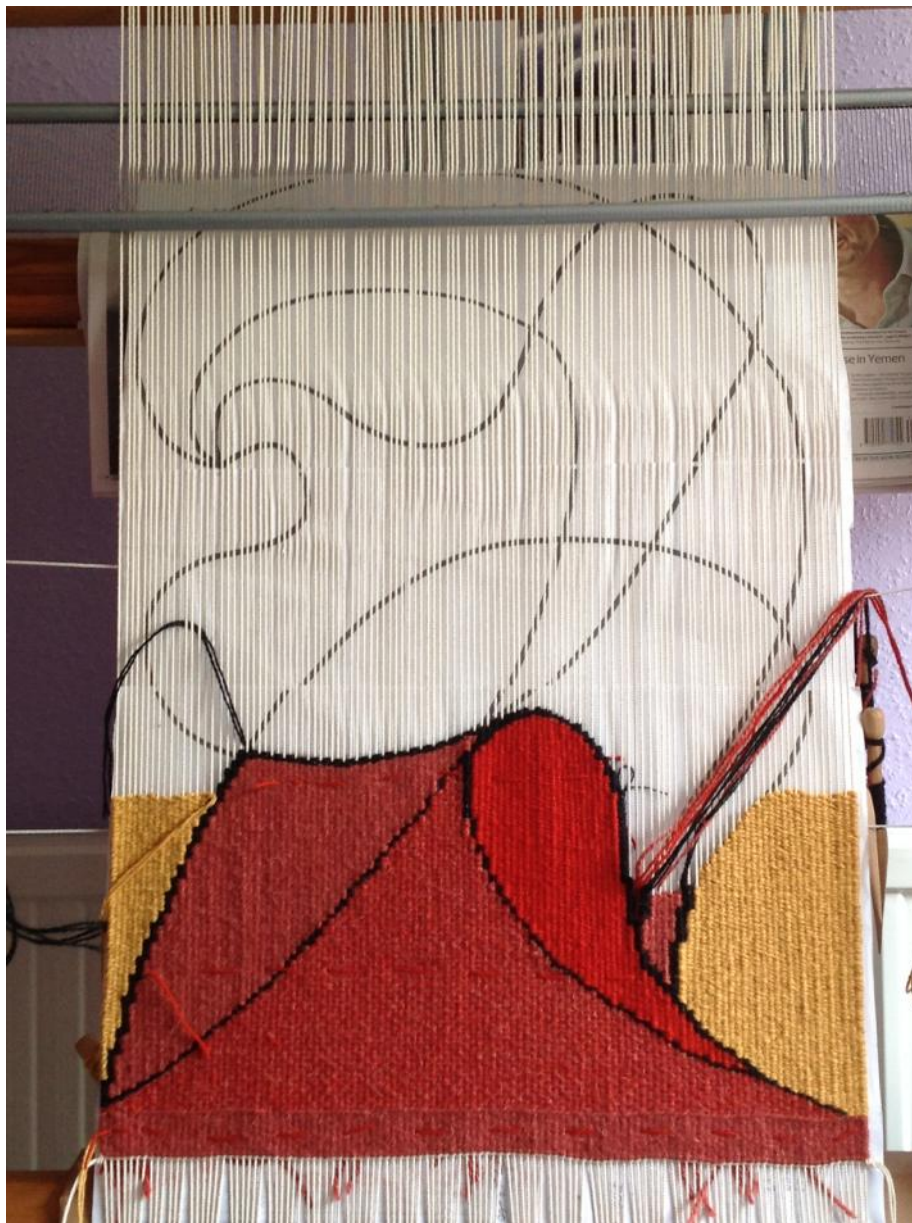


# How to warp a tapestry frame



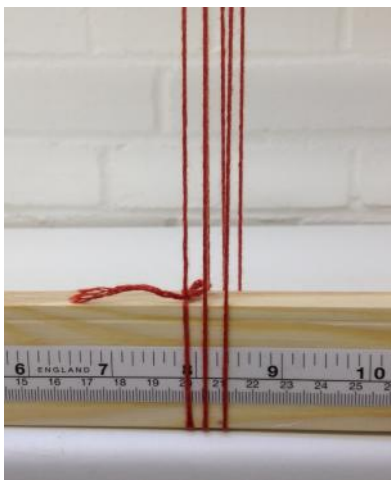
# How to warp a tapestry frame

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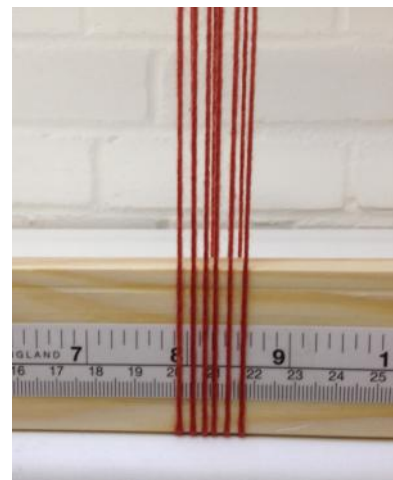
There are many ways to warp a tapestry frame but the information here reflects a way we know works on the weaversbazaar frames. These instructions cover two methods of warping a tapestry frame:

- **Standard warping**—where the warps at the back **AND** the front of the frame are brought together and woven on as far up the frame as possible before their tension makes weaving impossible. **Instructions for standard warping start on page 4**
- **Continuous warping**—where **JUST** the front warps are woven on allowing, the warps to be moved around the frame thus getting a longer final piece. **Instructions for continuous warping start on page 10**

Both these frames below are being warped at 3 warp ends per centimeter. On the left, standard warping puts the warps alternately at the front and the back and then they are brought together to weave on. On the right, continuous warping puts all the warps being woven on at the front only.



**Standard warping**



**Continuous warping**

## Preparations

### *What you need:*

- Tapestry frame with tape measure or cm/inch marks placed top and bottom of frame so it is clear where to begin and end the warp
- Warp
- A pot/bucket/basket to put the warp cone in to prevent it from running over the floor
- One G-clamp or C-clamp to secure the frame while warping
- Scissors for cutting warp
- Separate tape measure
- A warp rod (continuous warping only)
- Bobbin (ideally one with a metal tip) to help manipulate the warp and untie any knots that need repositioning
- Firm table or work-surface, suitable for clamping the frame on to and preferably not facing a light/window
- Chair for your comfort
- Reliably undisturbed time – about 25 mins

## Planning

### Determining what type of warp to use

- **Tapestry design, size.** Questions to answer would be:
  - *How wide do you want the Tapestry to be?* This helps to figure out what size of frame to use and where on the frame to start warping. Aim to have at least 3 cms of space between the frame and the first and last warp
  - *How detailed is the design?* The more detailed the finer the warp sett (see below)
  - *What is the smallest specific mark that needs to be made?* It can't be any smaller than the width of one warp
  - *In which direction do the dominant lines of the design go?* Aim to have these horizontal rather than vertical to get the best quality of line. That may mean weaving the Tapestry from side to side rather than bottom to top. The objective is to avoid the dominant lines being woven up warps as this makes controlling the quality of line harder.
- **Frame size:** it is only possible to weave between half way and two thirds up the warps on a frame before they become too tight to manipulate. If you have a frame that allows the warps to be slackened off (such as the weaversbazaar Adjustable Frame) then you should be able to get two thirds of the way up the warps. This limitation on how far up the warps you can weave will determine either the size of

the tapestry you can weave or the size of the frame you will need

- **Determining the sett**

A warp sett refers to the number of warps to be spaced out over a particular distance. Take a ruler and wrap the warp around it, laying each wrap closely against the previous one. Count the number of warp wraps needed to cover EITHER one centimeter OR half an inch. Depending on which you choose the following guidelines on spacing the warps would apply:

**The number of wraps per centimetre = the number of warps per inch**  
**The number wraps per half inch = the number of warps per 3 cm**

## Standard warping

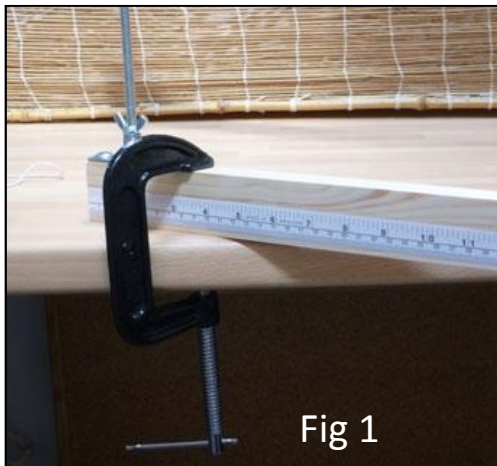


Fig 1

### Stage 1 Preparing to warp

Clamp the lower left corner of the frame to a table (Fig 1). Swing the right-hand side of the frame out at an angle towards you so that there is access to the top and bottom of the frame. Ensure the frame can't swivel under the clamp. *N.B. If you are left handed you may wish to reverse all the left and rights.*

