4-strand round braid

This is used to braid the warp ends, beginning up tight against the final weft shot of the belt. Two colors are used, ends 1 and 2 of one color, ends 3 and 4 of the other color -- left hand always retains colors 1 and 2, right hand retains colors 3 and 4.

Hold ends 1 and 2 in left hand, 3 and 4 in right, with edge ends held higher than inner ends (not quite directly above)

starting position A 1 2 3 4

(1) Pass end 4 below and to the left of ends 3 and 2, up between 1 and 2, over 2 and back to right hand, this time to inner low position, with 3 moving over to position B 1 2 4 3 outer high position /

(2) Pass end 1 below and to right of ends 2 and 4, up between 4 and 3, over 4 and back to left hand, this time to the inner low position, with 2 moving over to outer high position position C 2 1 4 3 /


(3) Repeat (1), now moving 3 below 4 and 1, up between 2 and 1, and return to right hand as lower inner end = position D 2 1 3 4
\[ / \ \ \ \ \ \ \ \ \\
(4) Repeat (2), now moving 2 below 1 and 3, up between 3 and 4 and return to left hand as its lower inner end = position E 1 2 3 4
\[ / \ \ \ \ \ \ \ \\
Always pull up tightly (toward belt) after each position change, and always keep colors on own original side, 2 left, 2 right.

Repeat (1), (2), (3), (4) throughout. After the first unit, it is easier to think in terms of upper and lower ends, instead of numbered ends. Thus we repeat to ourselves: upper end goes under two ends, up, back over one end and returns to become lower inside end -- first with the right hand, then with the left.

End braid by using one strand to make a single knot around braid and down to join balance of braid ends.

#3 is finger weaving again, but of the 2-harness or Inkle belt type

This belt was purchased in the Eastern Arctic, and has a note attached by our friend, "a few women here know how to do this, mostly Eastern Arctic Eskimos".

It is woven from a heavy silky 2-ply wool, also warped in alternate colors, but is woven with a separate weft, so weft moves straight across in contrast to the diagonal lines of the first two.

**Warp:**
- 8 ends navy ■
- 4 red and 4 white, alternately × o
- 4 green and 4 pink, alternately • o
- 4 red and 4 green, alternately × 1
- 4 yellow and 4 navy, alternately v □
- 4 red and 4 green, alternately × 1
- 4 green and 4 pink, alternately • 1
- 4 red and 4 white, alternately × o
- 8 navy ■

Method. Secure the cross by inserting two pencils, held together by tightly wrapped rubber bands. Tie warp ends firmly at lease end, and fasten to a stationary object.

With the fingers, pick up shed in 1 and 1 order and pass weft, a double strand of navy wool, through the shed.

Pick up next tabby shed and pass weft back through this shed, beating back firmly after each shed change. The weft is pulled tightly enough so that the warp ends are close, weft is not visible, and a warp face belt results.
This belt has a length of 50", width 3", and the ends finished with a tightly rolled twist of alternate colors: Twist 2 strands of red tightly, separately, then allow them to roll together as one. Twist 2 strands of white in a similar manner. Then twist this new red strand tightly, and the new white strand tightly, separately, then allow them to twist together. The fringe is 7" long, with the end secured by a single knot -- winding one colored end once around the balance, and taking its free end down under itself to make fringe's end.

#3 Type of Belt -- By other methods

In 1965 few, except those confined to areas such as the Arctic, or those immobilized by poor health, have time for belt weaving as here described. For this reason we call your attention to the obvious fact that Belt #3 could be woven efficiently by a number of methods. The final method, which we have called the "spool loom", is described in detail.

By the use of (a) the Inkle loom (using the flat board type if easy manipulation is essential -- e.g. (d), p.25, of Mrs. Atwater's "Byways in Hand-Weaving"

(b) the hole and slot heddle, such as illustrated in most Swedish weaving books. (metal hole and slot heddles also from Dryad Handicrafts, Leicester,Eng.

(c) any 2- (or more) harness loom. (to produce the warp face belt when many warp ends of heavy yarns are used, do not use the reed, but regulate warp setting and width by the pulling in of the weft. Use measure regularly, and watch edge turnings.

(d) the "spool loom" -- described in detail below.

