

ISSUE 51

WINTER-DECEMBER 1995

ISSN 0959-2881



Knotting Matters

Newsletter of the



INTERNATIONAL
GUILD OF KNOT
TYERS

GUILD SUPPLIES

I.G.K.T. STOCK LIST 1995

ITEM	PRICE
KNOTCHARTS	
100 to choose from	£0.10 each
POSTCARDS	
Set of 8 instructional (Brown & Cream)	£1.50 Set
Set of 8 Single Strand Ornamental Knots (White on Blue)	£1.50 Set
RUBBER STAMP	
"IGKT - Member" (excludes stamp pad)	£4.00
TIES	
Polyster (Dark blue, with white Knot motifs) LONG	£8.95 each
BADGES	
Guild LOGO	
Enamel Brooch Type	£1.80 each
Cloth, Blazer Type	£1.00 each
Car Sticker (Solft Plastic)	£1.00
7" Display Stand Logo	£7.50 each
KNOT CRAFT - THE VIDEO elementary teaching aid	
VHS or NTSC	
Stuart Grainger	£8.50 each

SUPPLIES SECRETARY
3 Walnut Tree Meadow
Stonham Aspal
STOWMARKET
Suffolk IP14 6DF

KNOTTING MATTERS

THE QUARTERLY NEWSLETTER OF THE INTERNATIONAL GUILD OF KNOT TYERS ISSUE NO. 51 WINTER DECEMBER 1995

PRESIDENT

Des Pawson

Hon. VICE PRESIDENT

Dr. Vaughan Jones, F.R.S.

PAST PRESIDENTS

Percy Blandford - Geoffrey Budworth - Eric Franklin

Jan Vos - Stuart Grainger - Glad Findley

GUILD ANNUAL SUBSCRIPTION RATES:
PAYABLE By: CASH/CHEQUE/EUOCARD/
MASTERCARD or VISA

Juniors.....£4.00
Seniors.....£14.00
Families.....£19.00
Corporate.....By Arrangement

Taxpayers in the UK - We would prefer a
covenanted subscription.

Except as otherwise indicated, copyright in
Knotting matters is reserved to the
International Guild of Knot Tyers IGKT 1995.
Copyright in members' articles published in
Knotting Matters is reserved to the authors
and permission to reprint should be sought
from the author and editor. All sources of
quotations printed in Knotting Matters are
acknowledged.

SECRETARY:

Nigel Harding

3 Walnut Tree Meadow
Stonham Aspal
STOWMARKET
Suffolk
IP14 6DF

Tel: 01449 711121

EDITORS:

Lonnie & Margaret Boggs

78 Marlborough Avenue
Kidlington
Oxford
OX5 2AP

Tel: 01865 378104

The IGKT is a UK REGISTERED CHARITY NO. 802153

*The IGKT welcomes the following members who have joined
since the 1995/6 Membership Handbook was published*

Nigel	Baker	UK-Kent	01304 360849
Tony	Barrick	US(TX)	214 330 8410
Samuel	Barrows	UK-Avon	0117 973 4989
William	Bleakley	N.Ire	01247 820894
Paavo	Brostrom	Fin	
Richard	Burnett	N.Ire	01960 363826
Jan	Cederholm	Sweden	46 411 16823
Martin	Combs	US(AK)	907 487 2401
R	Cranfield	UK-Essex	01206 728751
Ian	De Ath	Norfolk	01692 581060
John	Dickinson	NZ	04 801 6527
Joaquim	Escudeiro	Port	9141222
Tim	Evans	UK-Norfolk	01953 881484
Maurice	Field	AU(W)	61 9 561 5122
James	Glennon	US(ID)	208 233 5114
Gordon	Goode	UK-Warks	
Michael & A	Greenwood & Chase	UK-Yorks W	0113 255 9153
Folke	Gustafsson	Fin	358 21 797713 8 ??
Gordon	Hanslip	UK-Scot	01796 473785
R A	Huntingdon	UK-Yorks W	01274 585690
John	Johnston	US(VA)	
Mr	Jones	UK-Wilts	01380 725776
J D de	Jong	Neth	
Christine & Robert	Keens	UK-Herts	01763 248548
Simon	Kershaw	UK Dorset	01305 782490
Mrs G	Marshall	UK-Beds	01234 346150
J C	McConnell	UK-London	0181 471 5405
John	Moorshead	US(MD)	
Giovanna	Motto	Italy	0187 801411
Bernard	O'Connor	UK-London	
Jane	Ostler	UK-Lincs	01476 860465
Keith	Paul	UK-Beds	01234 360812
Rose & Steve	Perich	AU(Vic)	613 9326 0206
Paavo	Ranta	Fin	358 52 3542979
Hannu	Rantanen	Fin	358 52 3557258
Bill	Simmons	UK-Kent	01303 252238
Peter	Smith	UK-Bucks	01494 864739
Derek	Travis	UK-Hants	01703 772288
Anna	Velkey	Hung	361 137 8685
Benjamin & Karla	Wilkins	US(NC)	919 964 4877
Alan	Williams	UK-Glam M	01685 375657
Susan	Wright	UK-Yorks N	01723 361079

The Netherlands - New Telephone Numbers

These came into effect on the 10th October 1995

Dick	Bakker	010 480 9979
Arjan	Bijl	010 418 7785
Robert	Brink	010 422 8392
Leo van	Dalsem	010 437 9673
H van	Dorp	???
W van	Duyn	071 401 5231
Mr A P	Enthoven	0252 41 4396
Pieter	Griend	???
J A	Groeneboom	010 423 2257
B den	Haan	0180 42 3355
T C van	Haasteren	078 681 6332
J	Hagman	010 202 1915
Willeke van der	Ham	0251 21 3285
Floris	Hin	020 634 4372
Jan	Hoefnagel	078 614 6002
Louis	Hoefnagel	010 484 8602
J F	Hoffland	070 300 6590
Mr J	Hoogendoorn	???
Ineke de	Kok	078 618 1086
M de	Koning	0251 65 3157
Cornelius	Kooiman	010 413 3537
Mr	Koolma	070 352 3774
H	Luiten	0181 66 2548
Frans	Masurel	071 521 2388
W	Mulder	???
J	Nijdam	???
C M J	Plokker	078 618 1086
P J	Raaymakers	010 450 0660
B	Rietveld	???
Theo	Slijkerman	033 254 7244
T W	Smid	010 747 4168
W A	Taal	070 354 9646
C	Tieman	???
C	Tuk	010 484 5478
William	Verrer	010 416 5559
A	Vlietstra	0255 51 4046
Jan	Vos	035 525 1514
K	Vrolyk	???
Wim	Wanninkhof	010 413 5764
E van	Zwol	0186 65 2042

BITS AND PIECES

Yes, yes, I know, I goofed again. We were so happy with the final layout too. Well it's not that bad for a first effort at page layout and getting the look of it good. After all the only complaint was that the type face was dark, fuzzy and too small. We took on the job with our sixty pound Olivetti 286 with a 40 meg hard drive and an Epsom 9 pin dot matrix printer. The software is Word Perfect 5.1 which has been more than adequate for the Scouting, Gun Club and Message notices we do for our other interests. WP 5.1 only has one type face, the one you got in KM 50 and won't do Landscape (A4 turned sideways to print as two A5 pages) or many of the other wonderful things that newer packages will do.

I was looking forward to stirring up more interest in the Guild and reflecting the more varied interests of our membership. Also I really was looking forward to learning how to produce a high quality newsletter. Margaret, a non-tier, is however a professional secretary and works with some wonderful packages, paid for by the County Council. She is ideal really for typing and proof reading etc. The hard work part of doing this job as far as I'm concerned. If she says 'Hey, I understood and enjoyed that!', when typing something, then I know it's a winner. So, within the A5 format with black and white print and photos and copycard covers, we can still do a lot. Our 286 won't handle the newer packages and the fifty pound printer isn't clear enough for camera ready copy. The printer charges us five pounds a page for type setting and layout.

The majority of the pages of each issue of KM have to be typeset or retyped from our typed text on disc. It is pointless to type and layout the pages to look as I think they should do when we are still charged for typing. Computers do work. They don't dig ditches or tune-up car engines or stack the shelves of the local supermarket this is true. But the work they do, they do very well. Computers draw up the scale drawings of where to put the ditches more accurately and quicker than by hand. Computers do everything but turn the screws and tighten the nuts in a box smaller than the tool box in the back of the 'Home Tune' man's van.

I won't even mention the checkout that remembers that you already have had two of something therefore get the third one free and the new lower price is charged instead of the price on the shelf. We could provide A5 camera ready copy and pay only for printing with one of these new fangled contraptions. Oh, sorry, we weren't talking about the horseless carriage were we? I want so much for KNOTTING MATTERS to be a high quality publication, the best we can afford for the size of the print run. We may have to raise the money separately, for a computer, and the next editor will need to be computer literate, he'll have to be anyway to do the job, the computer will have

some resale value if not needed by a new editor, and the responsibility for the magazine will be with the editor, where it should be.

At the half AGM at Leeds I was happy to hear many helpful comments from the members attending. Willeke (must be nice to be known by just one name), had much to say about my style of editorial idiom. It is the idioms of a language that are the hardest for a person to learn in a second language. Anyone who has met me knows that I write as a speak. Being of Mexican/American blood and family I have changed the language I think in from Mexican to good American many years ago. I tend to take short cuts and make sound bytes in the language which are not always 'look-up-able; look up the word doable = able to be done) I know I can be a bucket of trouble to follow sometimes. (Sorry, a lot more trouble than a spoon full.) The impact of what I want to say is lost and even my meaning can be impossible to guess at from the dictionary definitions of the words used. Hopefully, after 22 years of marriage, Margaret will be able to pull me up when I slip into verbal slap stick. (Sorry, she can stop me misbehaving when I change into an exaggerated and boisterous use of words.) I used words like ONGOING, which is just on the edge of lookupability. (Sorry again, this is a sound byte of words to convey that the word ONGOING is just possible for you to be able to look up on a good dictionary.)

There was also much discussion about format; Single or Double columns. Looking back at previous KMs, I see they were always single column, even in A4 sized paper, until Gordon changed to A5 and double columns. Changing a page of text from single to double columns always gives many extra lines. So it must be more efficient. Newspaper columns are that wide to make it easier to scan a whole line or two at one stop of the eye, making reading easier. Editorially, two columns gives more freedom to arrange photos and drawings next to the relevant text. So, unless I hear better arguments for single columns or get a torrential downpour of mail (sorry, a great many letters) against it, I will stay double columns.

Some other members suggested more photos especially of prominent members of the Guild that most members will never get the chance to meet. I hope the photos of the Half AGM will be welcome in this issue.

Sorry for turning the short editors paragraph into the size of an article. I hope I have not misused my privileges to campaign for a computer but rather to set out the problems as they are.

Notes From the Secretary's Blotter

Once again the time has come for me to sort out a few items of interest from the Secretaries Blotter. In the past this has been a leisurely pastime, but now the new editor of KM seems to be for ever chasing me for this literary gem. Is there no peace for the wicked?

Despite being chased unmercifully by Lonnie and Margaret, I must thank them for all the work they are putting into achieving the various deadlines involved in getting KM out on time. I am sure those of you who managed to get to Leeds in October thought how brave he was wearing a large notice proclaiming himself as the new editor. I am sure that the membership and the Guild will all benefit from his enthusiasm.

Whilst on the subject of KM, I would like to thank John Addis and his wife who currently form the Distribution Team. I know from experience just how much effort goes into stuffing over 600 items into envelopes and then posting them. Incidentally, if you want past editions of KM, copies of the original, going right back to issue number one are available, price £2 plus postage, just write to Sylvia with a cheque, or your credit card details.

Other items which I have available include membership application forms, and information sheets. These have all been produced in a quality that will produce a good photocopy, and we encourage members to take copies as it keeps our printing and postage costs down. Should you need supplies of these items for an exhibition or whatever, please give me a ring, and I will send you some.

That leads me on nicely to demonstrations, displays etc., which you may be putting on for the public on behalf of the Guild. We do have Third Party Liability insurance to cover accidental damage to the public as a result of our activities. To make sure that your event is covered just advise me of the date and its location.

A final word on meetings, and that is to thank all those members of the Yorkshire branch who worked so hard to make us welcome in Leeds for the October meeting. Despite being somewhat under the weather at the time, I had an extremely enjoyable day, meeting friends both old and new. Even my son, Adrian, who had crept up from Sheffield for a free lunch on Dad, found it all quite fascinating and had a very pleasant afternoon.

Towards the end of last year, I mentioned the introduction of "Group Membership". This is aimed specifically at youth groups such as Guide Companies, Scout Troops, and Sea Cadet Units, where, for a single fee the whole group becomes a member. The aim of this is to increase awareness of knotting in young people so that they can enjoy the pleasures of this traditional craft, so that they will develop their own skill and in turn pass it on to the next generation. The cost £10, and gives the whole group the benefits of being a member.

I have been asked to say a few words about the Council meetings, in order to keep you all up to date with what is going on. I can actually sum it up in one word, - boring. However, I mustn't really say that otherwise I might give the wrong impression. Certainly there is a lot of very mundane administration which goes on, which is essential for the smooth running of the organisation. We also plan in outline future meetings, and dissect recent ones, so that we can continue to encourage members to get together and immerse themselves in knotting for the day. Over the last two or three years we would like to think we have expanded the membership, tidied up a lot of loose ends, and established a professionally run organisation, ready to move into the twenty-first Century.

