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**Less Mess Wet Felting
with
Hat Shapers**



Explorer Fedora

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**I have 6 to 8 ounces of washed and carded fiber.
This happens to be alpaca roving. You can use
wool, llama, alpaca, etc. in roving or batts.**

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**Gently pull equal lengths of roving, about 20
inches in length.**

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Pull the roving apart gently to widen and thin the fibers out. Lay the roving just slightly overlapping the row before until you have lined up enough to make the layer about 20 X 20 inches.

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Line up the edges and fill in any bare spots. You want a nice smooth and even layer of fiber.

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Now lay the roving 90 degrees perpendicular to the first layer of roving. I like to start at the edges, then the middle and fill it in.

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Press the roving lengths firmly into place.

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**Remember to slightly overlap the roving's edges.
Check to make sure there are no thin or bare
spots.**

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**Make another layer go the original direction.
Start with the edges and fill in the rest. Use the
little fringes that stick out beyond the straight
edges to fill in any thin or low spots.**

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Make the fourth and final layer opposite of the third layer. Check again for thin or bulky areas. You want to make your fiber layers as even as possible.

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**If you are using Batt rather than Roving, split
the batt into thin layers.**

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Lay-out the split batt in even layers.

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**Orient the layers so that each layer is
perpendicular to the last.**

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Make sure that there are no thin spots.
Now back to the Roving project.....

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Use a few drops of SOAP, not detergent, such as Palmolive dish soap. Pour about 1/2 cup of very hot water into the center of the fiber.

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I like to use bubble wrap for the next part. The bubble wrap will keep from burning my hands and the little bubbles work like extra fingers to massage and felt the fibers. This begins the felting process.

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I am using a second sheet of bubble wrap to show the small area to begin working in. Press the wool into the water and soap. Push straight down into the fiber and into the area of the smaller square of bubble wrap.

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Press the excess water away from the center of the fiber. Make that water get as much fiber wet as possible.

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While pushing down into the fiber, slide and push the water into other areas of the dry fibers.

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Once you have used up all the water, you will need to add more. Do not forget to add a few more drops of soap.

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Cover the fiber with the bubble wrap and gently push the dry fibers into the water. Use just enough water and not too much.

You really can do this without making much of a mess.

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The soap will allow the fibers to slip past each other as you gently massage the wool. Massage firmly without sliding the fibers around.

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Once the fibers are well compacted, cover the top and bottom of the fibers with plastic or a cotton material. Roll the fiber up into the bamboo shade around the plastic and fiber.

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Roll the fiber up in the mat. Make sure to keep the fibers straight. Wrinkles are not forgiving!

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**There is a terry towel under the plastic to keep
the whole thing from slipping.**

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Start using pressure to roll the fibers back and forth. You might roll for up to 30 minutes, but 10 minutes should be enough.

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Check the fiber to see if it has started to stick together well, then turn the fiber over and make 1/4 turn so that you will now roll the fiber in the opposite direction.

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Roll the fiber up again and roll some more.

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Use a lot of muscle. You must felt the fibers until they start to make a stiffer fabric. Keep Rolling!

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**Unroll the mat and check the fiber to see if it is
felting.**

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You might need to roll it up again and roll some more.

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Start pounding or slapping the fiber. You can see the suds. Now start rubbing and massaging to continue to felt the llama.