SPOOL LOOM

Long ago, Mrs. Sandin learned this technique from a Lithuanian woman who did remarkable belt weaving on it. We have made it, used it, and it works.

Required: 1 empty ordinary wooden spool or wooden bobbin, or any suitable substitute -- cylinder of heavy cardboard, etc. (wooden spool for narrow belts, wider bobbin or cylinder for wider belts)

1 length of strong smooth thin cord, 2 yds. approx. warp material, as desired

Draft showing belt color plan, which we illustrate from the color arrangement of Belt #3, p.71:

```
```

`begin`
Warp the number of ends needed, the length measured for take-up, fringe, plus woven length of belt; cross is unnecessary.

Tie warp tightly at the beginning peg, wrapping stout cord several times around warp, and leaving cord ends long enough to tie belt to a stationary object when weaving begins. Cut through the warp 3 or 4" behind this knot.

**Heddle string.** With fine cord, prepare heddle string thus:

(a) is loop to fit pencil or small dowel
(b) is simple knot which forms loop
(c) is length between knots, 3" to 3½"

All loop sizes must be uniform; all lengths between loops uniform, also.

Number of loops required = half the total number of warp ends in the belt, plus 2.

You are now ready to set up the belt loom:

1. Place warp on table, with a heavy weight holding warp flat, about 2/3 yard from cut ends.

2. With color draft to guide, working from left to right of the draft, pick up first warp end, carry it over spool (held in left hand), under spool and back over spool, then back just to the left of its starting position -- out of way of remaining warp.

3. Pick up second warp color, carrying it under spool, up and around and back to join the first warp end.

4. Pick up third warp color and carry it over and around as for first warp end. Keep ends neatly together, even in length.

Continue in draft color order, until all warp ends are wound around the spool, lying side by side in the exact draft order, but wound alternately over the spool, then under the spool, etc.

5. Slip a stout cord through centre of spool, and tie its ends together, to prevent warp ends slipping over ends of spool.

6. With belt still lying on table, attach the tied end to a door knob or other stationary object.

7. Remove weight, and pick up cut ends of belt, straightening them back between thumbs and forefingers, until all are of the same tension, being especially careful that this evenness carries back beyond the wooden spool. Tie cut end with a stout cord, wrapping it several times to prevent cord slipping off during weaving process.

8. Tie this cut end to a firm object, with warp extended taut, but not too tight.

With belt extended thus, Shed I is seen to be produced by the wooden spool, because of the alternate wrappings around it.

**For Shed II:** Begin operation at right hand side of stretched warp, with prepared heddle string lying on table under the
whole warp, and pencil or dowel held in the right hand above the whole warp -- 3 or 4" from the wooden spool, toward cut end of warp.

1. Take first heddle loop up to pencil, going between warp ends 1 and 2, and slip loop over pencil. Secure this at right hand end of pencil by wrapping a rubber band around pencil, over loop.

2. Take second heddle loop up between ends 2 and 3 and slide it onto pencil.

3. Take third heddle loop up between ends 4 and 5 and slide this onto pencil.

The color draft should be followed in this process, also, so that the exact color order is maintained.

It will be seen that the odd numbered warp ends are the top layer of the warp for Shed I, and that the heddle loops pass under each of the even-numbered warp ends.

4. Continue until warp ends are all dealt with, place final end loop on pencil and secure it there with an elastic band.

Now, by pulling up on pencil, even numbered warp ends are up between odd numbered warp ends, producing Shed II.

To weave: Tighten the tension of the belt. Then open Shed I from spool, by holding warp layers apart with fingers, and pass weft through at beginning end of belt. Pull up on pencil to produce Shed II, return weft and beat back firmly with flat shuttle or ruler.

Advantages of spool loom

No cost, except for warp material
Gathers into small bag for storage
Any Inkle loom belt directions may be followed, making heddle ends of the draft correspond to heddle ends here
Once weaving is mastered, pick-up techniques may be introduced, as in Inkle belts.

Personal note by Mrs. Henderson

"I usually must stay in bed until noon, but write or work in mornings as usual while there. I have done all of the techniques written up here, in bed, checking my directions so that I could write from first hand experience in passing them on. They are that much more possible for active people."

