

BI-MONTHLY BULLETIN FOR HANDWEAVERS

Z-HANDICRAFTS FULFORD, QUE., CANADA

MASTER WEAVER

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SHORICUIS

HOW TO WEAVE EASIER AND FASTER

It is not for the first time that we approach this subject. In the early days we had a long article about the skill in handweaving. Then from time to time we wrote about this and that - selvages, shuttles lease rods, looms, etc. In our "Modern Weaver" we have published several basic lessons of practical weaving. All this had in view to make weaving easier - for that matter as easy as professional handweaving of the 18-th century.

We are sorry to say it, but our "modern" methods of weaving are extremely difficult from the practical point of view. Weavers use too much time and too much energy to perform the simplest operations. How true is this statement proves the following story:

Some time ago, advertising our weaving courses, we have $\epsilon \epsilon$ and our readers a few simple questions:

- 1. Do you want to make a long warp and beam it in less than one hour?
- 2. Do you want to thread a loom without making mistakes?
- 3. Do you want to weave a running yard of cloth in 30 minutes? We have received hunderds of enquiries. But it turned out that most of the readers understood that these courses of lessons are given by correspondence, in case one cannot attend them personally. This made us think.

Is it really possible to teach practical weaving by correspondence? To find the answer we can only try.

Incidentally we have also received one or two abusing letters, which implied that we are trying to get customers by false pretense.

These letters were sigmificant. They mean that there are weavers who so completely lost touch with real weaving that they cannot believe any more that it still exists.

We have seen all a weaver who grasps the shuttle from above, opens the shed with the greatest effort, tries to approach it cautiously then stops two inches from it as if he had changed his mind, finally closes his eyes and throws the shuttle. He pulls the beater forward slowly as if afraid that it will break, and holds it tight, changes the shed by graping with his left foot in the dark and hoping for the best. Then releases the beater and beats once more for good luck,

Whose fault is this? Surely not the weaver's, who can hardly enjoy this sort of torture.

First of poor equipment, but often also of poor instruction.

We have warned our readers many times that the question of selecting a loom is of the greatest importance, and that it can do see about the whole weaving career of a beginner. Nevertheless human nature being what it is we are always inclined to defend our particular loom worthless as it is, rather than to confess that we made a mistake. We must absolutely get rid of this habit if we are to get anywhere with our weaving. This is the first condition of success.

Then many weavers follow completely wrong or obsolete methods simply because they have learned them from somebody who went for a trip to Sweden, or because they were described in a very good book.

What we must remember is that conditions change, and that a method which was perfect in other times and other countries is often of no value to us. For instance in countries where labour is very cheap it does not matter that a warp is prepared during "several days by several persons" (quotation from a well known book). But where on earth are we going to find several helpers and keep them at home several days every time we make a new warp?

Even in the otherwise excellent book of U.Cyrus we have a picture of warping in which at least four weavers are engaged, and two of them serve as dead weight apparently sliding on the floor.

Let's not always look up to the "traditional" weaving countries. Their equipment was expensive but the labour cheap, when here it is just the opposite. For instance the vertical warping reels used nearly

everywhere in central Europe are an insult to the human intelligence, nevertheless they are made and sold simply because they "must" be good if they are of Scandinavian origin. Well, they are not!

On the other hand if we look back to the times and count as where handweaving was done on an industrial scale, we shall find plutions to nearly all our problems. Because even cheap labour had to be used without waste in a competitive society.

A professional weaver of the 18-th century could weave for hour with a speed of some 50 picks per minute on a full size warp. This mean from one to two yards per hour. On a narrower warp the speed could be much greater - perhaps 3 yds per hour. Those who do not believe can figure it out. If the weaver prepares a large number of bobbins or quills, and does not need to get up from the loom every 5 minutes, he can make on a warp of 15 inches 80 picks per minute, which means 4,800 picks per hour. If the fabric is coarse (10/2) cotton with 24 picks per inch, he made 200 inches or more than 5 yards in one hour!

Granted that a speed of 80 picks per minute requires a long training. But anybody can do half as much if everything works well, if the bobbins are properly made, the warp does not break, etc. It means that in our times when 24 picks per inch are considered normal, anybody can weave 2½ yds per hour. Thus our claim, if anything, was on the conservative side.

One may object that such fast weaving is exhausting. Nothing of the sort. Weaving at top spead may be exhausting, but normal sed is less tiring than slower work. Always provided that the equipment is adequate.