Recently, the Council has identified the need for two volunteers, one to be the Events Coordinator, and the other to be our Artifacts collator. We are looking for individuals with drive and enthusiasm, and who can manage on a small salary, - in fact no salary at all.

Neither job should consume a lot of time, although it will involve talking to other Guild members. The Event Person will be the focal point for receiving notification of future events, and can pass the details on to those who might be interested. Much the same will be required of the Artifact officer, someone who is prepared to catalogue the various items belonging to the Guild, together with their location. Don't all ring at once.

Looking to the future, I propose to send subscription reminders with KM in advance of the due date. Those paying by standing order will also get the advance warning but need to take no action, whilst the remainder are requested to arrange to pay by the date indicated. Whilst I have been known to make mistakes the accuracy of my records is now improving, however my apologies to those who have been chased in error, most of whom have been quick to point out the error of my ways.

Please note that many of the telephone numbers in The Netherlands have changed. I have included a list of the revised numbers, please check, and let me know if there are any errors or omissions.

Finally, I would like to wish you all a happy and peaceful Christmas - Nigel.

*Knotting ventured,
knotting gained.*

ZEPPELIN BEND

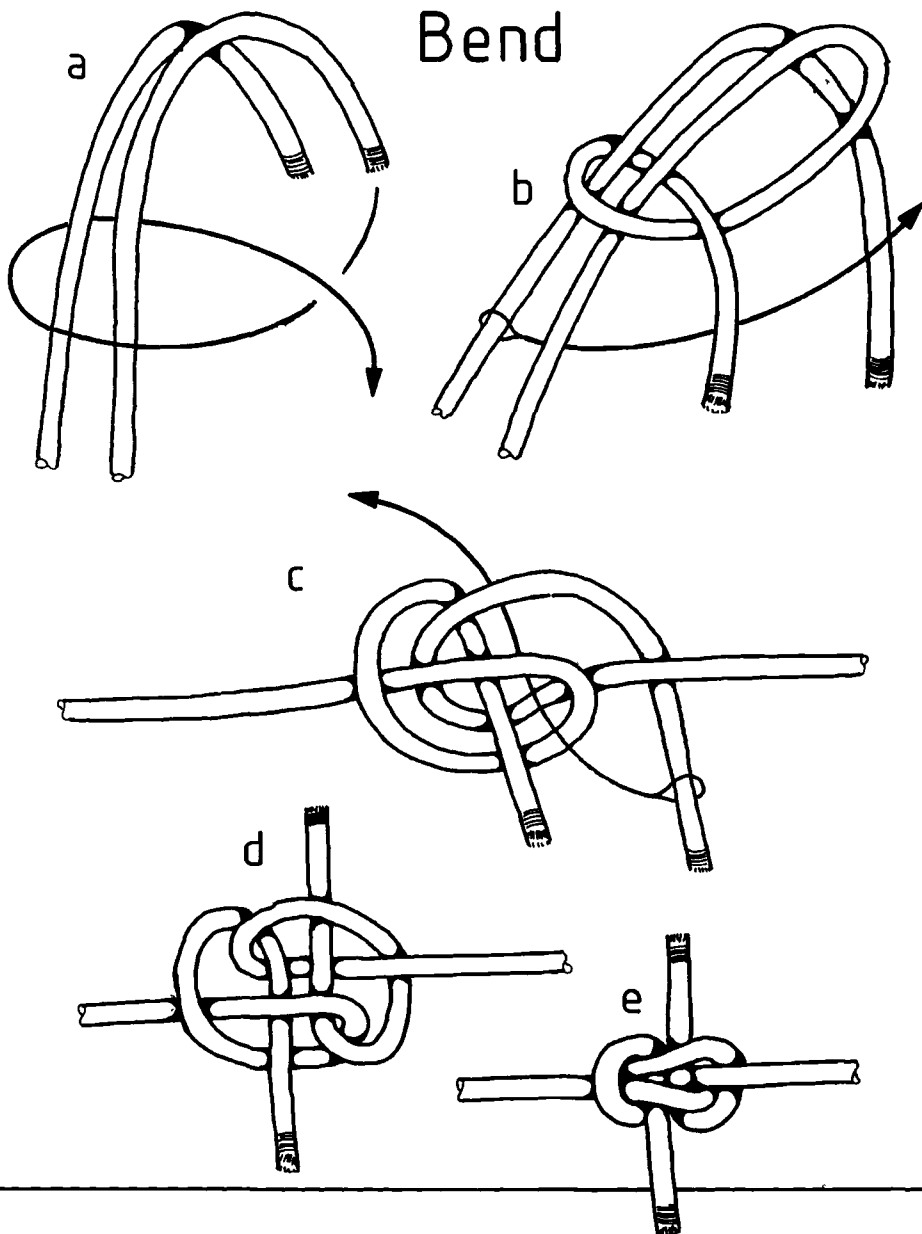
This superb big rope bend was used to moor U.S. Navy airships. Heroic aeronaut Lt. Commander Charles Rosendahl would allow nothing else for his 658-foot long dirigible *Los Angeles*; but, when the lighter-than-air craft vanished, so - it seems - did this knot.

Desmond Mandeville re-invented it in 1961, naming it Poor Man's Pride, but went public only after Hunter's Bend made the 1978 scene. Ettrick Thomson of Suffolk, England, hit upon this handy tying method.

Joe Collins, who taught the 1930s airshipmen their knots was still working as a merchant seaman in 1979 when he said; "We used Rosendahl's bend because of its superiority to the carrick bend, bowline or sheet bend, all of which are more likely to jam . . . it could always be untied in a hurry even after a sudden surge of the *Los Angeles* had put tons of extra weight on it. It's the most useful knot I know for tying two lines together . . . especially good for mooring, anchor or towlines.

--- oOo ---

Zeppelin Bend



LETTERS

5 CASTLE CLOSE
FALMOUTH
CORNWALL
TR11 4PE

Dear Editor,

Last Thursday 31st August 1995 I had gone down to the town to get a few things, when I saw in our local library a notice to the effect that members of the Guild were in attendance, not only with an exhibition of knot craft, but between them they were showing interested members of the public how to tie knots etc.

I spent a very interesting couple of hours with them and was able to show a few youths mainly how to make a few knots, I was very late home for my lunch but it was well worth it.

I understand the Guild hope to be in attendance again here in Falmouth during the Tall Ships Race in 1997.

I was very much impressed with the very high standard of the exhibits on show and the enthusiasm being shown by the members of the public in Knot Craft.

I also purchased a book "Something Different" by John Halifax, while at the exhibition.

Yours sincerely, *Aubrey Tucker*

4 Hanwood Close,
Eastern Green
Coventry
CV5 7DZ
25 October 1995

Dear Lonnie

As a result of my request for information on Fire Service knots (KM 50) I have already received information from fellow Guild members Dan Moynihan (New York), Brian A. Glennon (Boston), Phillipe Castelleyn (Belgium) and Richard Hopkins (Bristol). Incidentally, as a result of his enquiries, Brian Glennon has been invited to a three day rope training course with the Boston Fire Department.

The information they have sent is proving very interesting and already shows a number of variations in the application of knots.

I would still be pleased to hear from other Guild members in particular Europe or the southern hemisphere. Even if members do not have any direct involvement with Fire Brigades, contact addresses would be useful to follow up.

It is very enjoyable being able to discuss knots with other members around the world and I'm sure it is useful in getting the name of the Guild known.

Colin Grundy

MEMBERS PROFILE

From Graham Smith, West Yorkshire Branch

When I was asked to do my little bit for the programme today I was apprehensive to say the least at the thought of getting up and talking about knotting to people who know so much about the subject. I have pondered for hours over what subject to pick. I thought it would have to be something I knew a lot about and something that was not too controversial. So my theme for today is me. Well I know a lot about me and I don't think I'm controversial and recently we have seen some interesting personal profiles in knotting matters. I became interested in knotting at an early age, I started going to cubs as soon as I was 7 years old following in the footsteps of my two older brothers. I quite liked the basic knots and enjoyed any activity that made use of them.

The thing that really got me going was an article in an old scouting magazine from the late fifties by Eric Franklin, he had done a piece on fancy knots and coverings. Instead of hiding the latest copy of the Beano behind my desk lid I was busy tying Turks heads in bits of old string. That wasn't a bad thing because if you were caught with a Beano it was plain you were skiving but a piece of old string could have just been left behind in the desk, honest sir!

I was quite a popular lad in the Scout knotting relays as well.

Shortly after starting work as a police officer I read an article somewhere which mentioned Ashleys book of knots. I went to the library and was amazed. I had become interested in sailing through Scouting and to see all those intricate pieces of work with their uses shown on the old sailing boats really fired my enthusiasm. I ordered a copy and started to attempt some of the things but found that with only limited knowledge some of the drawings and instructions were hard to follow. By chance a friend at my sailing club had been to a dinghy exhibition and had seen a display by some guild members and picked up a leaflet for me. I joined and shortly afterwards received a call from Frank Harris to see whether I could assist with the event which was run at Bradford Cathedral. My first thought was I don't know anywhere near enough about knotting to help at a display like this but Frank talked me into it, like many others over the years I suspect, and off I went.

What an experience! All those people there to show me how to go on. Ashley took on a new light.

I was expanding Turks heads and tying star knots,

learning more about splicing, tools and materials. The

weeks following this event were spent acquiring material and attempting all sorts of fancy work. I tied my first bell rope, and started to make fancy key rings. It was about this time that I ran into slight

problems with the wife. She didn't really take kindly to piles of cord and part completed projects lying around, and when I started buying coils of rope to make fenders with there were many a groan as something new appeared and took up more space in the loft or porch.

This brings me to the crux of what I really want to say today. The way forward for the guild I think is to encourage more people to advance their interest in rope work by getting in touch with them personally. There is nothing better than sitting down with somebody and getting them to show you how to do it.

If you haven't got a branch in your area start one, it only takes a few phone calls around the members shown in the handbook in your area to get a meeting together. There is a lot to be gained, as all here will know by the end of today's meeting, from meeting people with a piece of cord in your hand and exchanging ideas, methods, and a few friendly words.

Get out to the various shows and festivals of all types, we have been to canal festivals, and medieval shows to name but a few, and meet people. There is always someone out there who can show you something new or needs a helping hand with something. It doesn't have to cost you anything as most organisers will allow demonstration or charity displays a free place.

It is amazing what you can discover, I must have had ten different ways of tying a harvesters hitch shown to me by wagon drivers keen to impart their little bit of knowledge. There are some amazing characters as well. We recently showed a children's entertainer a little knotting trick in exchange for tying balloons into poodle dogs and an insight into rope spinning. But the main thing is it's great fun.



MORE LETTERS

LETTER FROM ANNY DYER

ALBANIAN BUTTON

Anne Dyer is a self-confessed wrinkly of 63 years young. As a trustee and one half founding member of the Craft Collage, Craven Arms Shropshire, she studies and teaches "Woman's Crafts" including basket weaving, cane work, any work involving thread like embroidery, dress making, fabric dyeing, card or tablet weaving. She has been a member ever since Charlie Smith, smooth talking cavalier that he is, enchanted her at a Guild stall at the Bradford Textile Exhibition. The Albanian Button was on an old, beautiful and delicate coat at the bottom of a cardboard box of textile bits and pieces (mostly rubbish really). The curator of Clive House Museum in Shropshire is an excellent textile conservator and often calls on Anne to have a go at describing some of the unmarked curiosities with her "Do it wrong and see what happens, dear." attitude to Gordian knot problems.

RECONSTRUCTION OF AN ALBANIAN BUTTON

From a jacket, heavily embroidered with gold, in the Shrewsbury Museum Service.

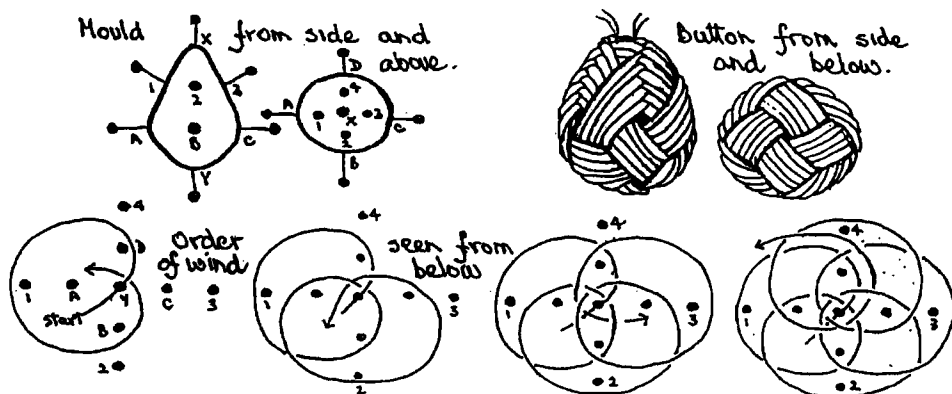
Make a papier-mache or polystyrene-covered-with-paper-mache teardrop, about the size and shape of this diagram. Insert pins as shown, 4 round the widest part, 1 each at top and bottom, and 4 halfway between the first 4 and the top. The top one is not needed till the button is part made, when the last 4 pins are removed because they are getting in the way.

