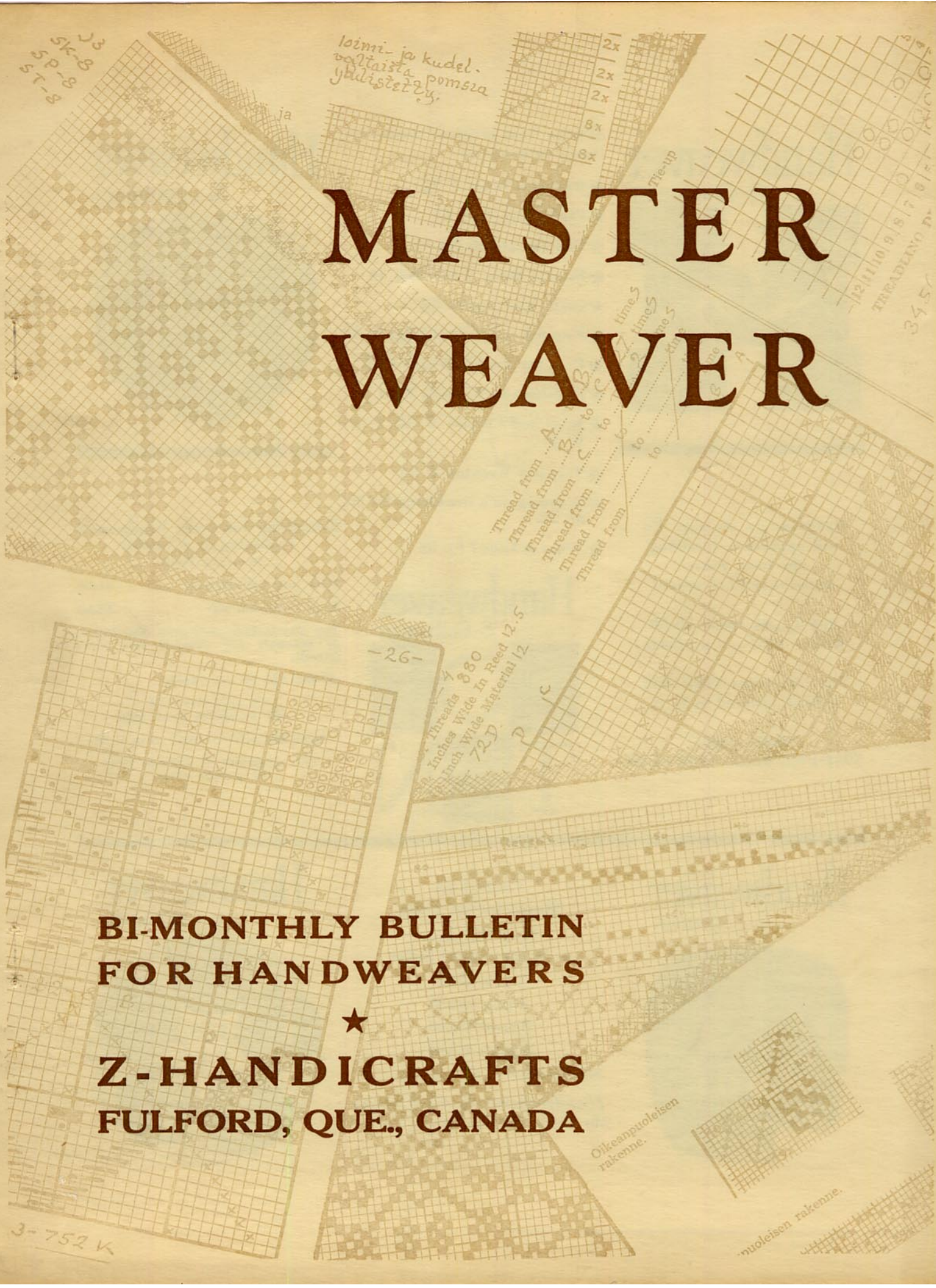

MASTER WEAVER

BI-MONTHLY BULLETIN
FOR HANDWEAVERS

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Z-HANDICRAFTS
FULFORD, QUE., CANADA

MASTER WEAVER

BI-MONTHLY BULLETIN FOR HANDWEAVERS

Z-HANDICRAFTS - FULFORD - P.Q. - CANADA

November 1958 No.42

FROM THE EDITOR

We wish to remind you that all subscriptions to the "Master Weaver" expire with this issue.