Some of our weavers may have another objection: Yes, but these old timers were using flying shuttle. - Not necessarily, and even if they did, flying shuttle was invented primarely for wide fabrics, and not for speed. When we weave cloth 56" wide the difference in speed between a hand shuttle and a flying one is remarkable, but on a narrow fabric there is none.

In all we have simply no excuse for our slow and laborious weaving. And this is why we publish this new series of articles about "shortcuts". In the next issue we shall start with the loom.

SOMOWITH TABBY GROUND

We have often said that texture may be used in designing in the same way as colour. It can have blocks of pattern and a ground. The difference between the two areas however is not in colour but in the structure of the fabric.

We have described several weaves of this kind, and many traditional weaves are based on this very principle. For instance Bronson Lace is nothing else than two textures (lace and tabby). Even the traditional Summer-&-Winter besides colours has two textures: one with short floats, and the other with longer ones.

In modern weaving we are not satisfied with just <u>any</u> kind of texture, but we try to get an irregular surface either using special yarns or special weaves.

When we intend to get both: irregular texture and pattern of some sort we can not rely entirely on weaves, because we would run into quite a number of frames. At least with 4 frames this can not be done. But if we combine a texture weave with a texture yarn (at least in weft) the problem becomes much easier.

Our objection to traditional weaves is that often they produce a texture which is not only regular, but even has a small pattern of its own, as for instance the already mentioned Bronson Lace. Even when using irregular yarn for weft we cannot get rid of this unwanted pattern.

Other weaves such as S^{\pm} W are free from this fault. Both textures which they produce are not likely to spoil the effect of the 3D weft. But of all these weaves only S-&-W can be woven on 4 frames in such way that we can have the areas of different textures of any size, and that either can take the whole width or length of the woven piece.

What we propose to do here is to have still more difference between the two textures: we shall weave one block of pattern in S-&-W, and the other in plain tabby on both sides.

Colonial weavers would say that this is impossible, that you cannot have a block of S-&-W with tabby all around it. This is because they were very strict about drafting and would not make a draft for S-&-W in any way, other than the one approved by the tradition. But what we care for is the final result and not the way the draft looks.

There is one difficulty however, which lies in the very nature of these two weaves: one repeat of tabby in treadling is 2; one repeat of S-&-W is 4. This seems to be all right, but the tabby binder in S-&-W uses two sheds of tabby and therefore the second tabby in S-&-W cannot coincide with the plain tabby (fig.1 A).

In fig.1 A we have tabby on the left and S-&-W on the right. The second shot of binder on S-&-W is not a continuation of tabby - there is a break. Not only that this spoils the fabric, because these short floats will show on the ground everywhere, but to weave it me must have 5 frame This is hardly worth while.

On the other hand anybody who ever worked with S-&-W knows how annoying is the effect of the binder which divides the texture of a blook of pattern into pairs, so that at least one side of the fabric looks a little untidy. Probably many weavers wished that they could use only one shed of tabby instead of two.

Well why not? Fig.1 B shows a draw-down in which again we have plain tabby on the left, and S-&-W on the right. But now the shots of pattern in S-&-W are separated always by the same shot of tabby, so that the spacing of floats will be much more uniform. On the other side of the fabric we have vertical floats in warp of the same length as the floats in weft. If we use the same yarn for warp and weft both sides will have the same texture. We may also alternate pattern weft with fine binder, and "pattern Warp" with finer "binding warp". Then again textures on both sides will be identical, except for the direction of floats

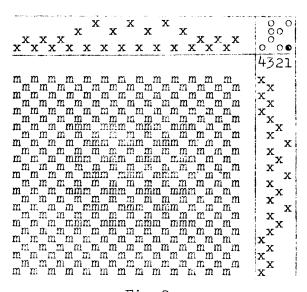


Fig.2

The draft which will produce the fabric in fig.1 B is shown in fig.2. To get the tabby ground we must sacrifice one block of pattern so that with 4 frames we can weave only one block.

But if we look at the draft, we may ask: Is this S-&-W? It looks much more like Bronson. So it does and it should be classified with spot weaves. But in any case S-&-W even in its traditional form could be called "double spot weave". The new draft is completely different from classical drafts for S-&-W, but what matters here is that we are getting the same and even an improved texture.