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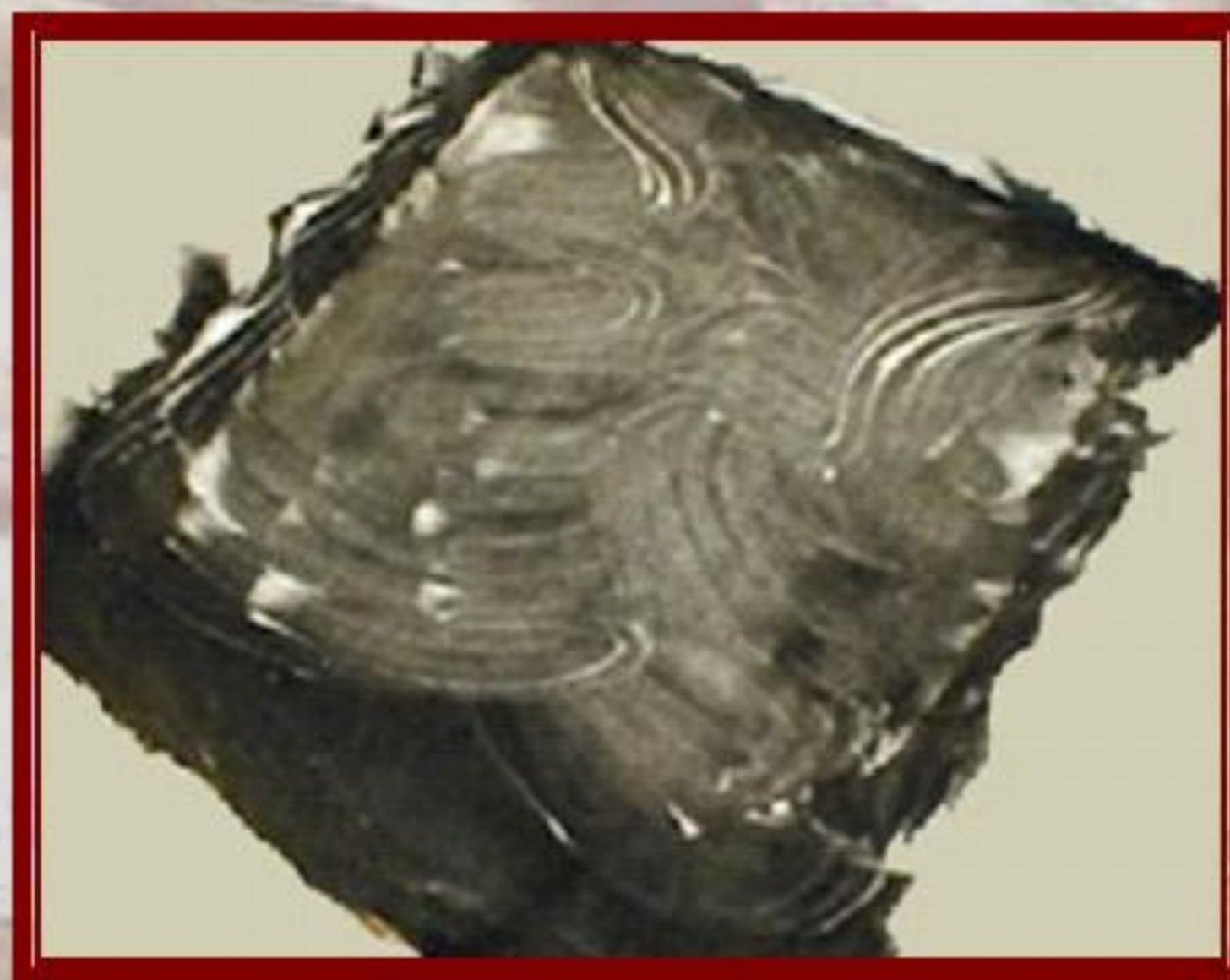
**Continue to rub firmly all across the face of the
fiber.**

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**Rub or massage in small circles, you will feel that
the fabric is turning into a solid piece of fabric.**

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**If you get bored while rubbing, you can finger
paint and make all kinds of designs. Just use
pressure!**

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Here is a nifty little device which I highly recommend. This is a wallpaper seam roller.

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Use the roller to squeeze the air out of the felt.

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Now use a damp sponge or towel and blot the fabric dry.

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Gently place the fabric onto a shaping dome or bowl. You can skip this part, but I find it very helpful in preparing the fiber for the Hat Shapers.

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You can see how I have pressed and rubbed the felt to the shaping dome. Keep the corners of the squares straightened and be careful not to thin or stretch your fabric.

