

Knotting Matters

The magazine of the International Guild of Knot Tyers



Issue 94
March 2007



GUILD SUPPLIES

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Geoffrey Budworth

The Knot Book £4.99

Plaited Moebius Bends £2.50*

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Skip Pennock

Decorative Woven Flat Knots with CD £12.50*

* Bulk purchases of these items are available at a discount -
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PO Box 3540, Chester CH1 9FU
email: supplies@igkt.net
Telephone: 01244 682117

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Full set of 100 charts - £10.00

Individual charts - £0.20

Knotting Matters

Some past editions available

- contact the Secretary for details

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in gold - £8.95

Rubber Stamp

IGKT Member, with logo
(excludes stamp pad) £4.00

Badges - all with Guild logo

Blazer Badge - £1.00

Enamel Brooch - £2.00

Windscreen Sticker - £1.00

Certificate of Membership

Parchment membership scroll,
signed by the President and Hon.

Sec., for mounting or hanging

- £2.50

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PS Don't forget to allow for postage

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Issue 94 - March 2007

www.igkt.net

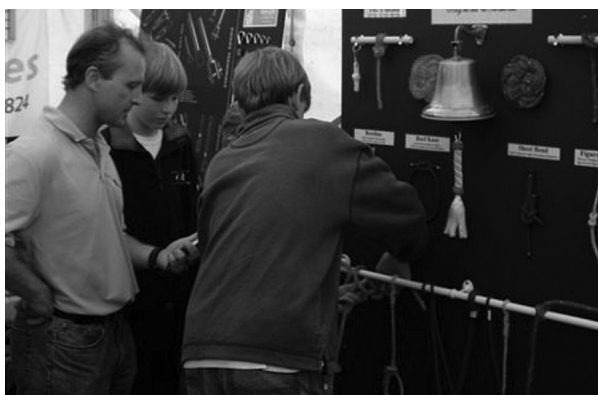
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COVER PHOTOGRAPH

A Ditty Bag, belonging to Barry Brown whose work is featured in this issue.



Features

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18 Knot tyers have many ways of making the Turk's head. **T J Bartruff** makes his with assistance from a friend.

20 Jack Fidspike explains the road many knot tyers take from beginner to compleat knottologist.

22 Featured knot tyer **Barry Brown** creates work that is much admired by Guild members.

27 The six knot challenge has always proved an attraction, as here at Mumbles Navy Days.

29 Inspired by a previous article, **John Smith** goes on to create a practical slip loop.

32 Forever inventive, **Owen K Nuttall** produces another group of knots for us to enjoy.

34 Rock climber **Rob Chisnall** discusses carabiner hitches in this first of a three-part series.

43 **Satish Patki** explains the meaning of knots in Hindu mytholligy.

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Regulars

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Knots from the Mouse Pad

Is it me, or does Colin, our editor, use a different calendar from me I thought I still had a few weeks to go before I had to get my little piece to him, Time flies when you are enjoying your self. There are many things that make this job interesting and one of them was a letter I received a couple of days age from two brothers who are taking part in the Duke of Edinburgh Award Scheme, they wanted advice on our Top Twenty Knots, what a question, we must have some members who have taken part in this scheme, could you give me some advice. I make fenders full time and I can quite easily think of the knots that are special to me but I think we could do better with a wider selection. If you have any ideas

let me know I could forward them on to our Education Forum perhaps with a list of recommended books to read.

I am really getting to grips with the secretaries job now and one of the things you could do to help me is to add your membership number or address when you have course to get in touch with me, its surprising how many members we have with the same initials and surname it take a lot of time to sort it out.

I know I may live to regret this but could you email me your details to me. The email addresses that I have are out of date and perhaps it would be a way of getting your details correct.

Happy Knotting,
Dave Walker.

Cancellation of our Agreement with the Charities Aid Foundation (CAF)

At the last Council meeting held in January, it was decided that we end our agreement with CAF, where they collect our Members subscriptions. Our brief relationship with them has proved to be stressful and expensive, they have proved to be very bureaucratic and time consuming.

This agreement will finish on the 1st of July 2007. Please forward your subscriptions to, The Secretary, IGKT, Po box 3540, Chester, CH1 9FU.

If you have a Direct Debit or Standing Order in their favour PLEASE CANCEL IT. If you contact me I will send to you new Standing Order Instructions, which will have our bank details and your unique reference details so that we can be sure to credit you with your payments. If you live in the UK you can also carry on paying by cheque. If you live abroad the easiest way to pay is by Credit/Charge card. If you wish to pay by cheque please be sure that it is for the current subscription rate, It costs a lot of money to tell you that you have not sent enough money to cover your subs.

The Council apologises for any inconveniences that this may cause you, but in the long run we should be able to give a better service to our members in the future.

David Walker

President's Letter

The International Guild of What? Just how many times have we heard that said? Well the good news is, as a Guild we are 25 years old this year, despite peoples scepticism; coincidentally the Scout movement is 100 years old this year and they said that wouldn't last.

What we have with our Guild is something quite unique because even if the only knots you ever tie are practical climbing knots, or you are well practiced at knot craft and produce wonderful displays, there is a place for you. Likewise should you have had a lifetime at sea or you are a lone knot tyer deep in the outback, we all have one thing in common and that is each other.

While our methods of communication may vary from the eye blinking speed of the Internet (if your pc is working), to the comfort of our very own *Knotting Matters* published every three months. We all bring our individual approach of knot tying to make our Guild a rich 'compote' of friendship and knowledge. Please enjoy it.

On a more personal note, our inaugural year of 1982 stays in my mind as not one but two milestones, in 1982 I had just completed 25 years in the Royal Navy, so Knot Year 2K7 our 'Silver Jubilee' in 2007, means I have been 'out' as long as I was 'in'. My point is, I have learned more about knot tying and met more likeminded folk, certainly made more genuine friends in the last 25 years, than the 25 before and I enjoyed that time too.

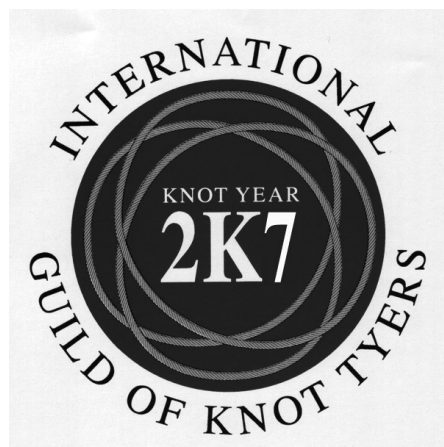
Having said that, I did have a surprise the other day as an old shipmate and

friend from thirty years ago phoned me. He said he was looking at a macramé owl I had made him years ago. The kit had come from the 'Rope Shop' in Emsworth and I remember muttering, "I don't do macramé and I don't do owls" but was under clear instructions of "my Mother wants one", from the one I was leaving at home with two small boys plus a house to run and so these instructions came under the same level as "The Captain Says". So I took three owl kits to sea, one for mother, one for daughter and one spare, or so I thought. On that trip I made seventeen owls, buying top ups in Istanbul and Auckland (I was lucky not to get real eyes in Istanbul!) Hence many years later my friend gazing at his well-travelled owl, put my name and 'knots' into Google, and he got me.

The theme of this letter? Well if you think you are the last knot tyer left, then you really are missing out, because after 25 years we are bigger and better with a good active structure of branches world wide and a great wealth of 'Bonhomie' and Knowledge.

Yours aye

Ken Yalden



Knot Year 2K7

Silver Jubilee Celebrations

If you are a regular reader of KM, you will have received in the centrefold of your last magazine your notice of meeting and call for papers, which should be filled in and sent back to me please. However if you have no wish to remove the centre of your copy, then send a postcard. To make it a good and memorable meeting tell us if you are coming and what you would like to do when you get to Fareham.

In one of the previous KM, I pointed out that 2007 is also 100 years of the Scout Movement. We shall be having a stand for Scouting, this is for all who have had some involvement with Scouts either as a leader, or just your time as an individual, so let's make a show of it and bring your old photos. As yet I do not have anybody to run this stall so I'm looking for a volunteer to run the 'Scouts Corner' at 2K7. There will also be room in the same corner for other youth groups as well; Sea Cadets, Sea Rangers, Boys Brigade etc so look out those old photos to bring as well. As part of our Youth and Education campaign, it is not a bad thing to show that we were young once.

So far we have had good responses

from around the world, and as luminaries go, there are none too big or small, so enough room for all, then.

Why not make that bit of effort and come and join us in our celebrations, rather than just read about it in *Knotting Matters*.

2K7 Raffle

Sheila and Dave Pearson have kindly offered to again run our Raffle at 2K7. Contributions to this will be gratefully accepted and I would ask that you bring them to the show and give them directly to 'the Raffle Masters'.

Some in the past have spoken against raffles, however this is a proven way of fund raising for the Guild, but I am always open to any other bright ideas for the raising of funds.

Camping & Caravans

Please note the phone number given in the Information sheet in the last issue of KM and the IGBT website for Ed Bently is wrong, and should read +44 (0) 1329 233251.

Ken Yalden.



IGKT Silver Jubilee Stamps & First Day Covers

As part of the IGKT's 25th anniversary celebration initiatives Geoffrey Budworth and Bernard Pearson* are collaborating in the design and production of the above memorabilia for sale by mail order from August 2007. This will be achieved at no expense to the Guild. So as to enhance both their value and appeal, the FDCs will incorporate IGKT artwork AND reproduce images of the Royal Mail stamps featuring the centenary of Scouting. A percentage of the money received from sales will be returned to the Guild as a charitable donation.

Such stamps and FDCs, known in the trade and to enthusiasts as 'Cinderellas', are collectable and if cared for they can prove to be a modest investment, at least as good as money in the bank or building society. Look in the next edition of *Knotting Matters* for further details, including prices.

*[Devoted fans and readers of the fantasy Discworld series by the phenomenally successful author Terry Pratchett will recognize Bernard as the creative talent and 'Cunning Artificer' who makes and markets much of the merchandise that enlivens the books.]

NEOTONY FROM KNOTS?

'But imagine that, along with making chipped-stone tools, one genus of hominid appropriates the looped entrails of a dead animal, or learns to tie a simple knot, and invents a sling ... In its sling, the hominid child can now hip-ride ... it is no longer important for the infant to be able to hang on ... Although ... the hominid child cannot be *born* with a big head (and thus with a large initial brain capacity), it can now be born under-developed. That is to say, the sling allows fetuses to be born in an ever more ontogenetically retarded state. This trend, which humans do indeed display, is called neotony.'

(an extract from 'The Human Brain as a Cultural Artifact', an essay by archaeologist and author Timothy Taylor, included in the book *What is your Dangerous Idea?* edited by John Brockman and published [GB 2006] by Simon & Schuster)

The Pacific Americas Branch **is celebrating**

their **Tenth Anniversary** of
Founding on

July 4th through the 8th, 2007
in San Pedro, California

with celebrations, live conference, table talks and displays
on each of the five days of our Festival.

We have secured the Los Angeles Maritime Museum site for our display and demonstrations on July 7th and 8th and we cordially invite all who would like to be there to join us.

Events will include:

- Bell-rope tying contest - must be a member of IGKT or Pacific Americas Branch
- Visit to the Tallships of the Los Angeles Maritime Institute
- Grommet-tying and tossing contest
- Lighthouse and Museum visit (guided tours)
- Fender-making, string-figure making and scoubidou for the kids
- Tenth anniversary decorative knotting contest to decorate aluminum (aluminium for some) or tin container - must be original work

Displays will include:

- Ditty bags
- Bell-ropes
- Knotted pieces
- Knotted animals
- Marlinespike Seamanship
- Macrame

A joint conference of the Branches of the North Americas (PAB, NAB, TXB, PKB and sub-Branches) is planned during this time where all members are welcomed to discuss matters of importance to the Guild and of importance to their Branch. Speakers are welcome to present information that we all need to know - where to get cord, how to tie any Turk's Head in-hand, how to preserve knotted articles and so on - you name it and we'll make space for you. Be sure to get your favorite topic on the agenda! We also are planning to have sea shanty-singing, Morris dancing and other delights of a festive nature during the weekend. Details in the next issue of Knotting Matters, Knot News or by looking at our web-site www.igktfab.org

Plan your trip now!

Flights to Los Angeles International Airport are recommended (LAX) or plan your stay at any of the hotels and motels nearby - come and enjoy fireworks for the Fourth in sunny Southern California! Call Lindsey Philpott at 1-310-749-3541, e-mail at marline.man@verizon.net or write to me at 3646 Gaviota Avenue, Long Beach, CA 90807-4306 for full and further details or visit our web-site and contact us there.

Young At Heart

A trick braid

Here is a great way to fool people. Show them a braid [fig. A] that you have already plaited. Put it on top of a coin, a hardboiled egg, or something sillier, and say that you will “lift it up through the braid with your fingers”. Impossible ... until you unzip the braid by pulling it apart [fig. B] making a big hole through which you then lift the object. Onlookers are amazed.

