

# The Circular



*A Newsletter for the Genesee Valley Sock Machine Club  
Volume 2, Issue 4 July-August, 2007*

Nan Carlson arrived at the May 12 meeting with her home made stand and carrying case combo.



<http://interprizez.org/GVSMC>

**From  
the  
Editor**



Thank you, Lesley, for hosting a very pleasant knitting day on May 12.

The company was great, and the food outstanding, and we actually got some knitting done.

Everyone was impressed by the handy carrying case designed and built by Nan's husband, Dudley. It had small wheels so it could be moved around easily, and when standing on end, it served as a very stable stand for the knitting machine.

In an effort to publish *The Circular* with events reported after they took place, I have transferred some material from this issue to the following issue, namely, the September-October issue. I hope this adjustment corrects a timing problem and causes no inconvenience to readers.

The vacated space has been used for articles on lubrication, ribbing instructions and yarn supply back tension.

Thanks to Elsie McCarthy for tips on separating the sock from scrap yarn and for sharing her celebration of 4000 pairs of socks. I first met Elsie in 1999 at the first meeting of CSMSA, and have enjoyed many helpful conversations with her, as she is always willing to share her experience to help others.

Elsie also sent the legwarmer instructions originally published by the Harmony Auto Knitter when owned by Norma Bogan.

*Fred Hauck*

**The  
Circular**

**Editor**

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**Upcoming Events; 2007**

Sept. 15<sup>th</sup> and 16<sup>th</sup> Hemlock Fiber Fest  
Contact: Linda Hodgkins

Oct. 6,7,8 Eastern Great Lakes Fiber Fest  
(near Buffalo)

November meeting; Lisa Harvey  
December meeting; Doreen Clark

**Upcoming Events; 2008**

January meeting; Vicki Montagu  
July; Cuba, WNY Alpaca Breeders Fiber Fest  
Contact Debby Filer

**May 24, 25 Memorial Day Sunday;**

**Babcock House Museum** Somerset Old Fashion Farm Festival. This event is scheduled regularly for Memorial Day weekends.  
Somerset Town Historian, Lorraine Wayner.

June 22-26, 2008 CSMSA Conference  
Tenth Year, Nashville, IN

September 20-21, 2008 Hemlock Fiber Festival

## Winding Bobbins

Here are two more pictures of Nan's sock machine carrying case and stand combo.

It was a pleasure to have Nan at one of our meetings. Maybe we could have Dudley bring some boards and glue to the next meeting. I would be first in line to place my order.



One of the problems beginners have with sock machines is setting up the yarn supply to guarantee zero back tension. It looks as though one could simply feed the yarn from a skein, ball, or cone directly into the machine. Sooner or later, the yarn will snag, and that happens when the heel is being turned and the last needle to knit is at a critical position.

The manufacturers of sock machines recognized this from the beginning, and nearly every manual included a paragraph on the importance of winding the bobbin. Admittedly, some yarns feed well from the cone, but seldom does a skein or ball give trouble free performance.

The instructions below are from a Gearhart Manual. There are some new innovations involving the use of paint rollers, etc. that look easier than winding a bobbin, but they don't improve on a properly wound bobbin. The coat hanger/ paint roller device I designed might be OK, but is not as good as a well formed bobbin.

### Winding Bobbins Correctly

From Gearhart Instructions

To start unwinding a skein of yarn, break apart the two ties around it after it is on the **Reel**. *This will give you two ends.* Take the end which unwinds freely from around the outside of the skein. Tie the end onto the **Bobbin** to start, if desired. Never knit all the yarn off the **Bobbin**. One of the most important parts about successful knitting is in the making of a free and easy stitch on the needles. This can be done **only** when the **Bobbin** is **filled** freely with the yarn led onto it by a staggered or zigzag motion of the left hand. Firmly grasp it between the thumb and fingers allowing it to slide through as you wind. **Yarn Winder** and the **Reel** must be placed at least two feet apart. Good knitting can be done only when yarn comes freely from a correctly wound **Bobbin**. Knitting cannot be done with the yarn unwinding from a ball or from a tangled mass on an incorrectly wound or crowded **Bobbin**.

## **Lubrication--Grease or Oil A Beginners Guide**

*by Fred Hauck*

Lubrication of a circular sock machine is a topic of importance to every user. Many good suggestions for lubrication have been offered, but it still requires individual experimentation to find a method that works best on a given machine. If you are just learning to operate a sock machine, this article may help you get the most out of available lubricants.

