

# warp and weft

Vol. X, No. 1

January, 1957



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*Editor:* Russell E. Groff, 632 Santa Barbara St., Santa Barbara, California.

*Assistant Editors:* Robin Groff and Frederick Brown.

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## A Word from the Editor

This month will see Warp and Weft being printed by a new print-shop. We hope that their ideas and choice of print styles, etc., will help us to improve Warp and Weft, and make it more enjoyable for you.

The New Year is with us, and we all send you our belated greetings for the New Year.

We have had quite a few requests, and so next month, will have a sample of the drapes that are now being woven for our new home. Incidentally, we have drapes up in only one room of the house, Janice Susan's, and of course they are hand-woven, and we think very striking.

We want to devote as much of this issue to telling you about silk, so will close with a reminder that Warp and Weft is now \$2.75 per year. We will appreciate your remembering this in your renewals.

Russell E. Groff, Editor

## This Month's Cover

This month we want to show you an unusual fabric that was very appealing when we saw it.

The warp we believe was linen, not set too closely together. The heavy ribs or dividers were also we believe a linen. Then after this, some cellophane was woven, and finally some RICE STALKS, with the grain still in them, were woven in. The cellophane was transparent, and did not stand out, so thus the

dominant feature of the fabric was the unusual texture caused or created by the rice stalks. This was used we believe as a very sheer drapery, but it could have been such a thing as a room divider or just an experimental piece of weaving.

## Types of Silk Available

1. *Tussah Silk or Wild Silk.* This is a silk thread that is produced from wild silk-worms, not tame and cultivated silk-worms, as produce most of the Japanese silk. The wild silk-worm feeds on Oak leaves instead of Mulberry leaves. Thus the tussah silk is a stronger silk, with more body and more strength, and more crispness and springiness.

2. *Spun Silk.* Spun silk is a product often called "waste" silk, as it is spun from silk that cannot be unwound from the cocoon or from pierced cocoons. It is spun similar to the cotton system. First though, it is degummed before it is spun. The degumming process gives it quite a high luster which makes it particularly attractive.

3. *Raw Silk.* This is silk in its natural state, which still contains about 20 to 30% gum or Sericin. It is normally harsh and stiff, but is used in many special fabrics. This is long, continuous silk filaments which are reeled from the cocoon of the domesticated silk worm. Most of this silk is white or yellow.

4. *Silk Noil.* Short fibers from damaged cocoons, or fibers which are broken off in the throwing process. This is usually spun into yarn on the cotton principle or is often used in blends. These are actually the very short remaining fibers that are left after the silk has been combed and the short pieces which do not comb are called "noil."

5. *Douppioni Silk.* This is long filaments of silk which are reeled from double, triple, or more cocoons, that have been spun over and become entangled with other cocoons. These are rough, irregular textured yarns.

## **Weavers from Here and There**

It is our intention, each month, to give a short article about various well-known weavers from all over the country. If you know of anyone exceptional living in your area, please let us know about them, that we might possibly present them in this column.



**MRS. ELLA S. BOLSTER**  
of Arlington, Virginia

This month we are pleased to tell you a little of the weaving activities of Ella S. Bolster, of Arlington, Virginia.

A native of Montana, Mrs. Bolster studied Applied Art at Montana State College, and later, worked with many of the various hand-crafts, particularly metal work and pottery.

She has been weaving for about 16 years and we liked this statement that she gave us. "I used to think weaving was something mechanical, but then I discovered that it could be a form of creative art."

She has truly created many unique and outstanding fabrics. She won a purchase prize at the Wichita Art Association annual

exhibit, and also won first in the Fiber and Clay exhibit at the St. Paul Gallery and also First in 1955 at the St. Paul Gallery and School of Art's National Biennial Exhibition, "Fiber, Clay, Metal," both of these in 1955. Two of her entries won honors at the recent Second Biennial "Creative Crafts" Exhibition at the Smithsonian Institute. One of these awards was a citation for "outstanding creative achievement."

