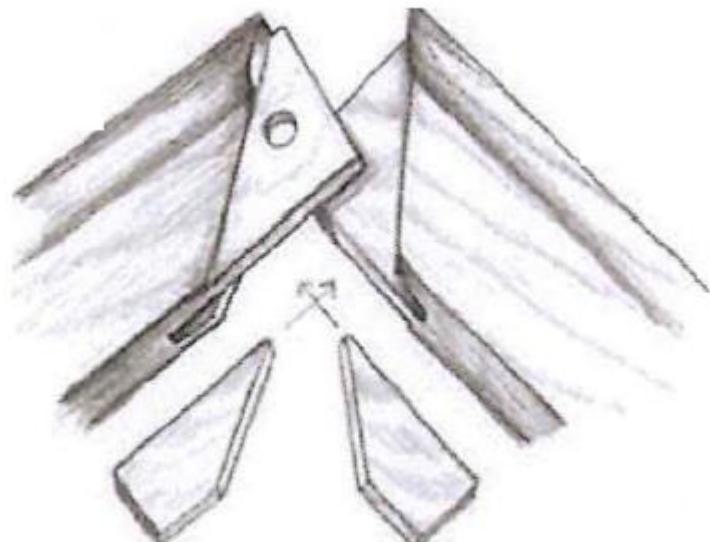


# How to Stretch Your Own Canvas

## Make Your Frame

Stretcher bars are wood strips with unique, mitered ends with mortise and tenon corners that allow you to join four bars together without nails or glue. The design leaves a small space inside the corner for pegs or keys. "Keying-out" a stretched canvas makes the canvas tauter and it can be done to eliminate sagging.



Regular stretcher bars are generally  $1\frac{5}{8}$ " wide and  $\frac{3}{4}$ " thick. The outside edge or shoulder is thicker than the body of the bar. This  $\frac{1}{8}$ " lip or raised bevel creates a space between the canvas and the body of the bar. If this space is not there, an unwanted line may appear in the painting where the canvas and bar touch.

Heavy duty bars are thicker and recommended for larger canvases. They typically measure  $2\frac{1}{4}$ " wide and  $1\frac{1}{2}$ " thick with a  $\frac{1}{2}$ " tapered lip. The outside edge or shoulder is thicker than the body of the bar. While there is no absolute rule about stretcher bar sizes, some artists believe heavy duty bars should be used for canvases over 24".

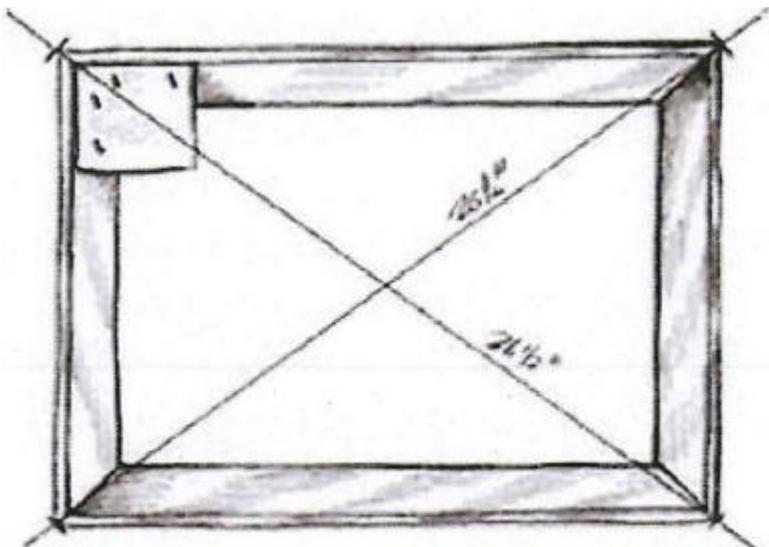


The addition of cross-bars with either regular or heavy duty bars minimize warping or twist. Extra heavy bars provide some resistance but cross-bars add extra support particularly against bowing inward due to the pressure of the taut canvas. Care must be taken so there is adequate space between the cross-bars and canvas.