It is our policy to keep the subscription rate as reasonable as possible, therefore we print only as many copies of each issue, as subscriptions paid to this date. The reprints which we make later are not only much delayed, but more expensive than the original copies.

Consequently, if you like to receive the next issue, please fill the enclosed subscription form and return it at your earliest convenience.

If you have sent your cheque in the meantime, please, disregard this notice.

Sincerely yours

S. Zielinski

(S.A.Zielinski)

AS THE FINAL RESULT OF OUR SERIES OF ARTICLES ABOUT DESIGNING, EXHIBITIONS, GUILDS, JURIES, AND ALL OTHER VITAL TOPICS OF THE MODERN CRAFT; OF EXCHANGING LETTERS WITH OUR SUBSCRIBERS, READERS, AND SYMPATHISERS FROM ALL OVER THE WORLD, WE HAVE DRAWN A SORT OF A MANIFESTO, WHICH EXPRESSES IN A FEW SENTENCES OUR CREED, OUR CONVICTIONS, OUR JUSTIFICATION OF BEING CRAFTSMEN.

YOU WILL FIND IT ON THE FOLLOWING PAGE, AND YOU CAN HAVE ANY NUMBER OF COPIES OF THIS PAGE FOR ONE CENT A COPY.

SEND THEM WITH YOUR CHRISTMAS CARDS TO YOUR GUILDS, TO ART EXHIBITIONS, TO CRAFT PERIODICALS, TO SCHOOLS OF CRAFTS, TO DEPARTMENTS OF EDUCATION, TO SCHOOL BOARDS, TO COLLEGES & UNIVERSITIES, TO YOUR FRIENDS, AND OTHER CRAFTSMEN.

ON THIS WE BELIEVE...

THAT a craftsman has a right to the pursuit of happiness regardless of whether he is an Artist or not.

THAT the Crafts have a much more important part to play in the modern world than the Art, because they answer the needs of many, when the Art became a refuge of a small elite. Because Crafts are Democratic, when the Art is and must be Aristocratic.

THAT it is a fallacy to pretend that Art can be brought to the masses of Humanity, but that it is true that false Art can be sold to the masses.

THAT the Crafts are always an expression of constructive drives inherent in the human nature, when the Art often results from personal stresses which have no social background.

THAT both Art and Crafts are necessary to human development, but that neither has any right to dictate to the other.

THAT it is a flagrant injustice therefore that the artists are judging Craft exhibits, when no craftsman ever judges Art exhibits.

THAT one can become a famous artist by false pretences, but nobody can become a craftsman unless he is honest.

THAT a real craftsman is always humble and willing to learn from a real artist, when the opposite is seldom true.

THAT an honest craftsman who knows that he is not an artist is worth ten times as much as another who thinks that he is one.

THAT the only way for a craftsman to regain his independence is to refuse to take part in any show, competition, or exhibition, in which the majority of jurymen are not craftsmen.

THAT every craftsman should feel free to challenge the verdict of an incompetent jury, and to take it before an organisation of craftsmen, if necessary.

THAT every juror should pass a test as to his knowledge of the craft he is supposed to judge, and be rejected if he fails.

THAT every Jury room of any Guild, Museum, or Exhibition should have a sign: "JUDGE NOT, THAT YE BE NOT JUDGED".

THAT the Guilds of Crafts should be organisations based on good will, made by craftsmen and for craftsmen, for mutual understanding and for mutual help, but not for personal ambitions, and personal gains.

THAT each craftsman should be aware and proud of the part he is playing in preparing a new and better world; of his responsibility as a guardian of the purity of the Craft.

THAT the integrity of a craftsman is both his privilege and his duty.

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S H O R T C U T S

HOW TO MAINTAIN & IMPROVE A WEAVING LOOM

1. Counterbalanced (CB) Looms.

A counterbalanced loom should have a Shed Regulator, unless it is going to be used with balanced tie-ups only. By "balanced" we do not mean necessarily that each treadle is tied to two shafts. It may be tied to one shaft or to three shafts - but all treadles used in the same piece of weaving must be tied to the same number of shafts. This can be done only if the upper tie-up (between the rollers and the harness) is adjustable, otherwise the loom is limited not only to balanced tie-ups but to so-called "standard" tie-ups.