The first problem I encountered when learning to lubricate my knitter was oil on the knitted fabric. Many of the antique knitters have old worn and rusty needles, and efforts to make them knit has led to over lubrication. Sock machines have several places that need lubrication to improve operation. No one type of lubricant is ideal. If the gear ring and cam ring were greased with heavy axle grease, the machine would be hard to crank. If too much light oil is applied, it will flow out the bottom and drip on fabric under the cylinder.

Another consideration is the precision or lack of precision of the working parts. Sewing machines are precision made machines. One drop of light oil in a sewing machine bearing will last for several hours. The same drop of oil on a latch needle begins draining away as soon as it is applied.

Is one drop of oil on each needle enough or too much? I used a light oil with a small spout and counted 37 drops to fill a 1/4 teaspoon measure. That means it would take 1/2 a teaspoon to oil 74 latch needles. That is 10 times the oil required to lubricate latch needles. Place one drop of oil on a vertical metal surface and watch it flow for 20 minutes. You will see that it runs about 15 inches down the surface. Oil on a latch needle has the same tendency, and only a thin film will

remain for long term lubrication.

With these lubrication problems in mind, I have adopted a procedure that adequately lubricates all machine parts while eliminating excess oil on knitted goods. An All Purpose White Lithium Grease or automotive chassis grease is suitable for greased places, and No. 5W-20 engine oil works for all other spots. The machine needs to be dismantled for cleaning and applying grease to some places. Remove the cylinder and cam, clean the bearing surfaces and apply a coating of oil with a tooth brush or small artist brush. If grease is used on these bearings, the machine may turn a little harder than necessary. Remove the crank wheel from the base and apply grease to the bearing post. Grease can also be applied to the tension cam post, the ribber plate shaft and to the open gear teeth on the gear ring and crank. I use a tooth brush to apply grease to the gears in a thin coating and wipe off excess. After assembly of the machine, wipe off all exposed surfaces with a small cloth patch containing a few drops of light oil. Follow that by wiping with a clean cloth. Put one drop on each up throw latch. Apply a few drops of oil to the ribber plate and dial. Finally, brush oil onto the cylinder and needle shanks in the groves and brush oil on the needle hooks and latches. Seven drops of oil on a tooth brush are sufficient to lubricate the cylinder and all its needles, and 5 more drops to oil the ribber and its needles. This will consume 1/10 as much oil as applying one drop on each needle. A very thin film of oil on the stand, base and body of the machine will prevent rust and brighten the appearance of old knitting machines.

By following this procedure, your machine will have adequate lubrication and rarely contaminate the work with oil.

## **Reducing Snags From Bobbin to Needle**

*by Fred Hauck*

One of the most effective ways to eliminate problems while knitting is to make sure yarn feeds from a tangle free bobbin to the latch needles with a minimum of friction and snags along the way. Here are a few hints that may improve the way the yarn supply is set up.

There is a great temptation to feed yarn from an existing cone or ball when there is no apparent back tension. Any small tug of resistance from the yarn supply quickly magnifies the strain on the needles which must pull yarn off the bobbin and through several guide holes.

Test your supply in this manner. Thread up the machine in the normal way. Take the yarn as it exits the yarn carriage and go up through the last hole in the top guide, bypassing contact with the needles. Then pull the yarn down toward the floor with a slow gentle pull. Pull several feet of yarn from the supply and note the amount of pull exerted. Do this with several of the supply cones you plan to use. Make a mental note of the force required to pull yarn through the guides specified.

Next, place a supply cone near your feet and feed yarn from it down through the last top guide hole, to the yarn carriage, and to the needles set up with knitting. Set tension on "loose". Crank the sock machine forward and knit slowly with one hand while holding back lightly and with slack on the yarn with the other hand. Pull short lengths from the supply so the only back tension is from your hand. This time, note the amount of back tension on the yarn required to stall the machine. You may be surprised to see how little tension it takes to make the crank hard to turn and how easy to turn with slack yarn. If you do this test

with the various yarn supply methods you use, you will easily identify which methods give trouble free feeding of yarn.

The next issue is the resistance to yarn sliding in the yarn guide holes. The entrance and exit on the yarn carriage are most critical. Note that the yarn enters the carriage at a sharp right angle and exits at a sharp right angle. On some carriages the hole was drilled and left with a machining burr.