Here is how to plait that trick braid. You will need two separate bits of flexible cord, each about two metres long and 5 mm (0.5 cm) thick.

Bend them in half, to find their middles, and knot them together [fig. 1]. Arrange the four ends so that one strand - the left hand (LH) one in the picture - is on its own, while the other three are close together on the right hand (RH) side.

Begin to plait by taking the RH strand, across in front of its two companions to lie alongside the single LH strand. Then take the new RH strand across in front to lie alongside the two other strands on the LH side [2].


[SECRET TIP - Pull the first of the two strands that you have rearranged tight, so that it holds the second one in place. Do NOT pull the second strand too hard, or it will slip out from under the first one.]

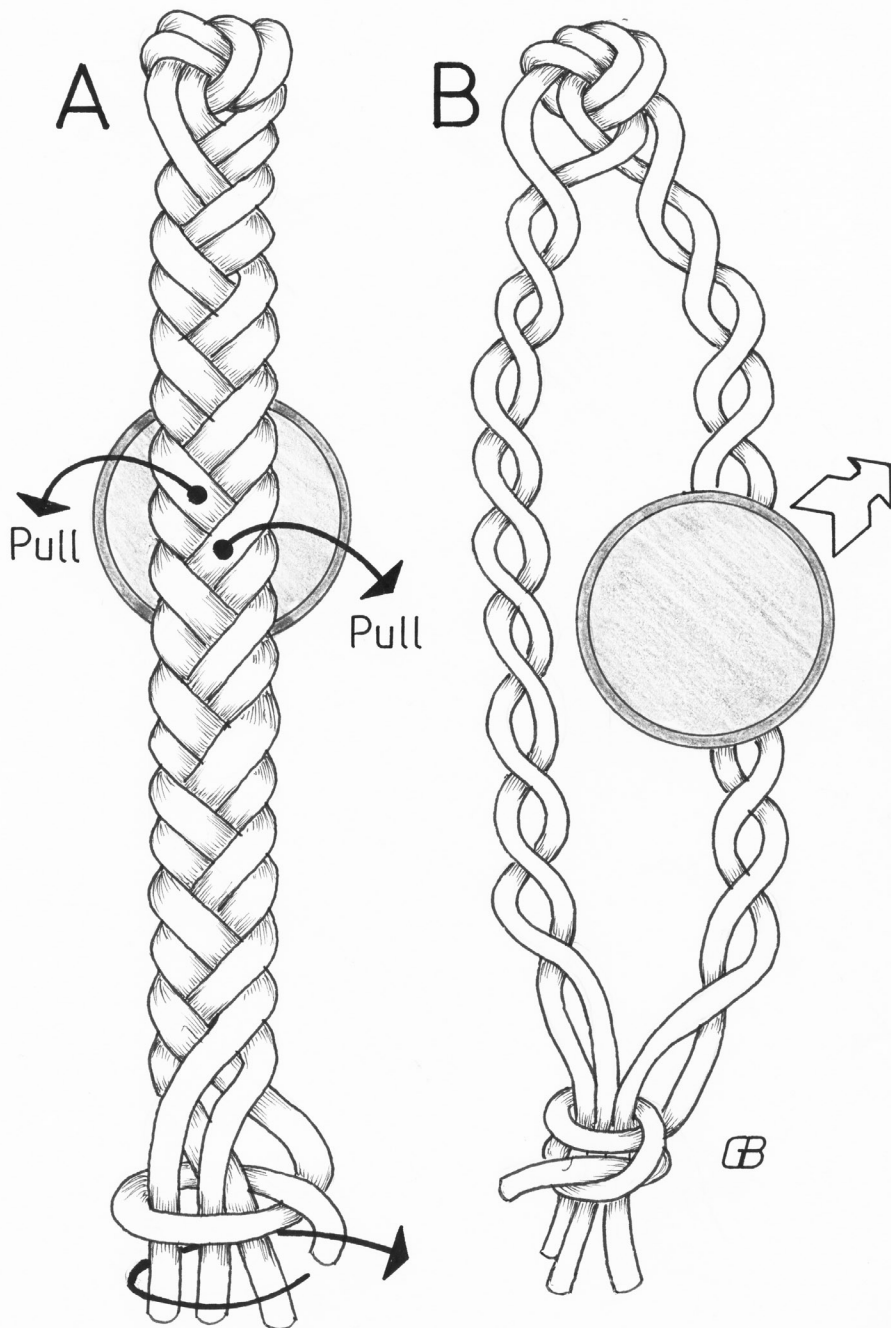
Now repeat this process, so that you end up with a single LH strand and three RH strands [3].

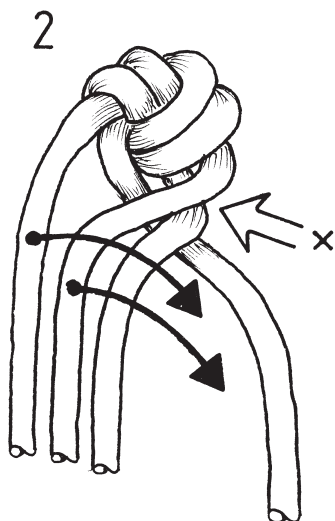
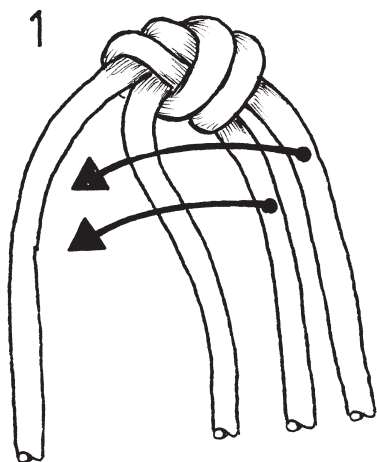
Do it again, going from R to L once more [4].

Repeat these steps in turn until you have used up most of the strands, then tie one of them around the other three, to keep the braid from coming undone.

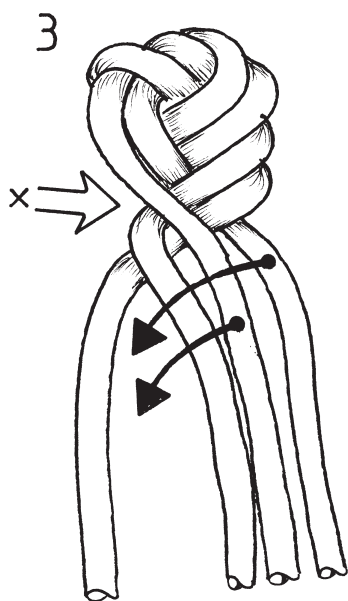
[REMEMBER - At the turning points marked in the drawings with an arrow and an ‘x’, always press the first moving strand firmly on top of the second one, to trap and hold it in place.]

You are now ready to do your trick! 

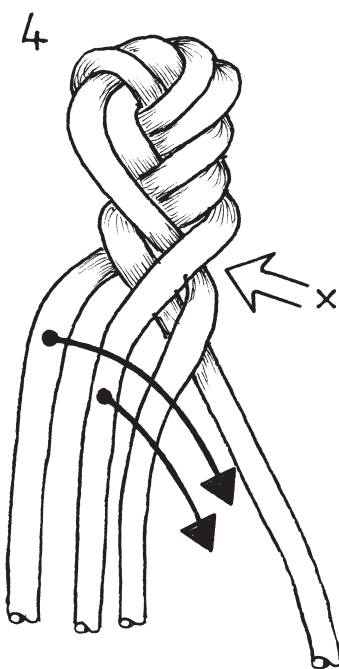




Trick braid



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Book Reviews & Previews

LONG NETTING & NET-MAKING - A Rabbit Catcher's Guide

by Jon Hutcheon,
published in 2006 by
The Crowood Press
Limited, Wiltshire, UK
(www.crowood.com)
Price: GB £14.99
ISBN 1-86126821-1

This up-to-date hardback book does what its title suggests, explaining how to reduce pestilential rabbit populations by the effective method of long netting. Within 128 pages, sub-divided into an introduction, 12 chapters, a glossary and an index, it includes: the quarry and where to find it; the types of nets and equipment that are available; the

different and correct ways of setting nets during both day and night; the use of dogs; how to use traps; how to craft long nets and purse nets by hand; and the advantages of hand-made nets over those that have been made by machine; together with personal anecdotes by the author. The text is enlivened with over 60 black-&-white photographs and more at least 30 sketch plans of nets and how to deploy them.

Acknowledgements include one to the firm of Bridport Nets for supplying twines and netting, as well as friendly and excellent service.

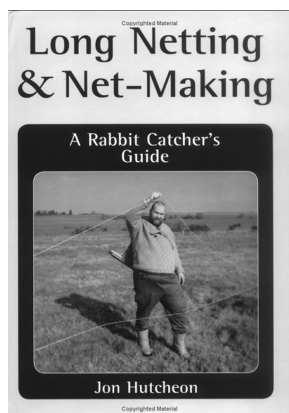
Jon Hutcheon began beating for the local gamekeeper on a 1,000 acre estate at the age of 11 and has since been involved in most field sports. He is a keen conservationist and an experienced rabbit catcher with a passion for bagging them by means of net, ferret and dog, but admits, 'I think the first forty nets I made [from the written instructions of a kit bought at a game fair] were probably the worst nets ever.' He went on to

teach himself, by trial and error, how to make and use them expertly.

I am qualified to make just three criticisms. A crucial ring hitch is said to be 'difficult to describe ... the closest official knot is a clove hitch' [which he illustrates with a slipped overhand knot]; and, on another page, a drawing of an overhand knot is labelled 'clove hitch'. Then again, he writes that, in knitting nets, nylon has a 'nasty habit of cutting into your fingers and hands'. Fair enough. But he adds, '... I am just completing a batch of 100 12oz nylon nets for a friend and my hands as a result are cut to ribbons.' Oh, come on now! Surely that is an exaggeration. If not, you are doing something wrong.

Nevertheless, modern netting how-to books are rare and so this one should be welcomed by all who might use it; and it will, no doubt, also be sought by those KM readers who - like me - cannot resist the urge to acquire any publication with the words 'knot', 'hitch' and 'netting needle' in it.

G.B.



Booklet preview

KNOTTY POTTY and other Pithy Poems for Knotting Devotees

by 'Jennifer Wren', edited
by Geoffrey Budworth
Price: £4.50

The knot-tying poetess and Guild doyen 'Jennifer Wren' will be unable to attend the IGKT Silver Jubilee celebrations at Fareham in Hampshire, England; and so it has been my job and joy to collect, and collate, then print and bind at my own expense, more than 50 of her verses on the art, craft, science and philosophy of knots. They range from rhyming couplets and four-line clerihews to lengthier pieces (even a rope-work rap), tackling subjects as diverse as bondage, knot-boards, macramé and wire splicing. Some are fanciful, and a few provocative, but all were written to amuse and delight knotting devotees, especially IGKT members. Because, as she once said;

'There are real poets, mere rhymesters and doggerel McGonagalls. You can call me what you like, but someone has to celebrate the offbeat diversity of knotting.' This is a limited edition

of 100 booklets in A5 format, spring-bound by my local

SpeedyPrint shop between simple covers of plastic-covered blue card. Nevertheless, they could with care become modest collectables, as there has been nothing like them before. They will be on sale here in the UK at the 25th AGM gathering from 24th to 26th May 2007; where, if you're tempted to buy one or more copies, then do so (or arrange for an emissary to come and make your purchase) ... because once they're all gone, they're gone.

G.B.

CD review

This Is Knot Art, by 'Skip' Pennock (IGKT, Maryland, USA)

Free with *Decorative Woven Flat Knots*. For members who have previously purchased the book, a nominal charge to cover postage will apply.

The creator of this rich source of two-dimensional fancy knotting was originally encouraged by the late Brian Field (a past-IGKT President and a declared 'flat knot freak') to permit the Guild to publish in 2002 the book *Decorative*

Woven Flat Knots. This later CD (dated 2006) is intended to supplement sales of that book, rather than compete with it, and is an extra source of knotted specimens and inspiration.

The PDF (portable document format) disk of 400 MB is effectively an electronic book of 964 pages, with knot designs or patterns too numerous to count, interspersed with helpful chunks of text. Black-&-white pen-&-ink line drawings show us where to place our pins; these are augmented by images of the completed knots (some in colour); all of which are best navigated by first printing out a hard copy of the eight-page Table of Contents, then clicking on 'Directory' and 'Go to (the desired page number)'. Useful introductory instructions are followed by sections sub-divided into the following subjects: frames



& borders - crosses
 - religious and sacred
 symbols (from ankhs and
 angels to yin & yang)
 various general shapes
 (anchors, a compass rose,
 snowflakes and many,
 many more) 2D non-solid
 and solid shapes -- some
 3D shapes - animals
 - silhouettes & profiles
 (from butterfly to whale) -
 alphabets & numeral sets
 and several appendices.

Skip Pennock has provided the IGKT Supplies Secretary with around 150 of these CDs, and generously invites us Guild members who acquire copies to print any of the text, drawings, images and schematics, for our own tying and teaching purposes; and I can personally attest that, just as with his earlier book, owning and using a copy of this CD boosts one's knotting repertoire immeasurably.