Therefore, unless we intend to weave only plain tweeds and similar fabrics, the first thing we should do is to add a shed regulator. It costs about $ 10, or it can be made in home workshop for much less. You will find the description of shed regulators in old issues of the "Master Weaver" (No.1 page 12; and No.10 page 9). But the most important condition of success here is not so much to get one, but to understand how it works, and to get used to it. A poorly working regulator is worse than no regulator at all.

It is a mistake to suppose that when we have a shed regulator we must dismantel it each time when we do not use it. Nothing of the sort. A regulator can be immobilised in 20 seconds, and then the loom works as if it never had one. On the other hand with very fine yarns we may find it advantageous to adjust even the balanced sheds with more precision.

A shed regulator does not need to be tied to all treadles. For instance if we have 4 treadles tied to 2 shafts each, and 2 treadles tied to one shaft each - only the last two treadles must have additional ties to the regulator.

Finally the shed regulator may raise all shafts in the first place (by stretching the springs), and then no additional ties need to be used regardless of the tie-up (the loom works as a reversed

jack-type). This latter method is particularly valuable in two cases: when we make experimants and change the tie-up rather often; and when we press more than one treadle at a time (direct tie-up, and compound tie-up).

All these possibilities of the regulator must be tried, and mastered before attempting any project at all.

2. Jack-type looms.

The most objectionable feature of nearly all looms of this type is not so much the lower speed and therefore inferior performance, but the impossibility of adjusting the lower part of the shed.

The ties in the tie-up of a jack-type loom are seldom adjustable. But even if they were it would not help much, because the length of a tie has no influence on the lower part of the shed, which is the most important one, since it supports the shuttle. Quite often an open shed touches the shuttle race (lower part of the batten) or the lower shaft of the reed.

The lower part of the shed should be absolutely flat, but at the same time it should never touch the reed or the batten. If it is not flat the shuttle will not travel in a straight line. If it rubs on the batten - it will ruin any fine yarn. Fig.1 shows a per-

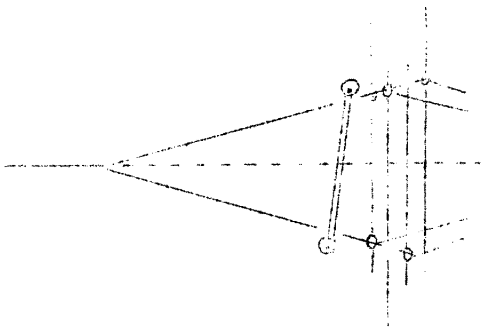

Fig.1

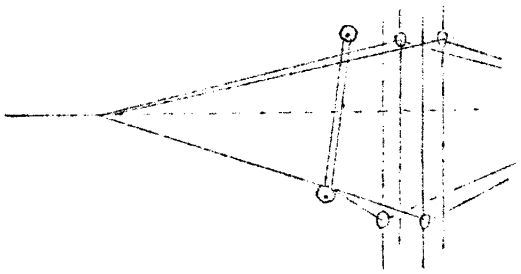

Fig.2

fect shed, seldom found in jack-type looms, and fig.2 - the more common case in which the flatness of the shed is achieved by bending the warp around the batten. The shed is flat but at the cost of the warp rubbing the batten most of the time.

We shall risk here a statement that the reason why so little weaving with fine yarns, single linen, etc. is done in North America is that there are too many jack-type looms on this continent.

And yet the solution of this particular problem is so easy, that it is hard to imagine why the makers of jack-type looms did not think about it long ago.

All we must do is to fix a smooth and round stick, dowel, or old broomstick across and under the warp right in front of the harness (fig.3). It may be fixed with two screws to the uprights of the loom, or it may be hung from the top on two cords. In the latter case it should also be tied with two shorter cords to the uprights, or any other part of the loom frame, so that it would not move with the warp, when this is being pulled forward, but those two additional cords are not essential.