This size needs about 3.5 metres of a thickish gold thread, about 2mm wide, or a doubled thinner thread. Fasten it to the mould with pin Y, leaving a tail to be covered with later winds; or slip the loop round Y and pass the thread through the loop on the first wind. Work round as in the diagrams to start. Then follow the previous tracks. Open up the centre square as you go, and keep the plaits up the sides neat and well closed up.

I found it easier to bring the gold thread through with a small latchet hook, rather than using a needle while the thread was very long.

Toward the end, be careful to keep the threads close to previous winds at the top, as they want to pull up against pin X. Finish off by losing the end under one of the bottom wide bands of weaving, and squirting in a small amount of glue. I also glue the last few winds at the top, after inserting a loop of thread to sew the button on with.

Obviously the materials and glue I used are not historically accurate, but I was unable to unpick the original buttons to see what they were made of or how the threads were fastened off. My challenge was to work out how the threads were interlaced.



MORE LETTERS

KEEP YOUR SHIRT ON!

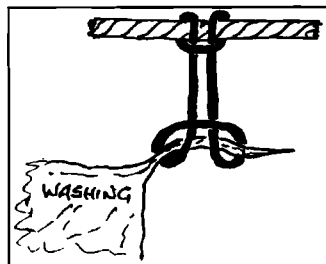
As a first trip Cadet in the Merchant Navy I lost a shirt over the side because I used clothes pegs - (Mom had given me a handful) to hold it on the line.

When the laughter died down, I was shown a method of 'fastening' clothes onto a line so that in future my washing would be safe in all but the strongest winds.

First cut a length of twine into 12 inch pieces and make them into loops. Using a Cow Hitch (Ashley No. 56), tie each loop onto the clothes line. Make a Ring Hitch (Ashley No. 59), in the hanging loop and pass a piece of the washed article through the ring hitch, and make it into another Cow Hitch.

the beauty of the fastening is the stronger the wind blows - within reason - the stronger the washing it held.

John Addis



Gyldensvagen 12 B 6
00200 Helsingfors 20
Finland

NEEDLESS NEEDLES

We have seen interesting articles in KM about useful (partly self-made) tools used in knotting. The needle could also be included in this group. Many have used needles for finishing their rope work whether it is a framed combined mat or any other useful decorative piece.

Sail makers (and not only professionals amongst them) is a group which certainly has specific requirements on needles.

On the Aland Islands (between Finland and Sweden) there is an old tradition to preserve traditional big sailing ships and build new ones based on old drawings. This requires a lot of voluntary work also in sail making - and consequently a lot of needles.

One of these voluntary sail makers, Jouni Lahdenpera, is a member of IGKT. He spent many evenings throughout the years together with friends to dress the fine ships with appropriate sails.

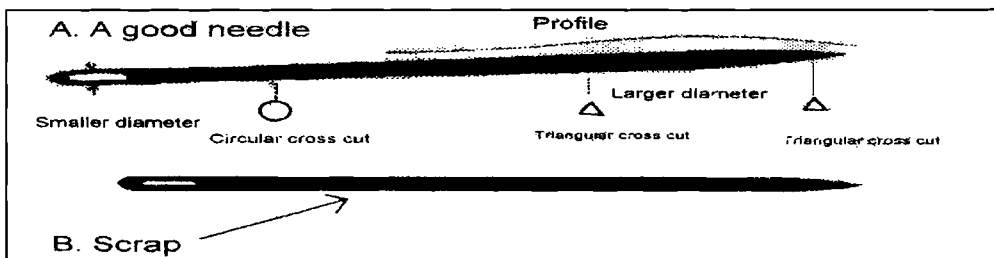
Now he has asked me to find out what has happened to the famous needle manufacturers in Great Britain. I think the best way to elucidate the problem would be to address this question to the readers of KM, consisting of many skilled and experienced rope work professionals, starting with e.g., Des Pawson.

I hope to have comments about the personal experience the readers have on this subject.

Now the facts.

1. A good sail makers needle from e.g. W. Smith and Son, Redditch (?), England.

The point is really sharp. Its cross-section is triangular and this is true for the first part of the needle. The largest diameter of the



other end (eye) is smaller than the largest measure in the triangular cross section part (a difference of about 0.15 . . . 0.30mm).

2. Today, according to Jouni, the quality of needles delivered by different manufacturers varies, even in the same package. Nowadays the diameter of the needles can be same along the whole length, the point is round and dull.

The experience lately has been as follows. In a package of 25, 5 needles can be used and 5 can be honed to acceptable quality. The rest is scrap.

The sail maker friends of Jouni use sizes 9, 12, 14, 14.5, 15 and 17, ordering usually 200 of the size 14.5 and 25 . . . 50 of the other sizes. Prices each in Finland and Sweden more or less the same = 6 SEK (Swedish Crowns). What is your own experience (quality and prices) in the Old Good Country, a country of proud tradition of fine tools?

With best regards to the editor and to the readers,

("Nothing matters but Knotting Matters", is true).

Lennart Heinrichs

MORE LETTERS

48 Norfolk St - ??1
Cambridge
Massachusetts
02139 USA
15 October 1995

Dear Editor

A reoccurring theme in KM is criticism over the naming of knots. A very good letter from a Mr. Charles Warner of Australia (KM 50, p7), epitomises the attitude of Guild members who have written on this subject in past issues of KM. It has been my experience that the names of knots are extremely important, and the Ashley Book of Knots has successfully codified the bulk of already existing knots.

While a salvage diver in the US Navy, I observed many arguments amongst the boatswains mates over a type of knot. Years later, as a civilian shipyard worker, a similar violent argument occurred amongst the riggers over the identity of a knot discovered securing a line to a bollard. In every instance someone has broken out a copy of Ashley to solve the argument.

In fact, Ashley has provided clarity rather than confusion to the naming of knots. By listing the most current name first, followed by those that have fallen into disuetude, Clifford W. Ashley has provided a historical reference of knot names eliminating the need to rename already existing knots.

In my most recent encounter, after identifying myself as a professional rigger to a Boston power company employee, he stated that "cigar" splices were used in his line of work.

Since I never heard of a 'cigar' splice before I asked if he would show it to me. I was ridiculed for several minutes for not knowing how to do a 'cigar' splice. After several more minutes of tolerating this harangue for the sake of learning something new, the employee proceeded to demonstrate - a short splice! In other words, I was verbally abused for about fifteen minutes over confusion of terminology.

I feel there are 'correct' names to specific knots and Clifford W. Ashley spent eleven years listing them in his tome. Ashley's work is still produced by professionals to clarify any confusion over terminology. And I fully support the continued use of this book as a standard reference by the I.G.K.T. The many other very good books on knots may be used to complement Ashley's.

Yours truly,

Brian A. Glennon
Boston, Massachusetts USA

Letter No. 2

Dear Editor:

I found the information contained in Robert Chisnall's article on Knot Strength and Security, (KM 48 and 49), to be interesting and useful, but lacking an important point when all that technical data is actually put into practice.

Enclosed is a copy of a computer printout detailing the findings of a Massachusetts Supreme Court decision for a lawsuit involving knot failure.

I'm not sure about elsewhere in the world, but here in the US we are going through the age of litigation where you can be sued in court for just about anything, including a faulty knot.

The enclosed finding of the Massachusetts supreme court has set the precedent in this State, that you will be at fault if a knot you tied gives way causing personnel or material damage no matter how beautifully or expertly tied. As a professional rigger, I am all too aware of this situation as I usually sign a document before I begin securing objects with bends, splices or hitches.

The Technical aspect of knots is very important and enjoyable, but the legal aspects of knots is equally important and sobering. So for those Guild members who have considered making a living from their hobby and becoming professional riggers, it is important to consider the legal consequences of a rope working occupation. A little research into your legal library regarding court decisions on rope or knot failures in your country would be both educational to the Guild member and fascinating to read in Knotting Matters.

Thank you!

Brian A. Glennon

Massachusetts Substantive Law Library

Copr. Proprietors of the Social Law Library, 1993

Boston, Massachusetts 02108

335 Mass. 422 Samuel Weiss vs. Republic Pipe & Supply Corp

for such injuries against the deliverer. (426)

Evidence warranting findings that an employee of a deliverer of a heavy boiler section participating with employees of a buyer thereof in unloading it from a truck at the buyer's premises had exclusive control of a rope used in easing the section down a skid and of tying a knot in

335 Mass. 422 Page 423

the rope to fasten it to the section and that while the section was being lowered down the skid the knot became untied and allowed the section to slide against one of the buyer's employees justified a conclusion under the doctrine of *res ipsa loquitur* that the deliverer's employee failed to use due care in tying the knot. (427-428)

Definition: Res ipsa loquitur - is rule of evidence whereby negligence of alleged wrongdoer may be inferred from mere fact that accident happened provided character of accident and circumstances attending it lead reasonably to belief that in absence of negligence it would not have occurred and that the thing which caused injury is shown to have been under management and control of alleged wrong doer. Source: ***Blackstone***

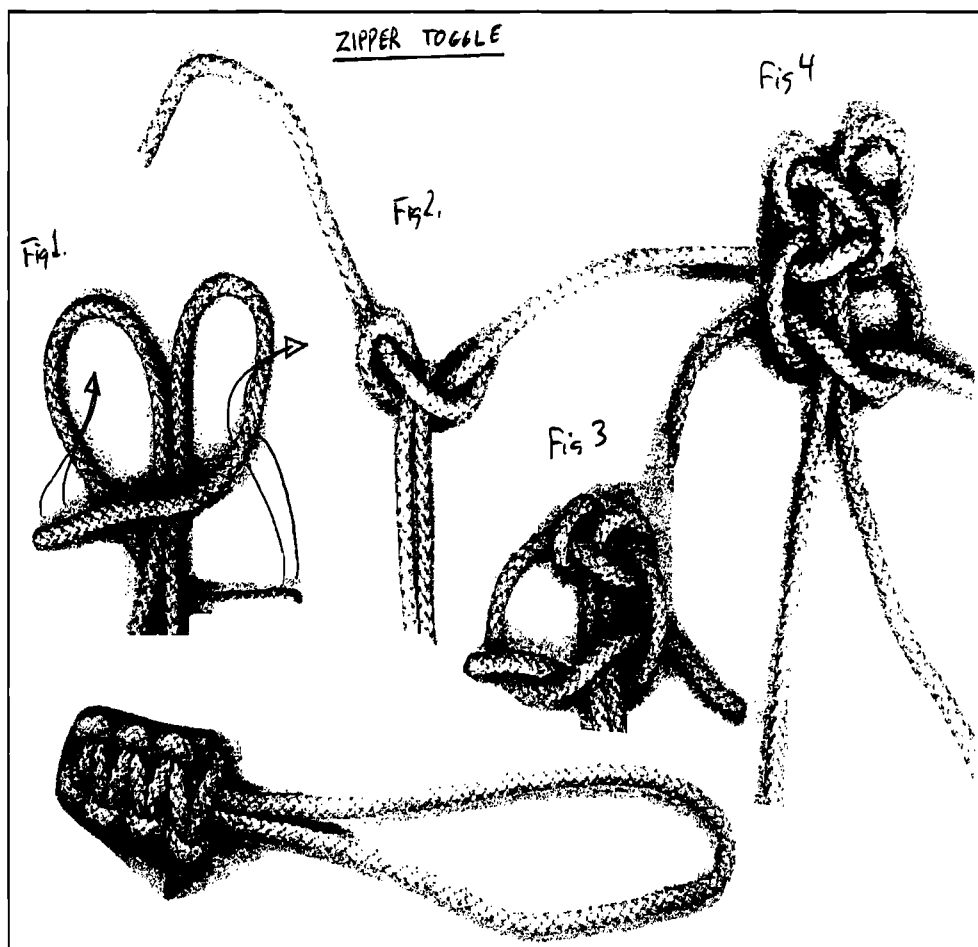
ZIPPER TOGGLE

I received a letter from a member describing how they were shown how to make a toggle for coat zippers, shown below.

It can be easily made and will work even in the freezing cold with gloves on.

This was taught while in the back of a van going out for Scout activity training in Wales. I drew up the knot from the sample sent in the letter but lost the letter!!

Now I want to apologise and ask the person to write again, please. *Ed.*



REPORT OF HALF A.G.M.

OCTOBER 7/8 AT LEEDS, YORKSHIRE

For all members, especially those arriving on Friday night and staying until Sunday night, the welcome could not have been warmer or more friendly. Big thanks go to David and Sheila Pearson and Graham and Christina Smith (Fig 1 shows Sheila and Christine in the kitchen working, of course) for all their hard but good humoured work, fetching dinners from four different places, (you can even get Mexican food in Leeds!) cooking breakfasts and a wonderful sit down dinner on Saturday night. I complained about the chat that woke me at two a.m. when, guess who, were going to their bed spaces, but I got my own back on them soon enough. They checked my tent to see what I had done with all the wood. My snoring is only a little like a chain saw with a stutter. Here are David Pearson (left) and Charlie Smith (centre) demonstrating mountaineering knots on Lester Copestake (right) (Fig 2/3) one night (sorry early morning).

The Saturday morning started well with a good fry up and got better from there. I brought a little money with me to spend on Des and Liz's stall. I scanned about a third of the books they brought with them before buying three. Then I bought some cord, then I bought a tool. When I got home Margaret said, "I thought you weren't going to spend much?", ooops!