Such was the case with a Home Profit Master Machine fresh out of storage. The ragged hole created extra drag on the yarn at those sharp edges. A significant improvement was made by chamfering the exit hole with a slight radius and adding a plastic bead to the entrance hole. Plastic beads are inexpensive in craft shops. Find one with a smooth hole one eighth inch in diameter. Use adhesive (JB Weld works good here) to bond the bead over the entrance to the carriage and to the entrance of the brake wire hole.

Simple adjustments in handling the yarn supply and reducing friction in the guides usually results in fewer dropped stitches and allows more attention to be given other aspects of machine operation. The crank will turn easier and there will be less wear on the machine.

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Another point, not part of this original article, is the placement of the bobbin or cone. The supply must be located directly below the first hole in the yarn guide or directly below a contrived "first hole". If the supply is on the floor, fashion a wire loop on the table so the yarn goes straight up to that first guide hole. The risk of placing the supply on the floor is it may get bumped against another object and that snags the yarn.

Elsie McCarthy of Lyme, NH recently celebrated a milestone event, knitting a record-breaking 4000 pairs of socks (8000 socks) on an antique sock machine.

Sock pairs #7,999 and #8,000 were turned of Jagger spun 2/8 Peat Heather + 2/14 wool/alpaca Sandpiper, resulting a very nice, soft fabric.

Elsie has been knitting socks for about 25 years, and is a founding member of the Circular Sock Machine Society of America, (CSMSA), founded in 1999.

I am very pleased to publish her photo and recognize this achievement in this issue of *The Circular*.



In an e-mail to Elsie, I asked how she manages some of the problems encountered when using the ribber and separating the sock from scrap material. A specific problem is holding the yarn down on the needles at the location where the ribber lug pinches yarn against the lug or post inside the cylinder.

As explained by Elsie, one must forecast that possibility and be ready to add more downward pull

where the yarn is pinched. That is required at every round as the carriage passes the ribber lug.

In her response, Elsie gave helpful instructions on how to separate the socks and how she handles the extra pull on the sock to help it past the ribber. She will also send additional beginners instructions published by Harmony Knitters. With her kind permission, the articles are here for our benefit.

### *Rib Cuff*

*By Elsie McCarthy*

Welcome to the land of the ribber! I was in touch with a woman in Bristol, NH who is at about the same stage in constructing that 1:1 rib cuff as you. She says that remembering to breathe is essential.

First of all, the dividing cotton will not ravel UP to the cuff but rather DOWN to the previous sock. Today I viewed again Norma Bogan's video, hoping for insight into the various stages of the sock. Nothing new, but it is very clear that she also has quite a time getting the sock free of all the dividing cotton.

This is what Norma does to remove it: Separate the socks by snipping through 3 rows of dividing cotton (that's vertically) and pulling on the middle one until the work separates. Pull out the cotton from the cuff edge of the sock (I believe this requires one more snip of a cotton stitch, where the knot is). Norma worked a few minutes demonstrating this; the cotton breaks, she has to stretch the fabric and find a fresh end.

This is what I do: cut one stitch of dividing cot-

ton before and after the knot, right next to the cuff. Turn the cuff halfway and cut another cotton stitch. Find an end of cotton and pull, feeding the stitches along until the cotton pulls out; this frees half the cuff. Find the other cut end and repeat.

Or take some small pointed embroidery shears and cut into the cotton knit stitches all the way around the cuff, and the dividing cotton will separate from the sock. Then of course you have to pick each and every cut cotton stitch out of the cuff edge.

As for the web catching on the (ribber) fin and lug, you will have to develop the habit of giving a tug on the left side of the sock every time the yarn carrier passes that spot. Soon you will use a rotary motion with your hand on the sock under the machine, following the yarn carrier as it goes around. Catching at the lug is very common, and you will be amazed how that quick tug will free it as you knit.

I do have two forms of the Harmony Knitters' Beginner's Sock Instructions which I will send to you. I learned to make the standard sock with these instructions, rather than from the book.

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**BEGINNER'S LEG WARMER PATTERN**

Leg warmers are a good first project on the auto knitter. Making them will let you get the feel of the machine and develop a smooth cranking rhythm. Once you've done this, you will be better prepared to knit socks, where you will have the heel techniques to learn. Since your machine was set up for socks, you will want a looser tension if you wish to start with leg warmers. To loosen the cylinder tension, lower the numbered adjuster knob one full turn. This pulls the needles down further as they knit, thus making a looser stitch. If the knob turns hard, pull down on the cam wing under it as you turn. The rib tension may be left as it is for leg warmers.

