# Knot News

**International Guild of Knot Tyers – Pacific Americas Branch**

**July 2010** Joseph Schmidbauer – Editor **ISSN 1554-1843** **Issue # 80**

## Rural Knotting – Dutch Millers

Pieter van de Griend

### Prologue

My approach to knots is that they are solutions to rope problems. That view has lead me into fascinating studies of *Knots in the Wild*, as most knots one may encounter in life, turn out to be non-recorded in the global literature. Peculiar fact isn't it? Books present solutions, which may only *sometimes* be found in use by pragmatic rope users. What is it that causes the authors of knot books to dogmatically present knot repertoires, consisting of fine polished gems, but refrain from showing the structures which are really used? I once attended the show of a stand-up comedian who was discussing soccer and he said that there were three things of importance in the field. He identified them as (1) the game, (2) the rules and (3) the way soccer actually was played. He held that most confusion and disagreement in the world about soccer arose from indiscriminately mixing these aspects while engaging in discussions on the same subject. I mention this, because to me, the same thing appears to go for knots. Take any field in which cordage is put to use and start studying it. Invariably you encounter the belief that knots are to be linked to the maritime trades, or more recently to the scouting movement. In rural life, however, rope and knots play a role, which may be more significant than that of cordage at sea. Societies have been, and still are, dependant on cordage technology, to an extent which exceeds that of the mariners. Moreover, they were so, long before Man took to his Nautical Endeavors on the Deep Blue Sea. I would like to present some contemporary examples of what I mean and will begin in my own backyard – Dutch Millers.

### Miller Knots in the Literature

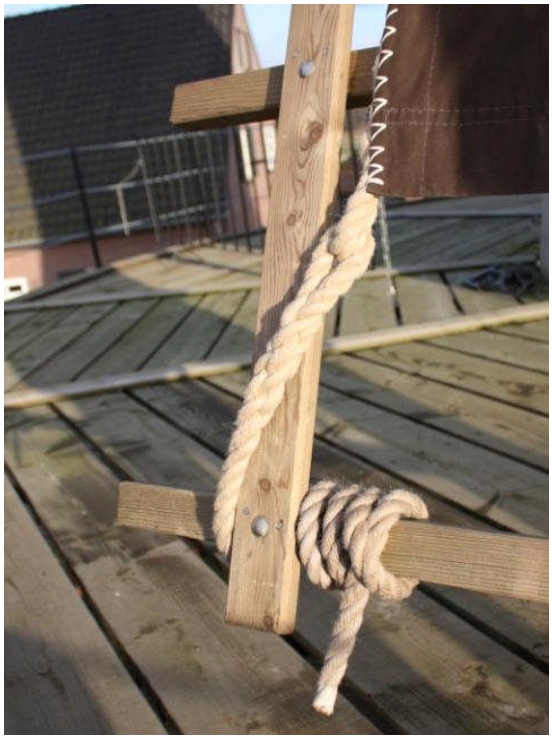
Consult any of the major knot monographs for Miller-related knotting and you will be sadly disappointed with what they offer. Typically one specific Bag Knot, with some variations to the theme, is given and that is where it stops. Perhaps that is not all surprising, because (wind) mills are not objects which are a common sight in many places of the globe. In The Netherlands, however, that is a different story. There have been wind-driven mills here since about the year 1000. Long before that water-powered mills could be found. What caused the switch to wind-driven mills? A break-through in technology, the necessary mechanical solution, which is required to turn vanes towards the wind direction, did not become fully developed till around the 13$^{th}$ century. Since then windmills popped up in almost every village in the Western European lowlands. A century ago there were in excess of 12,000 operational windmills in the Netherlands alone. This number exceeded the number of ships in the Dutch merchant marine and fishing fleet together at that time. These windmills required ropes and sails. For centuries much of the cordage was home-made by the millers and farmers [1], [3]. However, from the 1800's onward hemp rope was also mass-produced for the mill-market [2]. Curiously little about miller-related knotting made its way into the literature.

### Knots in Windmills

Admittedly, the amount of cordage in windmills is not impressive. Most of the technology is mechanical and shaped by means of large wooden and cast iron gears. There remain interesting rope problems to be found on any windmill. Some of the most obvious relates to the sails, which are used to improve the performance of the mill.

**Stopper Knot (Gaffeltouw)**

**Windward Boltrope (Litzenlijn)**



**Corner Hitch**

**Corner Hitch**

The sails come equipped with 4 ropes. Two of them are eye-spliced onto boltropes at the lower leeches. For all four ropes a similar kind of hitch is used. The miller typically takes a few round turns and closes with a Half Hitch. As the woodwork of the vane's rack has a rectangular cross-section, these wrappings are sufficient for producing a relatively secure hitch on one hand and a structure, which can be easily released, should the need arise, on the other. I have called the various instances of this solution "Corner Hitches", as there is no official name for them to go by. When the sails are furled, their lower ropes are taken together and attached to the vane's rack. The images below show some examples of how this is typically accomplished.