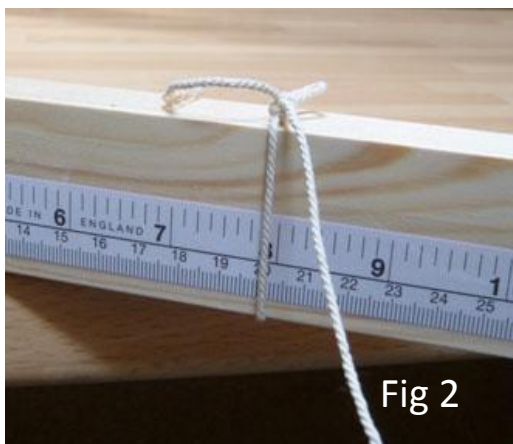
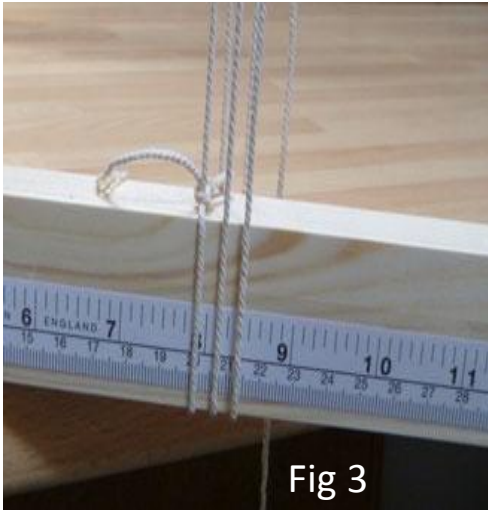


Fig 2

Place the warp cone in your pot, bucket or basket on the floor to stop it rolling around whilst you work. The warps need to be centrally positioned on the frame so determine where the start and end points will be. Tie the free end of the warp around the bottom left-hand end of the frame at your chosen starting point on your tape measure (Fig 2).

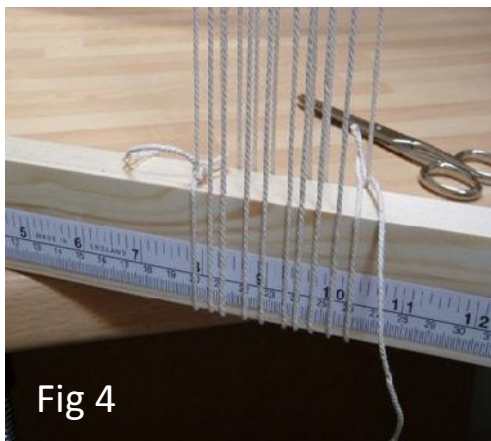
### ***Stage 2: Winding the warp around the frame***

Take the warp up the front of the frame over the top passing the matching point on the top tape measure that the warp started from. Take the warp down the back bringing it around and up the front again at the planned distance from the first warp. While doing this maintain an even tension and allow the warp to unwrap evenly from its cone. Repeat this action of taking the warp up the front, over the top, down the back and around to the front until you have warps at all the correct intervals along the tapes for the width of tapestry you have chosen (Fig 3).



### ***Tying off the warp – this secures the warp at tension to the frame***

When you bring the warp down the back from the top to the final planned position, cut the warp about 20cms (8 inches) below the bottom of the frame. Try not to let the warp slacken off as you do this. Tie the warp around the bottom of the frame at the back with another quick-release knot. Ensure the knot can't slip (Fig 4).



### ***Stage 3: Placing the headers to position the warps***

After the steps above are completed the warps will be positioned in an alternating pattern at the front and back of the frame so they then need to be brought together and spaced evenly. To do this involves putting **headers** in place – these are simply horizontal pieces of warp that are used to bring the vertical warps into alignment.



Fig 5

### ***Header 1***

Take a length of warp yarn about 20cm /8 inches longer than the width of the frame. Tie one end of this header thread to the left-hand side of the frame, about 5cm/2 inches up from the bottom of the frame (Fig 5).