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The fiber will continue to FULL or shrink in the direction that the fiber is being massaged.

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The felt has FULLED to the shape of the dome.

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This little seam roller is really nice to push the water and air out of the fiber in this phase too.

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**This is a bit hard to see, but the roller really does
a nice job of smoothing into the crown and brim
juncture.**

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When the fabric fits snugly onto the dome you are ready for the next step.

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**Use a terry towel or chamois or damp sponge to
soak up as much water and soap as you can.**

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Carefully remove the fabric from the shaping dome.

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Carefully place the center of the fabric over the center of the Hat Shaper. The picture is a bit distorted but I am using an Explorer Fedora.

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I want to charge up the shrinking or fulling process again so I am using very hot water and a little soap. Do not soak it, just wet the crown.

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Start working at the bottom of the crown. There will be a lot of extra material at the top of the crown. Work the sides of the crown and the flat fiber of the brim BEFORE you begin working the top.

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Remember that the fibers will shrink the direction they are being manipulated. Keep your corners square to the Hat Shaper.

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Do not stretch the fibers. Pay attention to the crown brim juncture. Keep the crease sharp. Do not pull the fiber away from the crown or you will stretch the brim and it make not be as nice as you want it.

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You do not want to shrink the height of the crown... Rub back and forth not up and down. Rub until it is snug against the Hat Shaper. Keep checking the brim and keep that smooth as well.

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The fiber is now snug against the Hat Shaper and the brim is flat and smooth. Now press down the very top of the crown into the dent of the Hat Shaper.

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As you work the dent in the Fedora Hat Shaper, hold the sides of the crown in place so you do not pull the crown brim area and distort it. Push firmly and make small massaging motions inside the dent.

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I am working the pointed front part of the fedora. My fingers are holding the fabric against the crown and my thumbs are working the felt from the middle of the dent to the point.

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My fiber has become too dry and I am started to feel the felt pull away from the Hat Shaper. Just use a bit more water and soap.

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That was all it needed. Now the shrinking and shaping is really going fast.

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This meat mallet is wonderful for working into the creases. I also use it to pound on the brim which helps the fiber to stiffen.

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It is easy to pound the brim. You can also pound a bit all over the crown. Use the sharp corner of the mallet to rub in the sharp crease of the crown brim area.

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I have placed 2 rubber bands in the crown brim crease. I am rubbing the flat part of the fabric between my hands now to help FULL the area.

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Go all around the flat area and make sure you get all the wrinkles out. Do not pull the fabric away from the crown.

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Go all the way around the flat area.

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See how much the very loose fabric from the shaping dome has tightened and is so smooth against the Hat Shaper. I am well pleased with this!

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**Now I am using some spray starch and will rub it
into the fibers to help stiffen it just a bit.**

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**Push the starch into the fibers but do not rub.
Rubbing may cause pilling or loosen the fibers
away from the fabric.**

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Press the starch into the sides and the crown.

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You can use the roller to help press the wrinkles out. You can see the loose fibers on the roller.

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Do not push onto the brim edge of the Hat Shaper, it will make an unsightly ridge that will not be easy to get out.

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Get a nice steam to set the shape of the fibers. Do not touch the iron directly onto the plastic Hat Shaper as it will melt. You will not have any trouble ironing on the wool though. Use a lot of steam.

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Use the corner of the iron to really get into that crease! Make it sharp! Let the whole thing set and cool and dry now.

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When the hat is dry you can measure out the brim. You can see quite an irregular shape. This means I will have to be very careful measuring.

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Almost done with the measuring. You can use almost anything to mark the wool if you are going to cover the edges.

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**Now you can see the markings clear around the
hat.**

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I hate this part.. Keep the scissors straight all the way around. If you tip the scissors as you cut you can really make an unsightly distortion in the edge of your brim.

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Not too bad.