G.B.



Rope Ends

"In this age of video games and mobile phones, there must still be a place for knots, tree houses and stories of incredible courage."

Conn & Hal Iggulden
*The Dangerous Book for
 Boys* - Harper Collins
 2006

Knotmaster Series No.

32

'Knotting ventured, knotting gained.'

Figure eight bend(s)

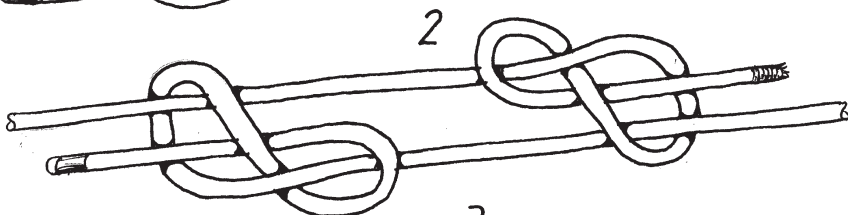
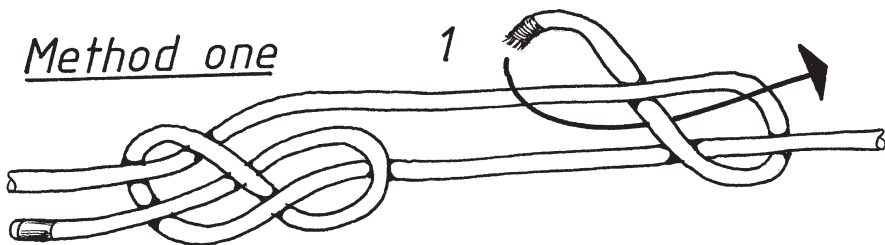
The versatile figure eight (or Flemish) knot is preferred by many who work and play with rope because of its unmistakable outline. It occurs in knots, hitches and also (as in these two instances) bends.

Method one (sliding): Tie a figure eight knot in the end of one rope or cord and insert the working end to be joined through it (fig. 1). With this end, tie another figure eight knot around the standing part of the first line (fig. 2). Tighten both knots and pull them firmly together (fig. 3).

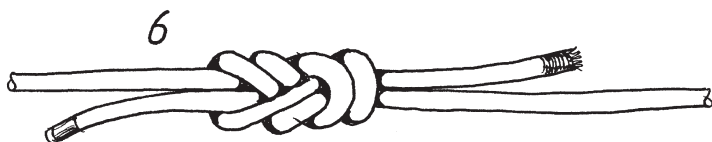
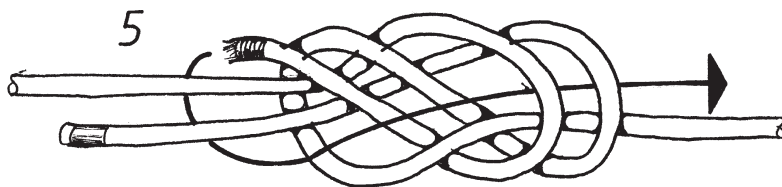
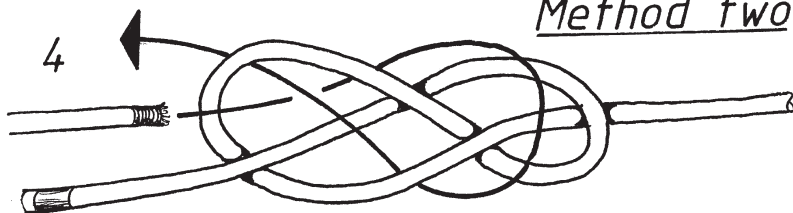
Method two (fixed): Tie a figure eight knot in the end of one rope or cord and insert the working end to be joined through it (fig. 4). Wrap and tuck exactly as shown, tracing the outline of the original knot (fig. 5). Work the knot snug and tight, removing any undesirable twists in the process (fig. 6).

Figure eight bend

Method one



Method two

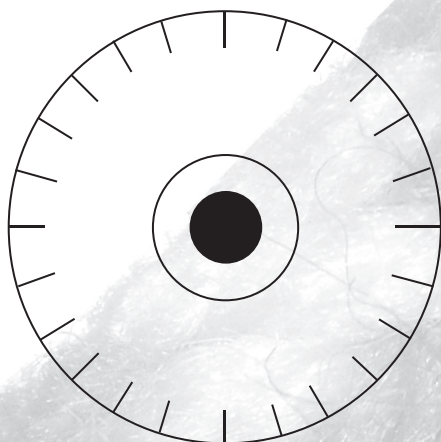


A 12-Strand Solid 'Kongo' Braid on a Disc

Ken Higgs

Preparation

Cut a 12cm disc from stiff cardboard. Mark 24 equal spaces around the circumference. At each mark make a 1cm cut towards the centre. Cut a 2.5cm diameter hole in the centre.



Cut 12 strands ('Chunky' knitting yarn is ideal), each about 80 cm long. N.B. using 4 strands each of different colours will help learning. Tie all strands together at one end.

Place the knot over the hole and spread the strands over the disc as shown. Gently pull each strand into its slot and arrange the colours, in pairs, so that the same colour pair is opposite.

Initial layout of the 12 strands using three colours.

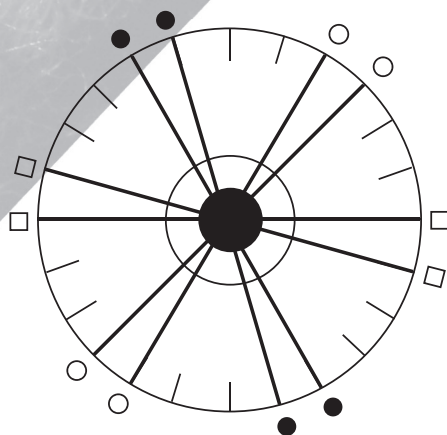
Start so the disc has one coloured pair near you at 6 o'clock and the same colour across at 12 o'clock. Take the left strand from 6 o'clock and put it in the slot at the left at 12 o'clock.

Next take the right strand at 12 o'clock and put it in the right slot at 6 o'clock.

Turn the disc clockwise so the next colour is in the start position - and repeat the moves above. Turn the disc again clockwise and repeat the moves with the third colour.

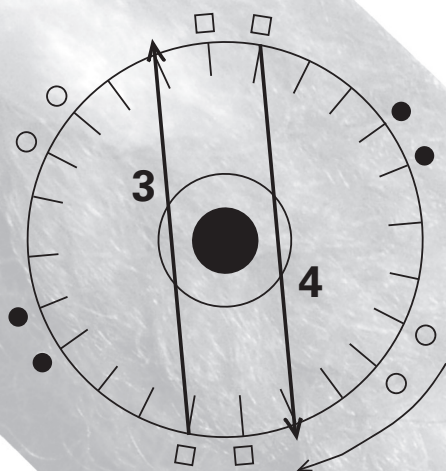
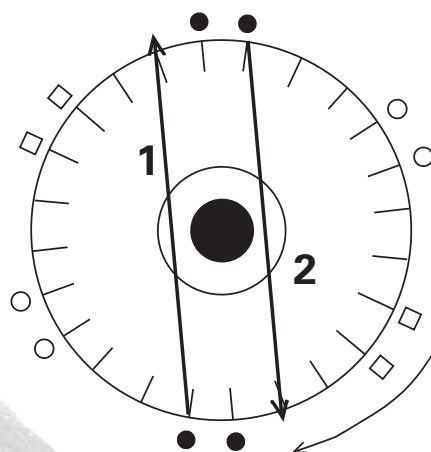
N.B. after the first and second colours have moved the spacing of the strands will be uneven. This will come right again after the third colour has moved.

Once the first few moves have been made hold the knot with one hand and make the moves with the other. This will ensure an even tension. 🌀



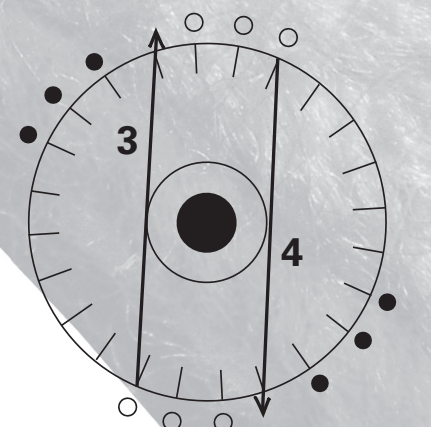
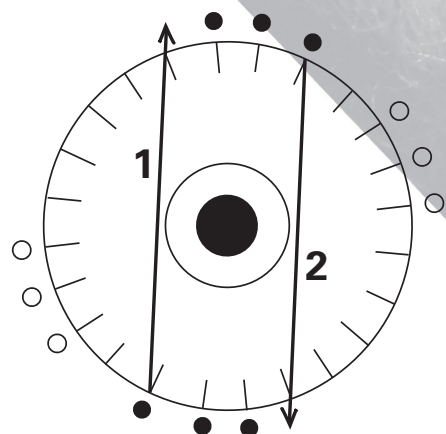
N.B. for clarity the following diagrams show only the start & finish positions of the strands.

Repeat moves 1 - 6 until the required length is made. Allow 80cm strand to make 50cm of finished braid



Now try an alternative layout & routine.

This gives a different pattern.



Stacked Turk's Heads

T J Bartruff

Getting started

I made a jig to make tying the knot a lot easier. The jig was made from a 5" x 5" sq piece of oak that a friend donated to me. I turned it down on a lathe into the shape of the bottle I planned to put the knot over. I plan to make a few of these bottles as gifts so the added time of making the jig was worth the effort. I get the bottles from another friend who enjoys a glass or two of wine every evening, so I have a good supply bottles on hand. In the picture you'll see I taped the grid pattern of the knot to the jig and drilled holes for dowel pins to hold the line in place at the bights. I've already started the knot, just following the over/under grid pattern. On top of the jig is the other half of the line waiting to double the knot.



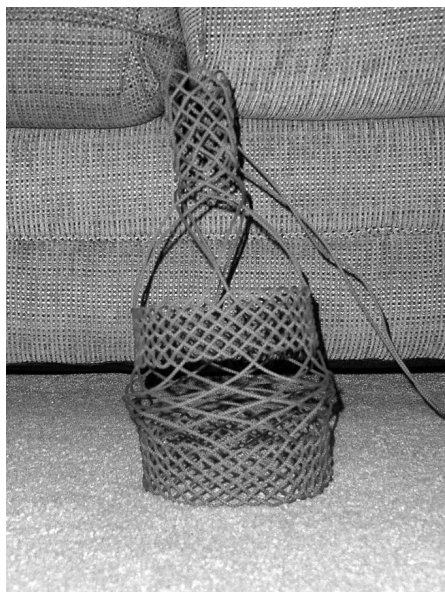
First pass finished

The first pass of the knot is finished on the jig, many hours after I started on the knot. I have the jig on a stand (the wood dowel you see below the jig) so I can set it in the middle of the room and move around it freely. Over 150 feet of line has been used on this knot, so even halved, a lot of room is needed to pull the line through. I later found out I over estimated the amount of line I would need, but better to have too much than too little. All that was left at this point was to pull out the dowel pins and slide it off the jig.

Off the jig.

This is what the knot looked like with a single pass off the jig. I liked how it kept most of its form free standing off the jig.





Finished

After many more hours I have finished my first attempt. The knot is basically five Turk's heads interlinked over the bottle. From the bottom up it's a 9 lead x 32 bight, 5 x 8, 9 x 32, 3 x 4, and a 9 x 8. I had plenty of line left over after tightening it down so I added a Turk's head over the cork with a keeper line sennet to hold the cork and a loop to carry it with. You can see both ends of the line in the picture. Everything you see is tied with one single line, no cuts, breaks or splices.

The line I used is 2mm 8-plait braided nylon from K J K Ropeworks in England <http://www.kjkropeworks.co.uk/cords/> I like this line a lot. It has enough stiffness to hold a knot well, but not too much to make working the knot down too hard. The customer service from Kevin Keatley was first class, he responded quickly to my emails and even sent a package of samples of line. When I placed my order the shipping was prompt and the packages arrived sooner than expected. 🍀



Rope Ends

"There are thirty-three different kinds of knots in the Navy, all of which naturally Mr Bluejacket can tie. He tries to teach me some of the least complicated but I always ignominiously end by a "granny". He can't tie granny knots, so there, at least, I score over him - if it is a score."

Through a Dartmoor Window
by Beatrice Chase (1915)

The Compleat Knottologist

'Jack Fidspike'

Reading maketh a full man; conference a ready man; and writing an exact man [or woman].'

(Francis Bacon, 1561-1626)

Knottology' is the comprehensive word given us by Stjen Johansson^{IGKT} (Sweden) as a humorous alternative to the pretentious 'ologies' of classical origin for our pursuit of knotting. It implies much more than merely tying lots of knots (plain or fancy), and includes allied and multifarious activities, some of which take the place of actual knotting [1, 2].