She has studied weaving techniques in the U.S. under seven different teachers including Mary Atwater and Anni Albers; and traveled and observed weaving in 14 countries of Europe and some of the Middle East. She spent 3 months of study at the National Arts and Craft College at Tehran, studying the weaving of gold brocades by the traditional draw loom methods.

As for special interests in weaving, Mrs. Bolster had this to say. "I enjoy the actual weaving of fine linen more than any other fiber, natural, or man-made. However, in drafting and designing fabrics, I love to use mixtures to get special effects and I like to design drapery and upholstery fabrics for contemporary decorating."

Her husband, Mr. Bolster, does enameling on silver, and is at present Area Officer for Europe and the U.K. for Foreign Agriculture Service in Washington. He was for 5 years Agricultural Attache and worked in many countries of Europe and the Middle East.

They have just moved into a new home designed by themselves at 4200—39th Street North in Arlington, Virginia, where weaver-travelers in Washington may wish to visit them.

We're sure that you enjoyed making the acquaintance of Mrs. Ella Bolster, and hope that we can present you with stories about other outstanding weavers throughout the country. Let us hear from you if your neighbor or friend does designing, weaving, and makes fabrics of any kind.

## The dressy

### IVY LEAGUE SHIRT

An all silk material for sport shirts and dress shirts. It blends in well with the latest men's fashions of striped, tailored, button-down collar shirts. This fabric has many other possibilities such as dress or blouse or skirt materials, drapes, etc.

## Key to Colors Used in the Warp

- A. Aqua-green—7/2 douppioni silk
- B. Black—7/2 douppioni silk
- C. Rusty Brown—7/2 douppioni silk
- D. Rose Beige—7/2 douppioni silk
- E. Lavender—7/2 douppioni silk
- F. California Gold—7/2 douppioni silk
- G. Scarlet Red—14/1 douppioni silk

#### THREADING DRAFT:

4	C	D	C	E	F	E	C	D	C	A	G	A
3	C	D	C	E	F	E	C	D	C	A	G	A
2	C	D	C	E	F	E	C	D	C	A	G	A
1	C	D	C	E	F	E	C	D	C	A	G	A

4	C	D	C	E	F	E	C	D	C	A	B	A
3	C	D	C	E	F	E	C	D	C	A	B	A
2	C	D	C	E	F	E	C	D	C	A	B	A
1	C	D	C	E	F	E	C	D	C	A	B	A

#### TIE-UP DRAFT

4			X	X		X
3		X	X		X	
2	X	X				X
1	X			X	X	
	1	2	3	4	A	B

#### WARP:

A. 7/2 spun douppioni silk, 5,800 yards per lb.

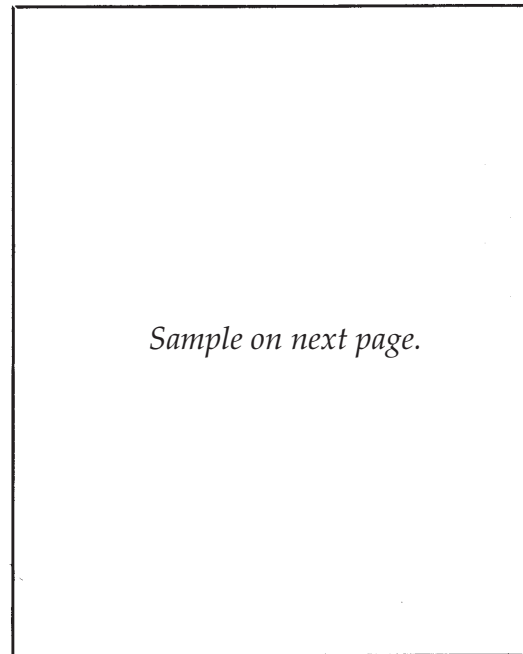
B. Bright red only in the warp was a 14/1 spun douppioni silk, which we doubled to make it a 7/2.