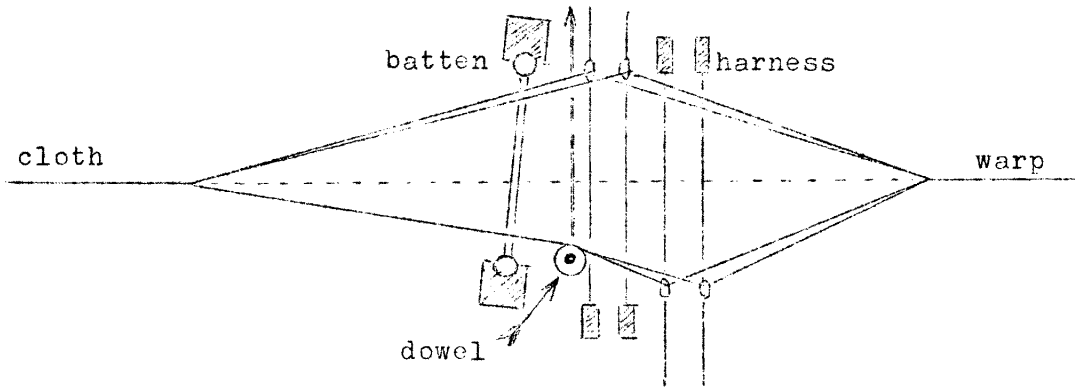

Fig.3

What is important, is that the dowel be smooth, and that it be strong enough not to bend under the tension of the warp.

The exact position of the dowel is very important: the warp must bend about it, but it must just clear the batten and the reed shaft, i.e. it cannot touch it in any position of the batten.

One may ask: what is the difference between fig.2 and 3? They both look about the same. Yes, but not in action. In fig.2 the warp bends around a moving part of the loom, when in fig.3 it bends around a piece which is stationary. There is still some friction, when we move the warp forward, but this is negligible.

Incidentally the same arrangement made in exactly the same way can be used with CB looms. It is not necessary at all, at least in theory, but when working with fine and brittle yarns it will be an additional safeguard which may save us a lot of broken ends.

Shall we call this additional dowel something or other? It could be called a "Shed Stop" which it is after all.

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3. Additional parts of the loom.

Few weavers realise that a high number of shafts is or may be of little importance, but that additional warp beam, or beams are very useful. Even with two-shaft looms we can weave very unusual fabrics if we have two warp beams. Thus, if there is any possibility of buying a loom with two warp beams, it will be a good choice. Obviously each beam must have a separate brake, and at least one of them must be a friction brake, so that the tension of both warps can be adjusted at will. On the other hand a second warp beam can be made in any home workshop at little expense. We shall describe such a home made beam later on when speaking about two-warp fabrics.

Perfect weaving can be done (theoretically) only when the front shed remains always of the same size. This means automatic "take-up" - which moves the warp forward with every beat of the batten. As far as we know there are no such looms on the market. But the take-up mechanism is very simple and also can be made at home.

What is however much easier, and also important, are a few small screws driven here and there in the loom frame. For instance one on the left hand upright with a pencil on a long string hanging from it. Saves us looking for the pencil. Another on the right hand side with a pincussion for pins, needles (at least one darning needle) etc. Scissors should hang from a hook on the right hand side of the bench, but they should not be tied on a string: the first thing we do is to cut the string with the scissors, because they are needed somewhere else. The bench should have plenty of space on top, or a tray attached to its right hand side, or a drawer for all sorts of odds and ends: yarn, full and empty bobbins, threading hook, scotch tape, paper, measuring tape, glue, paraffin wax, resin etc.

More screws are needed in the loom frame for tying the lease-rods, for the raddle, etc. We shall speak about it later, when describing beaming and threading.

Factory made looms have frames usually made of hardwood. Neither nails, or screws can be driven in hardwood directly. They will bend, or break, or split the wood. A hole must be drilled first - a little smaller than the diameter of the screw, and as deep as its length.

4. Maintenance.

All screws and bolts get loose. Tighten them periodically with a wrench and a screwdriver. How often? It depends on how often and for how long the loom is being used. Do not tighten the bolts or screws which support the batten, or at least make sure that the swords of the batten do not bind on the frame.

All cords stretch. Adjust them quite often when they are new. At first after a few hours, then after a few days. If they break, replace with heavier or stronger cords. When replacing the cords of the tie-up it is advisable to replace all of them at the same time. Otherwise they will stretch at different rates, and the tie-up will have to be adjusted all the time.

All moving parts need lubrication. There are hardly any looms left with wooden shafts in wooden bearings. If you have one of those oldtimers use axle grease. Otherwise fairly heavy car oil (No.30) will do in most cases. The fastest moving parts of the loom (jack shafts, rollers, pulleys) require most attention. Then the batten supports, bolts probably; treadle shaft or hinges; finally the cloth beam, and warp beam bearings, and the cloth beam ratchet. Do not oil a friction brake!