Girl's Mitts, with cord of 4-strand braid

These mitts were made by an Eskimo woman, from what appears to be a finely woven navy blue cotton twill, water repellent, with a nylon pile lining inserted.

The cord is a round 4-strand braid of 3-ply fingering wool,
finished with intriguing tassels. The cord and tassel arrangement is unique, with its necklet arrangement ensuring that the mitts cannot be dropped off -- satisfying both vanity and usage. Mitts are navy blue, cord and tassels are open blue and red. The round 4-strand braid is made from 3 strands red, 3 strands red, 3 strands blue, 3 strands blue, according to the method given on pages 70, 71, of this issue.

The photograph on page 76 shows cord and tassel arrangement. Our friend's note on these mitts reads: "Mitt strings of 4-strand braid, used in Eastern and Central Arctic."

Finger Weaving References

The Weaver, Vol. IV, #2, April 1939 (out of print)
The Osage Braid, by Mary M. Atwater

Shuttle-Craft Guild Bulletins:
Braid Weaving, March 1934 and August 1938
Geinture Fléché, February 1944 (notes supplied by Ethel Henderson)

Byways in Hand-Weaving, M.M. Atwater

Loom Music, May 1961, June and November 1962, Inkle weaving

Once a weaver, always a weaver, we say, and if one form fails, another is waiting. To those who are working with handicapped persons, have you tried having them wind cards with bands of colored yarn, -- to carry out the color scheme from a picture, a painting, or from Nature? It gives hours of planning and pleasure, and can form the basis for planning warps, or for weft stripes.

To the craft conscious, all roads lead to

GOOD WEAVING!

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

Ethel Henderson
Mrs. E. M. Henderson
C/O Mrs. A. W. Mooney
Massey, Ontario

Back copies, 1944-1965, $3.50 per year, to Mrs. Sandin, please
Finger-woven Eskimo Belts, and Mitts with cords of four-strand braid.

LOOM MUSIC 1965
PLACE MATS, plus Some supply sources, and a reminder re the Guild of Canadian Weavers

It is not easy, we find, to come to the time when our title is written for the last time, as matters appear at the present moment. The letters of regret we have received have cheered us, and we are happy to know that we shall be remembered as weaving people. For this we thank you all, and venture to hope we may continue to hear news from near and far, -- when the first of the month rolls around it is a fine reminder to write.

A week or so ago, a letter from an ex-California weaver, now living in Canada, asked about sources of supply (threads), now that it is a year since Searle Grain discontinued their supply business. We think a short list of present firms will help keep you up to date:

P.E.I. Condon & Sons, 15 Queen St., Charlottetown. Yarns in a limited color range, excellent blacks, whites and greys. Samples and prices on request.

New Brunswick: Briggs & Little, York Mills, N.B. Homespuns, plain and heather mixes in fine colors. Samples and prices mailed.

Quebec: Billard & Co., 1579 St. Denis St., Montreal. Cottons, bleached and unbleached Canadian linens, yarns -- a good source. Color cards and price lists on request.

Sutton Mills, Sutton, Quebec. Synthetic yarns, linens, etc. -- some very good buys.

LaFileuse, 434 Route de l'Eglise, Sainte-Foy, Quebec 10. Canadian cottons, linens, boucles, etc.

Ontario: Curl Bros., 334 Lauder St., Toronto. Full line. Samples, $1 deposit.

Lewiscraft, 284 King St. West, Toronto 2B. Cottons, Canadian and Lily Mills products.

Golden Fleece Woollens, P.O. Box 123, Agincourt, Ont. Carded Australian and Canadian wools.
Mrs. Margaret Grant, 6 Weaver Bay, Winnipeg 8. The most complete source we know at the moment for Scotch linens. Also cottons and Weavcraft yarn.

Mattwood Weaving Service, 10854 Whyte Ave., Edmonton. Linens, cottons, Lily's floss. A few of the Scotch linen colors at this time.

West Coast Woollen Mills, P.O. Box 2014, Vancouver 3. Fine quality 36/2 worsted yarns, tartan and other colors; also other weights.

We remind you that strong, steady support is necessary to enable these sources to survive, in present day conditions. The capital outlay is large, and this limits the inventory. The more support, the more everyone benefits.