Stewart Grainger had a 'Try it you'll like it' stall



Charlie Smith (centre) and David Pearson (left) doing knots on Lester Copestake (right) 1.

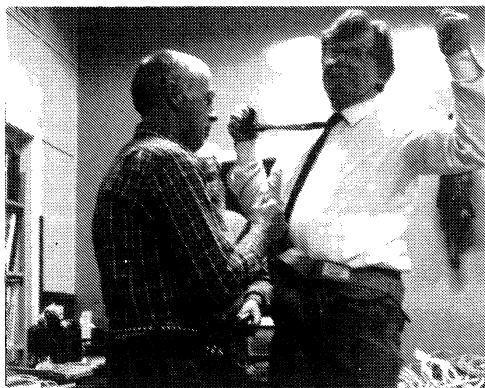
with his wonderful "GRIP FID" for everyone to have a go with.

Maurice Smith was selling his intriguing string puzzle. I'm a sucker for string puzzles, the family used to bring back the wire and string puzzles for me from seaside holidays instead of rock.

The unique Willeke van der Ham (Fig 4, here seen in the kitchen with Charlie Smith washing up) had a teaching stall where everyone came away with new respect for packing ribbon and probably a basket or a ball they made themselves.



Sheila and Christine 2.



Is it supposed to hurt like this David? 3.



Willeke and Charlie, washing up in kitchen 4.

Fred Carrington had a table with knot boards and knot work galore. Next to him Harold Scott's table was groaning with wire splices, eyes, single wire grommets and crucifixes. He made a Spherical



Chest Becket on stall at Half AGM-95 at Leeds, West Yorkshire Stall 5.

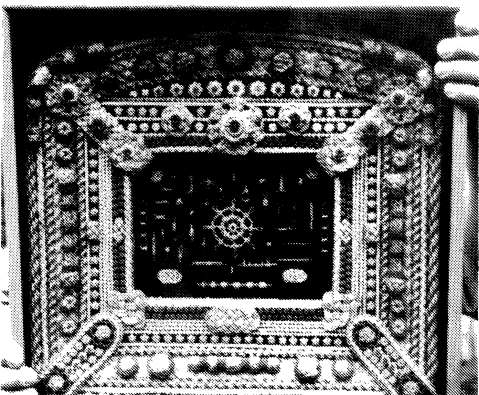
covering from Pieter van de Griend's book and some rope work, balls within balls and knot covered walking sticks. David Pearson and Graham Smith manfully manned the West Yorkshire Branch table. There was rope work and a rope making machine. I

haven't had time for a good look at it yet. Oh well, next time. David had the Chest Beckett (Fig.5) and Tim Field (Fig.6) brought in a pin board of knots. Tim likes to do knots with tweezers you know. But to prove he can do them properly, he made some Turks heads in cotton, then string and then 3mm cord all together side by side.



Tim Field doing his presentation at Half AGM-95 at Leeds 6.

Sylvia was there, the jewel in the corner of the room, 'personing' the Guild stores. I spent some money there as well, but don't tell Margaret.



Bernard Cutbush picture frames, used on cover of Reprinted Ashley's as shown at Half AGM-95, Leeds 7.

Bernard Cutbush brought three Knot Frames, one of which was the one on the new cover of Ashley (Fig 7).

Jeff Wyatt brought the Guild library and that is a car full I can tell you. It is amazing to me how many people have contributed to our bulging library. There was so much going on with everyone talking



West Yorkshire TV news programme 'Calender' recording at Half AGM-95 at Leeds 8.

and demonstrating and learning all day.

The business meeting was late starting because of the West Yorkshire TV news programme 'Calender' recording for that evening's programme (Fig 8), not bad hey. I haven't seen it yet but David is getting



Linda Turley at Half AGM-95, Leeds 10.

some copies done.

The President, Des Pawson, opened the business meeting by complimenting Graham Smith for his very clear and complete directions sent to all members. This must be the first time no one seems to have got themselves lost getting here. There then followed a minute's silence for the contemplation of the members on the lives and very recent deaths of two of our best known members, Albert Burton RN and Dr. Harry Asher. Des then introduced Nigel Harding the Secretary (Fig 9, here seen modelling a new t-shirt), Linda Turley the treasurer (Fig 10) and Lonnie Boggs (Sorry, no photos I liked) the editor of Knotting Matters. Each had bits to say about new members and the letters they sent, the money in the bank and how the magazine is going. This over with we were treated to the presentations.

The first was David Pearson (Fig 11) the Secretary of the West Yorkshire Branch, our hosts for the weekend. The WYB began really when Frank Harris called David to ask if he would like to help with a demonstration for Ronnie Brown of the maths department of the Leeds University. David called around the members in the book and four people showed up. They had moved up from being closet knotters to starting a branch. But had David known how crazy it can get, would he have? Because later when they were doing the National Boat Show at Wakefield, Frank, Charlie Smith and Bernard Cutbush came to help and stayed in a boat and on David's living room floor for the weekend. The WYB now do about three canal festivals annually. Most of their interest is in canals and canal history, going out and playing for the weekend. It only takes one enthusiastic member to



Nigel Harding IGBT secretary, modelling a knot T-shirt at Half AGM-95 at Leeds during the Saturday evening meal 9.

going, you could be that one person. You could call around the local members and have a meeting at your house to start, and it can grow. David reminds us that getting together three or four times a year at several different venues to chat and share what work your doing can be so ~~very~~ supportive. Graham



David Pearson at Half AGM-95, Leeds

11.

Smith had made a press release to all the local press in preparation for our meeting. So on Friday afternoon, David and Willeke van der Ham, who was going to demonstrate at the meeting, were asked to go on Radio Leeds for fifteen minutes or so talking about the Guild and the meeting. David had also written personally to all the local IGKT members to come to the half A.G.M. Like I said, one enthusiastic individual.

Next was Tim Field who began by correcting the editor for only printing part of an article about an archaeological find. This will appear as an article in a later K.M. Then to the delighted amazement of most of the members, Tim and his friend, the lovely Richander Birkinshaw (Fig 12) sang and played the song Tom Bowling. The song comes from that time in history when LADIES were meant to learn to sing, play the piano, embroider and generally just be

REFINED until the man wanted them again. This song was full of fluttery ups and downs that always seem so impossibly difficult to me. They sang so clearly and professionally, it was a real treat. I only found out later that they both sing in several choirs and Richander leads one choir and plays for another. We tend to forget that knot tiers have full and interesting lives as well as being knot tiers. My compliments also go to Richander for helping to make and serve the lunch and evening sit down meal.

Graham Smith was asked to give a profile of himself. It could have been a stand up comedy routine from the hysteria that followed. See for yourself on the members profile page.

After a break for an excellent lunch, Charlie Smith spoke on the Dodecahedron. This is a combination of equal lengths of string and sticks that are put together to form a 20 sided shape. This was a puzzle given to Charlie to put together when the owner couldn't do it. Having done the puzzle, Charlie could see it was very worn, probably from frustration, so decided to build a 25 sided ball shape

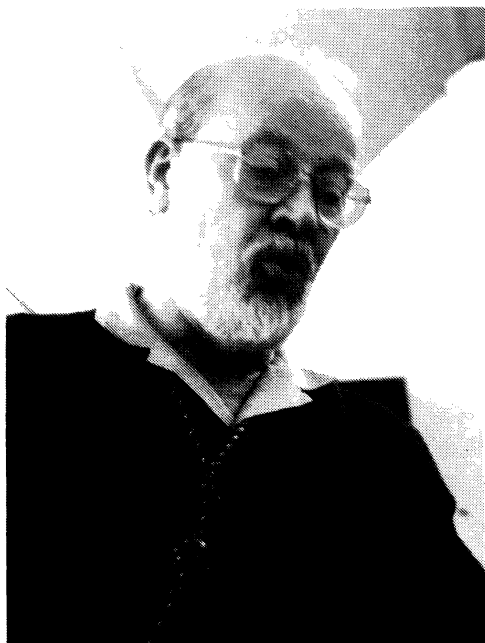


Tim Field and friend Richander Birkinshaw singing the Tom Bowling Song at Half AGM-95, Leeds

12.

around it to closely support it and protect it. Well what else would you expect of Charlie, he of the "I can show you how to do that knot on your hands!" fame.

The use of packing ribbon for anything knotty would not have occurred to me but Willeke van der Ham works around it and began to use it to practice her knots and now makes very strong and beautiful articles from it. Willeke demonstrated how to turn and lock the crossings until they can be tied in by



Stewart Grainger speaking at Half AGM-95, Leeds 13.

the next crossing, bending around to form a ball or the top of a basket with a handle or a very strong fruit bowl. Her presentation follows this report.

Stuart Grainger (Fig 13) then spoke about his recent experimentation with metallic filled epoxy resin for doing casts of knots for plaques, paper weights, jewellery and all sorts of uses. He has done a copy of the Sealed Knot in a presentation plaque. Sounds good to me, looking forward to an article on this Stuart.

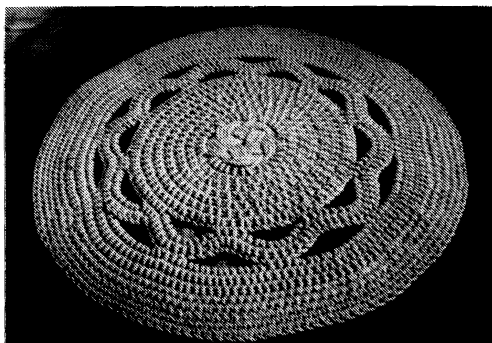
Brian Field then began to talk about the historical aspect of flat sennits (Reef Knot), the tying them, the development of new ones, the symmetry and construction of ladders and the method of locking them.

Des finished the programme talking about his interest in mats. He brought in a couple of these mats. One a large new round mat (Fig. 14) made in the 'Appledore' style, Appledore in North Devon and similar to a mat Des saw in New Bedford USA when he was on holiday there. Another one was a grimy dirty old mat given him in Hull as a sample of the work of a Bargeman on the Humber. This did generate a lot of interest because he asked if anyone

knew how it was made, a very good puzzle. I have since heard that several people have sent Des full drawings and directions on how they think it was made.

That was the end of the presentations but the meeting was extended to hear from two members who wished to share their memories of Albert RN and Dr. Harry Asher. Lester Copestake spoke of his respect and gratefulness to Dr. Asher for his encouragement to Lester in researching knotting matters. John Noone ABS of Rosendale spoke about Albert RN. John is from a Merchant Navy family and knew Albert very well over the last six years going to Pompy for reunions and Guild meetings.

Albert was a Bosun on some of the largest ships in the Navy. he received a new ship and came off the Hood when she was hit and sunk. John's father was at sea and saw the flash that was the Hood being hit. Albert was a real down to earth, no nonsense man, he had to be to be a Bosun, but he always had a chuckle. Albert once said he knew 700 knots and



Appledore style knot shown by Des Pawson 14.

that was enough, he didn't need to know any more for his purposes.

Albert taught John how to make those tiny knot boards in a car stop lamp saying with a laugh, "There is an easy and a hard way to learn to do this. I learned it the hard way boy!" He was in a lot of pain in the last two years of his life, but still spent many hours doing amazingly delicate work for others. He wanted to finish the knot boards for those nurses before he died and he did. A truly wonderful and likable character who it was a privilege to have known, Albert Burton RN.

WORKING WITH STRAP

By Willeke van der Ham

(As given at half AGM, Leeds 1995)

What is 'strap' and what can it be used for? Strap is a flat material, wider than it is thick, and both tough and flexible enough to be bent and stretched. It can be made from nature, as in the old days, for instance, leather, straw or bark, or in modern society it is easy to find it made from plastic.

Why do I use plastic strapping tape to make knots? One day at work I was thinking about Turks Head knots, and since there was no rope around I picked

up some pieces of strapping tape. It worked beautifully, so I went on using it on Turks Head knots, I did not even know that it was unusual until I was told so.

Soon after this I started to use it to tie all kinds of knots, and because I work in a factory where we use plastics I was able to try other less structured plastic waste by cutting the plastics to size.

From using all these other kinds of plastics I have developed the following rules:

If I can bend and straighten it without breaking it I can use it.

If after a sharp bend it shows signs of breaking, it can be used for Turks Head knots but not for Wall knots and Crown knots.

If it bends and folds too easily it's too soft for structural use, but it can sometimes be used with tougher material.

If it folds every time it's twisted it will be very difficult to use.

Sometimes the strap is too wide, then I try to divide it, with the normal strapping tape this can be done easily, just hold a knife in one hand and pull the tape with the other. If you have a piece of strap which is very narrow (nearly square) it will behave more like rope.

If you take two pieces of strap and place them over each other it is very easy to let one cover the other but, when under a little pressure, it will become very difficult to get and keep them apart again. This makes it pointless to double a Turks head knot. On the other hand it makes it easy to

finish your knot off, just start doubling and when you have done three or four crossings, you can cut the ends.

Now I have told you how to finish a Turks Head knot, but not how to start it? I like to work around my hand (Ashley NO. 1322) but you can also work around a cylinder (Ashley NO. 1324) but do not place pins in your strap, staples work better.