#### WEFT:

Weft was a 14/1 silk tweed thread, with 11,000 yards per lb. This particular thread was used doubled on the bobbin, or two ends were wound together.

#### REED USED:

A 12 dent reed was used, 2 ends per dent, or 24 threads per inch.



*Sample on next page.*

The sample swatch this month has been put in this way for greater ease and convenience in handling. Actually, the stripes are the warp threads, not the weft threads.



## Sample Facts and Figures

Many people are afraid to use a slubby thread in the warp, and thus, this was a challenge that we wanted to put over. This 7/2 spun douppioni silk is quite slubby, and is a 2 ply, so it is a good thread for warp or for weft.

We experimented with a sample for this fabric weaving a piece about 3 yards long, before we were satisfied with the color choice and with the right thread for the weft. We might say that we tried about 30 to 40 different threads for weft, but were most pleased by the charcoal silk tweed we used. This seemed to allow the colors in the warp to stand out more than any of the other materials we used. We tried all shades of light colors, and it was only when we started with the darker colors, that we were satisfied with the color arrangement.

Once again, let me say that we used a double beat on this particular fabric. We did this deliberately. We beat once, changed the shed, and then beat a second time before throwing our shuttle. We did this, as it helps clear the shed, especially with a slubby thread in the warp as we had.

In the 25 yards we wove of this material, we had only about 3 or 4 broken threads in the entire piece. This shows that the 7/2 douppioni silk, is an extremely strong silk and that even with the slub, it makes a good warp thread.

We did have some trouble with the slubs, because they were, in a few cases, too large to expect to come through the heddles and reed without giving trouble. When this was the case, we just pulled off part of the slub with our fingers, or sometimes, we cut off with the scissors part of the slub. Just be careful when cutting the slub, that you do not cut too much, so that you are not cutting one of the two ends of the silk which are twisted together.

We might add that this silk was dyed by a commercial dyer, with the fact in mind

## Silks Are Available

The silks used in this project are available from Robin & Russ Handweavers, 632 Santa Barbara Street, Santa Barbara, California. If you would like a swatch of the colors available in the 7/2 spun douppioni silk, write and ask for a FREE sample sheet of the 7/2 silk.

that we were striving for sun fastness, rather than wash fastness. However, if you will try these colors yourself, you will see that they seem to be quite wash fast, and shouldn't give too much trouble.

Incidentally, when you make up the shirts out of this, we find that it is a regular shirt, not a sport shirt that is most popular. Also, we found that the button down collar is also popular. Also, we always have found that silk shirts are a little warmer than usual shirts, and so keep this in mind.

## Cost of Materials Used

- A. *Warp*, 7/2 spun douppioni silk is \$6.00 per lb. on cones of about 1 lb. each, or if in smaller quantities, it is \$1.75 per 4 oz. spool. There are 11 different colors available. Natural is \$4.00 per lb.
- B. *Warp*, a 14/1 red spun douppioni silk was used and this was doubled to make it the same yardage per lb. as the 7/2. It is also \$6.00 per lb. or \$1.75 per 4 oz. spool.
- C. *Weft*: The weft was a silk tweed yarn, 11,000 yards per lb., and was used double. It comes on cones of about 1 lb. to 1 lb. 4 oz., and is \$4.50 per lb. If you would like it doubled, it is then priced at \$5.00 per lb. You can also purchase 4 oz spools of this at \$1.50 per 4 oz. spool.

D. <i>Cost of Warp per yard</i> . . . .	\$1.05
<i>Cost of Weft per yard</i> . . . .	.60
<hr/>	
Total Cost per yard for material	
36" long, 40" wide . . . . .	\$1.65



## SILK NOIL — Continued from Page 2

6. *Spun Douppioni Silk.* This is actually a spun silk, that is made to simulate a douppioni silk as closely as possible. In spun douppioni silk, the gum or Sericin, which the silk worm produces along with the silk fibers to hold them together, is removed, and thus there is no loss of 20 to 30% in weight when this type of silk is washed. Thus, this is actually superior to a noil silk, and is better than a douppioni silk, which can also still have the gum in it.

