

AMEUBLEMENT D'EGLISES — CHURCH

METIERS A TISSER — WEAVING

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THE ARTFUL EWE

Knitting - Spinning - Weaving

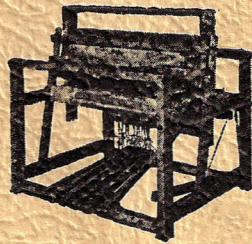
Shop Hours: Friday - Saturday - Sunday - 10 a.m. to 5 p.m.

Located in Historic Port Gamble at:

32180 Rainier Avenue Northeast

(Mailing: P.O. Box 381)

Port Gamble, WA 98364



NILUS LECLERC INC.

ETABLIE — 1876 — FOUNDED

L'ISLETVILLE, QUE.

CANADA

MAINTENANCE OF THE
" L E C L E R C " L O O M

Upon receipt of your loom, check carefully to make sure that all parts are enclosed. If anything is missing a claim should be made to the dealer within ten days.

Looms are knocked down for shipping but setting up is easy if you follow the directions carefully.

Each screw must be screwed from time to time as vibration makes them loose, do not tighten bolts at bottom of beater and lever "V".

Use sewing machine oil on all movable parts of the loom, especially on the screws of rollers No 11 and 12. This makes them last longer as well as roll more easily.

Clean your loom and accessories with a damp cloth or furniture polish.

New reeds are usually oiled and should be cleaned with a dry cloth or brush before using.

When not in use, keep loom, especially reeds and heddles, in a dry place to prevent rust.

If you follow these instructions, they should insure satisfactory results with your "LECLERC" loom.

INSTRUCTIONS FOR ASSEMBLING A STANDARD LOOM

SERIES "M" - LECLERC

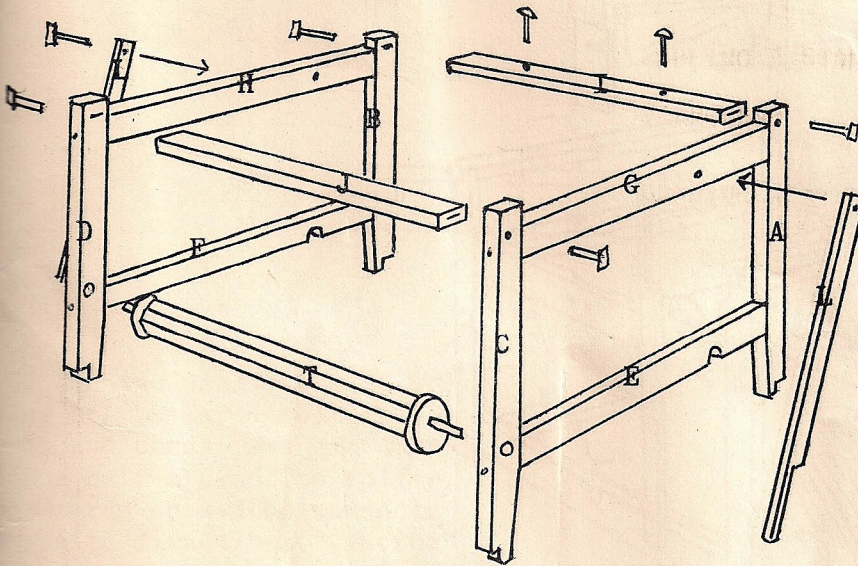


Fig. 101

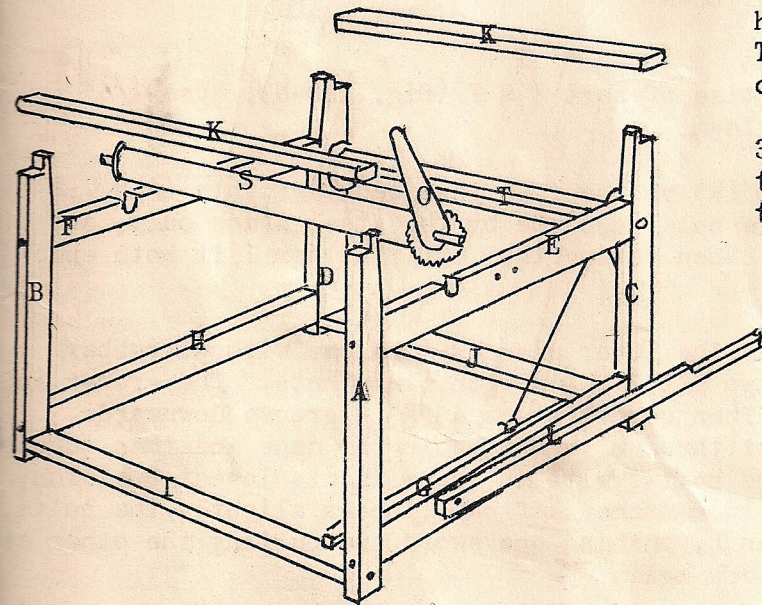


Fig. 102

1. Take the two sides of the loom (already assembled), place them on the floor vertically, but upside down (fig. 101) and insert the warp beam (hexagonal) into the holes in C and D, so that the metal drum on one end of the beam fits inside the steel wire spiral. It may be necessary to disconnect the brake spring before doing it.

2. Set in place the two cross-pieces I and J, so that the unvarnished side will be at the bottom when the loom is turned the right side up. The cross-piece I is the one with the two holes for the treadles. Now pass the 5" bolts through the holes in the sides and place the nuts in the holes in the underside of the cross-pieces. Tighten the bolts with the wrench or the crank.

3. Pass the two $2\frac{1}{2}$ " bolts with round heads through the holes in I from underneath, until only the heads project. Use a hammer.

4. Attach the swords L to the loom frame (holes in G and H) from the outside with two wood screws (square heads) $2\frac{1}{2}$ " long. Insert a washer on each side of the sword. Do not tighten the screws too much - the swords must turn freely on the screw shanks.