For instance, we read knotting manuals. Those individuals who plead that they cannot learn to tie knots from books really ought to persevere, because one-to-one tuition is not always available, and being unable to teach yourself can be a severe handicap. We must also, if we are not to become stuck and stranded at a lesser level of skill, locate and gain know-how with other knot tyers. Unable to attend national, regional or local Guild gatherings, we can always communicate with other members by phone, fax, e-mail and/or real mail.

But it is nigh impossible - Don't even try! - to convey in words alone (spoken or written) how to tie the simplest knot to a person unfamiliar with it. As the Renaissance painter, sculptor, architect, musician, engineer and scientist, Leonardo da Vinci (1452-1519) observed;

'The more thoroughly you describe, the more thoroughly you confuse. It is necessary to draw.'

So illustrate knots with photographs and photocopies ... but preferably

drawings. Many say they cannot draw, as if it was an innate talent one either has or has not. In fact the ability to draw competently is NOT a gift. It's a reward - for devoting time and effort with pencil or pen to acquiring this useful technique.

The more self-confident or extrovert amongst us may then go on to talk, lecture, demonstrate, motivate and teach others, in public or private, at knotting workshops and exhibitions. In the process, we also praise and publicize knotting and so may find ourselves in the role of recruiting officer. Then it is a small step to helping out in the administration of Guild or local branch affairs - whether as an elected Guild or branch official or an occasional volunteer to sell raffle tickets.

Those with leisure time and money to spare are sometimes sidetracked into collecting knot books, antique tools and knotted artefacts of all sorts. The comprehensive knowledge gained, and curiosity engendered from owning a variety of these things can suggest lines of research or experimentation from which knotting innovations and discoveries may emerge.


The foregoing is not a royal road, to be dutifully trodden from its beginning to its end by everyone. Instead we hang-glide down to enjoy outings at specific bits of it, cherry-picking according to our inclinations and needs, until eventually each one of us evolves into a compleat knottologist [3]. 

Fig. 1

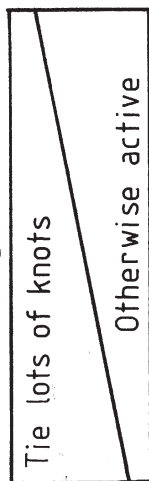


Fig. 2

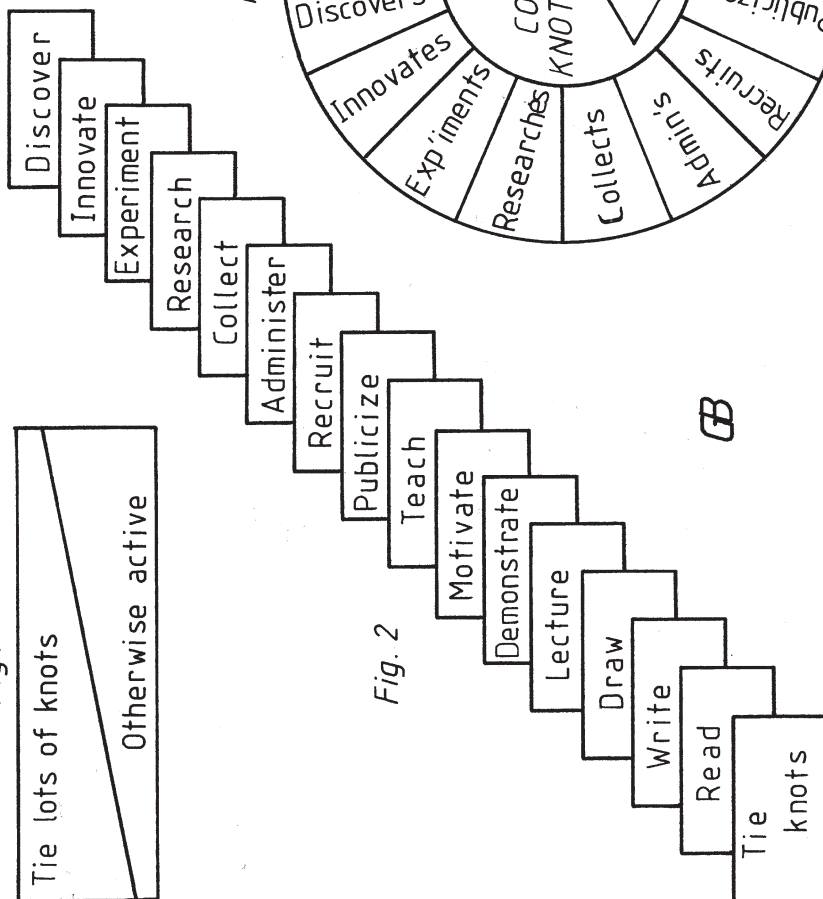
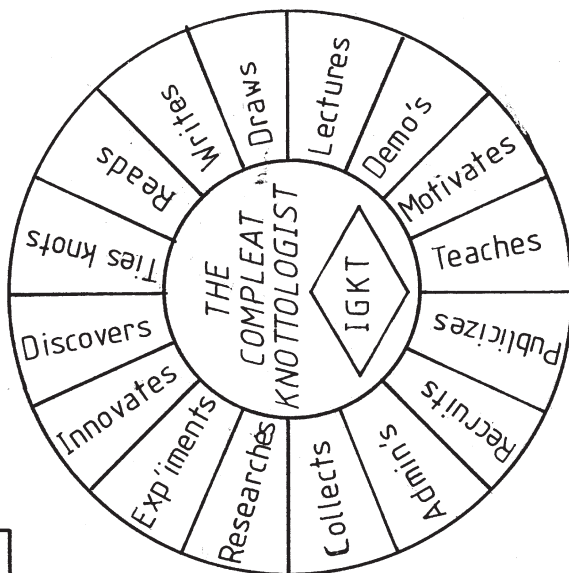
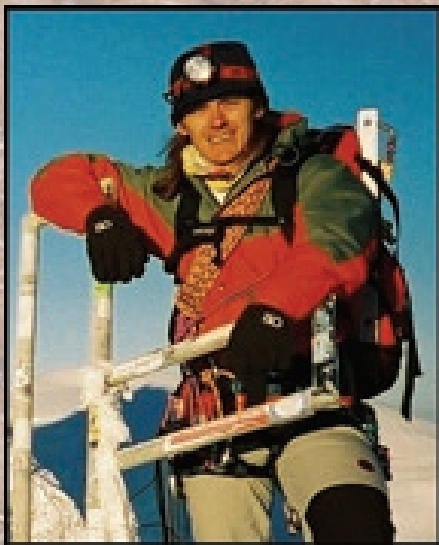


Fig. 3



GB



Barry Brown - U.K.

Igrew up in a shipbuilding town called Barrow-In-Furness, which is situated at the southern end of the English Lake District.

Apart from learning to tie my shoelaces, my first appreciation of knots came in the form of two nylon bell ropes, one, which hung from the end of the light pull cord in the bathroom at home, and another, which hung in my Grandparents bathroom, these had been made in the late 1970's by my Grandad's work friend Bill Laurie, who was a member of the IGKT around twenty years ago, I did not know then, that these bell ropes would be the catalyst to my quest for knotting knowledge.

I joined the IGKT in 2001 and my first physical contact with the Guilds members was a trip to the

home of Des and Liz Pawson, and their Museum, Wow! There I filled my head with inspiration and my rucksack with tools, books and cord.

I did not attend my first meeting until October 2002, when I plucked up the courage to go to the half yearly meeting held at T.S.Weston, in Weston Super-mare, where I received a very warm welcome from all of the members and felt right at home, I went away buzzing with enthusiasm.

I am interested in every aspect of knot tying, both practical as a climber, and as a decorative knot tyer, I try to incorporate original and innovative ideas in my decorative work whenever I can.



5 Hitch Oval Mat

Made with single strand of 10mm Manila, around 55metres long.
Finished with a special mat splice, which makes the mat reversible.

The finished mat measures 730mm x 580mm



Ditty Duffle Bag

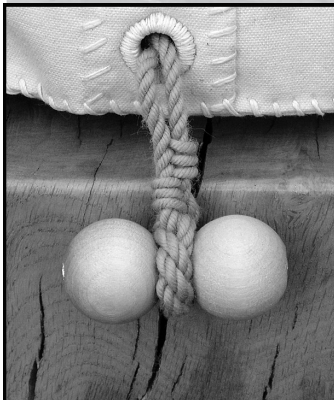
This bag was made for Nick Gillingham a friend and fellow knot tyer whom requested a bag much larger than normal ditty bag.

The body of the bag is made from 12oz Cotton Duck, and is 450mm x 255mm.

The grip is of Hemp and Cotton and contains Spanish hitching, Pineapple knots, Mathew Walker knots, a Turk's-head and Ringbolt hitching around the hanging loop.

The slider is a Pineapple knot and the base toggle is of Beech wood.

There is an adjustable length lanyard on the handle





Flax Chest Beckets

The core is a selvagee strop, marled, parcelled, and a puddening of canvas applied, this is then served before being covered.

Eyes are ringbolt hitched in cotton, legs are of needle hitching in flax, bails are of double crowning in flax, Small Turk's-Head knots in cotton and large two colour Herringbone knots finish the covering.

The bolt is of 4 strand hemp, wormed, parcelled and served, this is covered with a leather chafing piece and 4 pinked leather washers, finished off with doubled crowned diamond knots.

The cleats are solid Mahogany.

The finish is hand mixed, natural, Bleached Shellac.

Approx size of each Becket: height 270mm x width 160mm.



Fred's Doorknocker

This Becket doorknocker was made for Fred Kemp, a friend and fellow knot tyer.

The core is a spliced strop, wormed, parcelled, and a puddening of canvas applied, this is then served before being covered.

The covering is tarred Nylon.

Eyes are ringbolt hitched, legs are of needle hitching, bails are 8 strand x 5-ply coach whipping,

Small and large Turk's-Head knots finish the covering.

The bolt is 8 strands of tarred nylon over a nylon core, parcelled and served, this is covered with a leather chafing piece, 4 pinked leather washers and finished off with 6 strand Globe knots.

There is no cleat pictured here as Fred wanted to make his own,

The finish is hand mixed, natural Shellac.

This Becket is made smaller than normal to bring it closer to the size of a standard metal doorknocker.

Approx size of Becket: height 175mm x width 151mm.



Two Tone Lanyard

The two tone lanyard consists of an eight strand round braid over a larger nylon core for strength, the splice is covered with a Pineapple knot, the end of the lanyard has Pineapple knot topped with a Spanish ring knot. The whistle is attached to a swivel, which is spliced in to the end of the lanyard.

The length of the lanyard, from the back of the neck to the bottom of the swivel is 550mm. Colour: Tan with Black highlights.

Pineapple Knot Keyrings

A mixture of 35 part x 30 bight, 5 Pass, Type 5, and 36 part x 36 bight, 6 Pass, Type 3 Pineapple knots in various colour patterns.

Made using 1.25mm cord over a wooden ball, finished size is 30mm diameter

Coated with Shellac.



Sailmakers Bench

This bench is 6 feet long, and made from recycled Mahogany. I custom made the bench to fit my leg measurements, I do most of my knot tying and canvas work on this bench.

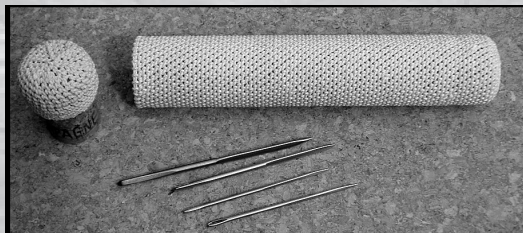


Heaving Mallets

These Heaving mallets have galvanised steel heads and stainless steel shafts.

The large mallet grip is covered with grafting in blue and red, 1.25mm polypropylene.

The smaller mallet grip is covered with Fid work; this is a leather braiding technique used when making intricate patterns with numerous strands. Both handles have 5 part x 8 bight Casa knots.



Sail Needle Case

This needle case has a very thick card tube as the core, which is soaked in Shellac to harden it. The ends are fashioned from corks that just happened to be the perfect size for the tube.

The covering is plain needle hitching in fine 12 thread, cotton seine twine. There are over 3500 single hitches in all.

I had considered adding Turk's-Head knots to the case, but felt that they would spoil the pure look of the hitching.

The finish is exterior varnish.



Mumbles Navy Days Six Knot Challenge

Mumbles Navy days (27th-29th of May 2006) brought out the crowds, and with it came all types of knot tiers. From people who use knots regularly during their working day such as seamen, steeplejacks, firemen and rope access technicians, to people who learnt knots in various associations from the Sea Cadets, Scouts, Guides and Yacht Clubs.

However there were many members of the public who only knew how to tie their shoe laces. But that was until they were instructed in, and then under-took the 'Six Knot Challenge', consisting of

round turn and 2 half hitches, bowline, reef knot, sheet bend, figure of eight and clove hitch. This was devised by the International Guild of Knot Tyers to interact with crowds at such events, and to teach the public the art of knot tying.