-------------

Our January issue has always been table linens, and those of you with our first issue will note we began with a place mat. Seasons and fashions come and go; at the moment mats may seem to be somewhat in an eclipse, but a table beautifully dressed can never lose its appeal. When a weaver sets a beautiful handwoven cloth on a table, it confers a special atmosphere of its own to the occasion.

Yellow Place mat, lace centre

You will remember a warp we gave recently of mixed yellow and gold threads. It was re-sleyed several times, and one of its phases produced a pilot mat which can be a refectory table runner, or, on a much larger scale, a banquet cloth with two seams. The plan is simple, and we like it because it is just good to look at -- a lace centre with plain weave all around.

Warp: Shades of yellows and golds, 8/2 weight, mixed with double ends of a slightly finer thread (treated as 1 end), single in the heddle, 2 per dent in a #10 reed. This type of closely blended warp is also good in darker blues, pinks, or greens.

The draft

Weft: This one shuttle weave uses yellow 8/1 linen, single on the bobbin, or 20/1 double on bobbin, beating to 20 wefts per inch.
The tie-up is standard

Counterbalanced or falling shed

Rising shed, "jack", or table loom

harnesses

treadles

Treadling:  1/4" fine linen in tabby, for hem turn in, then with yellow linen pattern --

3-3/8" tabby (treadles 5 and 6 alt.) ending with tr. 5. This allows for a 3/4" hem, with end border matching sides.

lace centre

Treadle 6,1,6, 5,3,5.  Repeat for 13", watching side border to maintain the 20 per inch beat.  Here is where a treadling error would show immediately, too.

End centre with 6,1,6 treadling to match first end, then --

First end in reverse:  3-3/8" yellow tabby, 1/4" fine turn in.

To expand to a larger cloth

1. Divide width required into 3 parts, 1 for centre, 1 for each side -- e.g. 16" each for a 45" cloth.

2. Multiply length desired by 3, add 1 1/2 yard for loom waste, take-up and getting started on beat, etc.

3. Warp, and thread this 16" width as centre of mat draft, p.78, 4321234321 234 , overlaid over, but thread 323 on edges, for a better seaming edge.  Beam as usual.

4. Arrange to have 3 sections of equal width:  2 woven in tabby and one woven in tabby for 18" (to match side border widths plus hem), then in lace for the desired length centre, ending with 18" tabby -- total length same as 2 side tabby lengths.  Mark each section carefully with a colored weft.  Seam across with machine before cutting.  Overcast panels together, press well, then hem.

AN ATTRACTIVE INLAY

This photographed example requires a wider warp, 18 to 20".  It was woven on the same blended gold warp, re-sleyed to 18 ends per inch, with the side borders re-threaded so that the centre lace threading extended from selvage to selvage (as in #3 above).

The background tabby weft is yellow 18/2 (or 20/2), double on the bobbin and beaten to 18 wefts per inch;  the lay in thread is a heavy 1 1/2 lea white linen (two or three strands of white mercerized embroidery floss could be used, if linen is not on hand for inlay).

Again, a plain warp might be used, of 8/2 or slightly
heavier weight, but interest is gained by using, in addition, 2, 3, or even 4 ends of fine threads (used as one end) for texture and color variety. When these are several values of one main hue, the blending of textures and colors provide an unobtrusive livelier effect. A single end may be as heavy as a perle 5, and to avoid uniformity choose ends at random over a repeat of an inch or more while threading. Beam first, thread afterwards -- seems to come more easily for blending.

**Type of Inlay**

A tabby weft shot is thrown, followed by inlay thread on Treadle 1 (see tie-up on page 79), which pulls down frames 1 and 2, with the inlay thus going over three, under three, warp ends all across. The weft order throughout is: 2 tabby shots, 1 pattern shot, 2 tabbies, etc. Pattern turns which were found most pleasing with the present design: When pattern turns occur at outside edges, inlay thread passes below warp, then comes to surface following the 2 tabby shots; when turns occur at inside edges of design, inlay thread is carried along on top of the warp, forming a tiny loop as it goes back into shed following the two tabby background shots: 

```
  ==
  ==
```

**Weaving details**

With fine linen, weave 1/4" tabby for hem turn under.
With yellow linen (18/2 or 20/2) double on bobbin, weave 2" tabby, beaten to 18 ends per inch, which allows for a 1" hem.