Be careful not to twist the strap, at one stage the knot will be bell shaped, if you put in more leads the knot will be a tube with the bights turned inwards.

If you twist the strap each time you reach the side of the knot it's going to be a regular tube, but it is very difficult to twist and crease the twist at the right place. I first make a knot with two extra leads (but with the amount of bights I want), and double this. Now I follow just those leads that I need, this way you can see where the twists are needed. The first layer is pulled over the edge but the second is folded in at the edge.

Try using strapping especially in those knots where you would like to use leather but it does not work. The Spanish Ring Hitch and those other nearly impossible knots. You can also make Crown knots, Wall knots, Diamond knots and nearly all combinations of those with strapping, they all give their own structure.

When working with four ends your Diamond knots will stay too tiny. If you work a Crown Sinnet with four doubled ends finish with a last knot using only the four top most pieces of strap. (Make one more Crown the same direction as the last). Now your ends radiate like the spokes of a cartwheel.

Start your Bell Rope with a loop rather than a plait, and hold your strap with a clothes peg or sticky tape, instead of a constrictor knot. To finish follow another part as in doubling or create a new part of the pattern with all ends and cut, do not try to get away with any more. Do not try to close your knot as closing it, tightens it forever. A nice Bell Rope can be made like this: (8 ends, 4 doubled).

A Loop:

2 Crown knots (the first through the loop plus one made of four ends).

1 Double Diamond (over two under two) a sinnet of Crown knots alternating.

1 Double Diamond (over one, under one) a sinnet of Crown knots (one direction).

A big knot based on a Diamond (over 2, under 2, over 2, under 2). Bring your ends to the edge of the knot and end with a crown (over 3), work your ends back into the knot and cut.

Weekend Knotting Workshop



A special weekend with Des Pawson

We have been particularly lucky to secure the services of our President, Des Pawson, for a special Weekend Workshop to be held Friday to Sunday 8th, 9th, and 10th March 1996 here at the Seamanship College in Southend.

This is very much a 'Hands-on' programme with plenty to show for it at the end. Des will be helping us to make Fenders; Mats; Bell Ropes Sennit's; Hitches; Knots; Coverings; Grafting's, etc. Whether you're new to Decorative Ropework, or want to brush up your skills, there's a lot you can learn this weekend. (For more details call Des on Ipswich (01 473) 690090

As with all Abbott King Seamanship College courses the fee of £195 is totally inclusive of everything you need for the course! Course Notes are supplied, together with all the rope, tools and equipment for the weekend. Lunch and refreshments are provided every day. Although the college is non-residential local accommodation can be arranged if you wish.

Book early - Places are strictly limited

(Guild members who book and pay for the course before the 31st January are entitled to a discount of £15. That means the course fee is only £180. Where else can you get tuition of Des' quality for less than £7 per hour (and that's with lunch thrown in as well - but knot literally of course)?

Call or write to Tony Sutcliffe at:

Abbott King Seamanship College Ltd

c/o "Kersey", Rectory Avenue,
Rochford, Essex SS4 3AP
Phone/Fax (01 702) 548 874



LETTERS

ON CHAIN SHORTENING

In response to Gordon Perry's question KM 50 about chain shortening and who uses it. Well I'm a member of the Service Crew at Eaton Vale Scout Campsite and we use chain shortening on most of our ropes as it saves issuing a basket of ropes for rafting and having to sort them out first. We also use chain shortening on the block and tackles, that are left as they are used so often, like for the aerial runway and the marquees.

Ian DeAth.

HALLO KNOOPVRIENDEN

Hier een overzicht van de gewijzigde telefoonnummers. De volgorde lijkt onlogisch, maar ik heb de ledenlijst 95/6 aangehouden. Als jouw nummer niet klopt meldt dit dan bij mij of bij Knotting Matters voor een correctie of bij Nigel Harding voor de volgende ledenlijst. Veel nummers ontbreken Willeke van der Ham. 0251-213285.

Dear Knotting Friends.

On 10-10-95 the Dutch telephone numbers have changed. Not all of them, the numbers starting with 010, 020, 070 and some others did not change. Don't worry, you can still use the old numbers until May 96. Your phone companies will be able to give you the new numbers. To make it easier for you, I took the membership handbook 95/6 and wrote down the changed numbers and their new ones. If you need to know many new numbers you can ask for a special booklet which tells you how to change all Dutch phone numbers, I can help you to get this booklet.

Please remember, in international calls, dial the international access code, the country code and leave out the first 0. So someone calling me from England should dial: 010 31 251 213285. I hope I have given enough information, if you need to know more just call your telephone company or me. Goodbye,

Willeke van der Ham.

01718 - 15231 = 071 - 4015231	01887 - 2548 = 0181 - 662548	Nieu adres/new address
02521 - 14396 = 0252 - 414396	071 - 212388 = 071 - 5212388	Jan Vos
01804 - 23355 = 0180 - 423355	078 - 181068 = 078 - 6181068	Savornin Lohmaniaan 30
01858 - 16332 = 078 - 6816332	03494 - 57244 = 033 - 2457244	1272 HG Huizen
02510 - 13285 = 0251 - 213285	01747 - 4168 = 0174 - 384168	035 - 5266116
078 - 146002 = 078 - 6146002	02550 - 14046 = 0255 - 514046	
078 - 1711052 = 078 - 6171052	02152 - 51514 = 035 - 5266116	
02518 - 53157 = 0251 - 653157	01865 - 2042 = 0186 - 652042	

PLYMOUTH NAVY DAYS

Richard Hopkins



The riggers being shown how to do it on their fingers by Charlie

Dear Editor

Plymouth Navy Days were on 17, 18, 19 August 1995, at Devonport Dockyard.

The Guild was able to exhibit through the efforts of Dennis Murphy and his connections with previous events and the Sea Cadet Corps.

He and Barbara also provided accommodation for four Guild members who came to help. We were looked after like royalty.

Bernard Cutbush and Dennis had worked hard to get the stand set up before we arrived and had included items by Albert RN, who sadly died a few days before the show.

I arrived Wednesday teatime, Jeff Wyatt in the early hours of Thursday and Charlie - after giving a lecture in London - turned up on Thursday evening.

during the three days we all worked hard and spread the word about the Guild to people from as far afield as Nottingham, Swansea and Surrey, as well as many West of England "locals".

Several Guild members visited the stand and a couple (whose names I cannot remember - slap my wrist) also had items to exhibit and stayed to work.

These included Edna Gibson with her beautiful braiding and ? Gordon Storer ? with his Chinese ornamental work and very complicated puzzles.

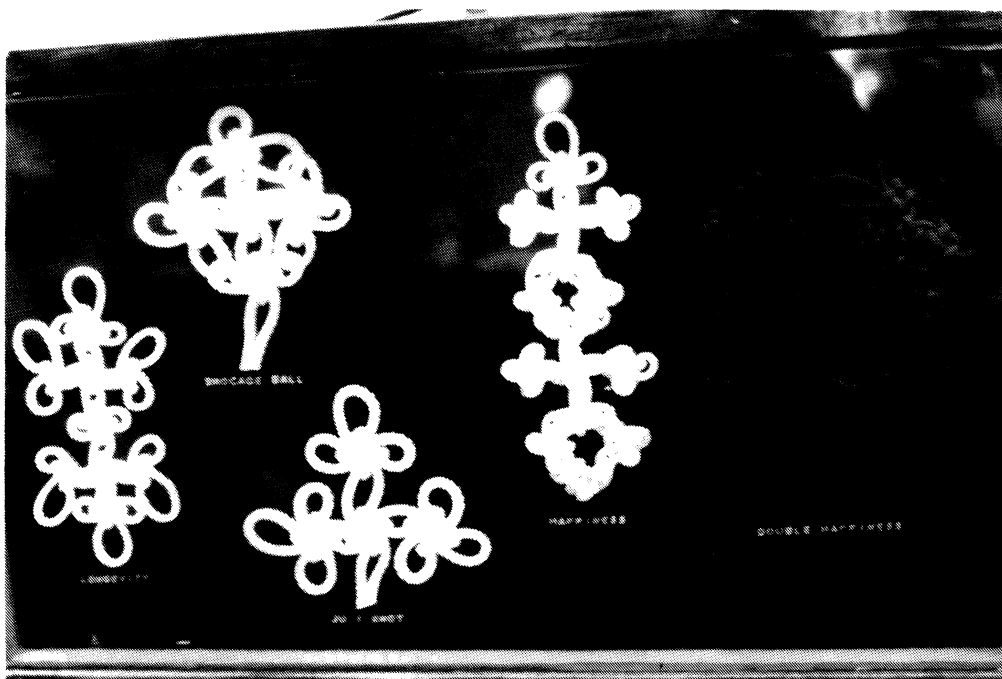
The display was set up in a large Drill Shed which kept us cool and drew in many visitors seeking relief from the intense sun.

Down by the ships, 5-10 minutes walk from the Drill Shed, the Dockyard Riggers had a very impressive display. This was an obvious target for the knot-tyers and we were received with interest and amusement by the riggers on duty.

One of the supervisors kindly gave some of us a guided tour of the Rigging Shed. This was a fascinating eye-opener showing how large-scale ropework is carried out.

I also borrowed a video showing the riggers at work. This was copied for the IGKT video archive and shows in a very clear manner how to carry out a lot of tasks that most knotters only read about.

Overall it was a most enjoyable time, but one day I will get to one of these events and see the displays as well as the knots.

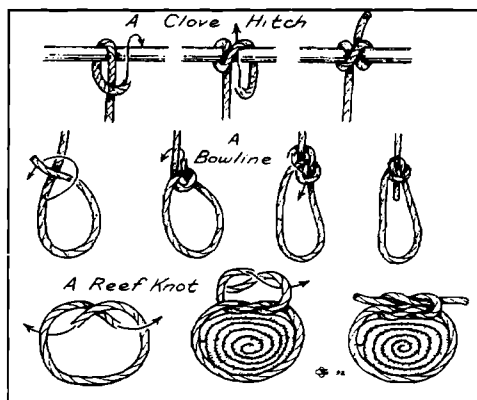


Some of the ornamental Chinese knots of Gordon Storer

THE USE OF KNOTS ON INLAND WATERWAYS

Knowledge of knot tying and the best uses to which this can be put when canal boating is very worthwhile if you are going to cruise in confidence. Here STUART GRAINGER concentrates on those basic knots used for

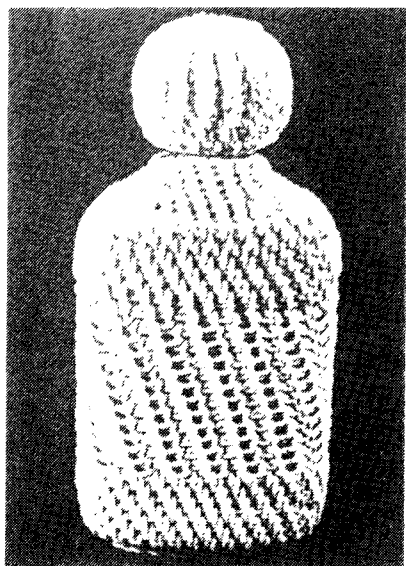
Knots are tools and, just as the average household toolkit contains half a dozen or so basic hand tools, so one can manage most normal jobs around boats or anywhere else with a relatively small selection of knots, bearing in mind that there are thousands to choose from. Taking the analogy a little further, it can be important to know which tool, and which knot, to use for a particular job, although some can be used for more than one, just as it is bad practice to adjust a nut with a pair of pliers, because it



can damage the nut, so it is unwise to use a Reef Knot, properly used for parcelling, to join the ends of two ropes together, because, in this situation, a Reef Knot can slip with potentially disastrous consequences.

Neither of these malpractices are uncommon, but they should be discouraged. A nut requires a spanner, of course, and joining two ropes' ends requires a bend, the best known being the Sheet Bend, which is easy and quick to tie and can be doubled for total reliability. It can also be used to attach a light line to an eye in a heavy one, such as a mooring hawser and it is the knot normally used in netting. The Sheet Bend belongs in everyone's tool kit.

The best way to moor a boat to a ring or stanchion is probably a Round Turn and Two Half Hitches, which will not slip or jam and is wholly reliable regardless of the direction of pull. Another wholly reliable knot is the Bowline, which is the best way to form a temporary eye in a rope. It is not uncommon to see a Bowline used for mooring and as a hitch also. A hitch is the method normally used to tie a line with a weight or stress on it around a rail



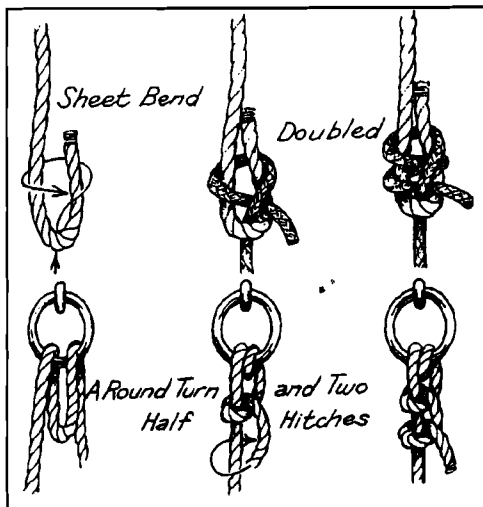
A pocket flask covered with Half Hitching in cotton cord. (Work and photograph by the author)

sometimes around the circumference of another, heavier, rope.