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**I am really pleased with the way 8 ounces of
llama fiber is turning into a hat!**

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**I want the hat to be smooth so I am shaving it.
Do not push hard into the fabric or you will cut it.**

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Lots of fuzzies have been shaved off of the hat. It is looking very smooth.

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**Do not forget to shave the underside of the brim.
I do not bother shaving the inside of the crown.**

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A little more steam and pressing.

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**A bit on the sides of the crown.. Do not tip your
iron or the water will come out and spill on the
hat!**

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Find a nice place to let the hat dry. The air cleaner is great!

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I used a store bought double folded bias tape and folded it over the edge of my hat. You can see it pinned here.

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**You will have to stretch the tape just a bit as you
form the curves.**

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This picture shows that the tape is pinned on the top alternately with pins on the bottom of the brim edge.

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You can either sew this by hand or use a machine. Since the pins are on the top and bottom of the brim I have to go slowly and pull the bottom pins out before the needle hits them.

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**The hat is nearly done. The edge of the brim
looks great!**

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I like this Explorer Fedora.

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Now it is time to attach the headband. All you need is a strong thread, pins and needles. Milliners needles are readily available, but they have incredibly small eyes. I suggest using Quilters Sharps.

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**Place the headband inside the crown, near the
brim edge. Turn the starting edge under just
enough to keep the frays from showing.**

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**I am trying to show you that the headband is
about 1/8th inch away from the crown/brim
juncture.**

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Usually, I only pin and sew the edge that is closest to the brim. The headband keeps its shape very well. You can also tack the edges on the top but it is usually not necessary.

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The important thing to remember is to keep your stitches inside the felt. Do not push the needle all the way to the outside of the hat. Imagine 2 layers of fiber and the goal is to keep the thread inside those layers.

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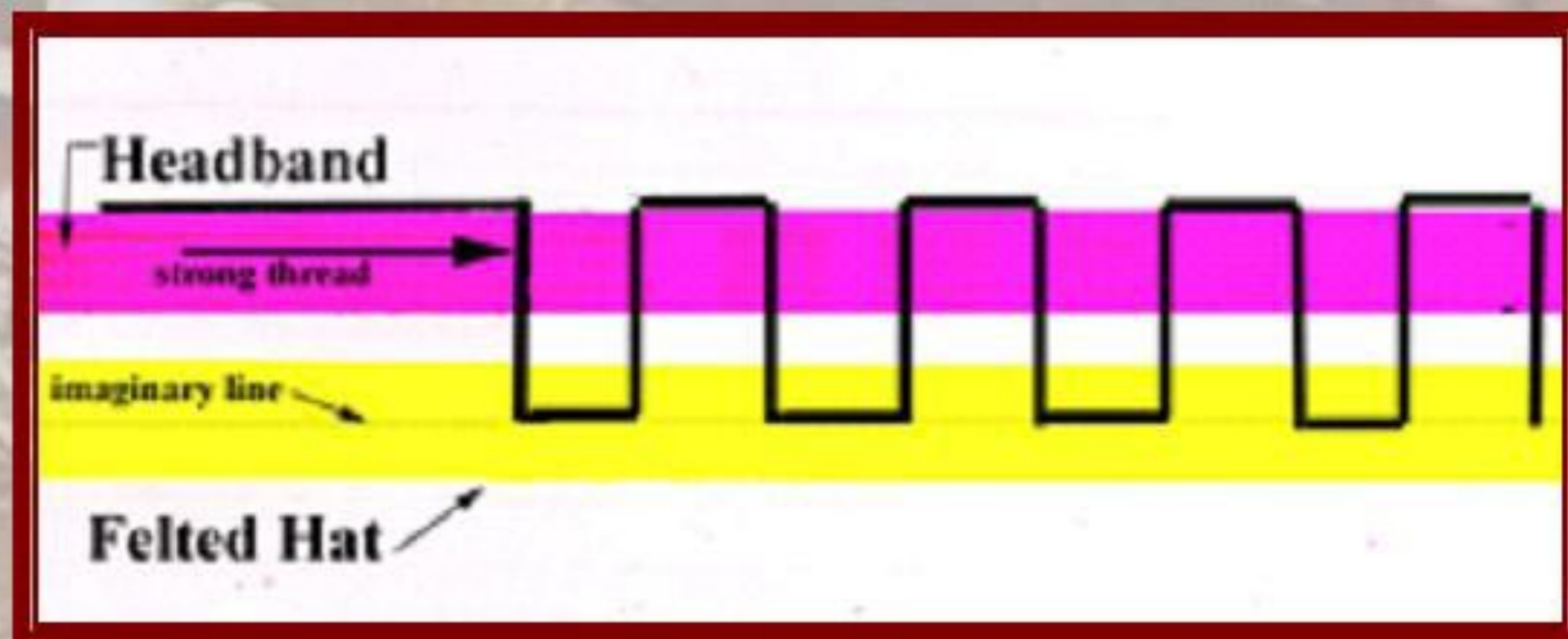
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I squeeze the brim back so the fold is below the headband. That way, I can keep the stitches almost invisible.