5. Turn the loom the right side up. (fig. 102).

6. Place the cloth beam in the notches in E and F, with the ratchet and the handle to the right.

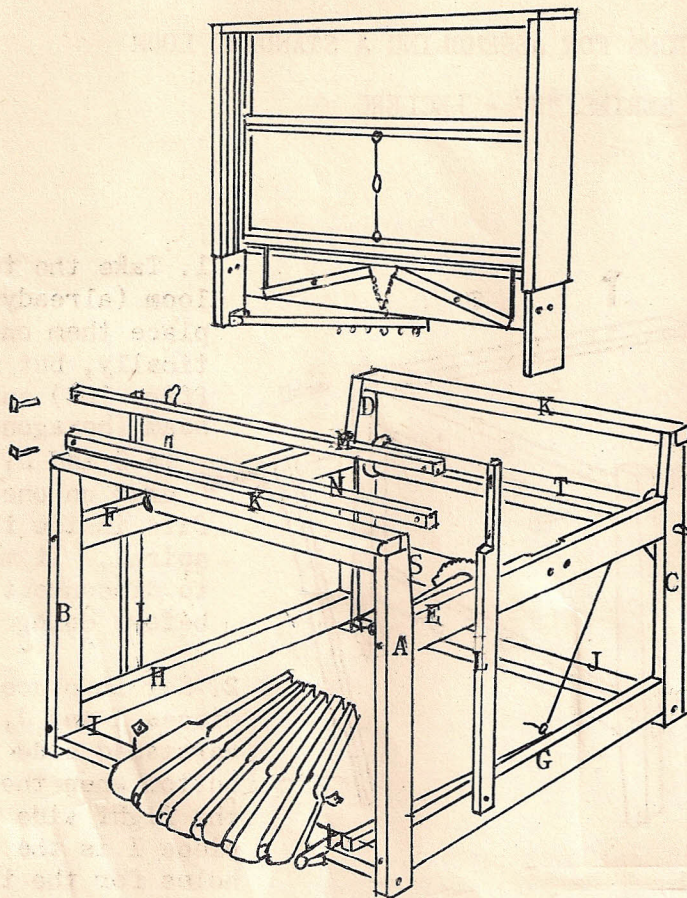


Fig. 103-N

7. Place the head of the loom in the mortise of part E & F (fig. 103-N). Use 1/4" bolts - the heads on the outside of the loom.

8. Put the slabstock and the breast beam (K) on the front and back uprights (A,B,C,D) with the rounded side outwards. They are held in place by the steel studs only, and they can be removed whenever necessary. When taking them off the loom lift both ends at the same time.

9. Mount the batten (beater). First take the lower piece N (the one without rubber pads) and attach it to the swords with two 5/16" bolts with plain nuts. The groove in the piece must be on top (fig. 103-N). Then comes the cape "M" - groove downwards. The bolts with wing nuts are passed first through the holes in the cape and then through the slots in the swords. Now tighten the bolts, with the cape in its lowest position, and check if both rubber pads touch the loom frame. If not, loosen slightly the bolts, and force the batten into proper position by pushing one sword and pulling the other at the same time. Tighten the bolts and check again.

10. Place the treadles with their base on the lower front cross-piece I. The two bolts inserted there previously (fig. 101) will fit in the holes in the base. Do not use washers.

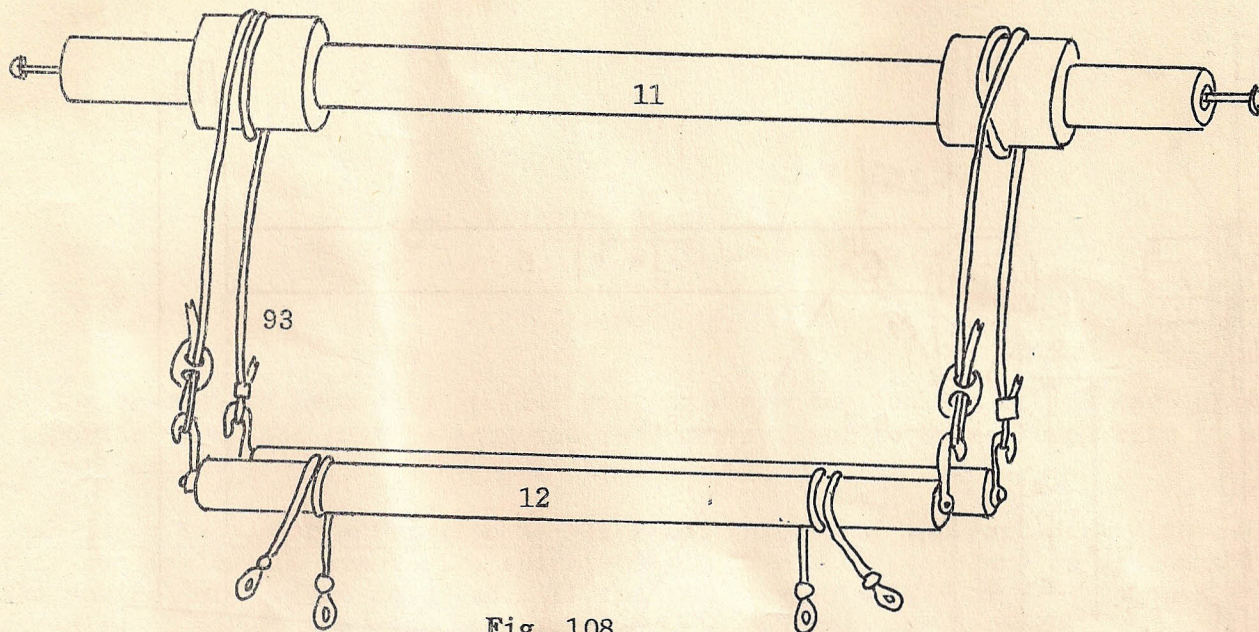


Fig. 108

12. The two small rollers are hung on the large roller, so that the cords pass one time and a half around the roller. The cords should be wound in opposite directions. In the same way the frames are hung on the small rollers (fig. 108).

13. Attach the heddle-frames to the lamms.

Adjustment of the upper tie-up:

The cords on which hang the small rollers are adjustable. Their length in the neutral position of the harness (no treadle depressed) should be such that the heddle-eyes are just a little below the line of warp, example, the line between the breast-beam and the slabstock. When the tie-up is unbalanced (waffle, bronson, spot, etc) raise the harness by about 3/8" by shortening these cords or raising blocks (fig. 113). When later on the loom is used with a balanced tie-up again do not forget to lower the harness to its original position.