South Wales Marine were conducting the challenge, and they also provided the prizes of decorative rope key fobs for the fastest time of each day, and a decorative bell rope for the fastest time over the three days.

Both Tim Stewart and Rob Prosser, who are partners in the newly formed

business, said, 'We are very surprised at the interest the challenge has generated. Parents and children alike have been returning again and again to try and beat their personal record or the currently held record'.

For a small group of people, one day of knot tying wasn't enough. They returned every day to try and improve on their previous time.

Sam Chess, a local Mumbles lad, and a member of Mumbles Yacht Club, surprised everybody with his speed at tying the six knots. He won the first day with the fastest time of 35 and a half seconds. He returned on the second day and achieved 35 seconds.

On day three a new challenger appeared from nowhere, a young lad called Ben Condé. After practicing the knots for a while, he managed to knock a full 11 seconds off the previous day's

record. By 3pm on the last day the fastest time stood at 24 and half seconds.

That's when Sam returned, and the battle commenced. The two young lads were going head to head, alternatively taking turns on the challenge board. They were tying right up to the finish bell at 6pm. Watched by both their parents, as well as a small group of staff and members of the public.

Sam emerged the winner for that day by regaining the fastest time of 23 and a half seconds, with Ben securing a well deserved 2nd place.

South Wales Marine (www.sw-marine.co.uk) are based in Swansea and specialise in rope and rigging applications for the yacht and leisure industry in the South Wales area. It was such a success that they are doing it again this year from 26th-28th May. 🏆

Sam (2nd left) the over all winner of the six knot challenge and Ben (2nd right runner up flanked by Tim and Rob of South Wales Marine



Quick Slip Tugboat Loop

John Smith

Just before going on a canal holiday I saw Elbert Waller's article in *Knotting Matters* 83 and was intrigued by the possibility of using a "slipped bollard loop" on our boat. I am no expert boater but it seemed a bit dangerous for an amateur to firmly tie a boat in a lock. It seemed safer to stand on deck, hold the rope and worry a lot, so I did, mostly about a quick release loop. Two years later, I can offer you this quick slip tugboat loop.

I can see a wide range of uses for a slipped knot that can firmly secure a line that is through a ring or indeed round a hook, bar or anything else that is high up, especially where a quick and reliable release is wanted. You can pull the load up to the desired position, secure it and then release it quickly but under control. It can be used in most situations where a temporary hitch is required. It can be used where access to the actual ring or hook is insufficient to tie a knot but just

Fig. 1

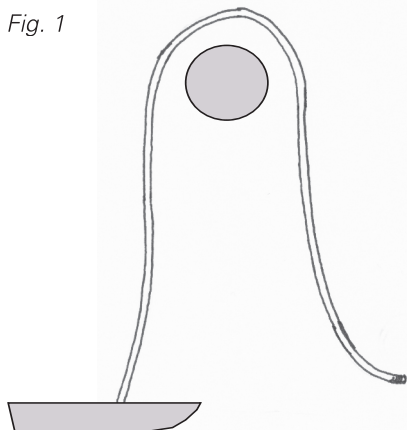
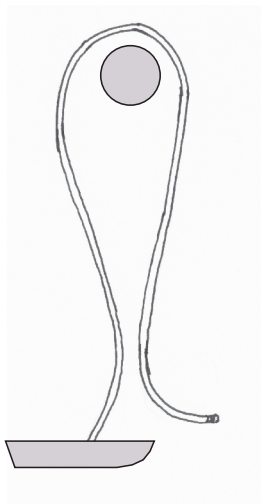


Fig. 2



enough to pass a line through or round. Such a knot should be robust and resistant to jamming so that a wide range of lines and loads could take advantage of it.

The desired tie and release features of such a knot are indicated in figures 1 and 2.

Fig 1. The knot should be tied in the bight, with one end already secured to your boat or load and the other end being a large coil or just surplus line not presently needed.

Fig 2. The two parts should come together as far from the bollard, ring, rail or whatever as you need for the knot to be formed. Most importantly, it must part when released without getting its legs in a tangle. For a quick release to work you don't want the unnecessary friction and possible jamming of parts wrapped round each other after the knot is spilled. This is especially true if a lot of line has to run through a ring.

Fig. 3



Before tying this knot, by way of a warm-up, tie a couple of bowlines using the “rabbit comes out of the hole, round the tree and back down the hole” method. It will remind your fingers that they already know how to tie this knot even if you don’t yet.

Fig 3. Bring the left hand part across and behind the right hand part. Ignore the apparent tangle that is forming below. That won’t be a problem, I promise. Don’t try to separate it. Trust me.

Fig. 4

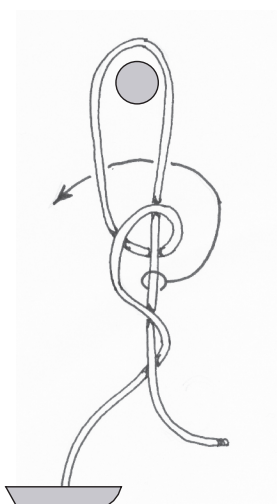
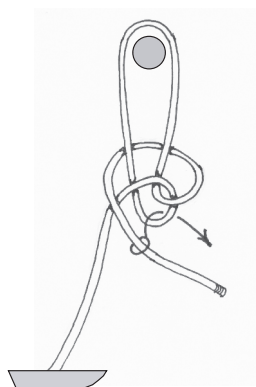


Fig 4. Continue the action (you will feel what I mean as you start to move the line) to make a loop with the left (load) part around the right hand part. If it reminds you of forming a bowline that’s good, it’s supposed to.

Fig. 5

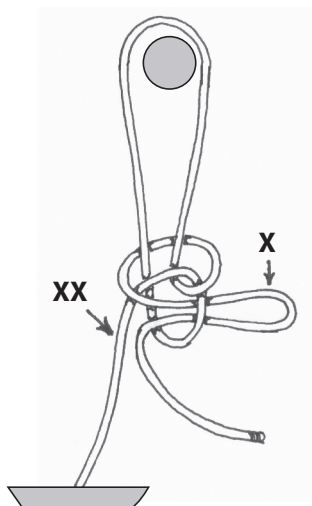


Take a bight in the right hand part, just below the loop, and pass it round the back of the structure. Continue to ignore the tangle lower down. Have faith.

Fig 5. Now pull that bight through the loop. It’s very much like guiding the rabbit back down the hole.


Fig 6. Note the tangle. What tangle? I told you to trust me, it’s gone.

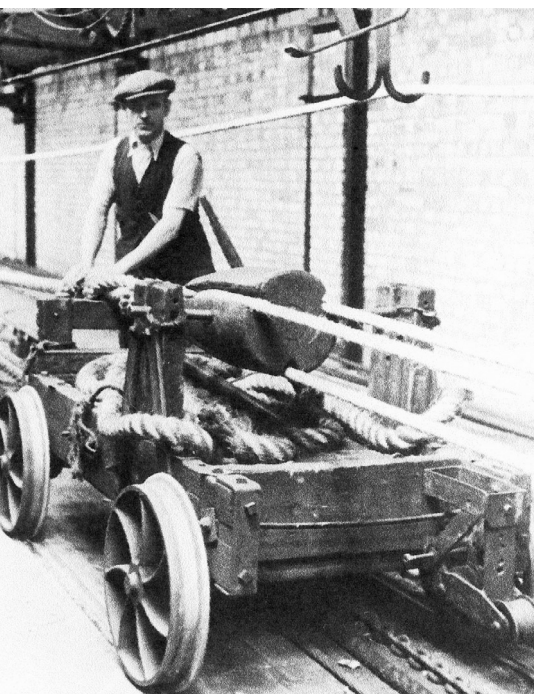
Fig. 6



Draw up this quick slip tugboat loop by holding firm on the part marked with X and pulling on the part marked XX. In fact you will find that in practice you don't let go after passing the final bight and just apply some pull to the left hand part.

Stand back and admire your work. Close examination shows that the structure is that of the tugboat bowline with the bits that form the loop and ends interchanged. That should withstand some heavy treatment without jamming.

Fig 1. (again). Spill the quick slip tugboat loop by pulling smartly on the right hand part. It will spill and pull apart with no tangling or crossing of the two parts. It flies apart like a Highwayman's hitch but without that scary way the whole thing falls off the rail. Keep hold of the line after you spill the knot so that you stay in control. You could decide to pull the load higher or let it go lower and re-tie the knot. You are left with the line still through or round the anchor point with you still in control of it. 



Rope Ends

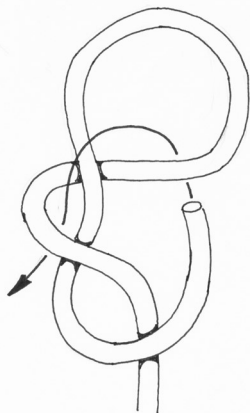
'Did you see that business with the cod-end knot? ... because that's *important* ... There are several types of cod-end knot. The boys here use a chain knot. Usually only one man in a crew ties it – I suppose it will have come about somehow ... that if there was a big shot* once, whoever tied the knot that time always ties it from then on ... if that time he tied thirteen loops, then from then on there must always be thirteen and so on ... Some say you shouldn't go out to the fishing grounds with the knot tied, only at the last minute should you tie the knot ... others the opposite ... and so on ... Some boats I've been on – the man who ties the cod-end knot won't show you how it's tied: because there's a risk the magic will be lost if the secret is told.'

* A shot. To shoot the net. A big shot, a *really* successful catch.

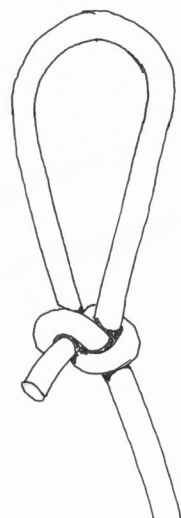
(from *TRAWLER – A Journey through the North Atlantic*, by Redmond O'Hanlon, published in 2003 by Hamish Hamilton, an imprint of Penguin Books, ISBN 0-2411404-5)

A Group of Knots

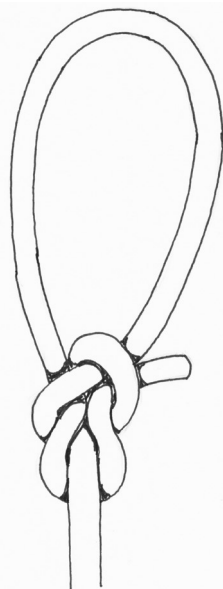
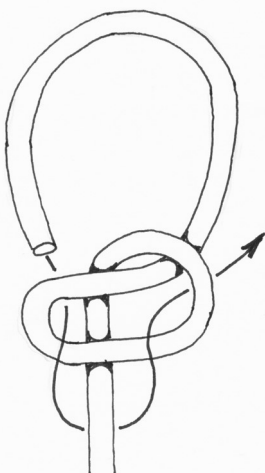
Owen K Nuttall

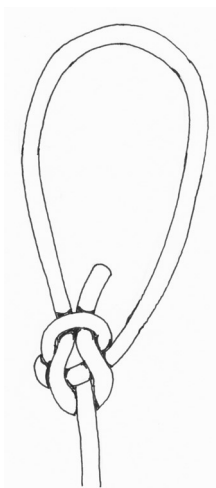
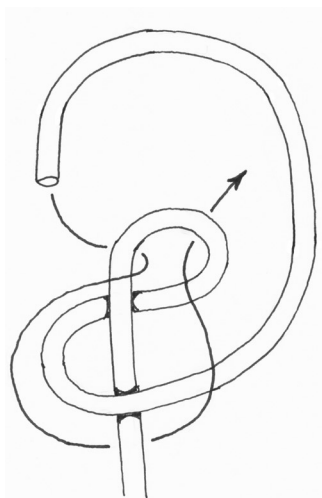


The first is based on an overhand configuration called the Little Gripper. (I thought of first calling it Granny's Whatknot). It resembles a cross between a granny and a whatknot, even when the loop is slackened and pulled in the opposite direction it holds well. This loop knot is very small and effective, the standing part runs smoothly into one leg of the loop. The other leg of the loop holds the knot firmly in place. In fact this knot is so simple it must have been tied before, but where?