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**This diagram shows how the thread never passes
all of the way through the hat felt.**

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**It makes it so much easier to keep straight lines
using the in-straight, over, out-straight method.**

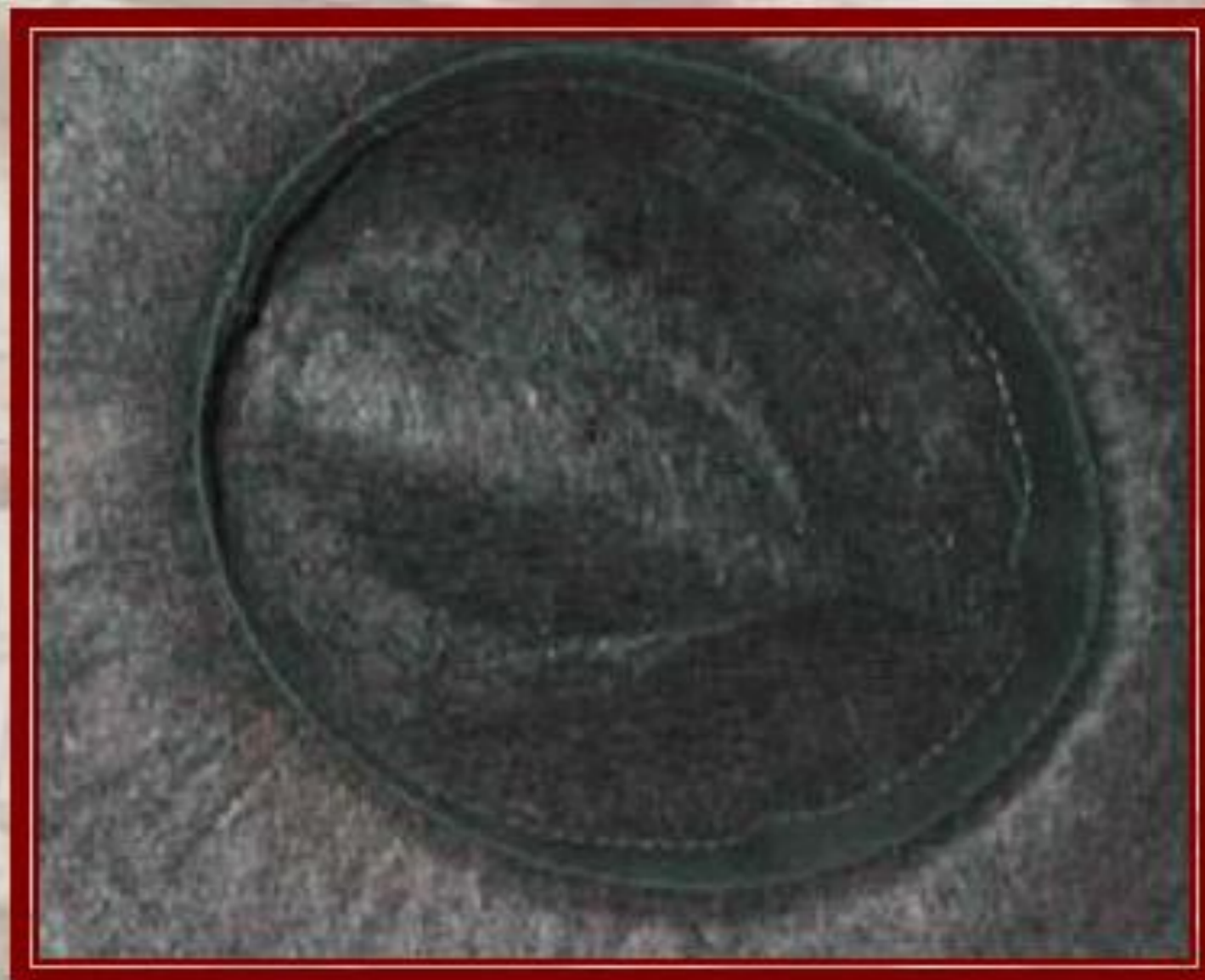
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**It turns out so nice and tidy and the stitches are
nearly invisible to the naked eye.**