Shed Regulator: We can supply now shed regulators for counter-balanced looms. These regulators give a perfect shed with any tie-up. Ask for special pamphlet on this system.

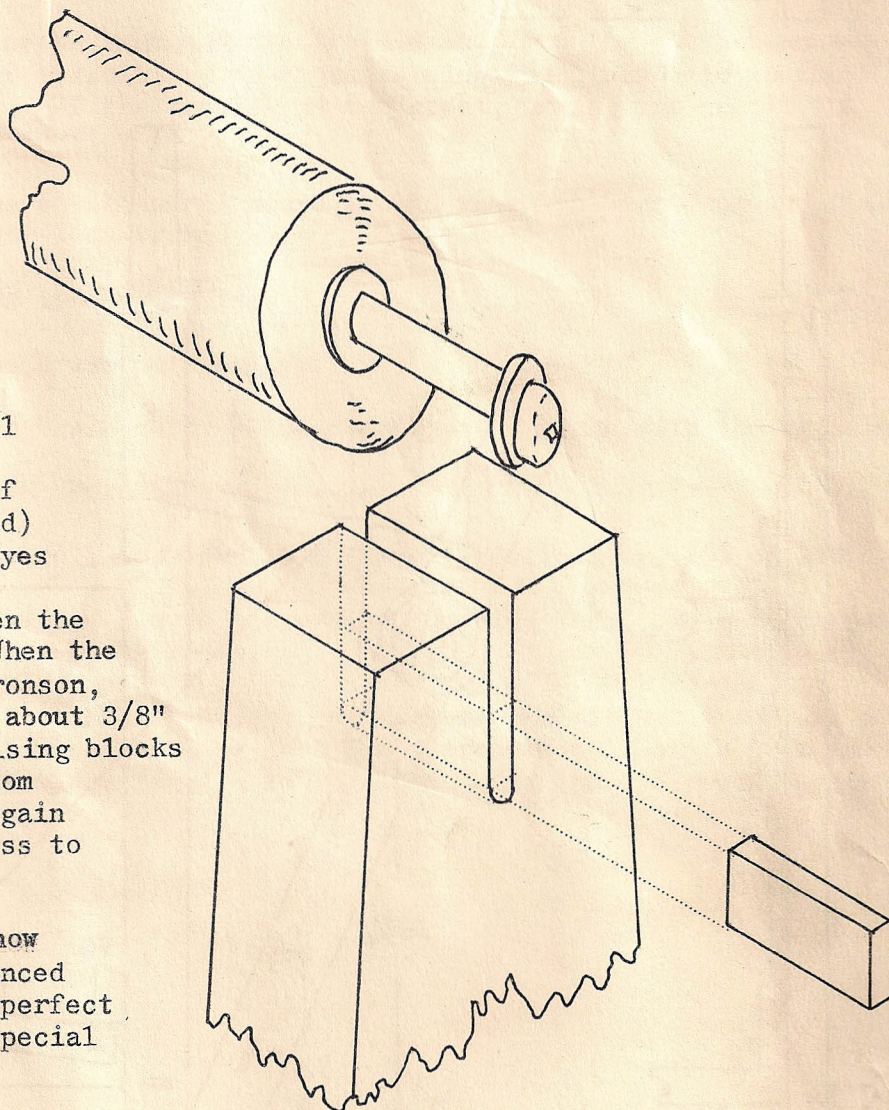


Fig. 113

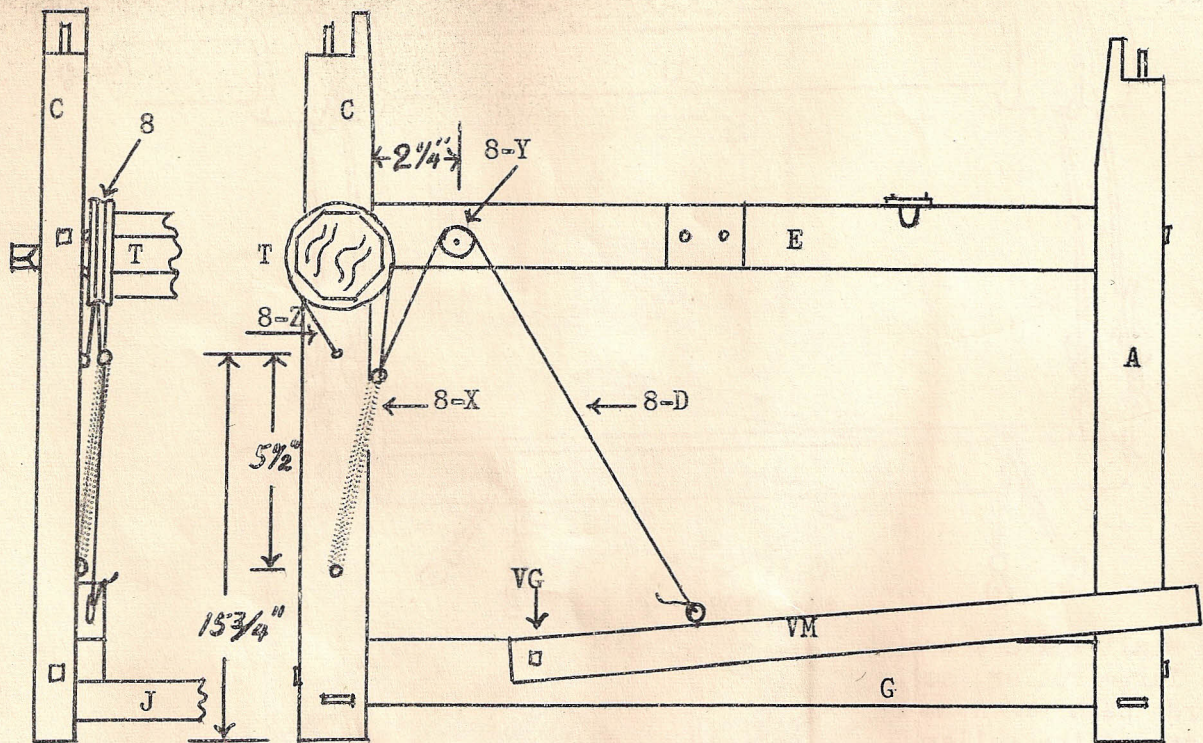


Fig. 109

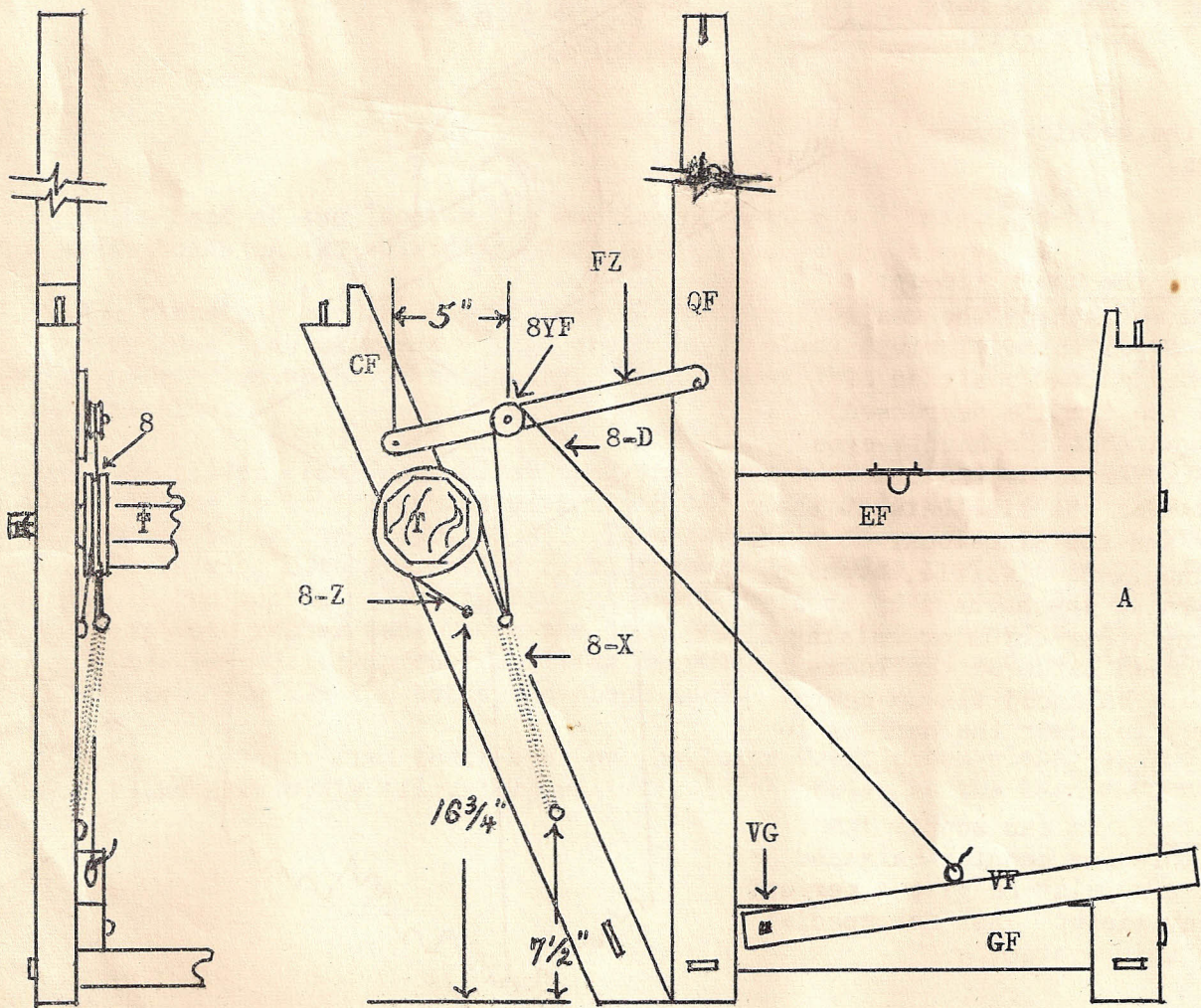


Fig. 110

FRICTION BRAKE

Friction brakes are necessary in fine weaving where the tension of the warp plays an important role and must be adjusted to a degree, not to be achieved with an ordinary ratchet.

Assembling a loom with a friction brake: Place the end of the warp-beam with a large metal drum inside the steel wire spiral (8Z). It may be necessary to disconnect the brake spring (8X) before doing so. If the brake treadle (V-M or V-F) touches the cross-piece I before the warp-beam turns freely, shorten the cord 8D.

Beaming: This can be done with the brake in the working position, or the brake may be released by locking the treadle V-M or V-F, with the metal lever on G.

Weaving: To advance the warp, press on the brake treadle and turn the cloth-beam at the same time. Then release the treadle and continue turning the cloth-beam to the next notch in the ratchet wheel. If the tension is too great, press very gently the brake treadle until the desired tension is reached.

In fig. 109 or 110: 8-Z Means steel spiral wound around the warp-beam drum and fixed to the loom frame.
 8-X Means tension spring.
 8-Y Means brake cord pulley.
 8-D Means brake cord, which connects the brake with the treadle.
 V-F or V-M Means brake treadle.

The beam must turn clock-wise to roll the warp. To install, follow fig. 109 or 110.

The new brakes may be a little slidy, due to the grease covering them. If that happens rub the wheel with a sand paper or black rosin.

Here is the way to transform a loom having a beam controlled by a ratchet wheel and a dog, into a loom with friction brake: use the same brake treadle and bore a hole in the bar G or GF, in order to screw the treadle to the loom. Fix the eye opposite the center hole in the treadle.