## Make It Square!

Once you determine the size and type of bar, the four bars are put together. It may be necessary to lightly tap the corners with a hammer. Once this is done, the frame needs to be squared. Do not assume because the corners fit that the frame is square. If this step is omitted, some unlucky picture framer may have to deal with it later when the artwork needs to be re-stretched to be framed.

Comers may be squared up with an angle, or against a surface that is known to be square. An easy way to check is to take a diagonal measurement from one corner to the other - if they are equal the frame is square. Once adjusted, small pieces of masonite or cardboard may be tacked temporarily to the backside of each corner to prevent the bars from slipping out of square while the canvas is stretched. On larger heavy canvases, wooden corner pieces may be used and left in place



to ensure rigidity and strength. The finished frame of fitted stretcher bars should lay perfectly flat on the floor or a table with no twist or warp. It is now ready for canvas.

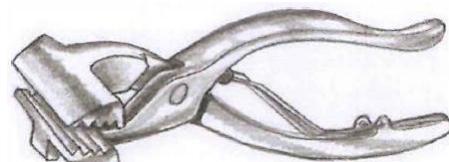
### The Canvas Stretching

Unprimed canvas is easier to stretch and will shrink when it is primed, so it does not need to be as tight. Primed canvas needs to be pulled much tighter as it will not shrink and become tighter.

Primed canvas needs to be handled with care. It creases easily and creases are hard to pull out. When handling primed canvas, be sure to roll it carefully - never fold it. Roll with the primed side out to prevent cracking.

Canvas pliers are made for this process and have a wide gripping surface so that tension is distributed more equally. The rippled gripping surface is specially designed so it won't harm canvas fiber. Canvas pliers are definitely helpful to get a grip on primed canvas.

The knob on the under side is used against the edge of the stretcher bar for leverage.



A staple gun is easy to use with one hand while gripping the canvas in the pliers with the other. Rustproof staples are preferred.

When cutting the canvas piece for stretching, be sure to add 4" - 6" more than the size of the frame (image 2). You will need the extra material to allow for gripping the canvas with the pliers, and then for affixing the canvas to the stretcher bars. For instance, for a 16" x 20" frame, you may want a 22" x 26" canvas for stretching over standard bars, and perhaps more if heavy duty bars are used. Remember, measure twice, cut once!

The images in this tutorial depict side stapling, but we recommend stapling to the back of the frame. Place the staples about a  $\frac{1}{2}$ " from the outside back edge of the frame, leaving at least an inch of canvas free for gripping.

Center the frame on the canvas - be sure that the primed side is away from the bars. Start at the top with a center staple, then pull the canvas taught and staple the bottom (image 4). Then secure the canvas in the center of each side, stretching the fabric evenly in four directions (image 5).

Working outward from the center staple on each side, secure the canvas with more staples about 2" apart (image 6), stopping about 3" from the end of the bar.

An equal amount of excess canvas should be maintained all around. Staples may be removed and the tension adjusted to eliminate small wrinkles. Comers take a bit of practice so they are not lumpy or bulky. Once you fold and pleat the canvas neatly against the frame, secure the corners with staples. Don't trim any excess canvas too much. If the painting ever needs to be re-stretched, this excess will allow for the adjustment.

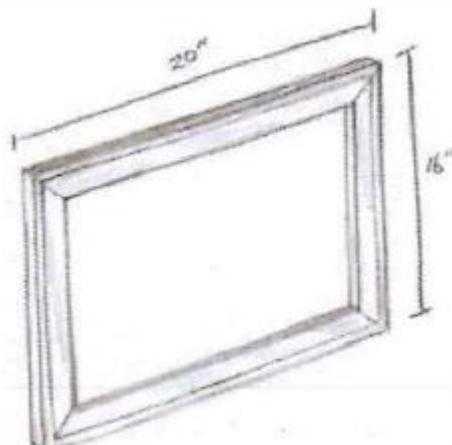
### Treat with Respect

Stretched canvas needs to be treated with care and respect. It may be easily dented or dimpled. The corner of one canvas leaning against another can create enough pressure to indent the surface.