Measure off 12 yards of the 1 1/2 lea white inlay thread, and wind it equally on 2 flat bobbins or netting needles -- leaving the two bobbins connected by the uncut 12-yard length.

Treadle 1, carry inlay shuttle through shed, taking one shuttle down through the shed 1" from right edge, the other shuttle down through the shed 1" from left edge. Throw 2 tabbies.

2nd lay-in: Treadle 1, bring right hand shuttle up to surface (still 1" in from edge, through shed to left, and take it below, 1" from left edge. Throw 2 tabbies.

3rd lay-in: Treadle 1, bring original left hand shuttle up to surface 1" from left edge, through shed and to 1" from right hand edge, and down. There is now an inlay shuttle at right and left, ready for use up their respective sides, as required in this design. Throw two tabbies.
4th lay-in: Treadle 1, bring shuttle to surface and through shed from left to right, for the distance of over 3, under 3, over 3, under 3, and bring shuttle to surface. Right hand shuttle, right to left for the same distance, and surface. Throw 2 tabbies.

5th lay-in: Treadle 1, carry inlay shuttles out to edge boundary, making the turning on the surface of the web. Throw 2 tabbies.

The above details for the first 5 lay-ins give the method used for the entire design.

From here on, follow the design as shown on the sketch and from the photograph, p. 84.

End piece with 2" tabby for 1" hem, then 1/4" fine turn-under.

Other uses

These inlays are excellent on larger cloths, and the weaving is not at all tedious. Careful measuring would be required if panels are to be joined. On a 45" loom, one should be able to have a 5" overhang on a square cloth for a card table.

RAFFIA MAT

One of the present time occasions for informal gatherings, family or otherwise, is that occurring on Christmas eve, -- when we meet to dress a tree, recollect the past, or just catch a breath before the arduous of Christmas Day. A table easily set with a Christmas theme is welcome, and why not try a quickly woven runner or set of mats of gay raffia? Modern raffias or their substitutes come in shiny, bright colors, and these, with heaps of colored balls in a bowl and candles to lend a glow, are easily contrived atmosphere. For the background here is an arrangement we have liked and used successfully.

Our photographed example uses natural raffia, with warp of natural and brown -- substitute colors which you have available and which suit the occasion planned for.
Warp, 8/2 cotton, natural, and medium brown carpet warp weight: 17 ends natural, 4 ends brown, 8 times - then 17 ends natural = 185 warp ends, of which 153 are natural, 32 are brown.

Threading: Twill, for a tabby product 1 \textsuperscript{2} \textsuperscript{3} \textsuperscript{4} \textsuperscript{1} \textsuperscript{2} \textsuperscript{3} \textsuperscript{4} \\
Denting in a 15-dent reed: 17 ends, 1 per dent skip 6 dents 33 dents per repeat \\
4 ends, 1 per dent skip 6 dents

33 dents x 8 repeats, plus 17 ends = 281 dents, 18-2/3" wide.

Weaving: Throw 2 or 3 shots of tabby, with carpet warp, etc., to be cut away when making knotted fringe finish.

Raffia weft is very manageable when slightly damp. We take a couple of handfuls, sprinkle it lightly, and store for an hour or more in a plastic bag for an even, light, moistening. As we weave, we pull out one strand at a time, and poke it through the shed with a flat shuttle. The beginning end is turned in as usual, but subsequent joinings are made wherever they occur, by overlapping weft ends which have been tapered slightly when necessary.

Weave 1" with raffia, beaten to 11 shots per inch, tabby.

With matching brown heavy candlewick or mop cotton, 1 tabby shot, turning ends back into shed after tapering for a better effect.

Weave for 12", alternating 1" raffia, 1 shot brown, and end with 2 or 3 rows of carpet warp (to discard later). Leave 1½ to 2" fringe allowance for each mat.

To finish. Cut mats apart, leaving fringe allowance for each mat. Cut out the heading shots for 1 group of warp ends, and tie warp ends in knots of 3 and 4 ends, with knots up close to first raffia shot. Cut each group separately, as knotting proceeds, to keep raffia shot under good control. Trim fringe ends to a uniform 1" length.