Fig. 116

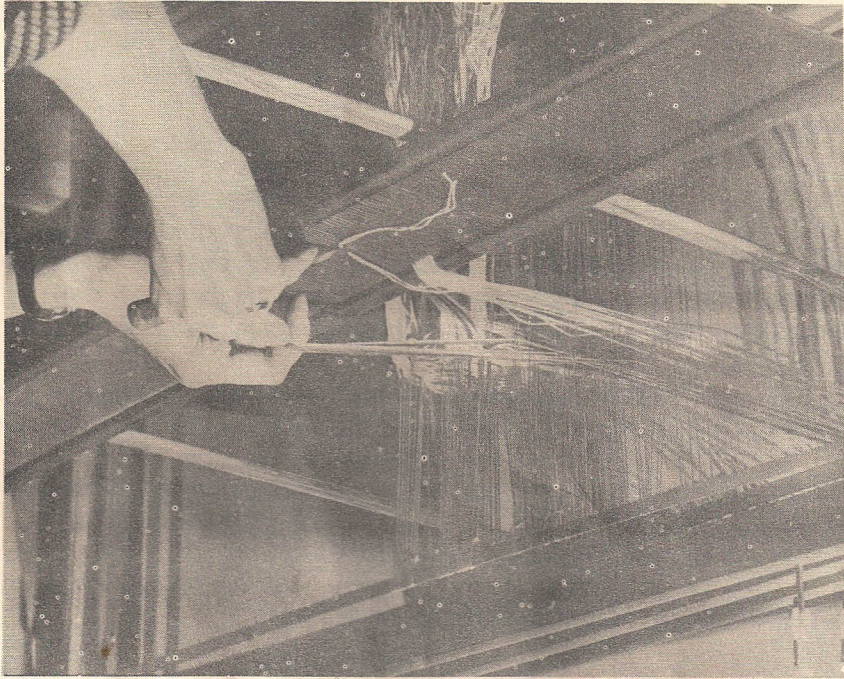


Fig. 114

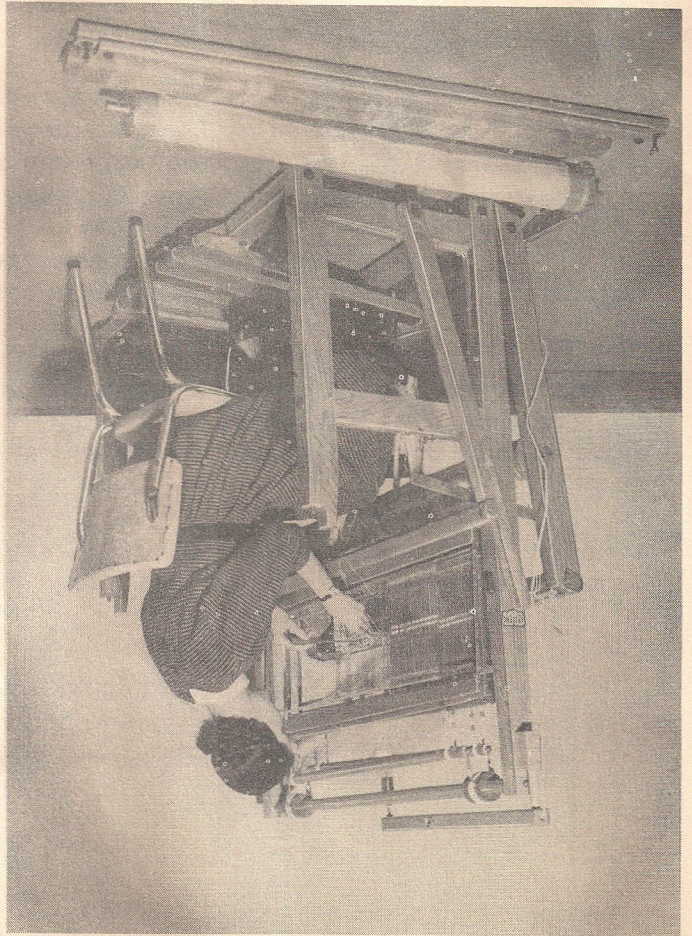
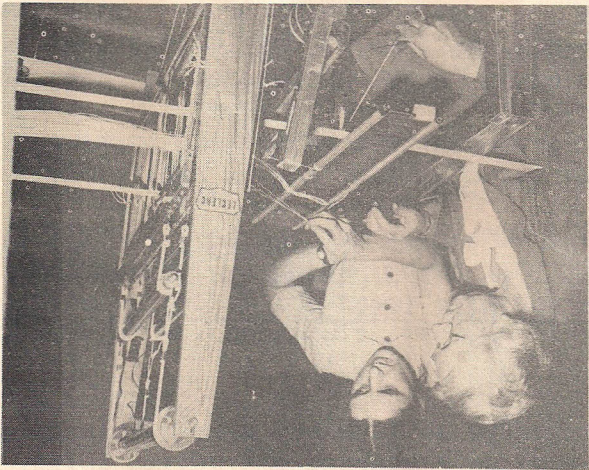


Fig. 115



Demountable cloth-beam: The cloth beam can be removed from the loom for threading, tying-up etc., in this way, the weaver can be more comfortable and closer to the work. (fig. 114).

Threading: When threading without help, unhook the lamms from the heddle-frames, and raise the whole harness by about 6" by making an additional turn of the cord on the top roller. On the multiple harness loom, series ~~L~~ and P, the harnesses must be raised by pressing the treadles and holding them in this position, same thing for séries "N".

Take off the cloth beam, the reed, and the cape (the top part of the batten). Now tie the lease-rods to the loom frame (between the uprights Q and R, and the slabstock K) so that they will be about 2" behind the harness and at the same height as the heddle eyes. (Fig. 114).

Sleying the reed: A good method of sleying the reed is done by placing two cross sticks from the breast beam to the back beam, the reed is then layed on at the front of the beater. The threads are picked out in sequence of 1 - 2 or 3 ends according to the draft, then drawn through the dents of the reed by means of a hook (fig. 115).

When one half inch has been sleyed, pull the threads from below to the edge of the reed (fig. 116), in this way mistakes will be caught. It is much more simple to correct mistakes at this point than later on, when hundred of threads may have been sleyed.

Once the sleying is completed, the reed is put in the batten, the part towards you at the top.