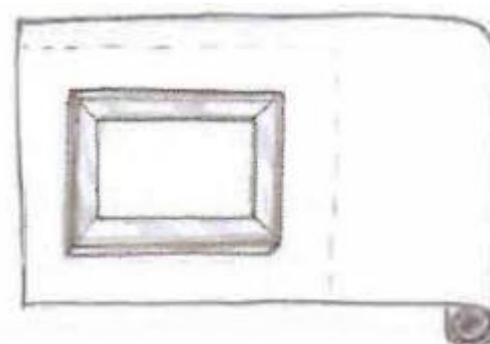
If canvas does get a little dent, a light spray of water on the unprimed side may solve the problem.

## Pictorial Overview

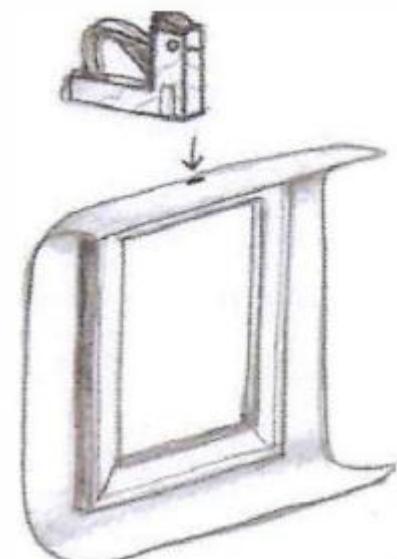
### 1. Determine the size.



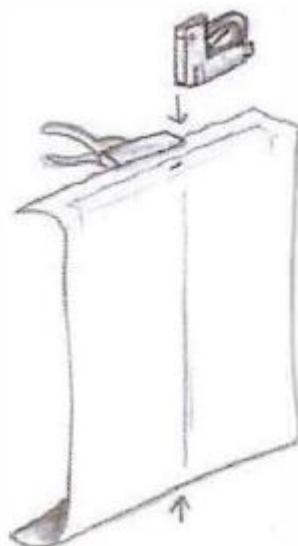
### 2. Cut the canvas with an allowance for stretching.



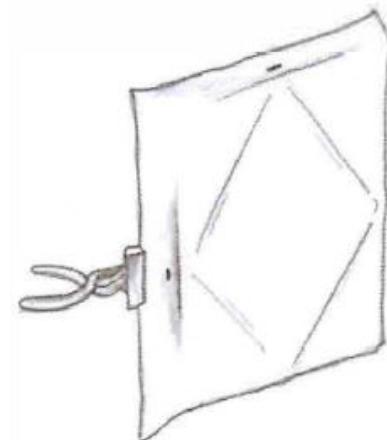
### 3. Start in the center.



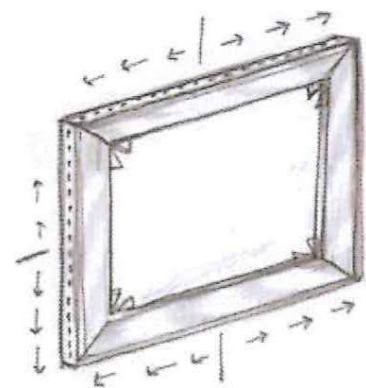
### 4. Staple the fabric on the opposite edge.



### 5. Staple the fabric on the two sides. A diamond shape is formed in the canvas.



### 6. Work around each side, from the center outward.



### 7. Finish the corners with a nice pleat (with side staple as shown, or back staple).

