warp and weft
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Brown.
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A Word from the Editor

The sample for this month is still on the
loom while we are writing this. We have 25
yards of the tartan to weave, and perhaps
12 to 15 yards woven. It is slow weaving,
but the resulting fabric is so pleasing that
we are going to hate cutting it up.

Now comes our 2 month respite, where
we hope to be able to plan and weave 5 or
6 samples for warp and weft and drafts
and designs so that we will be ahead for
the coming year. During this time, we will
also experiment and make up quite a few
8" swatches of many different threading
drafts, and try numerous treadlings that we
can try and provide you with more interest-
ing samples in the future. Among the
projects we are working on are a heavy
linen cord project for place-mats and table
linens, a wool for suiting, an interesting
Roman striped material, and at least two
very unusual 4 harness texture weaves.

With the coming of summer, our business
usually always slows down, and it is during
this period that most of the experimenting
for samples for the coming year is done.

Also forth-coming is a workshop of one
week at the end of June, and of course sum-
mer vacation. Here’s hoping that all of the
work we want to try and accomplish is com-
pleted during this period.

We have just received two large ship-
ments of our Ramie yarns, one from Swit-
zerland, and we have a new and heavier weight
to experiment with and also some single
ply ramie yarns that we hope to work with.
Also, for an excellent accent thread, we
now have our 16/2 Ramie from Switzerland
in black, white and the 16 regular colors.

Also due in shortly are some large stocks
of heavy, 4, 6 and 8 cord linen and it is
these that we will particularly enjoy experi-
menting with.

We have also been working out some
original miniature patterns, and have one
of them on the loom now and about 6
others that we hope to get on the loom
sometime soon. It is fun to work with these
miniature overshot patterns, and if we can
get enough of them done, we will share
them with you in Warp and Weft.

Russell E. Groff, Editor

This Month’s Cover

The cover this month is just a portion of
a linen room divider woven by Doris Allen,
of El Cajon, California. It is actually a linen
and wood room divider, as in the open areas
such as you see in the photograph, small
pieces of smooth wood are fastened to the
open spaces so that they do dangle. You can
see that these show in the top open square
and the bottom open square, but there were
none of these in the open rectangular area
in the center. What I think is most interest-
ing in this fabric is the light open areas that
are achieved by the very light beat, and
then the denser areas of fabric created by
a firmer and tighter beat.
The History of Spinning (Continued)

NOTE: This is the second and final article on the history of spinning. This is actually the first of a new series of educational articles that will be presented in Warp and Weft.

The Saxony Wheel was the first of the spinning wheels in common usage, and was about the only spinning wheel used in the 15th, 16th, and 17th centuries. During this time, spinning was still a handicraft. It wasn’t until the beginning of the industrial revolution in England, that spinning changed from a handicraft specialty to a commercial business. In a period of about 40 years, spinning was so revolutionized and improved that it became an industrial giant. This all happened from about 1738 to 1779. Here is a minute summary of the events that took place during this period and so revolutionized spinning.

1. 1737. Lewis Paul, an Englishman in collaboration with John Wyatt, invented the roller method of spinning.

2. 1764. James Hargreaves, a carpenter from Blackburn, England, made his first “Spinning Jenny” and named it after his wife. The first spinning jenny was able to manipulate 8 spindles at a time. By 1766, he had perfected this device so that it could operate 100 spindles at once.

3. 1769-1775. Richard Arkwright, a barber, developed his water-twist frame, so called, because it was driven by water power. It combined the roller method of spinning with the spindle, flyer and bobbin from the Saxony wheel.

4. 1779. Samuel Crompton developed his spinning mule. It combined the inventions of Hargreaves and Arkwright.

THESE FOUR ENGLISHMEN, PAUL, ARKWRIGHT, HARGREAVES AND CROMPTON ARE RESPONSIBLE FOR THE BASIC INVENTIONS UPON WHICH ALL MODERN SPINNING IS DONE. The principles they developed have not changed with the years.

There were two more inventions that should be mentioned. In 1828, Charles Danforth of Paterson, New Jersey, invented the cap-spinning frame. And, in 1828, John Thorpe of Providence, Rhode Island, took out a patent on the ring-spinning device he invented.