Mediterranean windmills may carry up to six sails. A Dutch windmill has four. All sails are equally dimensioned. They are rectangular with a curved top leech (to enable furling). They have up to 4 so-called *Zwichtljnen*, which are used to flatten the sail on the vane's rack, by stretching its leeward boltrope. The hitch, which is customarily used to attach these lines, is shown below. The windward boltrope has an additional rope, the so-called *Litzenlijn*, which is tucked through the strands of the boltrope. The images below also show how the leech is sewn onto the boltrope.

**Litzenlijn**

**Seaming details**

**Zwichtlijnensteek**

## Epilogue

In this paper we presented a sample of practical everyday Miller Knots. There is an impressive range of solutions which show up in the hands of that user group. Many of the solutions can be pinpointed to specific areas, as millers tend to learn from each other. Examples are easily found when focusing on ways the ropes are made fast to the vanes. As a rule, millers prefer to stick to solutions which are secure and fast to untie. In general they spend a lot of time and effort in handling the ropes and sails around their mills. It is tempting to call their ways of working shipshape, so I will not.

## References

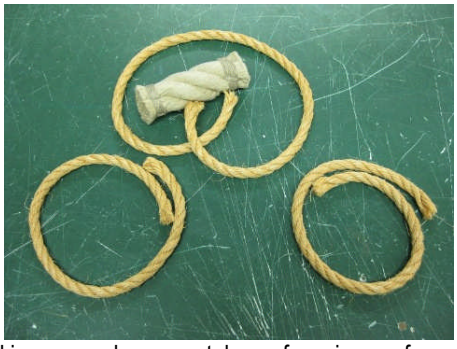

1 **M. Broekhuis**, "De Laatste Echte Touwslager – Joost Willem Deetman", *Landleven*, 2009.
2 **J. de Graff**, Moordrecht in Touw, Hilversum, 1972.
3 **J. Holthausen**, "*De Molenzeilmaker – het unieke ambacht van Limburger Marc Crins*", Landleven, 2003.



Stiphout, April 2010

## How to Make a Rope Hammer

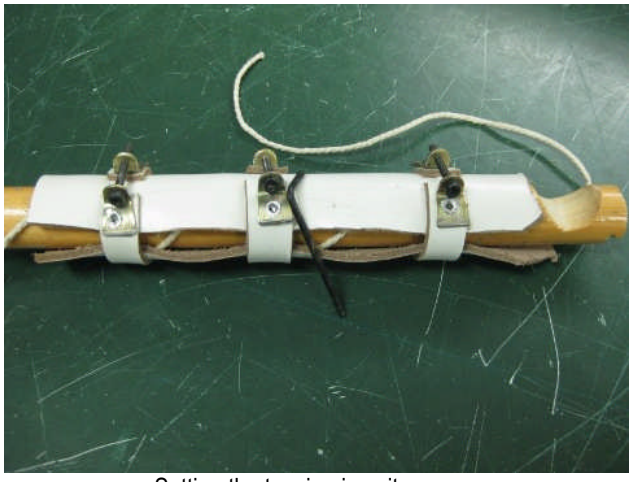
Magnus Wedin



Making a rope hammer, takes a few pieces of rope…

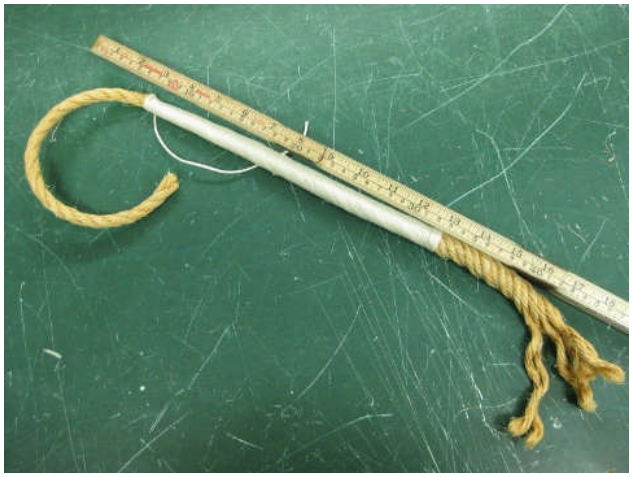
So, I wormed the center piece with the un-laid strands of a shorter piece. It took three more strands to worm the object even. One yarn per strand was removed so as not to bulk. The strands to the front were tapered. In the end it turned out to be so subtle it was hardly noticeable. Steeper next time!

A broken rubber mallet and a bit of broom stick made a half decent serving tool. It isn't perfect, but it serves me well…



Setting the tension is quite easy.