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We are distributors of HYDROLAC*. This product comes in a powder form. Mix with isopropyl alcohol and water. We use a plastic bowl and a plastic fork.

*Tradename of Montrose Houser Company

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Measure out the isopropyl alcohol (70%).



Measure and add the water.



Stir well.



**Carefully pour the mixture of isopropyl alcohol
and water into a plastic container.**



You will not want to breathe the powder, so hold it away from you and cut the top from the bag.

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**Pour the HYDROLAC powder into the
alcohol/water mixture.**



Stir gently and very well.

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**Get all the lumps out! It does not look like it will work,
but magically this gooey stuff will transform.**

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This mixture is a very thick with an oatmeal or mash potato consistency. Cover with plastic and set aside for 1 hour.

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**In one hour, this gooey mess turned into a slightly
amber color liquid.**

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Now you are ready to apply the HYDROLAC hat stiffener to your felted hat.

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HYDROLAC is applied to the INSIDE of the hat. Use a bristle or foam brush to push the fluid into the felt. You want the stiffener to reach beyond the surface fibers.

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**You can flip out the headband to get the
HYDROLAC behind the band.**

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**Then use a steam iron and steam the hat to SET
the HYDROLAC.**

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Quite often, the crowns are not stiffened at all. I use one coat on the inside of the crown and two coats on the brim. Steam well.

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If you use a little tension while ironing you can take advantage of the damp fiber and iron out any remaining wrinkles or imperfections.

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**Steam setting the HYDROLAC at the crown and
brim juncture is very important.**

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**While the hat is cooling, you can easily reshape the brim..
Hold the brim into the shape that is was formed
previously and wait a minute or two until the fiber cools
off. The brim will be nicely shaped.**

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**Shaping the front of the Explorer Fedora
pointing down...**

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Here is the near finished Explorer Fedora.

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This photo shows the hatband gros grain ribbon.

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View from the top.

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TIME TO REWIND!

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If you can find milliners gros grain ribbon, that will work better than regular gros grain ribbon. Here you see the fancy little bow to cover the seam. On the Explorer

Fedora, the bow is on the wearers left side.