There are 4 major types of spinning that are: 1. flyer, 2. mule, 3. cap, and 4. ring spinning. These are all common to the wool industry, while in the U.S., most cottons are spun with ring spinning methods. We will not go into more detail about these 4 except to say that “Ring” spinning has become the most common and offers the best possibilities of quantity production, and so it is more used and developed than the other three methods of spinning.

In the spinning of yarns, it is the twisting which gives strength to the yarns. There are two major types of twisting that you will commonly hear about, and these are the S and Z twists. In commercial spinning there are 9 major steps. We will not explain these in detail, but will just list them here. They are:

1. Opening
2. Blending
3. Picking and Lapping
4. Carding
5. Combing
6. Drawing
7. Roving
8. Actual spinning
9. Twisting and winding

There is much more information available about spinning, but it is all very detailed so we will finish our articles on spinning here. If any of you wish further information, there are many excellent texts available on the subject, and many are available in your own local public libraries, or in nearby college libraries.
THE BUCHANAN TARTAN

An authentic Scottish Tartan is this version of the Buchanan Tartan. There are 3 different Buchanan tartans and this is the least common of the three.

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One pattern repeat — 82 threads

KEY TO COLORS IN THE WARP:

B—Black 2/32 Worsted
W—White 2/32 Worsted
R—Scarlet Red 2/32 Worsted

WARP:

The warp is a fine qualityworsted yarn imported from Scotland. It has 8,800 yards per lb., and is available on 2 oz. spools. Three colors were used in the warp, White, black and scarlet red.

WEFT:

The weft thread is the same as the warp, and the same colors are used in the weft.

REED USED:

An 18 dent reed was used, and it was double sleyed, 2 ends per dent, or 36 threads per inch.

TREADLING:

The treadling is the standard 1, 2, 3, 4 twill treadling. This is the treadling used on all tartans, and it is not considered a true tartan unless it is woven in a twill treadling.

TIE-UP DRAFT:

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A B

X's above—tie-up for Counter-balanced
O's above—tie-up for Jack-type.

SAMPLE:

More About the Threadling

In a fabric, they normally say you should have as many threads per inch in the weft, as is in the warp. However, when weaving a twill variation, I find that this is hard to do, and this is one instance. I had to add more threads to each of the colors, (except black) to make a squared tartan. There are 18 threads of white in the warp in the largest block of white, and to balance it in the weft, I had to put in 24 threads, and so to some.
this might change the character of the tartan.

However, I'm going to give you the treadling sequence that I used in the sample. You might have to vary it according to your beat, or to whether you weave very loosely or very tight. This is all woven on the 1, 2, 3, 4 twill treadling.

24 threads of white
2 threads of black
24 threads of white
10 threads of scarlet red
4 threads of white
10 threads of scarlet red
4 threads of white
10 threads of scarlet red
4 threads of white
10 threads of scarlet red
Repeat from beginning.

Note About the Threading Draft

The threading draft as given is one repeat. Note that there are 82 threads in one repeat. When you start a 2nd repeat of the pattern, the 2 black threads will be on harnesses No. 3 and 4, instead of 1 and 2. Then after the 2nd repeat, the 2 black threads in the pattern will once again be back on harnesses 1 and 2. This will alternate with every other pattern repeat across the width of your loom.

More About this Fabric

First of all, let me tell you about the Scottish Worsted 2/32's that we used in this sample for Warp and Weft. This is one of the most beautiful and fine quality worsted yarns we have ever seen. It is strong, easy to weave with, and we had very little breakage. The thing that we like about this is that when the fabric is woven it is so soft to the touch. I think it would be wonderful for many, many projects other than the tartan we have woven here.

This yarn is imported by Hughes Fawcett, Inc. of Dunelen, New Jersey, and is available from any of their many distributors throughout the country. There are just 8 colors available in this yarn at present, and it hoped that more will be available shortly. Another nice feature is that it is available on 2 oz. spools, with 1,100 yards per spool. Anyone desiring a sample sheet of this nice quality yarn, drop a card to us, Robin & Russ, and we will send you one free of charge. Oh yes, this is $8.00 per lb., or in less than 1 lb. of a color, it is $1.25 per 2 oz spool.

One more thing that we feel will be of help to you in weaving with this or many other wools, is that this time, we put 4 cotton threads on each edge for a selvage, and we found that it helps make the fabric weave wider, and also stops a lot of breakage of edge warp threads. However, be sure to use a finer, tightly twisted yarn for this selvage thread.