Buy a small sprayer (as for flies) and fill it with the purest kerosene, or coal-oil. Spray from time to time the reeds, and steel heddles not in use, and even the ones in the loom, as well as all steel parts of the loom. The oil, if really pure, evaporates and is not supposed to stain anything, but it prevents rusting. Wipe the loom dry after each such spraying.

From time to time rub all wooden parts of the loom with lemon or banana oil. At longer intervals wax them (hard wax) or better simonize - follow directions. Do not varnish. If any of the important working parts of the loom is damaged (deep scratches in the slabstock, or breast piece) it should be re-finished in a wood-working shop.

Properly maintained loom will last for ever, and even a badly damaged one can be easily restored, unless of course the wood is rotten, which should not happen in the first place. Restoration of antique looms is a different story.

****

SIX BLOCK OVERSHOT

ON FOUR SHAFTS

Many of our weavers may shudder at this title. What? Six Blocks? Were not the traditional four blocks bad enough?

Then we better explain.

The Overshot we are going to describe is not the same as the traditional weave. The purpose of introducing two more blocks of pattern is not to make still more involved and rich patterns (although the weave could be used to such purpose if somebody desired it), but to create a more interesting texture, and finer design.

The texture of our weave differs from the traditional one, inasmuch as it has no flat ground on which groups of floats form a pattern. Here the ground is rugged and follows the pattern. There is no tabby anywhere, and therefore no tabby binder.

What we mean by "finer design" is that the lines of a pattern are much more uniform than in colonial overshot. This is what one would expect: more components of a pattern give more freedom in designing, and this freedom can be used to make finer lines and a better general effect. On the other hand it can be abused to create more confusion.

In plain Overshot the whole surface of the fabric is divided into: 30% tabby, 40% half-tones (tabby with pattern weft), and 30% pattern floats. In our case of 6-block Overshot we have: 15% of pattern floats, and 85% of ground which is not tabby.

These two factors: that we have 6 components of a line, and that this line is only 1/6 of the ground (instead of 1/3) give a completely different and a much more satisfactory appearance to the fabric, at least from our "modern" point of view.

Finally we have decided to have all floats of about the same length (4 or 5) which gives a uniform and practical texture. Our choice was quite arbitrary, and we can have as well all floats of 6 & 7, or 8 & 9, and so on. But we are of the opinion that it would be unjustified to mix floats of all sorts in the same piece of weaving, because

then we would be worse off than in case of the traditional overshot. Our readers may experiment with small samples of fabrics made with different lengths of floats, and they will probably agree with us.

We have developped this weave in our studio, and we did not hear of its being ever used before, but it is extremely unlikely that it is actually a "new" weave. Such things do not exist. It must have been tried long ago, and probably rejected, because in the past all "texture" effects were rather frowned upon.

The theoretical background of this weave is very simple: plain Overshot has 4 blocks of pattern (12, 23, 34, and 41) plus two sheds for tabby (13 and 24). If we give up tabby, and use these sheds as pattern sheds, we have our six blocks. This is all.

But... because the blocks 13 and 24 are on opposite sheds, they fit between: 12 and 23 (13); 23 and 34 (24); 34 and 41 (13); and 41 and 12 (24). Thus one repeat of a simple diagonal has not 6 but 8 steps - instead of 4 steps in plain Overshot. This makes it look as an 8-shaft pattern weave.

In fig.1 we have a diagonal in plain Overshot with all floats of 4, and in fig.2 the same diagonal in our 6-block Overshot (only floats are shown).