Around, and around, and… so on.



A well served hammer shaft.
I picked up grafting from Vince Brennan. After a failed attempt doing it his way, I made a "grafting loom". A dialogue with Mr. Brennan allowed me to perfect it.

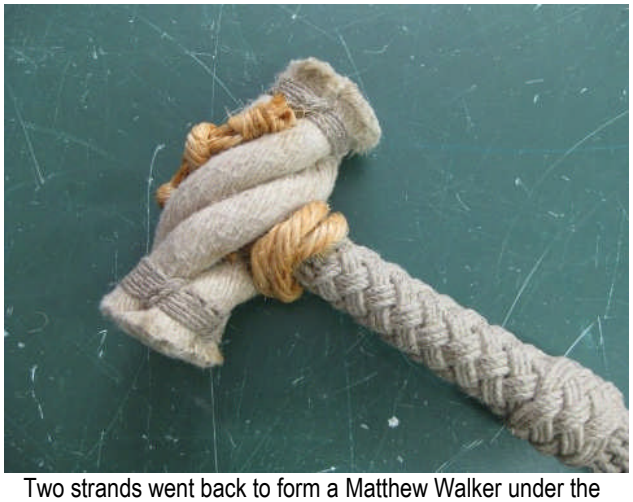
Hemp! Lovely stuff! Anyway, putting it on was not too hard. Some braiding and some gafting. 24 strands of 2mm hemp for the braid from the top – the extra strand to make the number uneven, can be seen pointing down the middle.

Now is there enough material to do something pretty?

Yes, it was rather tight. Better margins next time!

All I know about Star Knots comes from Dan Callahan. I'm sure I differ a bit, but what the heck. He also inspired me to learn the Matthew Walker Knot.

The completed end.



Two strands went back to form a Matthew Walker under the head. I'm not quite happy with this. But it will have to do this time…


Can you possibly imagine where I found the perfect tool to coax the strands through the hammers head? The pen is now a permanent addition in my toolbox.

The middle strand was split up to go separate ways. At about 4cm from the center, they were twisted and laid together again, effectively recreating a complete rope with the end that came from the OTHER end passing the center. Around this "locking" rope goes the strand that go back through the head. The ends were seized. The ends of the seizing were stuck into the head, helping holding down the locker. Questions?

Well, here it is.

## From the Mail Bag

**MIKE "Hooey" STORCH** OF , IDAHO SENT IN THIS THIRD (AND FINAL) INSTALLMENT TO THE *KNOTTING 101* DISCUSSION:

Being self taught, I have developed my own methods – sometimes my terminology differs from that found in books too. I find much of what I see in print to be un-necessarily complicated, especially for the beginning student of braiding and knotting. I have been told on several occasions how much easier new students find my ways to be – by keeping things understandable from the start I am building on a firm foundation, and don't often have to repeat myself to have a lesson sink in. Many of the braiding books now available (and videos too) come across like science rather than handcraft – to some degree there is science involved in braid work, mostly math, but even that can be simplified. The last book I skimmed through with that rocket science approach was awful to try to follow. Why bother? So I got rid of that book. Examples of book/authors that are easy to follow and a joy to work with are those by Ron Edwards and Clifford Ashley. Ron speaks mainly about braiding, while Clifford Ashley speaks mainly about nautical knotting. What makes these two authors immensely enjoyable, as well as easy to learn from, is that they truly do "speak" to you. They make nothing more complicated than it needs to be – it is the approach I recommend in teaching a student how to braid or knot. Also, it is best to remember that, as an instructor, you are not out to impress your students with what you can do – you should be working every step of the way to show your students what they can do instead.

Beginning right around the same time the PAB newsletter first asked for feedback on the subject of "Knotting 101", I began teaching a new student to cut kangaroo hides. At present we have had three sessions together. The first session went really well, the second did too, and I wrote about it, including a nice thank you note I received from Shauna (my student) immediately afterwards. We have just completed our third and possibly final session. It went quite smoothly, if a little longer, because I wanted to introduce her to some interesting tools that will help her later on. She is a gifted student, and with what she knows now should be turning out some high quality braid work before long. Actually, she can braid a bit now, but until her lessons began she was using inferior lace off spools. Another thing that was holding her back was the DVD she was trying to learn from – I watched it so I could have a reference point where to begin with her. The video as terrible, so we started from the beginning with small first steps, our one-to-one sessions covered more ground and progressed more quickly than