Before you began, first a word about holding down the work: it is necessary to hold down steadily at all times while knitting. Your machine was shipped out with a sock on it. The toe of the sock is on the side of the machine closer to you; this toe pocket requires careful holding down as you start to knit. You can't just pull down straight on the sock; you should grasp the toe pocket between the thumb and index finger of your left hand, while holding the rest of the sock with your other fingers. Do not pull down too hard, just steadily so that the stitches do not work up on the needles. Watch especially the left side of the machine where the fin on the underside of the dial meets the dial adjuster lever on the inside of the cylinder.

Using a square knot, tie on dividing cotton and run three or four turns. Then (again with a square knot) tie on the leg warmer yarn.

To make the selvedge: Run until the yarn is on all the needles, stopping with the yarn carrier at the front (front = closest to you). Move the switch pin to "OUT" and knit 2 turns. Move the switch pin back to "IN". If the switch pin won't go into position, move the crank ahead slightly and try again.

For the bottom cuff, knit 50 turns of 1:1 rib, stopping with the yarn carrier at the front.

To change to stockinette stitch: Slip the work hook up into an empty cylinder slot back by the spring holder on the cam shell; pull out the spring and put it over the holder. Transfer all rib stitches to cylinder stitches as follows: Hook a cylinder needle into the rib needle and pull out the rib needle, sliding the stitch past the latch. Then slip the stitch onto the cylinder needle and slide the cylinder needle into the empty slot, making

sure the latch is open.

Continue transferring stitches all the way around, knitting ahead as necessary to get at the needles. When you have finished and all of the rib needles are out, replace the cylinder spring and lift out the ribber. You may need to pry up a bit at the point where the ribber arm goes into the cam shell. Now knit 150 turns for the main part of the leg warmer. Stripes can be done by breaking the yarn and tying on another color. The knot may bump a little as it goes through. It is wise to break the yarn at the same spot each time (usually just before it goes into the yarn stand top). That way the knot comes to the needles at about the same spot each time, making it easier to watch for.

Replace the ribber, making sure to rotate the dial counterclockwise until the fin underneath hits the adjuster lever in the cylinder.

For the top cuff, set up for 3:1 rib as follows: Pull out the cylinder spring as before. Starting with the second rib needle slot behind the red mark on the right, hook the corresponding cylinder needle with a rib needle, pulling up the cylinder needle until the stitch slides over the latch. Slide the stitch onto the rib needle, removing the cylinder needle, and slide the rib needle into its slot. This is the same basic procedure as before, with one important difference: when the stitch is transferred onto a rib needle, it must not go behind the latch-- if it does, the stitch will drop. Continue transferring onto every other rib needle all the way around, knitting ahead as necessary and replacing the cylinder spring as you finish.

Knit 54 turns of 3:1 rib. Then tie on dividing cotton. Replace the remaining rib needles (using the transfer technique above) to set up for 1:1 rib again, which is necessary to do the selvedge on the next item. Run three or four turns of cotton, and you are ready to start again.

When the leg warmer has been knit down far enough (use scrap yarn if you are anxious to get at it) remove it by snipping through three rows of dividing cotton and pulling out the middle end til the work separates. To finish, remove any cotton still on the leg warmer. Ravel back 4 rows of the 3:1 rib. This will give you enough yarn to finish the top in a loose double crochet. A spare cylinder needle or small latch hook works well for this. It is also helpful to use a single point knitting needle or right angle point work hook (through about one fourth of the stitches at a time) as a stitch holder.

# Officers

President	Donna Mellander
Vice President	
Secretary	Carol Bonczek
Treasurer	

The *Genesee Valley Sock Machine Club*, (GVSMC) was founded in January 2006.

The purposes of this club shall be:

**SECTION 1** To provide an organization for owners and operators of antique knitting machines or sock machines.

**SECTION 2** To encourage the preservation, restoration, and use of antique knitting machines.

**SECTION 3** To aid in the education of members and the public about the history of antique knitting machines through shared teaching experiences and demonstrations at various fiber arts shows and festivals or at regular meetings planned by the members.

**SECTION 4** The club shall be non-commercial, non-sectarian, and non-partisan.

## The Circular

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Address Correction Requested

**GVSMC  
Logo**