The second loop knot Konka is based on a type of bowline, though I think the working end is held more securely by the standing part,



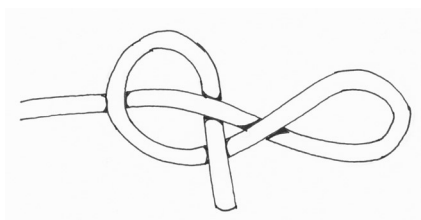
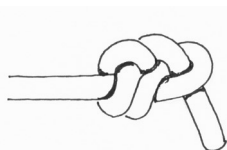
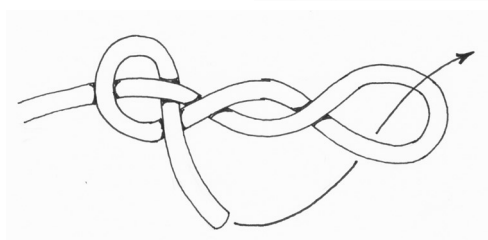
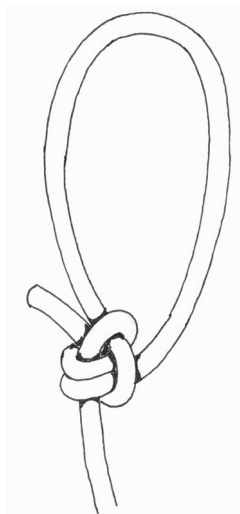
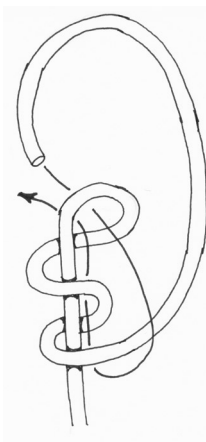


The third loop is Big Brother Bowline on the face of this knot it resembles a standard bowline. Even though it's slightly bulkier I think it is just as safe. (perhaps even more so). It is also quite secure when the loop is subjected to a pull in the opposite direction.

This fourth loop is the Little Sister Bowline.

Another knot based on a simple overhand is the Linfit Stop Knot with two extra twists, which helps prevent the stop knot becoming difficult to untie. In fact if the knot jams up tight by pulling on the tail end it actually loosens this knot (strange but true). Even with just one twist it works. I have used both versions to good effect. On the cosmetic side it make a good right angle turn to edge a knot board.

Have fun with these knots, I do. 🍀



An Overview of Carabiner Hitches for Climbing And Rescue - Part 1

Rob Chisnall

Over the past seven or eight decades, ever since mountaineers started using carabiners (a.k.a. karabiners, crabs, krabs, mousquetons, and snap hooks), climbers have been very inventive in developing ways to create friction and auto-locking hitches for belaying, rappelling, and rescues. The purpose here is to present a fairly thorough overview (although much has been omitted)¹ of all major carabiner hitches, highlight a few new, antiquated or little-know techniques, and bring to light some details regarding strength, security and overall safety.

Carabiner hitches can be divided into several groups:

- Anchoring hitches that are fixed and immovable, but which can be adjusted while unloaded (like the clove and girth hitches; see Figures 1a, 1b, 2a and 2b);
- Semi-mechanical ascenders or soft ascenders that

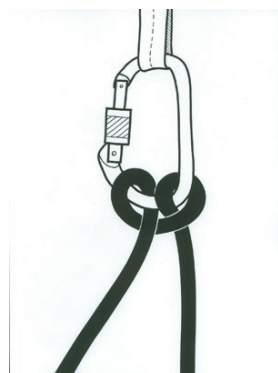
© R. Chisnall, 2006.

The material and illustrations contained herein have been used and will be used in other publications.

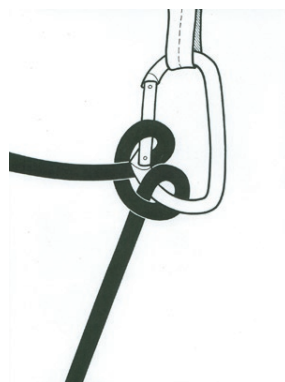
Duplication by any means without express permission is forbidden.



1a
Clipping a clove hitch to a carabiner.



1b
*Clove hitch on a carabiner
The right-hand side of the rope bears the load.*



1c
Clove hitch improperly oriented on a non-locking carabiner the rope could unclip.

Warning!

Unsafe climbing practices and improper vertical rope techniques can result in injury or death.

This article is no substitution for proper training, experience and common sense.

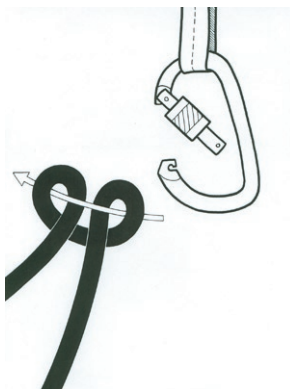
incorporate a carabiner (like the Bachmann, Prohaska and rbs knots or hitches)²;

- Sliding hitches or techniques that provide friction for rappels³ (like the carabiner wrap rappel or spiral rappel system, which has been popular with the military; see Figure 3) and belays⁴ (like the Münster hitch, which has been common amongst mountaineers ever since it was introduced by the U.I.A.A. in the 1970's; see Figures 4a and 4b);
- And one-way hitches or progress capture techniques⁵ that lock automatically (like the Gardaknoten, Garda knot or Alpine clutch; Figures 5a and 5b.).

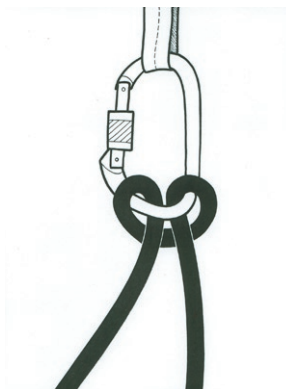
The primary focus of this article is the latter two categories.

Some Preliminary Comments about Carabiners

Fundamentally, a carabiner is a device designed to connect components of the safety or belay system. A carabiner has three axes: major, minor and perpendicular. Although carabiners are required by UIAA, CEN (CE or EN) and other standards to be able to sustain loads of up to seven or

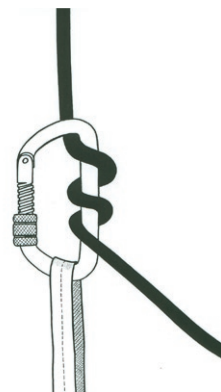


2a
Clipping a girth hitch to a carabiner



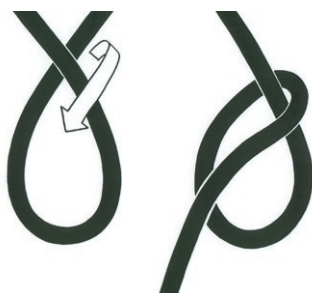
2b
*Girth hitch on a carabiner
The right-hand side of the rope bears the load.*

3
Carabiner wrap rappel or carabiner spiral



4a
*Tying the Münster hitch
Make a bight, fold the rope over on itself and clip it in.*

4b
The Münster hitch (slant D-carabiner)



eight kiloNewtons along the minor axis - across the width of the crab - carabiners are intended to take loads through their major axis only - along the length of the device so that the spine bears most of the load. Anything that deviates from this rule may compromise the strength and security of a carabiner.

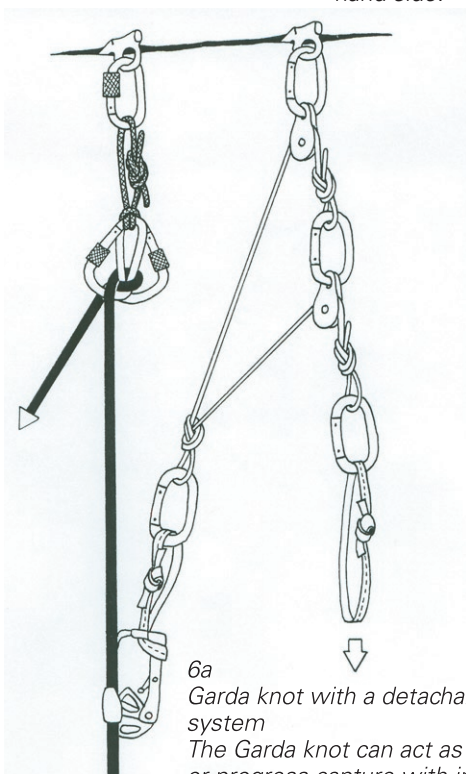
Carabiners come in a variety of shapes and sizes for different applications. Some are non-locking - in that the only thing securing the rope is the spring-loaded gate - and locking carabiners (whether manual or auto-locking), which have a spring-action or screw-action sleeve for additional security against accidental opening. Although most of the carabiner hitches depicted in this article are represented with locking carabiners, most mountaineers and big-wall climbers use non-locking carabiners for speed and weight reduction. Nevertheless, in all cases, care must be taken to ensure that any hitch cannot open one or more carabiners in the system and thereby cause accident detachment. Of course with every new and unique carabiner hitch comes foreseen and unforeseen ways in which



5a
Clipping the Garda knot



5b
*The Garda knot (Alpine clutch or Gardaknoten)
The load is on the left-hand side.*

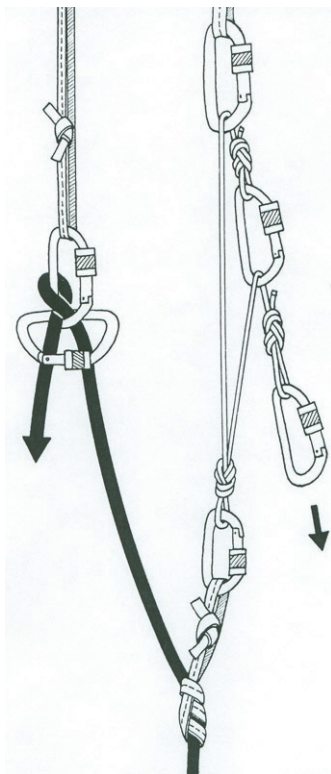


6a
*Garda knot with a detachable haul system
The Garda knot can act as a locking belay or progress capture with improvised hauls. In this case, a detachable 3:1 inverted piggyback is depicted with a mechanical ascender and pulleys.*

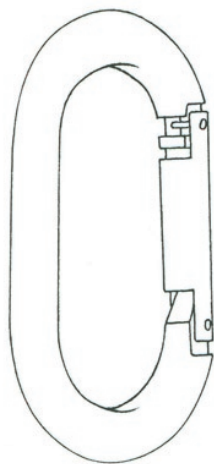
carabiners could unclip, so vigilance and prudence are essential.

As well, the shape of a carabiner can affect the performance, strength and security of any given hitch - especially ratchets or auto-locking hitches utilized in emergency rescues and improvised haul systems (as in Figures 6a and 6b). Ovals (Figure 7), D-carabiners (Figure 8), slant D-carabiners (as in Figure 4b, among others), pears or HMS carabiners (as in Figure 20b, among others), wire gates, straight gates and dog-leg or bent-gate carabiners have peculiarities and limitations which cannot be ignored. Manufacturers redesign and alter carabiner configurations in subtle ways every year, and these changes could have minor or major impacts on carabiner hitch performance.⁶ Even the shape of the sleeves, especially large ones, might affect security. The prepared climber is wise to test out his or her carabiners in various applications in a variety of conditions - under controlled circumstances, of course - in order to determine what is optimal and safest for their purposes.

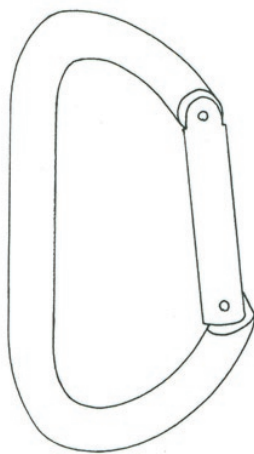
Some of these



6b
C & F belay hitch with a detachable haul system
The C & F hitch can also act as a locking belay or progress capture with improvised hauls. In this case, a detachable 3:1 inverted piggyback is depicted with a Hedden knot or hitch and no pulleys.



7
Oval carabiner (non-locking)



8
D-carabiner (non-locking)

limitations and peculiarities will be highlighted as examples in the following overview, but this is by no means an exhaustive list of all the ways in which carabiners can unclip and carabiner hitches can fail.

Anchoring Hitches: Clove and Girth

Two quick and simple ways of securing the climbing rope to a carabiner are the clove hitch (Figures 1a and 1b; en Française, c'est un Cabistan) and the girth hitch (Figures 2a and 2b; a.k.a. the Lark's head and cow hitch). Both are fast to tie, they require a minimum of rope, and they can be adjusted easily once tied. The clove hitch is the more commonly used knot for setting up anchoring systems with minimal gear on multi-pitch routes.

There are some details worth noting. First, ensure that the load-bearing side of the rope is closest to the spine of the carabiner (i.e., away from the gate, which is weaker; the right-hand side of the rope bears the load in Figure 1b in this case). This can make a difference of up to 30 percent of the breaking strength of the carabiner,

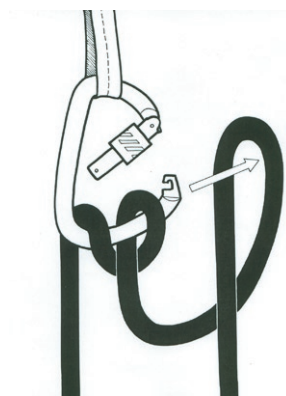
provided the rope does not slip (Luebben, 1993)⁷.

With regard to security, most mountaineers and big wall climbers typically carry a minimum number of locking carabiners, which are heavier and bulkier - usually just one or two for belay devices and harness clip-in points. Most of the illustrations herein depict hitches with locking carabiners because they are more secure. Figure 1c illustrates how a clove hitch might invert or ride up onto the gate of a non-locking carabiner and cause the rope to unclip (Prohaska, 2001). This can happen in a number of ways, and accidental detachment has happened to climbers using the clove hitch on non-lockers. Caution must be taken to ensure the clove hitch is properly oriented and loaded and the gate of the non-locking carabiner is protected from opening during use.