The one most commonly encountered is the Clove Hitch, which is easy and quick to tie, but not wholly reliable if the strain on it is variable in direction or intermittent. A very useful knot, though, particularly for some jobs requiring speedy action, such as placing a strategic fender when a boat full of beginners is coming alongside and definitely one for the toolbox. Two other hitches, although not essential, can be very useful, the Timber Hitch and the Grocer's Hitch, both of which are slip knots and their names indicate their principal uses.

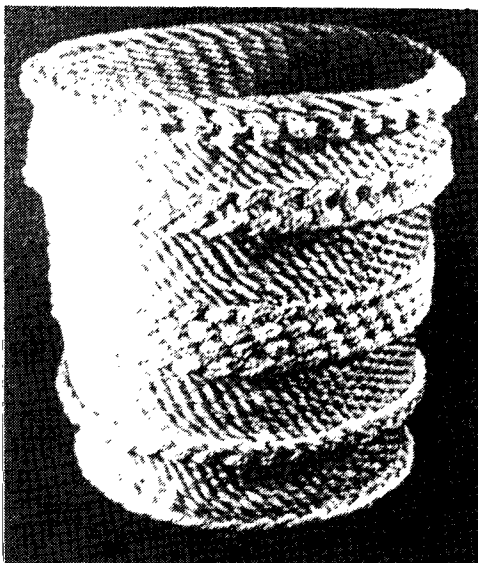
The Timber Hitch is particularly suitable for placing around a bundle of spars or rods, and the Grocer's Hitch - a Figure of Eight Knot placed to allow the end of a line to slide upon its length - is often used in the retail trade to secure parcels.

Anybody claiming competence in boating should be familiar with the Rolling Hitch, and ought to be able to produce a respectable splice, but these are not required items in the layman's



toolkit of knots. Every Scout is supposed to know the Sheepshank, but it is very rarely used in earnest. The suggestion is that one can manage perfectly well with five basic knots: Sheet Bend, Round Turn and Two Half Hitches, Bowline, Clove Hitch and Reef Knot. It is initially surprising, therefore, to find that knowledge of and interest in knots among those who frequent our inland waterways are so extensive and often profound. As long as the various craft could be moored efficiently, covers, fenders and tarpaulins properly secured and toddlers safely tethered, where did the necessity arise for more than the half dozen or so knots already mentioned?

Obviously necessity is not the only criterion which governs acquiring knowledge of knots. The sheer beauty of many knots acts as a powerful attraction and inspiration to learn more. Many knotting techniques, with a purely practical original purpose, have a decorative appearance, which can be put to good use in domestic roles. As an example, observe the bow and pudding fenders which are still a feature of many narrow boats, as they have been for a couple of hundred years and more. These are usually covered with either Half-Hitching or Crown Sennit, or variations of these, both of which techniques can be used to

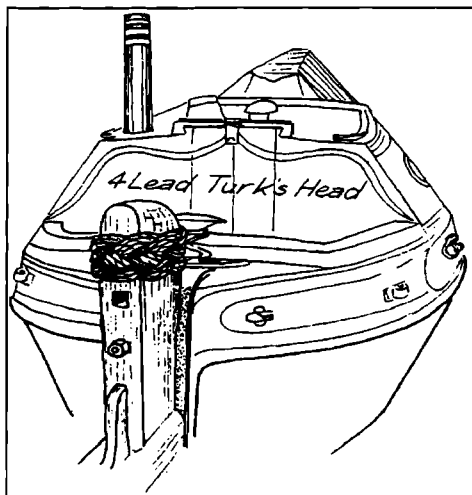


Waste paper basket in sisal cord - mainly Crown Sennit and lanyard knots. (Made and photographed by the author)

ters for anything from needle-cases to tea-caddies, or to protect and decorate bottles and jars.

Baskets can be made in similar ways and it is interesting to speculate about the possible exchange of ideas and hints between the traditional weaver of baskets in withies and reeds and the passing bargee or sailor. Which raises the question of the origin of many of the more complex and decorative Knots.

There can be little doubt that the supreme

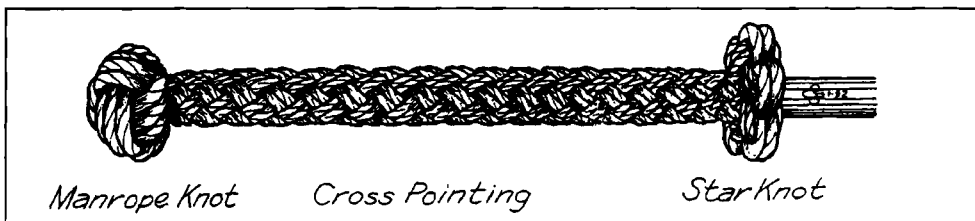


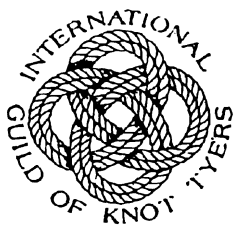
exponents of the craft of knots were the deep water sailing ship men, who were always driven hard, but still had periods of idleness, becalmed or awaiting a berth, when leisure time could be occupied by using their practical knowledge of knots and the discarded cordage from the ship's miles of rigging to make personal items for their own use or that of their wives and female friends ashore. Before the days of radio and without knowledge of reading and writing, this

must have been a very important part of their lives and experts in the craft would have been much respected and in demand to pass on their skill.

No doubt there has always been a steady interchange of personnel between the inland craft and bigger fishing, coasting or foreign-going ships. The young man born on a barge might well pursue his fortune at sea and the ageing able-seaman, tiring of the exertions and hazards, which were the everyday experience of men aboard big sailing ships, could be forgiven for seeking a more comfortable berth inland. Asked what he intended to do on retirement, the old seafarer customarily stated that his intention was to walk inland with an oar over his shoulder until someone enquired what it was. In that place he would make his home. IN truth he was more likely to dream of a snug cottage by a towpath or river bank, where he could mingle with congenial companions from passing craft, soothe any resurgent itch of wanderlust with reminiscence about past travels, swapping tall yarns and, no doubt, knots as well.

Sailors, riggers, fishermen, sailmakers, rope and net makers all had knotting techniques to contribute and they were all to be found in the ports where rivers and canals reached the sea. Their skills could be watched and gradually acquired, to spread quietly and steadily upstream among those who valued them. So today we can still see a large Turk's Head Knot tied around the head of a rudder post on a narrow boat, brightly painted in striking colours, a fine length of Cross-pointing finished with a Manrope Knot or Star gracing a tiller. They are not there because they are essential, but because they are beautiful, refined examples of the craft of knot tying, a craft as old as man himself.





THE NEW ZEALAND CHAPTER OF PONA TIKANGA SPRING 1995

Being the occasional newsletter of the New Zealand Chapter

Greetings Good Members.

Spring is upon us, and once ore it is time for another Pona Tikanga. I am more than happy to inform you that this will be a "People" edition of the newsletter. While winter has been with us only natures domain has been in a state of suspended animation, Chapter recruitment has been alive and growing, and as a result it gives me the greatest pleasure to welcome new members to the chapter, one of whom is acquainted with some of our sea-going members, another who joined without knowing of the existence of the Local Chapter, and another who has talents which will be revealed later!

So on the Chapters behalf I extend a hearty welcome to:

Richard Hodge of Christchurch; Kerry Moore of Warkworth; and Capt. John Dickinson of Wellington.

Richard, who lives just a heaving line throw from Pegasus Bay has been shipmates with several of our members, lives in New Brighton. Richard tells me that he is battling away making a chess set in fancy work, hopefully a photograph will be forthcoming in due course for Pona Tikanga, and Knotting Matters - I feel for Richard, making a piece of fancywork is one thing, but making a dozen or more identical pieces is definitely another!!! - Good luck to you Sir. It occurs to me that at even a modest hourly rate it would be near impossible to be reimbursed for the time spent making such a work of art, let alone be rewarded for the talent, knowledge, and dexterity that goes into such a project. I use the term Art advisedly. Though our interest is rightly termed a "craft", there are certainly aspects such as Richards work which are finally 3 dimensional art.

So, welcome Richard, the Chapter is glad to have you in its number. Those of you who are collectors of trivia might like to know that Hodge, Richards Surname, is actually a diminution of my first name Roger, it is a surname from the West Midlands of England from where I hail.

Now welcome to Kerry Moore, lately of Warkworth. Kerry started his membership as somewhat of a mystery man. I first saw his name and a Hamilton address in the 1994 Membership handbook (with never a word from Nigel Harding that we had a new NZ member), so I tried to find him on my map of Hamilton - no sign of the street name - whilst visiting our member Dr. John Turner in Hamilton, we looked Kerry up in the phone

book (cities grow sub-divisions and suburbs while maps stand still - silly me); so I asked John to chase Kerry up when he had a chance. But before he did, the 1995/96 membership handbook arrived, and there was the mysterious K. J. Moore once more, only this time in Warkworth. Anyway to cut a long story short I made contact, and so, a very hearty welcome to Kerry J. Moore. Kerry has kindly sent me a CV so that I may introduce him to the Chapter properly but briefly.

Kerry has enjoyed a varied career which includes 12 years as a surveyor in NZ and in Malaysia. 27 years in the computer industry, and in recent times, semi retired Kerry makes furniture from swamp-kauri, but his knotting interest does (k)not stem from working with wood (sorry), but from a lifetime interest in yachting, which includes volunteer crewing in the "Spirit of Adventure Trust" and as a ship model builder. So people, another nautical member, and most welcome aboard Kerry.

Our most recent recruit posted his cheque only two days before this newsletter went to print, and I bid a hearty welcome on your behalf to Capt. John Dickinson of Wellington. John is a member of the Harbour Masters Department of the Wellington Regional Council. John's duties include responsibility for the control of oil spills and other ecological disasters, manmade and natural; BUT John's main claim to fame (though he hasn't actually claimed it yet) is that his office is in the Maritime Museum Building and is very close to the postal franking machine, and two photocopiers! Need I say more, such talent surely makes John a leading contender for an executive position on our committee, wouldn't you all agree, more of John in a later newsletter. So gentlemen, welcome one and all.

This latest influx makes a new local membership list even more imperative, I shall get to it a.s.a.p.

As well as new members signed up, there have been a couple of tentatives showing interest, one of whom is Capt. Clyde Myson of the Arahura, who will join us when pressures of time allow - he sent me a postcard which pictures Arahura leaving Picton, and she is painted in the old Government green colour, Ah, nostalgia! Join us soon Clyde.

The "Friends of the Museum" enjoyed a field trip on Sunday last, and among the member/friends was our Pat Cunningham, who told me that he has developed an addiction for wire-splicing! PAT is responsible for the "Bosun" work on the Aratika, and over recent times he has renewed wires about the ship, on the lifeboat davits, ridge-wires on the vehicle decks, and much more, which when finished will amount to over 100 eye splices. He'll probably have the hang of it by now!!! Remembering my hands when splicing wire at sea, I should think that 100 splices would be more of a cure than an addiction! Pat also donated a couple of bell-ropes to the museum - there is a collection of about 15 ships bells located about the museum, and after a succession of school parties try their hands, there are always bell-ropes needing replacement - thanks Pat. To diversify from the nautical theme for just a moment, attention braiders. To get away

from dog leads and the like for a while I commend your attention to the adjoining advert. It seems that braiding can be made to pay! I have seen several females about town with their hair braided thus, and have politely enquired of them for the time taken. The average is about 8 hours, the longest so far is 11 hours! I suppose that it depends on how many braids are made, and how long the hair is.

Now back to "People". Another member who has managed to stay in one place long enough to compose a CV is Gil Inkster of Nelson. Firstly Gil tells me that Rod Orrahs photographs have arrived, and that he has passed them on to Forrest McDougal, so they are making the rounds, just half way through the alphabet. Gil tells me that his knotting projects are mainly done at sea, which means that he should get plenty done, having recently completed a passage of 40 days and 40 nights (a Biblical period) to

**Come to Hair Braiding Centre to have your hair
braided by the professional lady, Rose.**

Prices range from \$150 to \$250

Hair extension price is \$15 for repeat customers,
so why waste much money somewhere else?

**Come to 309 K'Road or Ph 623 3282
for appointment**



Cairns and return to NZ. But he lets a little parochialism slip in, when he says his work is done mainly at sea, because Nelson's weather is so good that he's always gardening when at home! Ah yes, we Wellingtonians know just how he feels!

Gil has been at sea since 1940. As well as sea-time in Union Company Ships and the smaller coasters like The Aroha which plied for so long between Wellington and Marlborough Sounds Ports and farther afield, he also did periods as Dredge Master and Pilot at the Port of Nelson. Since his so-called retirement Gil has done relieving jobs and delivery voyages which have taken him to some very unlikely places, Reykjavik, Iceland, being one such! Gil was at pains to point out that his relieving jobs do not include the Straitsman, those of you in the trade will know why. One of Gils earliest seagoing jobs was in the 4 masted barque Pamir, which as far as "Knotting Matters" are concerned must have been rather like being "thrown in at the deep end". Pamir had 26 miles of standing running rigging!, and as this goes to press Gil and his wife are off on a trip to Norfolk Island for a Pamir Association reunion with several others of my acquaintance. Don't let M. H. lead you astray Gil. Gil does all the sort of knotting work that all of us with a similar background do, but one unusual commission he had recently was a lead for a prize bull. That ought to qualify you for a place on the editorial staff! Have a great time Gil.