### Life Cycle of the Silkworm

There are 6 main parts in the silkworm life cycle.

It starts with the silk moth, which deposits about 350 eggs or seeds, each about the size of the head of a pin.

Each egg has a small spot on one end, and when hatched, the worm gnaws a hole through this spot. About 3 to 7 days later, the worm hatches out of the seed and begins to feed on tender mulberry leaves.

The silkworm next passes through five stages taking about 30 days. It then begins to spin itself into the precious cocoon. It spins at the rate of almost a foot of silk a minute and in about three days completes the cocoon. The silkworm in all, spins about 1200 to 1500 yards of silk. The next step is the emerging of the silk moth from the cocoon.

As soon as the fully grown silk moth has mated and laid a new generation of eggs, it dies—and the cycle of egg to chrysalide to moth continues all over again.

### More About "Silk" Itself

Silk seems to have a natural affinity for certain dyes. It is an animal fiber and tends to accept and hold many different dyes very readily. Many times the same dyes used for wools work very well for silk.

Silk has a natural luster or sheen, as well

as a soft drapability or crispness. Because of this, it does not require as much finishing as cotton and wool.

Silk has always produced luxurious fabrics with a feel and appearance exclusive to silk alone.

Silk is stronger than any other natural fiber, it retains most of this strength when wet, it possesses great elasticity and durability, and thus, is by far the finest of any natural fibers. It has the advantage of being the lightest in weight of all the fibers, it absorbs moisture from the atmosphere. It can hold as much as 30% of its weight without feeling wet.

One of the properties of silk that makes it a practical fabric for garments is the ease with which it can be cleaned. The smooth surface and freedom from short fibers causes it to shed dust and give up dirt readily.

With these many points in its favor, you can see why it is one of the favorite materials used by weavers.

Silk is a smooth, structureless fiber, and is semitransparent. The luster on the silk depends upon the uniformity of the outer layer. This reflects the light without dispersing it, and thus gives a sheen or luster.

Actually, silk consists of two filaments (two secretions from the glands on two sides of the body of the silkworm. These two filaments are cemented together by the silkworm with a gummy substance called "Sericin."

To produce one pound of silk, it takes about 3000 cocoons.

After the gum or Sericin is removed, the fiber is soft, smooth, and rod-like, with a pearly luster.

Silk is the longest of all natural fibers, ranging from 800 to 1500 yards in length.

Silk's characteristics of strength, lightness, elasticity, and absorption, as well as its beauty of color and its high luster are such that to date, no one fibre, either natural or man-made, has been able to imitate it in its entirety.

## CLASSIFIED ADVERTISING

A new 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 \$3.50. Payment to accompany your advertising copy.

**STRUCTO LOOM, 26-inch, 8-harness, mounted on a stand to use as a floor loom. In excellent condition. Just \$65.00, and shipping is extra. Robin & Russ, 632 Santa Barbara St., Santa Barbara, California.**

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12 dozen 2-line labels—\$7.50

Robin & Russ Handweavers, 632 Santa Barbara St., Santa Barbara, California.