Fig. 112

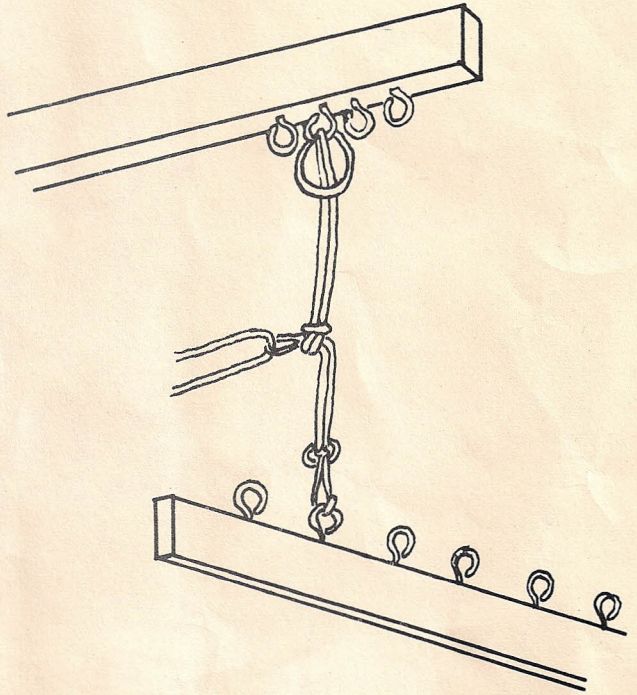


Fig. 118

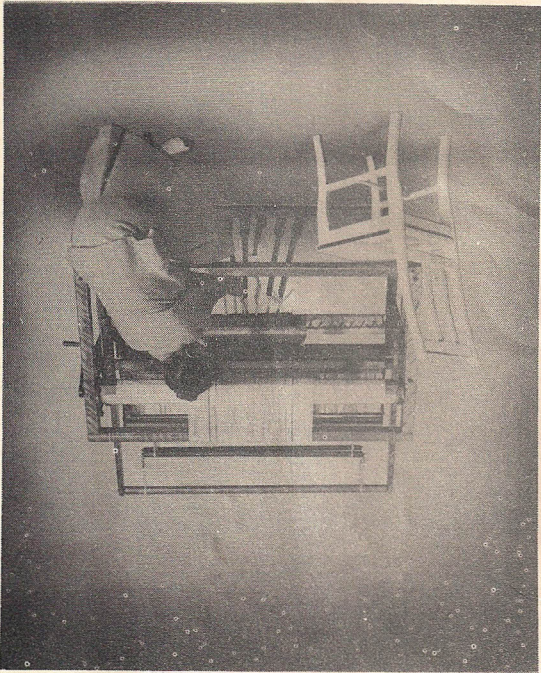
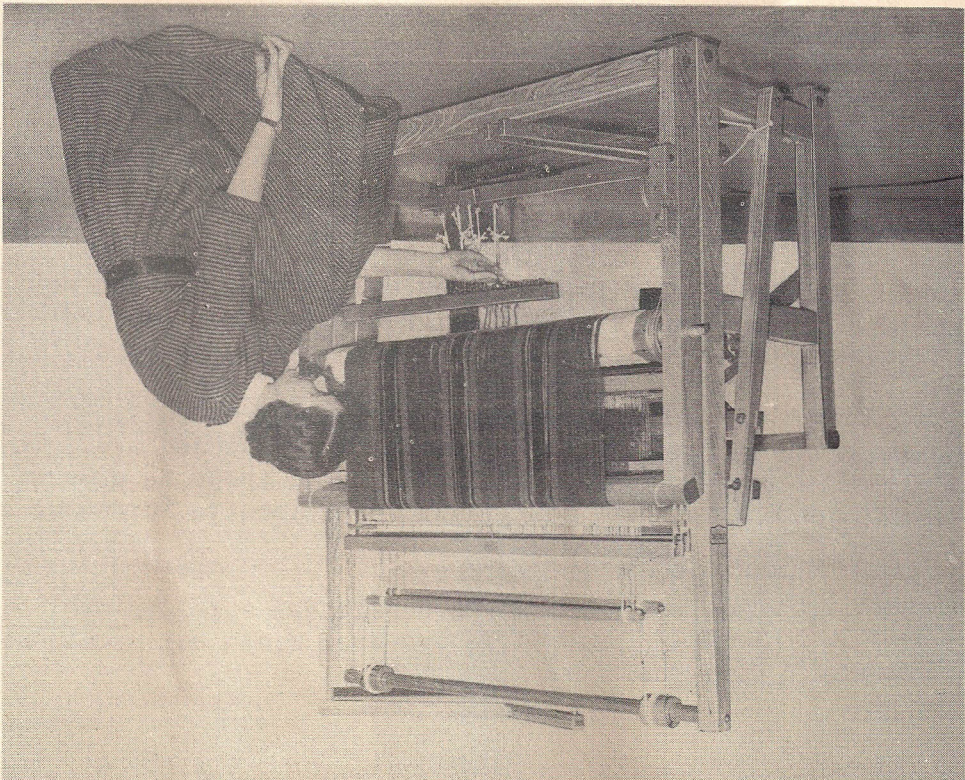


Fig. 117



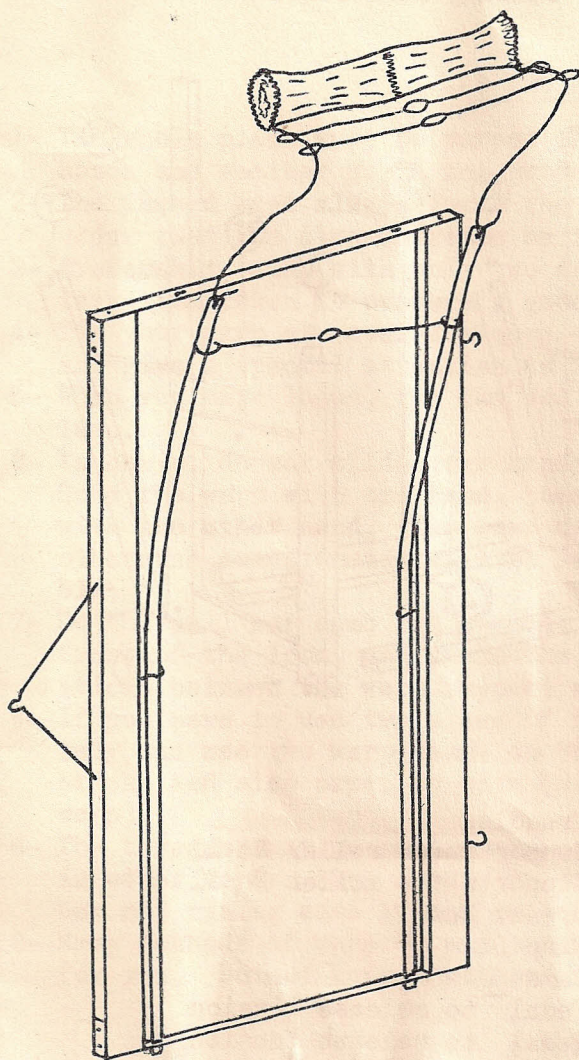


Fig. 107

To dispose the heddles on the four heddle-frames, prop one frame in a vertical position release the ends of the flat steel rails from the locks, and prepare the required number of heddles (fig. 107).