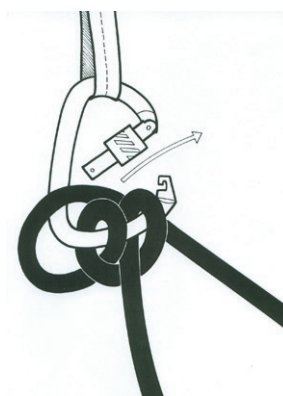
I should mention that there is a slick method of converting the Münter hitch to a clove hitch, as depicted in Figures 14a and 14b (Verdier, 1999). However, realize that the gate is open during the conversion and the climber could wind up accidentally unclipped.

Soft or Semi-Mechanical Ascenders: The Bachmann Et Al.

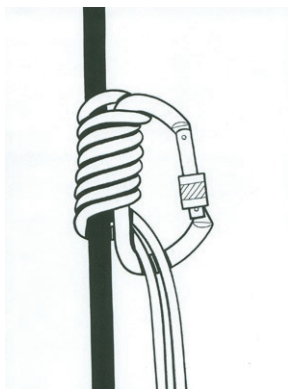
There are numerous Prusik-like hitches that incorporate a carabiner. These include: the Bachmann knot (a.k.a. Bachman and carabiner Prusik, Figure 9); the alternate Bachmann knot,



14a
*Converting a Münter hitch
to a clove hitch - step 1*



14b
*Converting a Münter hitch
to a clove hitch - step 2*



9
Bachmann knot

two versions of the rbs knot, the carabiner Prusik with one and two turns, the snap link twist, the single-wrap snap-link twist, and the inverted rbs knot (none of which are illustrated; Thrun, 1973; Chisnall, 1985; Prohaska, 2001).⁸ The performance of such hitches is more a function of the topological configuration of the accessory cord and carabiner rather than carabiner security. These hitches are mentioned here for completeness, but the subject of Prusik-type hitch security and strength is a subject for another article devoted solely to that topic.

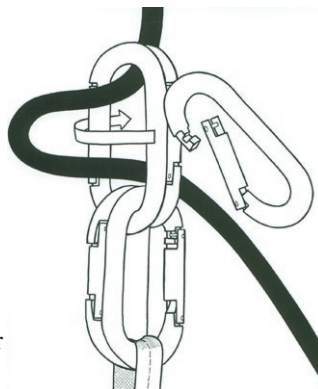
Creating Friction for Rappelling

(Note: In the drawings presented, although not accurate, the depictions of webbing or tape serve as generic harness clip-in points. See footnote 9

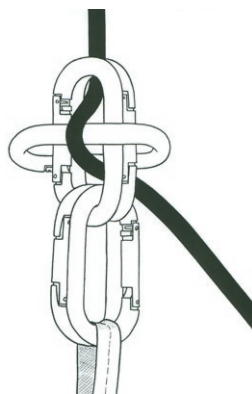
for further details on carabiner rappel systems.)

Some of the classic how-to climbing manuals document two long-standing rappelling techniques that employ carabiners: the carabiner wrap (Figure 3) and the carabiner brake (Figures 10a and 10b). There are a number of variations. For example, the carabiner wrap rappel system can include a chain of two to four carabiners containing wraps to increase friction (Martin, 1987; not depicted). However, increased wraps increase the kinking of the rope, and chaining carabiners together - especially non-locking carabiners - invites accidental detachment.

The carabiner brake can be varied according to the number of cross-oriented 'biners introduced as brake bars. (Only one carabiner is depicted in the brake position for clarity; more must be used in practice.) It was usual to employ two or three carabiners for double-rope rappels, and three or four to provide sufficient control during single-rope rappels or rappels with thinner ropes (not depicted). Additionally, two brake systems can be used in tandem to produce even more friction (Martin, 1987; Setnicka,



10a
Setting up the carabiner brake with non-locking ovals



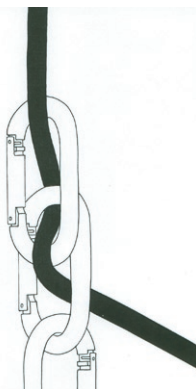
10b
The carabiner brake. Only one carabiner is shown in the brake-bar position. At least two are required here.

1980; not depicted).

A single-carabiner brake-bar rappel device was marketed decades ago to be used with oval carabiners. (The oval carabiner is the inherently weakest carabiner design

because the load is shared equally between the spine and gate.) This puts weird four-way or quartet loading on the main carabiner during rappels, something it was not designed to do, and the gate could be damaged and sometimes it did (Smutek, 1979).¹⁰ In comparison, the carabiner brake utilizes doubled-up carabiners in the main position to alleviate this four-way loading. Using a pair of carabiners side-by-side is like laminating two pieces of wood together for greater strength, much the same as plywood is manufactured. A variation of the carabiner brake, called the double carabiner rappel (simply reorient the brake-bar carabiner by sliding it off the main carabiner and align it vertically so the rope runs over the apexes), uses single carabiners (Smith, 1979; Figure 11). It certainly appears simpler, but the topmost carabiner can be loaded in unpredictable ways, and the security of non-locking carabiners in such applications must always be brought into question.

The advantage of the classic carabiner brake rappel system is that it affords no rope-on-rope friction (unlike the



11
The double carabiner rappel
Note that single, non-locking carabiners are illustrated. Caution: this setup can improperly load carabiners, and they could unclip.

Münter hitch) and does not twist or kink the rope (unlike the carabiner wrap rappel). The downside is that five or more carabiners are required, and it is not simple or fast to set up. There is also the danger of dropping or losing your brake carabiners if you feed the ends of the rappel lines completely through the carabiners - they are not attached once the rope is disengaged. Still, it is a handy improvised technique to know in a pinch.

To be continued

Footnotes

¹ To save time and space, the number of illustrations has been limited. Even though there are about 80 drawings, several systems are merely mentioned and not depicted, and some details have been covered only superficially because the number of illustrations required for absolute completeness and clarity would be impractical and excessive.

² Semi-mechanical or soft ascenders - These knots or hitches were the forerunners of mechanical ascenders, which grip the climbing rope and allow climbers, cavers or rescue personnel to ascend or climb up a secured line easily and efficiently, when used in pairs. Soft ascenders are hitches tied onto the main line using accessory cord of a smaller diameter than the main line. These hitches can be slid up the rope, but grip it when weighted. The Prusik knot or hitch is probably the best known and most frequently-used hitch of this kind. There are hundreds of other Prusik-type or soft-ascender hitches and variations.

³ Rappelling - To rope down or slide down a rope or descend (a.k.a. abseiling; to ab or rap).

⁴ Belaying - To catch a falling climber; belaying also entails holding the fallen climber and lowering him or her to safety if necessary. Lead climbers - those who climb up first, place their own safety anchors, and drag the rope behind them while being belayed from below - run the risk of falling a lot further than anyone climbing on top-rope, or with the rope snug above them. Therefore, catching a falling leader involves greater impact forces.

⁵ Progress Capture - When lifting a fallen climber to safety using a haul system, the locking belay or progress capture system keeps the climber secure during the haul. It is an auto-locking system because the belayer does not need to grip the rope to hold the climber. The rope is locked off and the climber is held in place whenever there is a pause in the hauling procedure.

⁶ I recall some years ago the Mountain Equipment Coop here in Canada issuing a warning about a certain brand of carabiners, which tended to unclip when used in reversed or opposed configurations during top-roping because the gate pins protruded a bit too far.

⁷ With regard to the clove hitch and positioning the load-bearing side of the rope, here is a sample of what some publications propound:

Fasulo, 1996, Page 19:

The clove hitch is illustrated and labelled indicating the load-bearing side of the line closest to the spine, away from the gate.

Luebben, 1993, Page 16:

The clove hitch is labelled with the load-bearing strand running closest to the carabiner spine. Quote: "The load strand of the clove hitch should be situated near the spine of the carabiner. Reversing the clove hitch take the load away from the carabiner's spine, decreasing its strength by 30%."

Raleigh, 1998, Page 40:

An oval carabiner is depicted with a clove hitch. The strand closest to the spine is loaded.

Quote: "When you do use the clove hitch, arrange it so the loaded strand is next to the carabiner's spine. Go the other way, and the knot will load the carabiner's gate side, which is far weaker than the spine.

⁸ Regarding semi-mechanical ascenders:

Black Diamond 2003 Catalogue:

An "unconventional friction hitch" using a quick draw, or sewn sling with two non-locking carabiners, called the Prohaska (presumably named after Heinz Prohaska), is described and illustrated on page 14.

Eggstein, 1981, Page 47:

The Bachmann Knot is labelled the Karabinerklemmknoten and is depicted with the accessory cord wrapping the main line and carabiner four times. An upside-down version is also depicted, which is labelled "falsche Belastungsrichtung."

Page 49:

A Karabinerprusik is illustrated.

Pages 50-51:

A version of the Mnter Mule (overhand slip loop) is illustrated as the Blockierungsknoten.

March, 1976:

Pages 39 and 41 illustrate the "Prusik knot tied with a karabiner," a two-wrap (4 strands) Bachmann knot, and a three-wrap (6 strands) "Klemmheist knot tied with a karabiner."

Mariner, 1977, Page 98:

The Bachmann knot is illustrated with three wraps (6 strands) and called the "Karabiner-Klemmknoten."

Thrun, 1973:

See the chapter entitled, "Semi-Mechanical Knots" for descriptions and depictions for Prusik-like hitches that incorporate carabiners, including the Bachmann knot, the alternate Bachmann knot, two versions of the rbs knot, the carabiner Prusik with one and two turns, the snap link twist, the single-wrap snap-link twist, and the inverted rbs knot.

⁹ With regard to improvised carabiner rappel systems:

Amenda, 1977, Page 12:

Amenda points out the inherent danger of the moving line unscrewing the sleeve of a locking carabiner.

Hansen, 1981, Pages 20-21:

“Two types of improvised biner [sic] descending brakes” are depicted: the carabiner brake and the carabiner wrap rappel systems.

March, 1976, Pages 79-82:

Versions of the “Karabiner Brake” are depicted, one with the “control rope below,” which could fall apart if the brake bar carabiner passed through the main carabiner, and the other with the “control rope above,” which resembles the standard version shown by other authors.

Mariner, 1977:

Pages 99 - 102 depict various incarnations of the carabiner brake, with locking carabiners in the main position and a non-locker in the brake bar position. Single carabiners are illustrated, and single-rope, double-rope and tandem versions are shown. The tandem version involves two carabiner brake systems, which are detached, independent, and connected to separate anchor pitons.

Page 103 depicts tandem Münter hitches on separate anchors.

Pages 119 through 127 illustrate various tie-off methods for carabiner brakes, include slippery half hitches, overhand slip loops, and a version of the Münter mule, which is similar to what British rescue personnel call ‘Dogging the Tails,’ and which is secured with a reef knot.

Mariner, 1963:

Pages 99 and 101 show the carabiner brake with single non-locking carabiners and some unusual tie-off methods Martin, 1987:

A single-carabiner, two-wrap carabiner wrap system is documented on page 6-22 with a locking carabiner, while two multi-carabiner versions are shown on page 6-23 - one with two lockers and two wraps, connected to a locking carabiner; and the second with four non-locking carabiners and four wraps, also connected to the harness with a locking carabiner. Pages 6-24 through 6-26 illustrate brake bar systems and tandem brake bare systems, and the danger of carabiner breakage at the “gate end tabs” is discussed. The Münter hitch and carabiner brake system (with pairs of non-lockers) are also shown in photographs on Page 6-28

Setnicka, 1980:

Pages 250 to 253 discuss various types of brake bars, while page 254 outlines two types of carabiner brake: one utilizing pairs of non-locking carabiners for “a double rope rappel or brake system;” then a linked tandem system - also utilizing pairs of non-lockers - for a “single rope carabiner rappel or brake system.”

Smith, 1979, Page 15:

A variation of the classic carabiner brake is presented. Topologically these two systems are equivalent. If single carabiners are used rather than doubles, the braking carabiner can be reoriented to create this newer variation.

Robbins, 1971:

The carabiner brakes and double (tandem) carabiner brake are shown on Page 43 with doubled non-locking carabiners.

¹⁰ Looking back at how oval carabiners were used with rappel brake bars, their strength and modes of failure were researched and reported as follows:

Smutek, 1979, Pages 13-16:

Some oval carabiners failed at as low as 50 pounds, while most failed at under 2,000 pounds.

Sproull, 1979. Pages 13-16:

He mentions ‘The “multiple carabiner” brake rappel system’ and discusses carabiner orientation when using the brake bar for rappels.