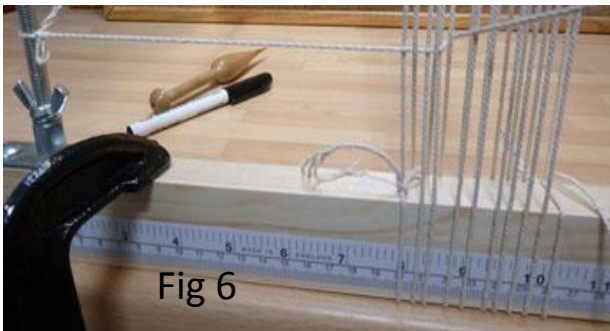


Fig 6

Take the header thread over the first warp, behind the second, over the third, behind the fourth and so on, in a standard in/out weave, through all the warps on the frame (Fig 6).

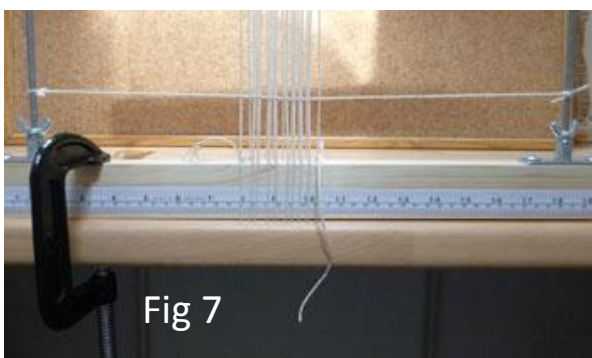


Fig 7

Pull the header thread tight, bringing all the warps into line, and tie it off on the right-hand side of the frame (Fig 7)

All the warps, back and front, are now in line

## Header 2: Twining

This process positions and spaces the warps correctly- especially the first and last warps.



Fig 8

Take a length of warp at least 3 ½ times the width of the frame and fold it in half. Using the looped end, fastening it around the left-hand side of the frame, above the first header (Fig 8).



Fig 9

Making sure the first warp is in the correct position at both the top and the bottom of the frame, carry the pair of Header 2 threads up to the first warp and tie them together in an overhand knot against the left-hand side of the first warp – this will stop the first warp from ‘travelling’ to the left when weaving (Fig 9)

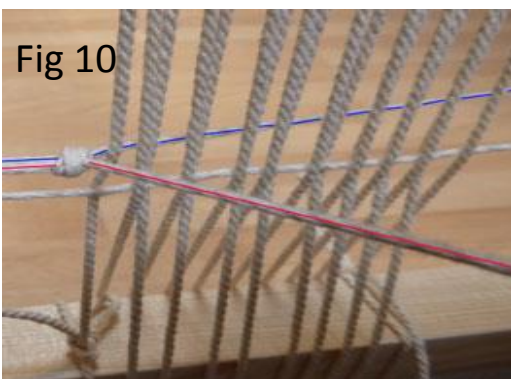


Fig 10

Split the pair of Header 2 stands (blue and red in the photo Fig 10)

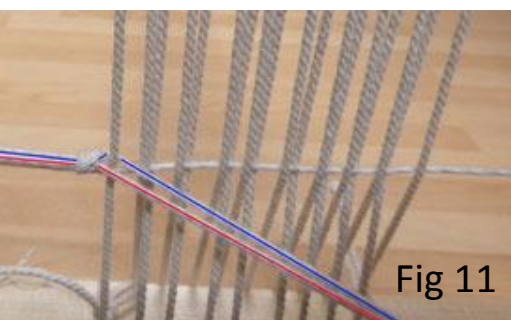
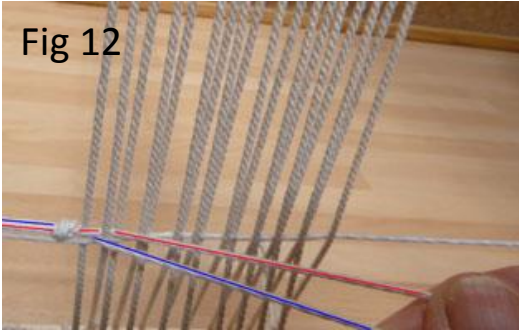