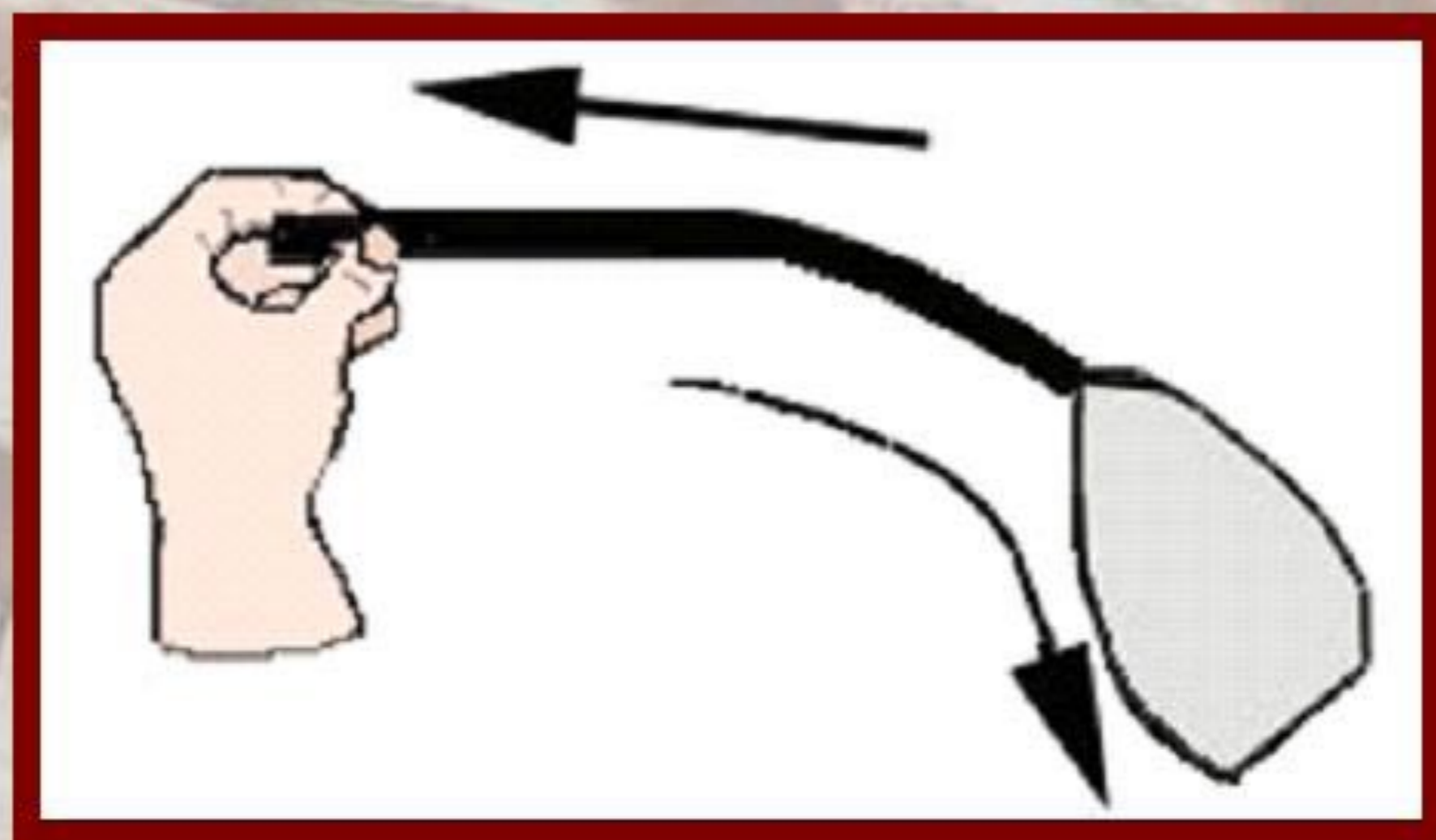
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Regular gros grain ribbon has the weaving threads ending inside the finished edges of the ribbon which is shown by the heavy top and bottom lines.