Pawitrak

Rings

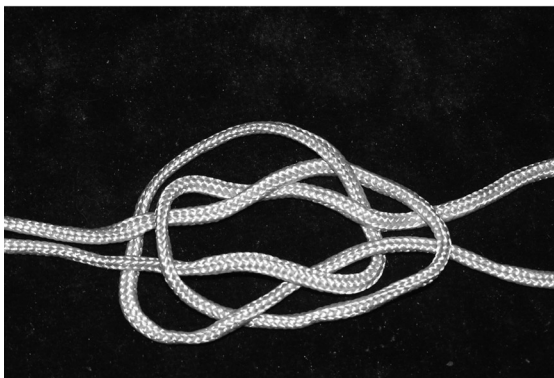
Satish Patki

The photograph shows a golden ring with a knot carved on it. The ring has nine golden balls. The outer six balls represent the head, the tail and four legs of a tortoise and the three balls in a row represent the back of a tortoise. A tortoise is the second incarnation out of the ten incarnations of God according to the Hindu mythology.

The golden ring belongs to the category of Pawitrak rings, which are worn by the Hindu Brahmins in India at the time of performing holy rituals. The word Pawitrak in Sanskrit means an instrument that turns things holy.

The second photograph shows another golden ring with stones studded and the same knot carved on it. The ring has stones studded at nine places that represent the nine planets. This ring also belongs to the category of Pawitrak rings.

The third photograph is of the knot carved on the two rings, tied in silk string. I have yet to come across this knot in any of the books I have seen so far. I think the members of the Guild stand to gain from this information. This is one of the many applications of knots that are typical to India.



Branch Lines

Inland Waterways Group

Knots and fancy ropework is not just the province of the deep-water sailor, there is quite a tradition on the canals and rivers of the UK. Some of this may have come about from contact with sailors at ports where cargos were once transhipped. The IGKT are corporate members of the Inland Waterways Association, a campaigning organisation started sixty years ago to preserve the waterways of Britain from decline. Though not a formal branch of the Guild, we have a group who attend many inland waterways events and shows, demonstrating knot tying, answering those "How do you?" questions and recruiting new members. The stalwarts of the group are Ken Nelson, Bruce and Lynda Turley, Alex Carson, Gordon Perry, Dave Walker and Colin Grundy. Over in the Yorkshire and North West area, we have David and Sheila Pearson, Sue and Roy Morris, and Kate Nicholls. Other members

of the Guild also join us at various shows, especially if it is in their locality.

2006 has been quite a busy year for us. First outing was to the IWA National Trailboat Festival at Kendal over the Easter weekend. The festival is held at locations that are often difficult to reach from the main canal system.

At the end of April, the West Yorkshire Branch manned the Skipton Canal Festival, where they demonstrated their skills.

Next came the Crick Boat Show in the Midlands at the end of May. This event is organised by British Waterways and as well as our normal demonstrations, we

take part in WoW (Wild over Waterways), where children are encouraged to take part in waterway related activities. Despite fire and flood, we still managed to carry on our activities.

June is always a very hectic month, where the Guild attended the Middlewich Boat and Folk Festival in Cheshire, followed by three events happening over the same weekend, WoW at the Ellesmere Boat Museum, Cheshire, the Stainforth Canal Festival and the Braunston Historic Boat Show in the Midlands. Immediately following these two events came the Saul Canal Festival in Gloucestershire, phew!

August saw the major event of the year, the Inland Waterways National Festival. This once again returned to Beale Park on the River Thames, where we had a successful show in 2003.



Despite some changeable weather, we had another successful event.

Over all of these events, we have managed to raise the profile of the Guild and recruit new members to boot! They are great fun, so next year if you're in the locality do come along and join us, even if it is only for the day.

From our waterways stringer

West Yorkshire Branch

For our meeting in November we decided to cover one of the Scout subjects and opted for pioneering. Whilst we could have had the meeting at a Scout camp site, and used their poles, we decided that a day outside at this time of year may have precluded some members, so chose to have a smaller version using broom handles and string.

Graham Smith started the meeting with a talk about what pioneering is and a guide to the principles involved (triangles make it strong). This was followed with a talk by Tim Field where he gave very comprehensive demonstrations of square and diagonal lashings

and their alternatives, the Japanese and Philippino lashings. After the formal part of the meeting we had the opportunity to put the instruction into practice, making various free-standing structures. Though the work in progress illustrated the point that one person should be in charge and give instructions and measurements, the ultimate result was a success. It was a good day and we are again indebted to our ladies for providing refreshments and afternoon tea. We had three new people attending and are pleased to see our meeting numbers growing.

David Pearson

Pacific Americas Branch

We warmly extend our invitation to all who care to join us in celebrating our tenth anniversary. We will be celebrating in the same place where we started ten years ago, in San Pedro, a part of the Port of Los Angeles, California. We have put together a program of events that we think you may enjoy, no matter from where you hail in the world. Our principal activity on July

7 and July 8 is a display and demonstration by our members, and perhaps by you if you care to join us (we provide the tables, chairs and canopies for our outdoor gathering) at the Los Angeles Maritime Museum in San Pedro, California.

To tempt you and others we are having a bell-rope tying contest, along the lines of those suggested by PPO Harrison in his wonderful book. The winner need not be present, but we do encourage participation, so send us your best! We will also have a grommet-tying and throwing contest - must be present for this one! Our demonstrations will include string figure making, lanyard making, fender making, rope making, displays from members all round the world of knotting of such character and skill that it just boggles the mind! On the evening of July 6, 2007 we will open our annual general meeting to all Branches in the Americas to join us in what we hope will be a continuing exchange of views and information from across this great continent and to garner views from around the world, in the form of members whom we shall welcome in to

our meeting. We will celebrate afterward with an anniversary feast, so that we have a chance to meet and greet on a less formal basis - California casual is encouraged!

To start our celebrations we are going to join the revellers in looking at a wonderful fireworks display celebrating the Fourth of July in the USA, right here in Long Beach off the stern of the *Queen Mary*. Arrangements are now being finalized and we shall secure for you, our guests, the best that we can find. Local fun and festivities will abound - after all this is the land of Disney and of

Universal Studios, so we have plenty to do here. On Thursday we will be going out sailing, **ONLY** for those of you who sign up with our Secretary Jimmy Ray Williams (secretary@igktpab.org) on one of the twin brigantines that were built right in the parking lot of the Los Angeles Maritime Museum. The vessels are superb and are captained by the best that Los Angeles and perhaps America has to offer. They regularly sail with disadvantaged children on the mission of the Los Angeles Maritime Institute (separate from the Museum) and we have been able to acquire one

of them for the evening of Thursday July 5 from 5 pm to 8 pm for an evening on the Pacific Ocean - an occasion not to be missed by any - join with us as we sail into our next ten years and as we continue to spread the good word about knotting to all who will ask and to all who will listen.

Our activities this winter have been somewhat limited here - we recently went to the Point Fermin Lighthouse on the coast of San Pedro to celebrate the return of their fresnel lens, missing for some years and now restored to its rightful place. It was a chilly day but we were warmed by the welcome from the Lighthouse keepers and by the crowds of the curious and the inquisitive, along with all who would say, "Oh, I used to do that!" or "I used to do macramé!" The children were absolutely delightful as always, their questions and their eager faces something wonderful to behold. We wish you could have been there, so maybe come and join us in July for a great celebration - see you here!

Lindsey Philpott
President, IGKTPAB

Lindsey Philpott helping some unwitting person who said - "What's that?" when looking at Harold Scott's 104-strand Matthew Walker - see also Jose's mat-making apparatus in the background!



Photo - Lindsey Philpott

Postbag

The views expressed in reader's letter do not necessarily reflect those of the Council. The Editor reserves the right to shorten any letter as necessary.

Thank you all

To the many individual and group well-wishers who, having learned about my heart attack, either contacted me or sent cards - thank you. Amid all of your sympathy and encouragement was one message, from a person who evidently knows me only too well, that read; 'Someone told me that you were sick, and I said nonsense ... odd perhaps, but not sick!' So true.

Anyway, I am now up and about (partially mended, effectively medicated) and pursuing an active regimen of rehabilitation. So, although the superb cardiac unit at Southampton may yet decide it wants to work on me some more, I aim to see as many of you as possible at Fareham, Hampshire, in May 2007 on the occasion of the Guild's Silver Jubilee celebrations.

Geoffrey Budworth
Salisbury, UK

The Eye of a Needle

The interesting theory in KM93, p35 (source not named) that the camel in the Gospel story was really a cable is certainly different to the one that I learned at school. I was told that there was a very narrow place in a Jerusalem street known as 'the needle' or 'the eye of the needle', too narrow for a camel.

The story appears in three of the Gospels: St Matthew, Chapter 19, Verse 24; St Mark Chapter 10, Verse 25; St Luke Chapter 18, Verse 25. I did not find it in St John's Gospel.

Michael Collis
Sharnbrook, Bedfordshire,
UK

Do they have to?

I read with interest the letter from Ken Higgs KM 93. After 40 years of teaching Sea Cadets their bends & hitches as required by their specialisation I must confess that teaching the Bowline did sometimes require the use of an aid to memory. With me it was "make a sub-lieutenants curl, then -----". An illustration on the use of the tree, rabbit and holes instruction that often makes me smile is contained in a Safety Publication for

Yachtsmen/Women put out by H M Coastguard, *Emergency Procedures for Pleasure Craft*, Section Towing Preparations. A cartoon shows a power boat in trouble, the all weather lifeboat has come alongside; the tow has been successfully passed. The lady on the bows of the boat seems not too sure what to do with the end of the towrope. From the bridge of the lifeboat the coxswain can be seen brandishing a hand loudhailer shouting "No Madam, round the tree down the hole". Is this some support for Ken's worst case scenario.

Eric Greenough
Deputy Station Officer &
IGKT Member

H M Coastguard Morecambe
CRT.



This number plate went on my car, by coincidence, as the IGKT were celebrating their 10th Anniversary. The "beautiful" is Beautiful British Columbia, but it could refer to the knots!

Terry Ridings
Salt Spring Island, B.C.,
Canada

Knotting Diary

GUILD MEETINGS

25th AGM & 2K7

24th-26th May 2007

Fernham Hall, Fareham, Hampshire

Contact: Ken Yalden

Tel: (0044) 023 9225 9280

Email: ken.yalden@igkt.freeseve.co.uk

Pacific Americas 10th Anniversary

4th - 8th July 2007

San Pedro, California

Contact: Lindsey Philpott

Tel: (001) 310 749 3541

Email: marline.man@verizon.net

Half-Yearly Meeting

13th October 2007

Quarry Bank Mill, Styal, Cheshire

Contact: Dave Walker

Tel: (0044) 01244 682117

Email: dwfenders@yahoo.co.uk

BRANCH MEETINGS

UK

East Anglian Branch

14th April 2007

Museum of East Anglian Life,

Stowmarket, Suffolk

Contact: John Halifax

Tel: (0044) 01502 519123

Email:

john@endeavour-knots.freeseve.co.uk

Midlands Branch

16th April 2007

The Old Swan (Ma Pardoe's),

Halesowen Road, Netherton

Contact: Bruce Turley

Tel: (0044) 0121 453 4124

Email: bruce.turley@blueyonder.co.uk

Sussex Branch

7th May 2007

Sussex Yacht Club

Contact: Charlie Tyrrell

Tel: (0044) 01798 344258

Non-UK Branches

Alaskan

Every Wednesday evening 6.30-8.00

Anchorage Senior Center

1300 East 19th Avenue, Anchorage

Contact: Mike Livingstone

Tel: (001) 907 929 7888

Netherlands

Last Saturday of each month

De Hoop, Nr Rotterdam Maritime

Museum, Rotterdam

Contact: Jan Hoefnagel

Tel: (0031) 078 614 6002

Pacific Americas

2nd Tuesday of each month

Los Angeles Maritime Museum,

San Pedro, California

Contact: Jimmy R Williams

Tel: (001) (310) 679 6864

Email: igktpab@yahoo.com

EVENTS

France

31st March - 1st April 2007

La Cité de la Mer, Dieppe

Contact: Graham McLachlan

Tel: (0033) 0233 076 704

email: igktfrance@club-internet.fr

Germany

27th-29th April 2007

Fishing Museum, Cuxhaven

Contact: Peter Willems

Tel: (0049) 04 61 73176

Email: peter@fancyworks.de

West Yorkshire

5th May 2007

Skipton Canal Festival, Skipton

12th May 2007

Cullingworth Historical Vehicle Rally,
Cullingworth

Contact: David Pearson

Tel: (0044) 0113 257 2689

Home Counties

19-20 May 2007

Rickmansworth Festival

Rickmansworth, Hertfordshire

Contact: Ken Nelson

Tel: (0044) 07836 722198

Email: knotnut1@yahoo.co.uk

Midlands

23rd June 2007

Braunston Historic Boat Rally

Braunston, Northants

Contact: Colin Grundy

Tel: (0044) 07946841157

Email: colin.grundy1@btinternet.com

South West

29th June - 1st July 2007

Saul Canal Festival

Saul, Gloucestershire

Contact: Ken Nelson

Tel: (0044) 07836 722198

Email: knotnut1@yahoo.co.uk



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BEN SELFE at 07767 880 951
or email ben@knotkrazy.co.uk