Now, how do we weave this improved S-&-W? The treadling is in-

dicated on fig.2 and we shall use it in most cases, but there is more to be said about the yarn. We have the following possibilities:

- l. Use plain warp, all in one kind of yarn set as for tabby. Use one shuttle with yarn of about the same count as the warp. The pattern will be about the same on both sides. The effect rather conservative.
- 2. Use plain warp, but very open (e.g. half the number of ends per inch required for tabby). Use two wefts: one for texture effects (boucle, nobby, chenille etc.), and one for binder (as fine and plain as possible). Texture weft on treadles 1, 2, 4; binder on treadle 3. Only one side of the fabric will be usable.

- 3. Use two yarns in warp: texture yarn on frames 2, 3, and 4; fine and strong yarn on frame 1. The same in weft: texture or 3D on treadles 1, 2, 4; fine binder on 3. Both sides will be alike.
- 4. Plain warp set as for tabby. Two wefts: one a little heavier than the warp and of a different colour; the second finer than warp and of the same colour. Use first weft on treadles 1, 2, 4; and the second on 3. The pattern in colour will be on one side.
- 5. Two yarns in warp: one heavy and stronger in colour on frames 2, 3, 4; the second, finer, of a neutral colour on frame 1. Two yarns in weft of the same count and colour as in warp. Heavier yarn on treadles 1, 2, 4; finer on 3.

We have made the draft in fig.2 in the "classical" form to demonstrate its ressemblance to Bronson. But for practical purposes, if the project is of any size, it will be more convenient in treadling, if we change the tie-up so that we can alternate the feet when weaving. For instance: treadle 1 - 1,4; treadle 2 - 1,3; treadle 3 - 1; treadle 4 - 2,3,4. Then of course the treadling given above must be changed accordingly.

There is only one objection to the above method of weaving S-&-W. It is this: if we have good 50:50 tabby, the pattern shots in S-&-W are too far apart. This is obvious from the draw-down in fig.2. On the other hand if we have good S-&-W with heavy weft for pattern, and fine for binder - then the tabby will be somewhat distorted, and in many cases will produce small stripes, like in Log-Cabin.

Can we do anything about it? Yes, but a certain price, as we shall see later. Let us examine the draft on fig.3.

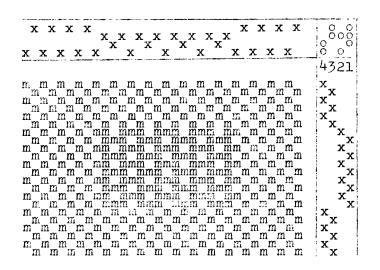


Fig.3

First of all the draft locks much more like S-&-W than the other one. The central part of the threading draft is the traditional S-&-W. The tie-up is very much like the original one, except for one tie on treadle No.1 (frame 4). We could say that so far we have a draft for one block of conventional S-&-W. The tabby part is threaded in the

same way as tabby in huckaback, or huck-lace, or Swedish Lace. So far everything looks perfectly simple.

But... One may ask: Where is the binder? Obviously we can not weave the S-&-W part without a binder; otherwise we shall have long floats in warp at the back of the fabric. The answer is rather unexpected: we must use the binder all the time even in tabby part of the project. The binder must be much finer than the pattern weft. For instance pattern weft: 10/2, binder 40/2; pattern 6/2, binder 25/2, etc.

The complete treadling for fig 3 will be then (h - heavy, f - fine weft):

4h,4f,3h,3f-3 times; 2h,4f,1h,3f-5 times; 4h,4f,3h,3f-3 times.

No attemps should be made to keep the two wefts parallel in one shed. Let them twist around each other as much as they like in the tabby part What is more we can speed up the weaving by using a separate shuttle for the tabby part with both wefts wound together.

This method gives a good fabric both in tabby and in S-&-W. The binder is so fine that it will not distort the tabby.

We have now a choice between the draft in fig.2, and the draft in fig.3. The first gives more possibilities, and if so desired can be woven with one shuttle. The second gives better texture, a more balanced tie-up, but it must be woven with 2 or 3 shuttles.

PRACTICAL PROJECT for 4 frames.

Place mats in linen and cotton. Pattern as in fig.4.

Fig.4

Size finished 12x 18.

Warp: single 14, or 25/2 bleached linen.

Weft: 1½ natural for pattern.

20/2 dull metallic cotton for binder.