Still another help in the weaving of this sample was the stretcher or temple that we used. Wet set this up on the loom 40" wide, and we found that doing it without a temple or stretcher, the fabric would come down to about 36" width. However, by using the temple or stretcher, and setting it at 40" wide, our finished fabric was about 39" wide when taken off the loom. I can truthfully say that we have sold many of these stretchers in the past year or so, and people seem to find them very helpful. If you have trouble with broken edge threads, why not try it.
Here is another interesting fabric woven by Nina Burnham, of Baldwin Park, California. It is a sheer drapery with the background in a plain weave, and the stripes woven in on the various 1, 2, 3, 4 twill treadles. Of course the set-up was a straight twill threading. The warp was a single ply silk flixe for warp at 15 threads per inch, and the weft in the background is the same. The stripes were woven of rayon boucle, rayon chenille and 1/32" metallic.

\[ \text{\textbf{1/2 PRICE SALE OF 3 EXCELLENT WEAVING BOOKS}} \]

1. Foot-power Loom Weaving, by Edward F. Worst—normally $7.50
   sale price .................................................. $3.75

2. Handbok I Veving, by Caroline Halvoren — and excellent book for the multiple harness weaver — also many 4 harness patterns. Text is in Norwegian, but threading, treadling and tie-up are all the same as we use. Good photographs. Usually priced at $4.50 each — sale price ...................... $2.25

3. How to Weave Linens — by Edward F. Worst — normally priced at $5.50,
   this also is on sale at 1/2 price ........................................... sale price $2.75

\textbf{NOTE:} The first and third book listed above are now out of print, and we understand will not be available again. They are both very good texts and contain many 8 harness patterns as well as 4 harness patterns. These three books are all limited to about 15 copies of each still available. Postage is extra, 19¢ per book. California Purchasers, add 4%, sales tax. ROBIN & RUSS HANDWEAVERS, 632 Santa Barbara Street, Santa Barbara, California.
CLASSIFIED ADVERTISING

A classified advertising section will be tried out in Warp and Weft for a few months, to see if there is any interest or response. Why not advertise your old loom, duplicate equipment, and other such items in this section. Price per 5-line ad is $4.00. Payment to accompany your advertising copy.

THE HANDWEAVERS WORKBASKET now stocks a complete and full range of Bernat colors in both the Fabri and Afghan yarns. Sample color cards, thirty cents, upon receipt of request. Grace D. Blum, THE HANDWEAVERS WORKBASKET, Box 691, R. R. 1, West Chicago, Illinois.

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SCOURED, 2 PLY NATURAL RAW SILK. This 2 ply raw silk is good for warp or weft. It has about 2,400 yards per lb. Available in natural only. $4.50 per lb. Free sample upon request. Robin & Russ, 632 Santa Barbara St., Santa Barbara, Calif.

RAMIE DISH TOWELS FROM SWITZERLAND. A new stock of these has just come in, and they are excellent buys at $1.25 each. Available in white and red or white and blue. Will not shrink, stretch, rot, resist mildew, twice as strong when wet as when dry, very absorbent. Robin & Russ, 632 Santa Barbara St., Santa Barbara, Calif.

COTTON FLAKE WITH GOLD TWIST: Available in natural only, this is a very nice yarn, excellent in drapes and upholstery. It has approximately 1,400 yards per lb., is available on 1 lb. cones only and is $3.75 per lb. Robin & Russ, 632 Santa Barbara St., Santa Barbara, Calif.

SUNFAST AND WASHFAST 16/2 RAMIE. This has 2,400 yards per lb., is excellent for warp and weft, and is available in 17 colors. $5.00 per lb., or $1.25 per 4 oz. spool of 600 yards. Robin & Russ, 632 Santa Barbara St., Santa Barbara, Calif.

WOODEN SLATS: For weaving place-mats and lampshades. Available in black walnut and madrone wood. ⅛" wide and either 14½ or 20½ inches long. (Madrono is reddish wood like Manzanita). In bundles of 100 slots. 14½"—100 for $1.00; 20½"—100 for $1.35. A limited amount of both available. Robin & Russ, 632 Santa Barbara St., Santa Barbara, California.

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