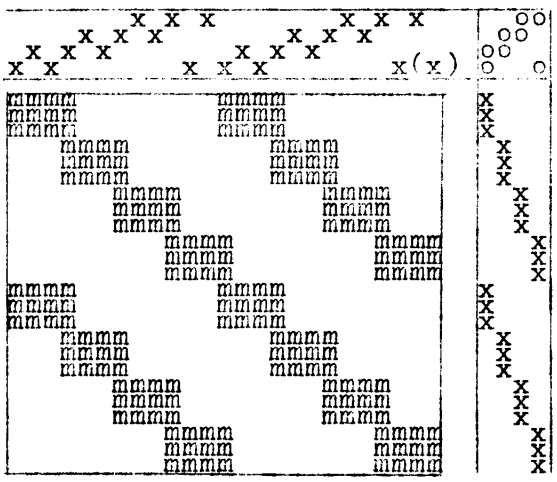


Fig.1

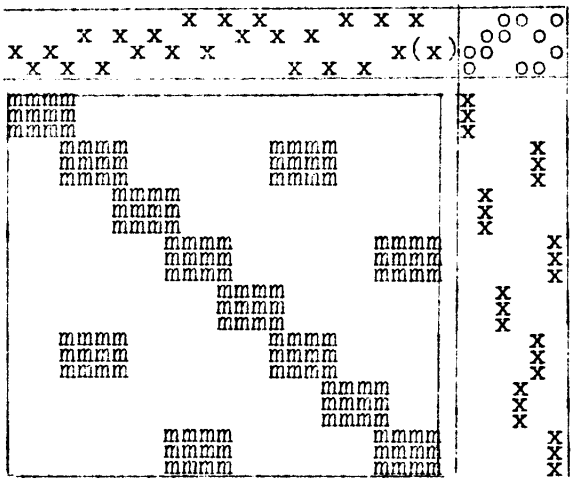


Fig.2

When we compare these two draw-downs we must notice first of all that in the same area we have <u>two</u> parallel diagonals in plain

Overshot, and only one in 6-block Overshot. The second has also four isolated blocks which do not form any particular pattern. The blocks overlap each other by one warp end exactly as in the traditional Overshot. Finally it is quite obvious that in both cases we must have a binder. In traditional weave this binder is usually tabby, but it may be the opposite shed as in bound overshot. In our case there is no tabby, and the only binder is on the opposite shed. In practice this means that when heavy pattern weft is being used on shed 12, it is followed by a finer weft of a different (and more neutral) colour on shed 34; 23 followed by 14; 34 by 12; 14 by 23; 13 by 24, and 24 by 13.

To get the whole benefit of the possibilities of our weave, we must use all 6 blocks, and in the order indicated in fig.2. But they may go up or down forming LH or RH diagonals of any length.

At the turning point we may have a float of 3 or of 5, but the drafting is easier if it is a float of 5 (when all other floats are of 4), when turning from LH to RH, and of 3 when making the opposite turn. This sounds complicated but fortunately we do not need to worry about it. It happens "by itself".

As far as pattern is concerned we can have all sorts of Diamonds and Crosses, but not Stars, Roses, Tables, and Wheels. Or rather they are also possible, but not desirable, since they require blocks with different length of floats.

Let us examine our blocks of pattern. Each block has a definite unit of threading, and blocks written on 13 and 24 - two units each. Thus we have 8 units in all. These units never change. In the table in fig.3 we give all units in three different lengths of floats.

Fig.3

Unit:	floats of 4;	of 6;	of 8;
1	212	21212	2121212
2	131	13131	1313131
3	323	32323	3232323
4	242	24242	2424242
5	434	43434	4343434
6	313	31313	3131313
7	141	14141	1414141
8	424	42424	4242424

When we have a weave with all units of the same length, we can use Short Drafts or Profiles. For instance in fig.4 we have a profile in which one "m" means a unit of 3 heddles (first column in fig.3). The first line from the bottom is unit 1, the second line - unit 2 etc.

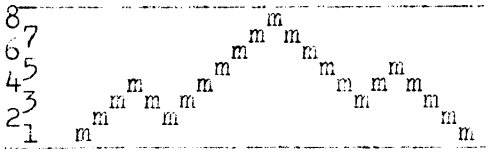
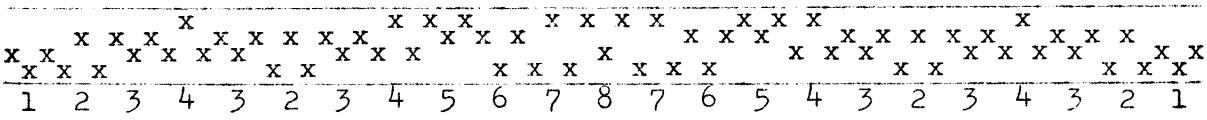


Fig.4

If we replace each "m" with a unit taken from the table in fig.3, we shall have the full threading draft:



1 2 3 4 3 2 3 4 5 6 7 8 7 6 5 4 3 2 3 4 3 2 1

Fig.5

In treadling, units 2 and 6 will have the same treadle, and so will have units 4 and 8. Thus, if we try to square the pattern in fig.4, the treadling will be: 12 - 3x; 13 - 3x; 23 - 3x; 24 - twice; 23 - 3x; 13 - 4x (fig.5 will tell why); 23 - 3x; 24 - 3x; 34 - 3x; 13 - 3x; 14 - 3x; 24 - twice, and reverse.