A 27" loom should have 150 heddles per frame

A 36" loom should have 300 heddles per frame

A 45" loom should have 375 heddles per frame

A 60" loom should have 450 heddles per frame

The heddles are packed by 100, 500, 700 or 800. They are threaded on two cords and these cords should never be pulled out. Each cord is tied to the end of one of the rails, and then the proper number of heddles can be slid easily on the rails (fig. 107). Then, the cords are untied, and the rails placed back in the locks.

Tying cords with snaps: The tie-up is made with adjustable cords which have a snap at one end. Each cord should be tied first to the treadle by making a hitch on the screw-eye (there is no need to untie the two parts of the cord to do that), and then snapped on the screw-eye in the lamm (fig. 112-117-118). The ties are made for an average length but they can be adjusted to any length, since the two parts are joined with a snitch-knot. Never use the ties upside-down - if the snap is at the bottom it will twist around the screw-eye, and eventually open. Do not make the ties too long, or the

shed will be not fully opened.

Preparation of the warp: To find the number of ends needed for warping, use the calculating table for the reeds. Other details will be found in the book: "Weaving for Beginners".

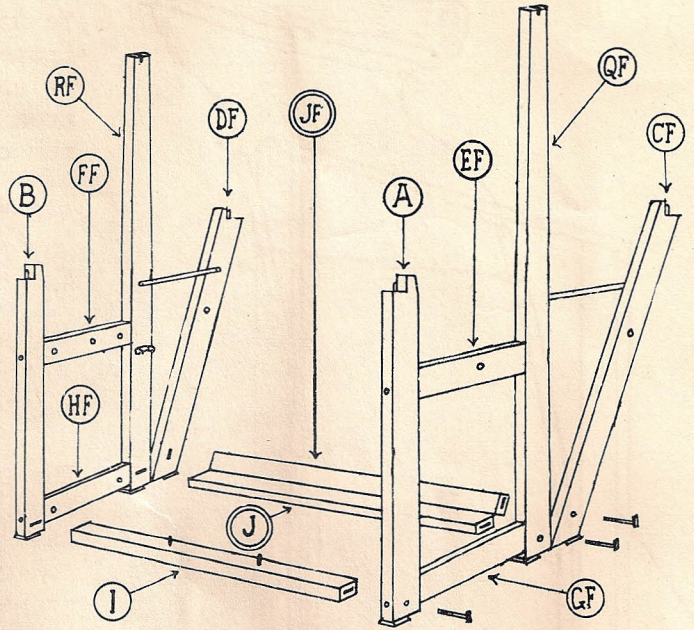
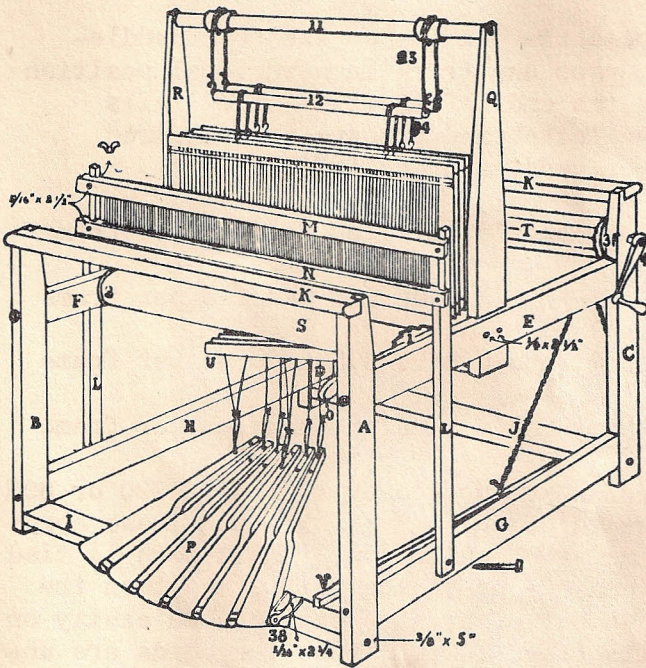
"WEAVING FOR BEGINNERS" is for the regular loom series "M" but the instructions can be applied to any type of loom.

APRONS: The apron on the back beam is not fixed to allow to install the sectional warp beam in the holes already drilled, when this system is used.

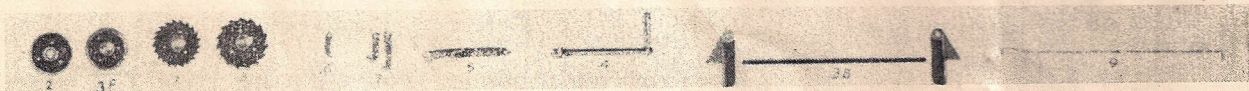
For the other warping systems, tack the canvas apron, same as on the front beam.

"Rigid loom Series "M"

"Folding loom Series "F"



A-B-C-D	Corner Posts	P	Treadles
CF - DF	Rear Posts	Q - R	Supports for roller No 11
E-F-G-H	Cross Beams	QF - RF	Supports for roller No 11
EF - FF	Top Cross Beams	S	Breast Beam
GH - HF	Lower Cross Beams	T	Warp Beam
I - J	Cross Bars	U	Lams
JF	Back Cross Bar	V	Pedal to release tension
K	Top Cross Bar	VF	Pedal to release tension:
L	Batten Sword	W	Top bar for 90" loom
M	Batten Handtree	M - 11	Top roller for "M" Loom
N	Batten Sley	F - 11	Top roller for "E" Loom
O	Lever for front Beam	12	Lower rollers