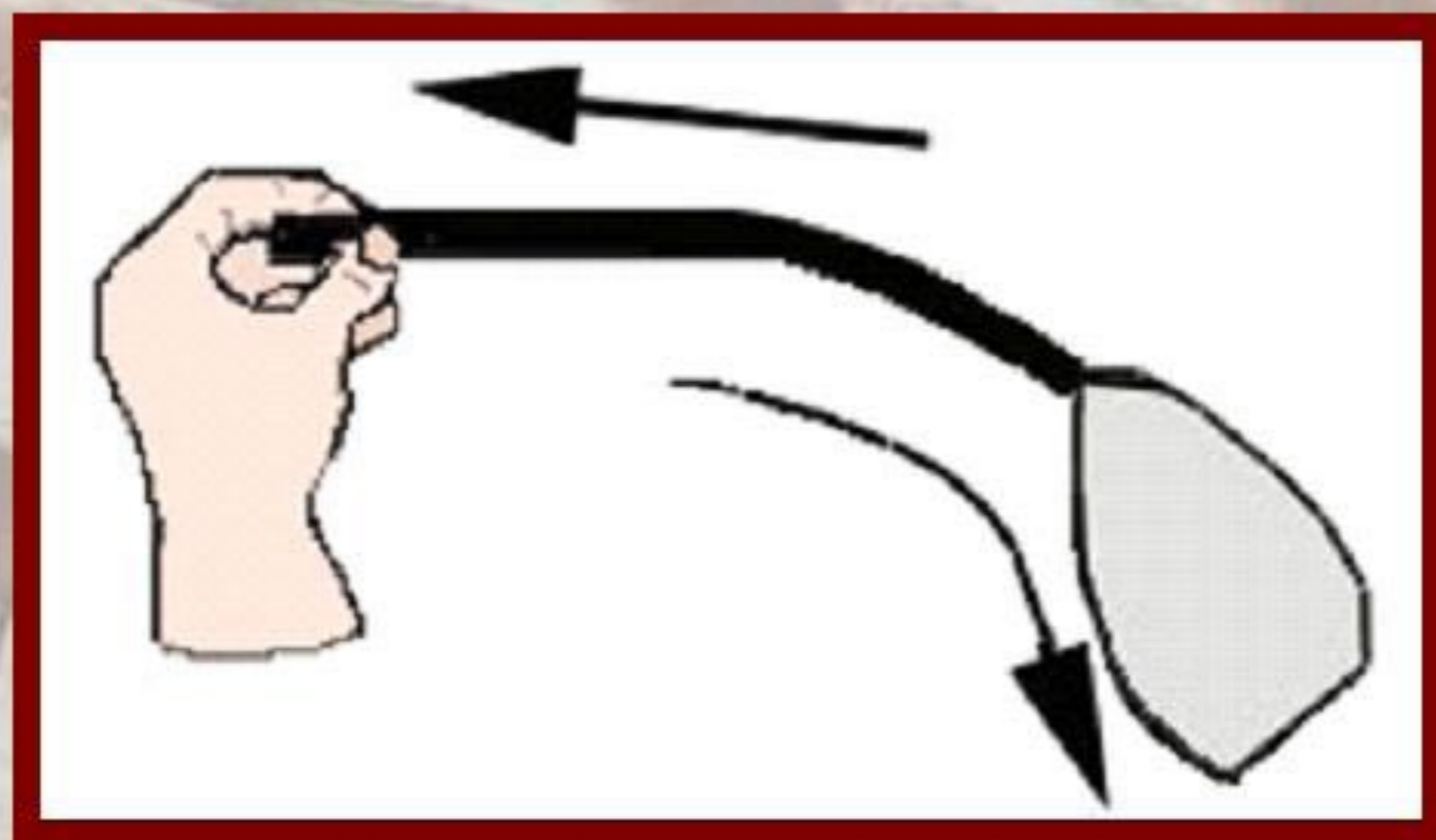


**This sketch of Milliners gros grain ribbon shows
how the woven threads continue beyond the
finished edge.**



Milliners ribbon has a special stretch to it that allows for SWIRLING the ribbon as you set it with an iron. The arching give the ribbon the ability to fit to the outside of the hat.

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Place your steam iron next to your left hand and slowly pull the iron away in a rainbow arch and at the same time using your left hand to pull the ribbon arching away from the iron.

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**Here are my two Indiana Jones fans wearing
their brand new Explorer Fedoras made on Hat
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