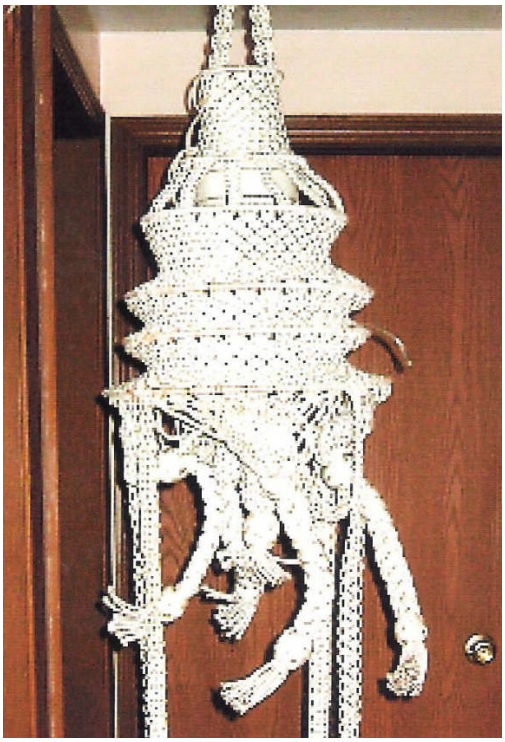
lessons in a classroom setting of one instructor with many students could have. My advice to future students is to decide what you want to know about braiding and knotting, and selectively seek out your best source to learn it from. To instructors, I suggest you work with either an individual student or a group no larger than you can apply "quality time" to – the emphasis here should be on quality, rather than the time commitment. Shauna has been a gifted and sincere student – I can only hope for students like her in the future. I hope also that my thoughts on *Knotting 101* will have a positive effect on instructor/student relationships of others.

Do good work."

⌘

MY OLDER BROTHER, **ROY SCHMIDBAUER**, LIVES IN , NEW JERSEY AND IS A MEMBER OF THE NAVY LAKEHURST HISTORICAL SOCIETY. This is the same Lakehurst where the zeppelin Hindenburg burst into flames in May 1937. He sent me a copy of their *The Airship* newsletter where they mentioned a donation of a knot chandelier by CPO Joe Mullens USN (ret) and was he a possible Guild member?

Below are some photos of the chandelier.



I then peppered their President, Carl Jablonski, for any information about the practical function and daily uses of that Rosendahl or Zeppelin Bend.

*"Yes, these knots are the famous "Zeppelin Bend" or "Rosendahle [sic] Bend". We have one CPO retired USN C.C. Moore who remembered the use of these knots. Yes, it was practical and easy to use."*

That was all he had to say, but at least there are still people out there with the experience of the Navy's rigid airship program. If you are ever in that area they have a great museum to roam through and also have a look at their wonderful web site at www.NLHS.com.

## Earth Day – STAR ECO Station
## April 25, 2010

Jimmy Ray Williams
**IGKT-PAB Secretary/Treasurer**

Lindsey Philpott, (Board Member & Past President PAB) picked me up about 8:30 AM and we proceeded up to Culver City, CA to participate in STAR ECOs Earth Day celebration.

After parking, we gathered all our stuff for the day and walked over to our site. Mike Bromley, (PAB President) had already prepared our display. Folks were already starting to stop by our booth and look at the knots we had on display. If I haven't mentioned it before, we have knot work from many PAB members and from friends around the world.

As always, there were plenty of kids there. Lindsey set up his "rope making machine" (four sticks and sisal twine). Soon – there were kids making rope!

I think we all had a great day, even though it was quite busy.


Here, Lindsey and Mike working even harder than the kids.

Lindsey spoke with one of the Firemen there and was told that 30,000 people had filtered through during the day.

He's probably thinking, "What the heck is this?"


Next we have a couple of young ladies trying their hand at it.

Mom is helping make a bracelet.

## Woggles for Cub Scouts of Troop 824 Westchester, California

Jimmy Ray Williams

Another lady we met during the Earth Day Celebration at the STAR Eco Station, asked if we would be interested in attending one of her Cub Scout meetings and teach them to tie the Scout Woggle.

On the 25th of May, Lindsey Philpott and I attended their meeting. There were 5 Cubs, all about ten years old.

We began the session with Lindsey giving a short presentation on the proper and safe ways to use ropes and knots.

He had also prepared instructions for 3Lx4B, 4Lx3B and 4Lx5B Turk's Head Knots, all of which are forms of the Woggle. We discussed the knots and decided that we would both teach the 3Lx4B THK first, and if any of the Cubs mastered that one, we would progress to the others. The evening was pretty much taken up with the 3Lx4B TH.

We did leave the instructions for all the knots with the leader.

With so few Scouts, it was pretty much a one on one session, which the boys seemed to enjoy. One of the leaders was kind enough to take some pictures during the meeting, so we do have some proofs of our efforts.

The young men were very attentive and I think a couple of them may actually be able to reproduce the knot with little effort.

Our thanks go out to Ms. Larisa Stephan, one of the Troops leaders, for inviting us to their meeting.
We enjoyed our evening with the Cub Scouts.