Fig 11

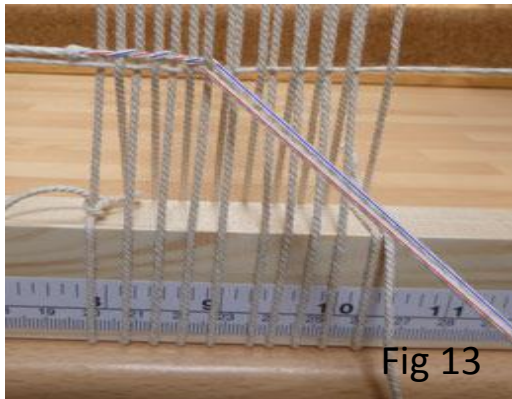
Take one strand of the Header 2 thread (blue) behind and around warp 1 bringing it out to the front (Fig 11)

Fig 12



Take the second strand of the Header 2 thread (red) over the first strand and behind and around warp 2 bringing it out to the front. Pull it gently against warp 2 so that it is the correct distance from the first warp (Fig 12).

Fig 13

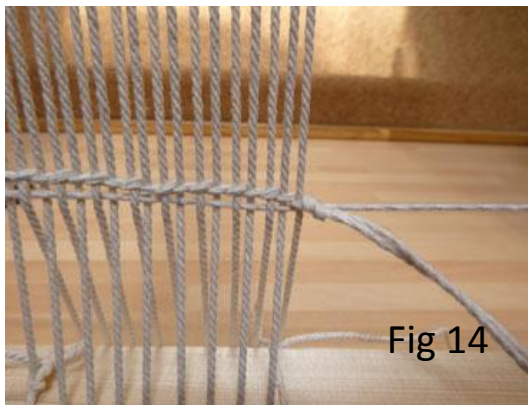


Take the first strand of the Header 2 thread (blue) over the second strand and behind and around warp 3 bringing it out to the front. Pull it gently against warp 3 so that it is the correct distance from warp 2.

Take the second strand of the Header 2 thread (red) over the first strand (blue) and behind and around warp 4 bringing it out to the front. Pull it gently against warp 4 so that it is the correct distance from warp 3.

Continue twining in the same pattern until you have taken a Header 2 strand around the last warp (Fig 13)

Fig 14



Make sure the last warp is in the correct position top and bottom and then tie the two strands of Header 2 together in an overhand knot against the right-hand side of the last warp – this will stop the last warp from ‘travelling’ to the right as you are weaving (Fig 14)

Fig 15

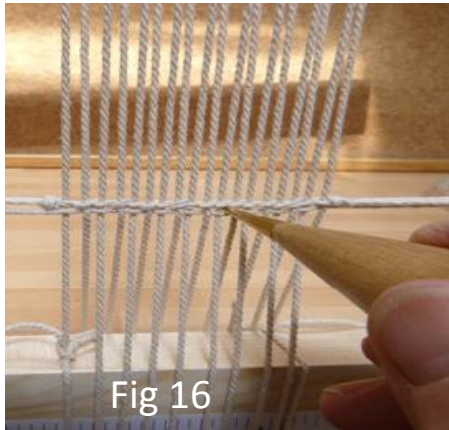


Take the two ends of Header 2 and tie them firmly around the right-hand side of the frame just above Header 1 (Fig 15)



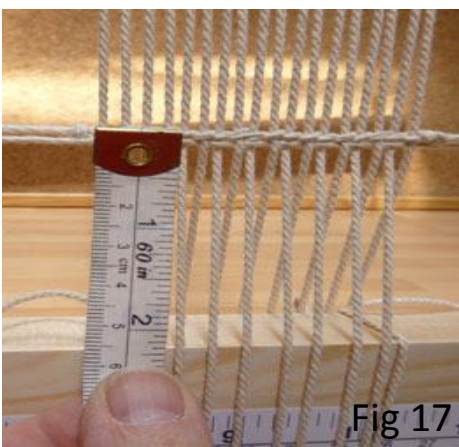
### ***Stage 4: Spacing the warps and leveling the headers***

Now the warps need to be examined carefully and the spacing corrected where necessary according to the sett that has been decided. The headers also need to be positioned absolutely horizontal so that the weaving, once it starts, is square.