**YARN SHOPS, suppliers and distributors. Try one of our classified ads. You'll find it well worth while. Write for advertising rates to: Robin & Russ, 632 Santa Barbara St., Santa Barbara, California.**

**MANUAL OF SWEDISH HANDWEAVING, by Ulla Cyrus. Just recently printed in English. Many Swedish techniques explained. Price is \$5.95 plus 17c postage. Robin & Russ, 632 Santa Barbara St., Santa Barbara, California.**

**TWO-OUNCE SPOOLS of 1/32-inch metallic. 13 colors, 700 yards per spool, with no spool deposit. \$1.25 each plus postage of 8c. If more than 5 spools are ordered (assorted colors) postage is prepaid. Robin & Russ, 632 Santa Barbara St., Santa Barbara, California.**

**FOUR HARNESS HUCK, by E. Neher. An excellent study of huck weaves. A must for every weaver's library. \$2.50 plus 10c postage. 100 photographs, with threading, treadling, and threads used. Robin & Russ, 632 Santa Barbara St., Santa Barbara, California.**

**WARP AND WEFT, back issues of 1949, 1950, 1951, 1952, 1953. All mimeographed issues with samples. Regularly 25c each, reduced to close out at 2 for 25c. Postage prepaid if 8 or more ordered. *Warp and Weft*, 632 Santa Barbara St., Santa Barbara, California.**

**DACRON, bleached white, size 2/24s, about 6,200 yards per pound. On cones of about 1 1/2 to 2 pounds each. While it lasts \$2.50 per pound. Robin & Russ Handweavers, 632 Santa Barbara St., Santa Barbara, California.**

**A LINEN and Acetate Rayon Thread. 65% linen, 35% acetate, in about 6 colors, with 2,400 yards per pound. Free samples upon request. Robin & Russ, 632 Santa Barbara St., Santa Barbara, California.**

W GOLDEN RULE YARNS T  
O available from W  
R hand weavers' work basket  
S box 691 rural route 1 E  
T west chicago illinois E  
E (w. c. 485-w) E  
D WOODPECKER D

### LINEN RUG WARP

- A. 10/5 natural linen.
- B. On approximately 1 lb. cones.
- C. 600 yards per lb.
- D. \$2.00 per lb., plus postage.

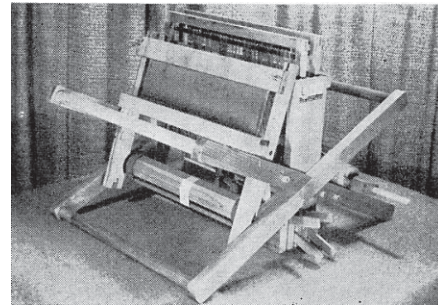
**ROBIN & RUSS**

632 Santa Barbara Street  
Santa Barbara, California

### THE "CRUSADER"

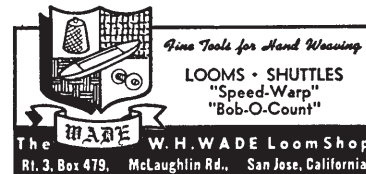
14" and 20" Table Model Looms

Four Harness — 1" Sectional-Jack Type  
The Sample loom that has no peer



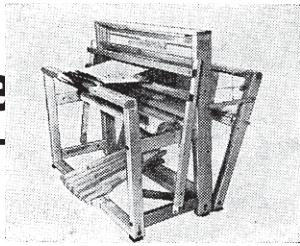
Constructed of Maple, compact, designed for strength, light weight and portability. Jack type, 6 in. weaving space, harnesses lock and release automatically. Wire staple sections on 1 in. warp beam. Firm, heavy, removable beater or change reeds. Choice of 10 or 20 in. Shed will take a standard throw shuttle. 15 dent, 400 steel heddles on 14 in., 600 on the

**CRUSADER—14", \$42.50**      **CRUSADER—20", \$67.50**  
shipping weight, 30 lbs.      shipping weight, 40 lbs.





# The marketplace



## NILUS type loom

Available in 27-, 36-, 45-, 60- and 90-inch sizes. Replacing the rigid, jack-type, NILUS, that has been available for 18 months.

For further information about this new, folding, jack-type loom write to:

### **Nilus LeClerc, Inc.**

Dept. W.W.  
L'Isletville, Quebec, Canada

Watch for the announcement about the 12 harness Nilus Folding Loom to be available soon.

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