Friends of the Museum Update

I have recently renewed the "Hands On" knot boards which had been tied to death mainly by the aforementioned school parties. They are now to be part of the "Fishing

Exhibition" which is being assembled in the museum now, they will be captioned "Tie a Fisherman's Knot" or some such, which prompted the thought "we don't have any Fishermen in the Chapter" of the Sea-going fraternity fishermen are probably most concerned with knots and cordage. Who can tie a Cod-end Knot????? send me a diagram - recruit a fisherman. •

By now most of you will have received Issue 50 of Knotting Matters (a number worthy of comment surely?) and well done our new editors, after the earlier birth pangs, I am sure that we can look forward to a new era in Knotting Matters. All our seamen members will I am sure recognise the knife on page 6 of No. 50 issue sold to member Summerly as a "splicing knife", but for the rest of you, and Brother Summerley - sorry - junk shop owners are noted for their imagination, your knife is part of the survival kit from an inflatable life raft. After boarding a life raft, one of the first things you would need to do is to sever the rope which inflated your raft and keeps it tethered to the ship that you are abandoning. That is what the knife is for, the rounded blade end is to reduce the chance of puncturing the raft if the knife is dropped. The colour is the internationally recognised "air/sea rescue" orange. The need for good buoyancy is self-evident.

Re. the comments in No. 49 and No. 50 on left-hand layed rope, as well as the hammock lashing (ah yes! I remember it well, the first piece of grafting I ever did was on my Lashing) as Ken rightly says, left handed and soft laid to take marline hitching without unlaying. For the very same reason traditional "Marline" is two-stranded left-hand laid, used for marling down and for small stops etc, it too as its name implies, is/was used for marline hitching; and incidentally often made in New Zealand flax (Phormium Tenax) for RN use usually tarred. The other well known left-handed layed rope is of course

TWISTED TAILS



A RAT KING (a group of rodents with their tails knotted together) was found in the winter of 1963 by a Dutch farmer in Rucphen, North Brabant, who heard loud squeals coming from a pile of bean sticks in a barn.

Upon further investigation, he found a rat king consisting of seven adult black rats. All of a similar age, there were five females and two males.

An X-ray of the knot, above, shows some fractures, with signs of callus formations, and there were also fractures in some vertebrae. This suggests that the tails had been knotted together for some time, perhaps originally becoming entangled when the animals had crowded together in a nest.

"Shroud layed" four strands of right-hand (hawser-layed) rope layed up left-handed round a fibre heart, not as strong size for size as hawser layed rope, but less elastic, and useful for what its name implies. For the same reason cable-layed rope is also left-hand layed.

R. A. Steemans' "Game sling" on page 13 of No. 50 reminds me of a similar thing that is used in NZ. I have made several for fishermen (anglers that is) and is as you will have guessed a "fish carrier", and a vehicle for fancywork. Take a piece of dowel or thin broom handle about 6 inches long, apply fancywork to create, to your own taste, a handle in the central 4 inches or so, then a pair of turksheads at each end quite close to each other. Then get about 2 feet of the hardest layed core obtainable, seize one end tightly between one pair of the turksheads. In the other seize an eye big enough to go over the outer of the other pair, to carry fish just feed the loose eye down through the gills and out through the mouth and then loop the eye over the free end of the handle between the Turks heads.

Talking of recruiting, I enclose a copy of the brochure and the blurb sheet. You might like to photocopy a few of each for your own use, offer them to prospects, or leave them in likely places as you see fit.

Which leads me to yet another mystery man. You may recall that I mentioned being told about a likely prospect named Pat Barry a retired seaman who lives on the Hibiscus Coast north of Auckland. He was reported as doing rigging work for the Hobson Wharf Museum, I also heard that he is a ship-in-bottle maker, a double prospect (I am also a member of the S-I-B Association of America). I wrote a couple of times and received no reply. Both Gil and Pat have said that they are sure that they have been at sea with one of that name, and I think that it was Forrest that put me on to him in the first place. Does anyone else know him? We should have him in our midst, don't you think?

For those of you recently joined (and let me say I have no seniority list) I enclose a copy of the index to Knotting Matters No. 34-No. 43 compiled by English member Lesley Wyatt, if any of the items interest you, let me know, and I will gladly sent you a photocopy.

I must share this little gem with you all. I have a friend who is a Gaelic speaker, he tells me that the name McDougal (and it is a dominant name in the Chapter - see new membership list). The name McDougal translates as follows: Mc or Mac = Son of Dou or Dhu = Black and Gal or Gall = Ugly Honest, that is what he says!

As Pres/Sec/Ed it might be thought incumbent upon me to exhort the membership to get their cordage out and do things, Knots don't tie themselves!!! well so I thought, but since I saw the accompanying news item I am not so sure.

Thereby definitely hangs a tale. Happy knotting, keep me up to date with your doings of Pona Tikanga.

Till next time many cheers

Roger Carter - Pres.

MORE LETTERS

14 The Ridgeways
Linthwaite
Huddersfield
HD7 5NP
23rd Sept 1995

KNOT MANIPULATIONS

Ref - Letter by Rodger Miles KM 47

Ref - Article by Pieter van de Griend KM 50 (from a Bend to a Lanyard Knot)

Rodger's reference that my knot LITTLE BEAUTY Hawser Bend (original see letter in KM 46) says that by pulling on the working ends of LITTLE BEAUTY spills the knot to form Ashleys No. 1451 (dubbed the CORRICK BEND) which is incorrect as the bend has reversed working and standing parts. Surely the bend is formed by pulling on the standing parts and adjusting the working ends to complete the bend.

If the working ends of LITTLE BEAUTY are pulled to change the knots shape, by the same method by pulling on the false working ends of the reverse tied No. 1451 CORRICK BEND it now turns into a bend called a CROWN BEND tying shown figure 1 (a knot tied by me and sent to Geoffrey Budworth in 1985) (which differs from No. 1422 and 1423 as the working ends are on opposite sides) where the bend is completed by pulling the standing parts to form this knot, as bends are usually tied.

In Pieter Van De Griend's article, his references are that the bend preceded the lanyard knot. A good example of knot manipulation is by tying figure 11 - a knot from an Indian Whip tied in horse hair shown by George Russel Shaw in his book *Knots useful and Ornamental* published in 1924. My method of tying this knot figures A, B, C. After tying this knot to form the Decorative Whip you push the standing parts and working ends towards each other to loosen the knot, place your fingers in the middle of the knot and work the centre of the knot wider to form THE INDIAN BRIDLE KNOT or a form of JUG SLING KNOT. The same knot is described as an INDIAN BRIDLE KNOT in Graumonts *Hand Book of Knots* 1945, though he describes the INDIAN BRIDLE KNOT he shows no tying of it, though he says frontier men enhanced the knot to form the HACKMORE or THEODORE BRIDLE a knot we know as the "JUG SLING KNOT".

In Graumont and Hensels *Encyclopaedia of Knots* 1939 it shows the completed knot, but not how to tie it. By pulling the Bridle Knots standing parts and working ends to form a loosely tied knot then pulling on the standing parts the knot spins, turns inside out and forms a bend.

A knot by Ashley No. 1452 tied 1934 commonly called Ashleys Bend (ten years after George Russel Shaw's book). Ashley also shows the same knot No. 781 called a TWO STRAND DIAMOND KNOT. If you now take the bend in one hand holding the working ends, place your other hand under your first hand holding the working ends, push the bend down and it reverts to form a knot from an Indian Whip, if you loosen the knot once more by pulling again on the working ends in opposite directions it turns into a fixed loop knot.

At the AGM 1994 Dennis Murphy gave a talk on knots from around the world stating that the American Indians were prolific knot tiers. With this one knot they had a bend, a fixed loop, a Bridle knot, a Jog Sling knot and of course a simple ornamental knot for decoration. A very useful multi purpose knot.

The question still remains which of the five knots did the Plains Indians of North America tie first.

Owen K. Nuttall.

KNOT MANIPULATIONS

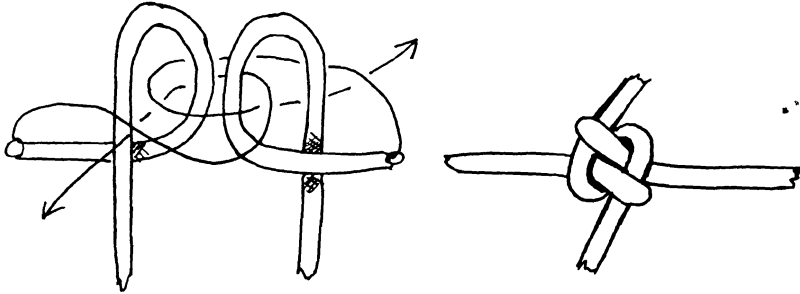
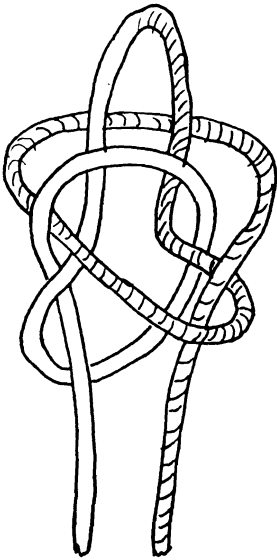


FIG 1, CROWN BEND

CROWN BEND COMPLETED



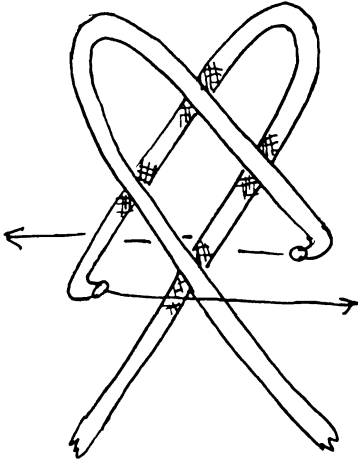
FROM A HORSE HAIR WHIP.

AS A BRIDLE KNOT.

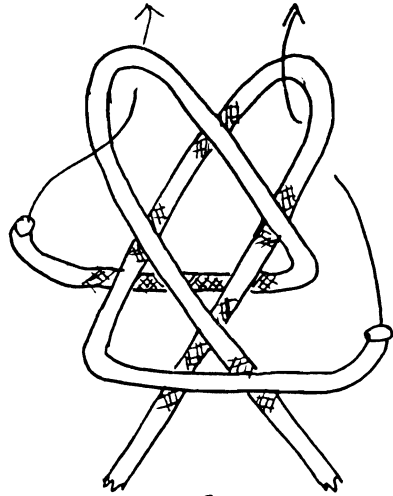
FIG 11
METHOD OF TYING
INDIAN BRIDLE KNOT
(GEORGE RUSSEL SHAW)

(KNOT MANIPULATIONS)

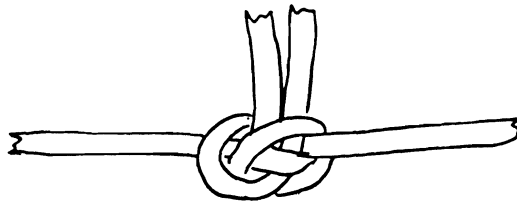
MY WAY OF TYING INDIAN BRIDLE KNOT



A/



B/



C/ INDIAN BRIDLE BEND.

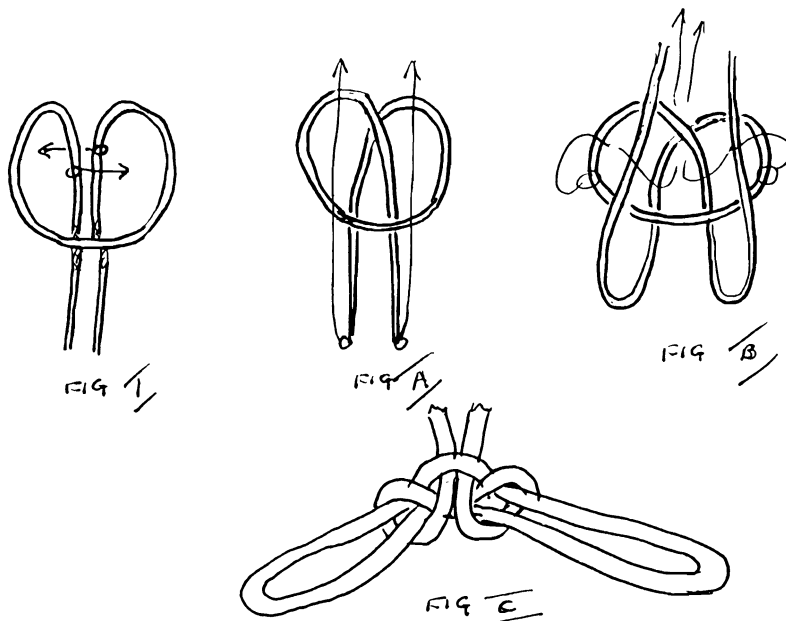
BOWLINES ON A BIGHT

There are numerous ways of tying Bowlines on a Bight. One of the most common the Spanish Bowline. I have seen this knot tied various ways, some taken to extraordinary lengths for this simple knot. The simplest method for me is tied as Figure 1. I teach this tying making it as uncomplicated as possible, as it is irrespective whether the middle crossing is left or right as long as the two legs are kept parallel. After Figure 1B - hook your thumb through the two loops with one hand and pull on the two standing parts with your

opposite hand in opposite directions until the knot is held, then pull the two loops in opposite directions to complete the knot. To take this tying a step further Figure II the Esperanto Bowline - This Bowline works on the same principle as the Spanish Bowline (two loops interconnected). The Bowline Elegance Figure III looks identical to the Spanish Bowline but the two loops are not interconnected thus avoiding one loop slipping into the second loop.