The whole situation is better illustrated by a draw-down in fig.6. We took here only the first half of the draft in fig.5.

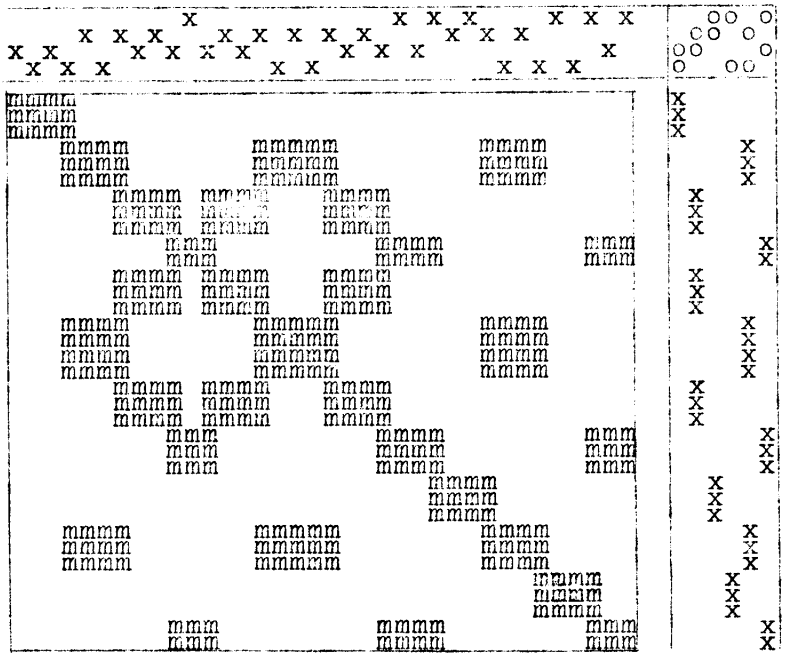


Fig.5

One of the incidental merits of this weave is, that even an experienced weaver, when shown a sample of 6-block overshot, will undoubtedly decide that it is an eight-shaft weave. After all, when counting the blocks along a diagonal we find eight of them. Only a detailed analysis will tell the truth. This of course is hardly an advantage from the point of view of a serious weaver, but still it is there.

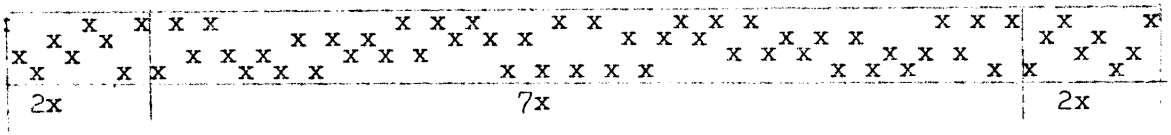
The practical applications of 6-block overshot are numerous. Since the length of floats can be adjusted at will, the weave can be used for practically anything. In fine and closely woven yarn it is suitable even for upholstery, if all floats are of 4. With broken or accidental treadling it will give irregular texture effects, and there is no reason why it could not do for such yardage as heavy coats, bedspreads, and blankets. It may also give good mats, towels, drapery, heavy flat rugs, and what not.

We may find it advisable to elaborate on this weave later on. In the meantime we shall limit ourselves to just one

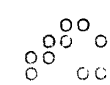
PRACTICAL PROJECT.

"Gothic" place mats in cotton.

Warp: 16/2 cotton, ivory. Number of ends: 382. Width - 12¾". Sett - 30 ends per inch. Reed No.15; two ends per dent. Threading draft:



Tie-up:



Treadling: 1,2 - one inch; 1,6,2,5,1,4,2,3 - twice; (1 - 3x; 6 - 3x; 2 - 3x; 5 - 3x; 1 - 3x; 4 - 3x; 2 - 3x; 3 - 3x; 1,6,2,5,1,4,2,3) - this group repeated until the desired length of the place mat is reached. Finish with one more: 1,6,2,5,1,4,2,3, and one inch of 1,2. Each shot of the pattern weft to be followed by one shot of the binder on the opposite shed, i.e.: 2 after 1; 1 after 2; 5 after 3; 6 after 4; 3 after 5; 4 after 6.

The weft: 10/2 mercerized cotton, rust, for pattern; 20/2 soft cotton, old gold - for binder.

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MORE ABOUT "NET WEAVES" IN THE NEXT ISSUE OF THE "MASTER WEAVER".

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