Using the tape measure, check that the warps are correctly spaced along the headers. Where necessary 'nudge' them left or right along the twining using the tip of a bobbin. Make sure the key warps are lying across the designated centimeter/ inch lines and that the warps between are all evenly spaced. As you position each warp at the bottom, make sure you also position it at the top as well so that the warp is vertical. (Fig 16)

To move the warps at the top into the correct position just shift them with your fingers



Once all the warps are correctly spaced, look at Header 2 and make sure it is absolutely level horizontally; tap Header 2 either on the top to take it down a bit or from underneath to lift it up, being careful not to disturb the spacing. Some weavers use a small spirit level to ensure that the Header 2 is perfectly level but a tape measure is just as good! (Fig 17)

All the headers will be removed from your work once it is woven and cut off the loom.

Now go to the starting to weave section on page 14.

## Putting on a continuous Warp

Clamp the frame to the table in exactly the same way as described on page 2.

### **1. Fasten the warp rod**



Fig 18

Tie the warp rod at the back of the tapestry frame, about half way between the top and bottom bars (Fig 18). Use some spare warp and a simple loop tie as it will be removed once the warping is complete. Once the warp rod is tied on, make sure it



Fig 19

is parallel to the top and bottom bars (Fig 19).

### **2. Prepare the warp.**

When warping up continuously you need to have the warp in a manageable form—either on a spool or in a ball, so that you can pass it around the warp rod and the top and bottom bars.

### **3. Starting to warp**



Fig 20

Tie the warp to the warp rod about where you want to start your warp.

Take the warp UP from the warp rod and OVER the top bar passing the point on the tape measure where you have decided to start your warp (Fig 20)

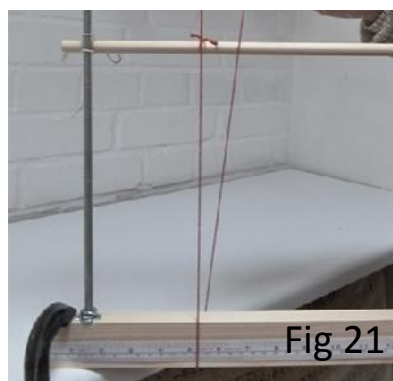


Fig 21

Bring the warp DOWN and UNDER the bottom bar (Fig 21), matching the measuring point.

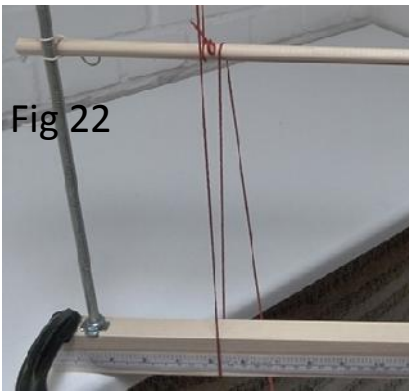


Fig 22

Take the warp up **INSIDE** and **OVER** the warp rod then **DOWN** to the bottom bar again. (Fig 22)

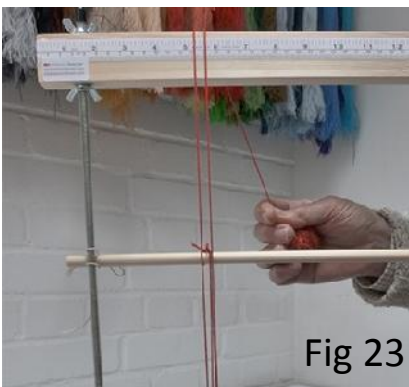


Fig 23

Go forward **UNDER** the bottom bar, positioning the warp at the next warp position on the measure and then take the warp straight **UP** to the top bar. (Fig 23)



Fig 24

Take the warp **OVER** the top bar, positioning it on the next measure point, then **DOWN** and round the warp rod from back to front, then **UP** and **OVER** the top bar positioning the warp on the next measure point (fig 24).