1. Ratchet wheel for front beam.
2. Plain wheels for front and back beams. (2 pieces)
3. Ratchet wheel for back beam.
- 3F Back wheel for automatic brake.
4. Crank.
5. Ratchet dog for back beam.
6. Ratchet dog for front beam.
7. Ratchet dog for front beam. (2 pieces).
- 38 Cast iron pieces for treadles. (3 pieces).
- 8M Complete automatic brake for "M" loom.
- 8F Complete automatic brake for "F" loom.
- 8X Spring for automatic brake.
- 8Z Wire circle for automatic brake.
- 9 Hook for dog No. 5

A FEW ADVICES ON WARPING

- 1- The whole piece must be warped the same day, by the same person; a change of hands and weather would not produce a uniform tension.
- 2- The thread must always touch the wood frame of vertical or horizontal mill, in order that the circumference be the same for the whole piece.
- 3- Preferably, warp with only two or four threads. You will make up the supplementary time taken to prepare a good warp, when beaming and weaving.
- 4- Tie your warp at several places on the warper, especially if the piece is long, and give a special attention to the tying of the shed.
- 5- When you make loops, tie the end of the warp but do not thread it in the last loop.
- 6- To chain, do not slide your hands on the warp when removing from the warping mill. Hold the warp with one hand, then throw the free end over the rest of the warp with the other hand. The same care should be given when beaming on the loom, otherwise some threads will be longer than others, and this will cause you trouble.
- 7- Do not pull nor comb the threads while rolling but place yourself a few feet in front of the loom, and shake the warp in order to untangle it. Tie the lease sticks between the warp support and harness holders.
- 8- If you have to use two sizes of thread, for the same warp, make the warping separately and use two warp beams on the same loom (See No. 76-T) or roll four to six sticks and also paper on each turn of the sectional warp beam (newspaper soils the warp).
- 9- The threads must be rolled very equally in each section of the sectional warp beam in other words, they should be rolled the same way they come out of the tension box not rising more at the center of the section than at the side.
- 10- Many methods of warping and threading are used, the best-known method is the best for you. Do not change without reason.

A FEW ADVICES ON WEAVING

- 1- By tying the threads according to the pattern, you avoid mistakes and weave more quickly.
- 2- If your loom is of series F, L or P, the tying of treadles will be made more easily by closing the back of the loom. If the loom is of series M or N, raise the back.
- 3- Always use flexible and appropriate cords on your loom; it will be more easily managed.
- 4- To have a good shed on your counter-balanced loom, the threads must be straight from the front to the back of the loom, when two harnesses are raised against two lowered; in other words, when the four harnesses are at the same height. When three harnesses are raised against one lowered, raise your harnesses $\frac{3}{8}$ " more than in the case mentioned above and use a large reed of 5" wide or the shed regulator.
- 5- Always weave at the same distance from the reed to obtain a more regular weaving and a good shed, 3 to 5 inches from piece support No. "K".
- 6- Always handle your reed at the center in order not to force one side more than the other. On the double loom, the two persons working must handle the reed at the same distance from the end.
- 7- When nobody is working on the loom, the warp must be loosened.
- 8- A too dry place weakens the thread; place a damp towel on the warp threads and vessels full of water on radiators.
- 9- When the warp threads stick or break, use CLERCO. This is worth trying.

CALCULATING TABLE FOR REEDS

To be used to find quantity of threads needed for warping, according to the width of the cloth. This calculation is made with 2 threads per inch; if you want single thread, divide by two.

No. of reeds
by dents to
the inch:

WIDTH

Nos. of reeds
by dents to
the inch:

	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	38"	40"	42"	45"	
8	160	192	224	256	288	320	352	384	416	448	480	512	544	576	608	640	672	720	8
9	180	216	252	288	324	360	396	432	468	504	540	576	612	648	684	720	756	810	9
10	200	240	280	320	360	400	440	480	520	560	600	640	680	720	760	800	840	900	10
11	220	264	308	352	396	440	484	528	572	616	660	704	748	792	836	880	904	950	11
12	240	288	336	384	432	480	528	576	624	672	720	768	816	864	912	960	1008	1080	12
13	260	312	364	416	468	520	572	624	676	728	780	832	884	936	988	1040	1092	1170	13
14	280	336	392	448	504	560	616	672	728	784	840	896	952	1008	1064	1120	1176	1260	14
15	300	360	420	480	540	600	660	720	780	840	900	960	1020	1080	1140	1200	1260	1350	15
16	320	384	448	512	576	640	704	768	832	896	960	1024	1088	1152	1216	1280	1344	1440	16
17	340	408	476	544	612	680	748	816	884	952	1020	1088	1156	1224	1292	1360	1428	1530	17
18	360	432	504	576	648	720	792	864	936	1008	1080	1152	1224	1296	1368	1440	1512	1620	18
19	380	456	532	608	684	760	836	912	988	1064	1140	1216	1292	1368	1444	1520	1596	1710	19
20	400	480	560	640	720	800	880	960	1040	1120	1200	1280	1360	1440	1520	1600	1680	1800	20

DON'T FORGET THE SHRINKING

COUNT OF THE THREADS THE MOST COMMONLY USED IN WEAVING

The calculation of the No. 1 gives you the rule to find the quantity of yards for all other sizes. You have only to multiply the No. by the quantity of yards of No. 1 and divide by the quantity of plies; example: for cotton No. 10/3, $840 \times 10 = 8400 \div 3 = 2800$ yards.

COTTON - RAYON		WOOL		FLAX - HEMP - JUTE RAMIE	
Size	Yards	Size	Yards	Size	Yards
1	840	1	560	1	300
10	8400	10	5600	10	3000
10/2	4200	10/2	2800	10/2	1500
8/2	3360	6/1	3360	15/2	2250
16/2	6720	9/1	5040	18/2	2700
20/2	8400	12/2	3360	20/2	3000
10/3	2800	15/2	4200	40/2	6000
20/3	5600	16/2	4480	40/3	4000
24/3	6720	32/2	8960	60/3	6000
30/3	8400	12/3	2240	12	3600
50/3	14000	10/4	1400	14	4200
4/4	840			16	4800
8/4	1680			18	5400
12/4	2520			20	6000
16/4	3280			30	9000
16/6	2240				
20/6	2800				
4/12	280				

NOTE: If you use a French book, reverse the calculation numbers; example: 16/2 cotton will be given as 2/16 in French and 32/2 wool will be given as 2/32.