Sett of warp: 24 ends per inch.

Reed No.12.

Sleying: 2 ends per dent.

No. of ends: 296.

Treadling: 1" for the fringe; 4h,4f,3h,3f-4 times; 2h,4f,1h,3-6 to make 9 inches; 4h,4f,3h,3f-4 inches; 2h,4f,1h,3f-6 one inch; 4h,4f,3h,3f,-6 one inch; 2h,4f,1h,3f-6 one inch; 4h,4f,3h,3f-6 one inch for the fringe.

The following part of this article is only for multi-frame looms, but the first part is necessary to understand the second.

S-&-W on Tabby ground for 8 frames.

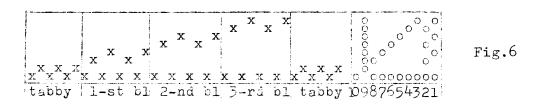
All we have said about this weave in the first part applies here And the "multi-harness" weavers will have no difficulty other than the drafting. Therefore here we shall concentrate on the drafts. We shall see how the drafts for 4 frames can be developed to suit any number of frames up to eight.

Let us take first the draft in fig.2. Two frames (3 and 4) were needed for one block of the pattern. Therefore we may expect that two more will produce another block, as in fig.5.

x x x x x x x x x x x x x x x x x x x	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 87654321	Fig.5
	x x x	tabby
	x x x x	l-st block
	x x x x x x x x x x	2-nd block
	x x x x x x	both blocks
	x _x	tabby

Here we have first tabby, then one block of pattern, then the second block, then the two blocks combined, and finally tabby again.

Eight frames will give 3 blocks of pattern combined at will, that is if we have enough treadles. Since most 8-frame looms have 10 treadles, and we shall need 8 for tabby and 3 separate blocks, this leaves only one pair of treadles for combined blocks (fig.6) unless we use compound treadling.

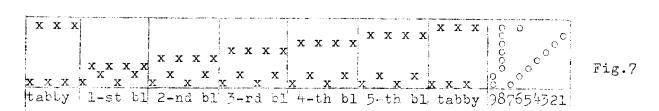


Here single blocks can be woven in the usual way. Also when we want all three blocks together we can use treadles 1 and 2. But for pairs of blocks we must use two treadles at a time:

block 1 & 2 - 6+8, 5+7; 1 & 3 - 4+8, 3+7; 2 & 3 - 4+6, 3+5.

In this way we may have all possible combinations of blocks. The weaving is necessarily slow, and even laborious because of the tabby: one against seven frames.

From this point of view the draft in fig.3 looks more promising. When developped into an eight frame draft it can also give more blocks of pattern (fig.7).



Here we must use compound treadling, and even so we cannot get all combinations of blocks. For instance to get block 1 we treadle 5+7. 5+6; block 2 - 4+7, 4+6. To get two blocks at the same time we can step with the right foot on two treadles, for instance 4+6+6, 4+5+7 will give us blocks 1 and 2. But we can not produce such combinations as 1 and 3, or 2 and 5. Thus if we use this draft at all we must plan the pattern very carefully. Here as in fig.3 the binder must follow not only each shot of pattern but of the tabby ground as well.

On the other hand it is very easy to make samples of 5-block patterns on an 8 frame table loom. Here we are not limited by the number of treadles. But the weaving will be extremely slow.

We hope that this is positively the last article about S-&-W, unless we start some day articles about Draw-Looms.

CURIOSITY SHOP

We have stated in the above article that probably many weavers (particularly colonial weavers) must have wished once in a while that they could weave S-&-W with only one shed of tabby so as to have a more uniform texture. Well, can the thing be done at all?

But plain two-block patterns would require & frames.

Whenever we have our loom threaded for 8 frame damask, we can also weave two block S-&-W with only one tabby. For ins-

cond. The First treadle from $x^{X} x^{X} x^{X}$ 8765432117

EXHIBITIONS

If we write about exhibitions, it is to point out what in our opinion is wrong with them. In general exhibitions, competitions, and all other activities of this kind are most desirable, and it should be each craftsman's moral duty to take part in them, exactly as it is a duty of every citizen of a truly democratic country to vote. Exhibitions, when properly organised, not only encourage craftsmen, not only teach them, but also establish and clarify the line of development of each craft.