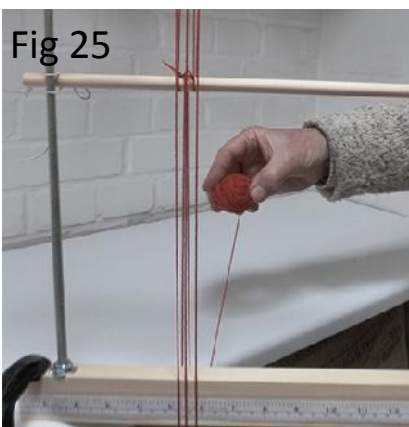


Fig 25

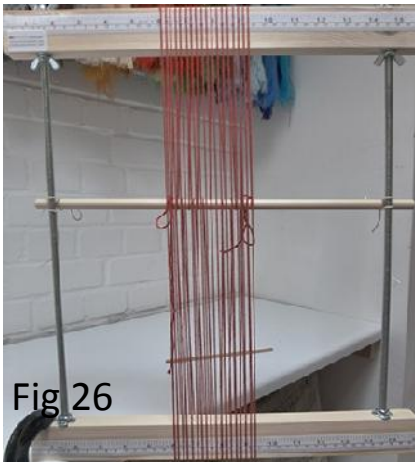
Take the warp straight down and **UNDER** the bottom bar lining it up on the measure, then **UP** and round the warp rod from back to front (Fig 25)

Continue this cycle of six movements as you work your way across the frame:

1. Up from the warp rod over the top bar
2. Down and round the bottom bar
3. Up from the bottom bar over the warp rod
4. Down from the warp rod under the bottom bar
5. Up from the bottom bar and over the top bar
6. Down around the warp rod ready to start the next cycle of movements.

**Remember:**

- **Always take the warp from the back (or inside) to the front (or outside) of the warping rod**
- **Always check the position of the warps at the top and bottom bars**
- **Keep the tension even**

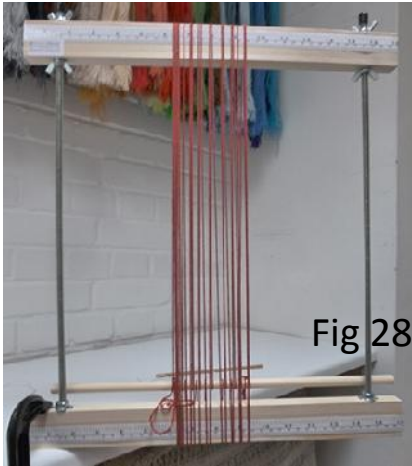


Once you have completed the desired number of warps tie the warp off around the warp rod (Fig 26).



Looking sideways at your frame you will see that all the warps on the FRONT are in line whilst all those at the back loop around the warp rod—the warp rod is the only holding point for all the warps (fig 27).

## 4. Repositioning the warping rod



Untie the two fasteners that are holding the warp rod fixed in the centre-back of the frame.

Slacken off the warps by unscrewing the wing nuts beneath the top bar just two or three turns.

Take hold of the warp rod and slide it down to about 2-3 cms from the bottom bar (fig 28).

Re-tension the top bar by screwing up the wing nuts underneath it.

## 5. Final touches to the weaving warps

Go through all the **front warps** both top and bottom to make sure they are in the correct positions against the tape measure and in line.

Put a line of twining across the **front warps** to hold the warp spacing (see page 7).

Now you are ready to start weaving! But remember that you are only weaving on the warps at the front of the frame—it can sometimes get a bit confusing because you can see the warps at the back. Placing a piece of card behind the front warps ensures you focus on the warps you are weaving on.

When

- you have woven as high up the warps as possible OR
- you want to bring the weaving line down to a more comfortable level OR
- if you want to start a new piece of weaving

Then:

- untie the twinning
- slacken off the wing nuts under the top bar two or three turns
- slide the warp rod UP until your weaving line on the front is where you would like it to be
- **then re-tighten the wing nuts!**

## ***Starting to weave***

Once the warps are correctly positioned you are ready to start weaving. Usually this means putting in a row of double half hitch knots around each warp either in the warp yarn or in the yarn that you are planning to use as a weft.

This line of double half hitches will remain in place after the weaving is completed to hold the weaving together so it is good to keep these as neat as possible.

## ***Maintaining a straight warp***

When weaving it is important to check that the overall width of the tapestry is not being reduced by the warps being pulled together. This may happen if the weft is pulled too tightly around the outside warps ('waisting') or if warps 'cluster' or spread within the tapestry.

After every 2.5cm/1 inch or so of weaving, check the width of your weaving using a tape measure. Also check that the warps are still correctly distributed. If warps start to 'cluster' pack more weft in between those warps to push them apart.

If warps start to spread, lay the weft quite tightly across them until they are pulled together.

If 'waisting' occurs, un-weave to the point where the width is correct and re-weave ensuring that as you turn around an outside warp you do so firmly but without dragging the warp inwards.

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