GUILD OF CANADIAN WEAVERS

We cannot close the issue without a mention of the Guild of Canadian Weavers, with membership open to all weavers of Canada, and associate membership open to residents of other countries. A bulletin, 4 or 5 times a year, with a woven sample, for several years now has built up a fine collection of swatches. Certificates of weaving skill may be obtained by submitting entries woven according to the outlined tests (for full members only). This Guild needs
and should have the support of every weaver in our great Dominion. Start 1966 by sending your $2.50 membership fee to Mrs. W. Mooney, Sec., Treas., Massey, Ontario.

Also, an interesting Ontario bulletin, that of the Ontario Handweavers & Spinners, is edited by Mrs. Grace McDowell, 220 King St., Box 694, Uxbridge, Ontario.

-----

When the final sentence comes at last to be written, we can say only a regretful au revoir, many thanks to you all, and for the future --

GOOD WEAVING!

Mrs. E. M. Henderson
Mrs. R. B. Sandin
o/o Mrs. W. Mooney
University of Alberta
Massey, Ontario
Edmonton, Alberta

-----

To our subscribers and friends:

Although this is our final issue in the present form, we hope you will not forget us and the usefulness we are told weavers have found in LOOM MUSIC. To this end, we ask you to recommend to weavers the purchase of back copies at the usual price of $3.50 per year, 1944 through 1965.

Address all inquiries to Mrs. R. B. Sandin, University of Alberta, Edmonton, Alberta.
Heavy linen inlay on a blended yellow background

Raffia on a spaced cotton warp

Blended yellow cotton and linen, lacy centre
<table>
<thead>
<tr>
<th>Item</th>
<th>Volume</th>
<th>Number</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apron, weft stripes, used up and down</td>
<td>XXII</td>
<td>8</td>
<td>62</td>
</tr>
<tr>
<td>Bedford cord upholstery swatches by Nell Steedsman</td>
<td>2</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Belts: finger woven, and 2-harness type, from the Arctic</td>
<td>9</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>Bronson, 6 harness table cloth, woven in three panels</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Color planning a red warp</td>
<td>8</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Crackle weave, coating material by Mrs. Marshall</td>
<td>3</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Cushion top, red wool on cotton warp</td>
<td>8</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Four strand braid on Mitts, made by Eskimo woman</td>
<td>9</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Guild of Canadian Weavers</td>
<td>10</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>Head bands, for quick gift or sale items</td>
<td>6</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Head triangle, black wool with colored bands</td>
<td>6</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>Head triangle, with Inkle loom braid edge finish</td>
<td>6</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>Index of Theory lessons, Loom Music, 1944-1964</td>
<td>4</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Indian bead weaving, adapted to wall hanging by Mrs. Mooney</td>
<td>6</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>Mitts from the Arctic, embellished with 4-strand braid</td>
<td>9</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Monk's Belt upholstery</td>
<td>7</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>Place mats, lace centre with tabby border</td>
<td>10</td>
<td>78</td>
<td></td>
</tr>
<tr>
<td>Inlay on tabby background</td>
<td>10</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Raffia</td>
<td>10</td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>Rosepath, linen</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Rosepath, table runner, 2 place mats</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Rosepath, upholstery</td>
<td>7</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Rug, prize winner by Mrs. Suse Gruhl</td>
<td>5</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Runner, table, Rosepath draft</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Runner, table, tabby bordered on 16-frames</td>
<td>7</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Supply sources</td>
<td>10</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Table cloth, 6-harness Bronson, woven in 3 panels</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Table runner, Rosepath, linen</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Theory index of Loom Music issues, 1944-1964</td>
<td>4</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Tweed lace, for skirtng, by Mrs. Snider</td>
<td>3</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Twill upholstery</td>
<td>7</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Upholstery, Bedford cord, and twill</td>
<td>2</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Upholstery, Monk's Belt</td>
<td>7</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>Upholstery, Rosepath draft</td>
<td>7</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Upholstery, twill</td>
<td>7</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Yardages for apparel, by Mrs. Gray, Mrs. Marshall, Mrs. Snider</td>
<td>3</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Yardage, cotton and silk, tabby weave</td>
<td>8</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Yardage, tweed lace for skirtng</td>
<td>3</td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>