A good exhibition is not the one where \underline{I} got the first prize. Far from it. I remember a national affair of this kind when out of 6 articles sent I have got 5 prizes, and still I consider it poorly organised. In another case cut of $\frac{L}{I}$ I have sent, 3 were rejected, but it was a good one, and the accepted entry eventually went to Brussel.

A poor exhibition is one where we know what to submit to get a prize, although we may not like what we send. A good one is when it keeps you guessing, so that finally we do our utmost on the principle that if this is not accepted, we are at least satisfied with our effort, and then have some right to blame the jury. The first kind makes us cynical, the second - creative.

What are then the prerequisites of a good exhibition?

- 1. Classification of entries. The greatest possible freedom should be left to the craftsman, so that any woven article could be entered (with limitation as to the size). The division of exhibits into classes is seldem justified. In practice it looks like this: No.342 linen place-mats; No.343 cotton place-mats etc. But if the weaver has mixed cotton and linen, even in a border, he is disqualified in advance. This is silly. Or he might have woven a head square, or a bridge table cover, but there is no such "class" and no way of shewing it.
- 2. Frizes. Many exhibitions offer money, but very few think about printing really good looking diplomas, or certificates or what not. Most craftmen enjoy more the recognition than the few dollars which are rather incidental and seldom cover the expenses.
- 3. Jury. In no case the jury may remain anonymous. Craftsmen should refuse to take part in exhibitions with "underground" judges.

It just may happen that the "jury" is always one, and always the same person.

The members of the jury should be always chosen among outstanding craftsmen and artists. Nobody else should be ever admitted. If the exhibition is of crafts in general, there should be at least one juror expert representing each craft. In judging each particular craft, the expert for this craft should have a right to veto any article which in his opinion is not technically sound. Thus we would eliminate all the burlap and cobwebs which seem to attract so much the non weavers in the juries.

If the exhibition is for weavers only, then the jury must have at least as many weavers as non weavers. Fashionable and glamorous designers should be avoided at all cost. They are too contemporary, their interest is often limited to the coming year, and they can not understand that handweaving reaches far both in the past and in the future. Too often also they unconsciously think in terms of "what sells best", instead of "what is best". By their very profession they are accustomed to cater to the lowest taste of the masses, whereas a real craftsman, and a real artist are leaders and teachers of the multitude.

- 4. Motivation. Each entry whether accepted or rejected should be sent back with a slip explaining the decision of the jury. To the best of our knowledge this is done as a matter of fact only in the Canadian National Exhibition. Please correct us.
- 5. Entries. They should be anonymous at least to the jury. This seems so obvious that it should be hardly worth mentioning. And yet how many exhibitions observe it? This requirement is important, not because jurors could be suspected of dishonesty, but because they are human beings, and can not fail to be impressed by a well known name. Also it protects the jury from any kind of suspicion which could be entertained by unsuccessful contestants.
- 6. Decisions. The verdict of the jury must be absolutely final. No presidents of Guilds, chairmen of committees, etc., should have any influence on the decision, before or after it is taken. Unfortunately this is not always the case.

So far we have been dealing with the organisers of exhibitions. But what about ourselves, the craftsmen, who after all have as much to do with success or failure of an exhibition, as the jury, and the

committee. What can we do? Plenty:

- 1. Never take part in any exhibition which is not run according to the rules outlined above.
- 2. Never think about winning when preparing your entries. Try to satisfy yourself, not the jury.
- 3. Do not send old pieces of weaving, even if they are our best. In many competitions it is specified that the articles submitted must be woven during the last year or so, but even if there is no such condition we should submit our recent efforts at a risk, rather than to live on a dividend. Supposing there is a weaver who some 20 years ago made a really good piece of damask, and keeps sending it exhibitions even now, and gets prizes. If every weaver followed this immeral habit, there would be simply no place for newcomers.
- 4. For the same reason, if one is cutstanding in one particular line of weaving to the point that he is absolutely sure of a prize, one should refrain from competing with others less fortunate. He can always try something new.
- 5. Finally, the weaving sent to an exhibition should be our own. Not just designed by us and executed or finished by somebody else. We know that infractions of this rule are extremely rare, but they happen. In a recent contest which could lead to an international exhibition there was such an entry. Fortunately it was not accepted.

This is about all.

		Ιt	is	our	task	tc	keep	the	field	$\circ \mathbf{f}$	exhibitions	clean,	and	we
can	do	it	with	ı a	little	9 €	ffort.	•						

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