Owen K. Nuttall.

SPANISH BOWLINE.



ESPERANTO BOWLINE

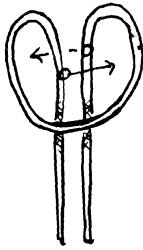


FIG 1

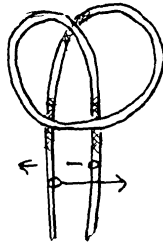


FIG 2

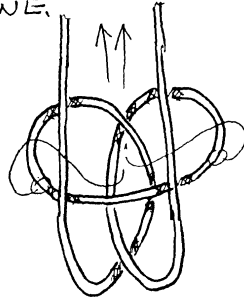


FIG 3

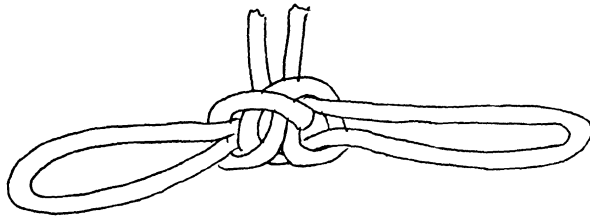


FIG 4

ELEGANCE BOWLINE

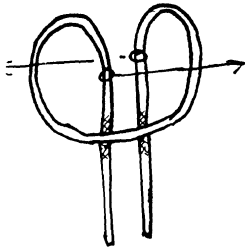


FIG 1

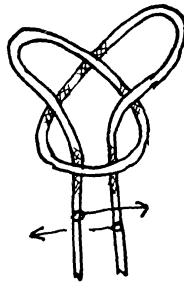


FIG 2

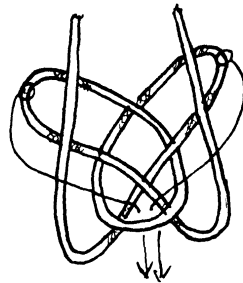


FIG 3

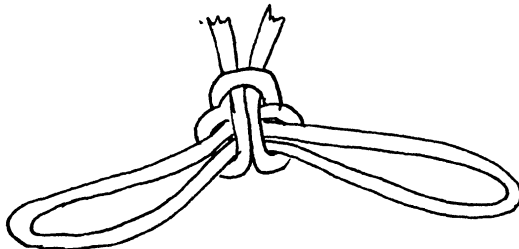


FIG 4

LETTERS

24 Melford Way
Felixstowe
Suffolk
IP11 8UF
1st Aug 1995

Dear Editor

BENDS AND HITCHES. KNOTS & SPLICES

My Dad taught me all that was in the Seamanship Manual but 2 old 'salts' in the Sea Cadets began my lifelong interest in knotting. Their separate subjects are my title. From them I understood that bends and hitches are tied 'with' a rope and, with the expectancy of needing to be untied, are considered to be temporary structures. Knots and splices are tied 'in' a rope as stoppers, buttons or joins and are thus permanent. See also Ashleys 'knot' definition!

In KM 49 Tim Fields chart partly agrees with my early tutors but, who's to say who's right - or wrong?!! By the way - thanks Tim - I'll use your chart.

The same applies to nomenclature. The Secretary's mention of a "Dictionary of Knots" could be a start to standardisation which, if adopted, would help me when teaching Scouts and Guides where names vary in a bewildering manner! If any American Scouts join me I shall have to 'think again'!

Ken Higgs

Adventist Retirement Village
Redland Bay Road
Victoria Point
Queensland 4165
Australia
27th July 1995

Dear Editor

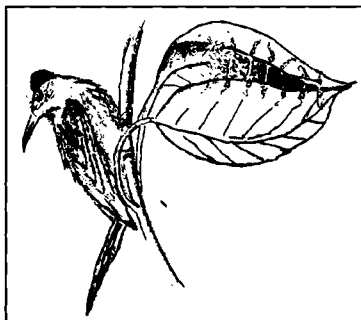
WHO TIED THE FIRST KNOT?

As I considered this question my thoughts drifted back to the story of Adam and Eve who, as the Bible records: "...sewed fig-leaves together and made themselves aprons." What kind of needle and thread did they use and what about the stitches? Were Adam and Eve the very first knot tiers? As an amateur ornithologist it suddenly dawned on me that since *Orthotomus sutorius* (the Tailorbird) arrived before *Homo sapiens*, then surely Adam and Eve must have seen the tailorbird tying knots in order to prepare a nest for its family to be.

This five-inch common garden bird whose habitat ranges from India to China and Java, is an absorbing little rover, quite bold as it hops around human dwellings in search of insects. There are nine species and their genius lies in ability to construct a nest by sewing the edges of on or two leaves together. The cone-shaped cavity created is filled with fine grasses, animal hair, and/or plant down.

In order to sew the leaves together, the bird pierces the leaf edges with its beak and draws through a thread of plant fibres, or silk from cocoons or spider webs, knotting it on the outside to prevent it slipping back again. Is this how our forebears learned to sew?

As far as I know, the tailorbird and man are the only creatures that tie knots. Perhaps some other member could enlighten us further? Ever tried tying a simple reef knot with one hand?



Ken Davey

A FEW NOTES ON TESTING KNOT STRENGTH AND SECURITY

III. A REVIEW OF SOME RESEARCH

© Robert Chisnall, 1994

In Part II, Testing Methods, some techniques for knot testing were briefly described. In this final instalment, a sample of the research data will be reviewed.

PART III. A REVIEW OF SOME RESEARCH

It seems the brunt of the research concerns knots that are involved in safety applications. However, tests have been conducted on knots used in surgery, industry and everyday tasks. Here are a few of the results.

(a) Some Common Knots

There are many unanswered questions about the reliability of the comments knots in use, and the literature is rife with contradictions and fragmentary research. For example, Wheelock (1967), Ewing (1973) and Microys (1977) cite the following knot efficiencies for some familiar knots:

The exact configurations of the knots tested were not provided. This makes comparisons

Table 1.

Wheelock (Page 12): 5/16" nylon rope

Bowline	65%
Square Knot	54%
Sheet Bend	65%
Fisherman's Knot	59% (type not specified)

Ewing (Page 9): 3/8" 3-strand polypropylene

Bowline	52%
Reef (Square Knot)	36%
Sheet Bend	40%

Microys (Page 140): single nylon kernmantel rope

Bowline	70-75%
Double Fisherman's	65-70%

practically impossible.

Pope (1972) and Borwick (1974) also cite different knot efficiencies. As Microys (1977, Page 139) points out, "The literature ... gives a considerable range of values, depending when the tests were made, the rope type used, the rope diameter, the speed of load application and type of test setup."

It is my opinion that knot strength or efficiency should be stated as a range. Single values offered as universal truths rather than very specific test results are practically useless because there are so many variables.

(b) Some 'Quick-and-Dirty' Findings

I have conducted a number of 'quick-and-dirty' comparative failure trials using various types of synthetic and natural fibre thread, string and cord. (At least 10 fast-pull and 10 slow-pull trials were performed for each pair of knots investigated.) This was in preparation for more extensive tests later on.

In all instances, the lay of the materials was right-handed or Z-twisting. This is an important point because the knots tested were based on the simple Overhand or Thumb Knot. Consequently, each one had a mirror image. (See Figure 9 for the distinction between S and Z knot-twist and rope-lay.) These are my preliminary findings:

1. S/Z-configured Reefs (Figure 10) tend to be stronger and more secure than Z/S configurations (Figure 11). Failure usually was the result of slippage.
2. Z Water Knots, Tape Knots or Ring Bends tended to be stronger than S Water Knots. Failure was the result of breakage.
3. In Z or right-hand lay cord, the S-twisting Double and Single Fisherman's Knots seemed to be stronger than their Z-twisting counterparts.
4. Which version of the Sheet Bend is strongest and most secure is a complicated question. Various tests indicate that the Direct or Right-Handed version (with its ends on the same side)

is not as secure as the Oblique or Left-Handed version (which has its ends on opposite sides) (Chisnall, 1992 & 1985); Shaw, 1933). This observation applies to kernmantel rope, and it runs contrary to what Ashley (1944) states probably because his tests involved hawser-lain or cabled rope. But the picture is much more complicated than this. An explanation is required before I mention other test results.

There are two versions of the Direct Oblique Sheet Bend: S/Z(T) and Z/S(T). Tie an Z/S-configured Reef (Figure 11) -- Z Half Knot first, S Half Knot second -- and trample or tuck one wend or working end, as shown in Figure 12. You will produce a Z/S(T) Oblique Sheet Bend. With this nomenclature, "T" signifies "trample" or "tuck". Similarly, an S/Z Reef (Figure 10) can be trampled into an S/Z(T) Oblique Sheet Bend. You can trample S/Z and Z/S Thief or Grief Knots to create both versions of the Direct Sheet Bend.

Preliminary quick-and-dirty tests indicate that the Z/S(T) Oblique Sheet Bend tends to be more secure than the S/Z(T) version when tied in Z-lay thread and cord. This kind of analysis can be applied to Bowlines as well.

(c) Climbing Belay Hitches

Slow-pull tests were performed by Baillie (1980's) to evaluate the strength of three popular bends used to connect climbing ropes for rappelling: Double Fisherman (Figure 13), Flemish Bend (Figure 14) and the Indirect or Side Figure Eight (Figure 15). In qualitative terms, the Side Eight is best suited for rope retrieval after a rappel. It does not jam. His results indicate the Double Fisherman has a knot efficiency of 93%, the Flemish Bend has an efficiency of 76%, while the Side Figure Eight tested at 81% of the absolute breaking strength of the rope. His figure for the Double Fisherman disagrees with the range quoted by Microys (1977), 65% to 70%. Baillie states that all three knots are sufficiently strong and secure to be used for rappelling. My research has indicated that the Side Eight alone is not secure enough, and I have recommended that climbers avoid it (Chisnall, 1985). The Association of Canadian

Mountain Guides and other proponents of the Side Figure Eight would disagree. It is my opinion that the ends need to be further secured with an Overhand keeper knot, but this would increase the chances of jamming during rope retrieval. Clearly, more research is required.

Dolero-like drop tests have demonstrated that the Italian, Sliding Clove or Munter Hitch (Figure 16) has a holding capacity of about 290 to 590 pounds (131 to 266 kilogram force). The Floating Carabiner (Figure 17), on the other hand, is more dynamic because its holding capacity ranges from approximately 270 to 460 pounds (122 to 207 kilogram force) (Chisnall, 1985). This is sufficient for arresting falls with dynamic rope.

(d) Rescue Knots

However, belay competency tests using static or low-stretch rescue rope indicate that standard climbing belay hitches are insufficient for two-person loads. Tandem Prusik Knots or Hitches (Figure 18) secured with a Load Release Hitch (LRH, Figure 19) is the best arrangement for rescue situations. The dynamic and static safety factors are higher. (Dill, 1990).

(e) Surgeon's Knots

Using a Springbeam X-Y recorder and tensometer, Trimbo (1984) conducted 260 tests on various surgical knots using synthetic suture materials (size 0 polyglycolic acid and polyglactin-910).

Although he measured loop-holding capacity (in Newtons) and knot efficiency, he also noted knot security.

It is not surprising that he found regular Surgeon's Knots, Reefs and Stacked Reefs more secure than multiple Half Hitches. The less secure knots simply slipped undone. The configuration of the various 'throws' or hitches in a knot contributed to a knot's overall security. The more bights or bends in both wends, the more security. The straighter or less bent a bend was, the greater the risk of slippage. In this study, Trimbo was not only concerned with knot configuration. The methods surgeons use to tie sutures, and which methods produced which

configurations were also of interest.

(Here's one bit of information that might make you squeamish about that up-and-coming appendectomy: Of the 25 surgeons interviewed during the study, "Only three of the 25 correctly identified a picture of their particular knot," and it was noted that "The use of methods and materials for suturing is usually a matter of habit, guesswork, or tradition." (Trimbos, 1984, Page 278; Haxton, 1965)!)

SOME GENERAL FINDINGS

The following observations are based on reading and personal research (past and ongoing). These findings should be regarded as cursory at best. Further investigation is required to confirm the trends and phenomena reported below:

1. The speed of load application affects the breaking strength. According to some preliminary data, the faster the load is applied, the lower the failure value.
2. Bulkier knots, these with greater bight radii, tend to be stronger than smaller knots, those with sharp bends and bights. (According to the Roco Rescue Corporation (1991), a rope will maintain its full breaking strength -- or close to it -- if it is reeved through a pulley with a sheave diameter of more than four times the diameter of that rope. In other words, the gentler the bend in the rope, the greater the force it can sustain. This is the same case with knots.)
3. However, the larger the knot, the more susceptible it is to wear and jamming. The relative security of knots does not seem to be exactly correlated with knot size, but larger

formations -- those with lots of bights and twists -- tend to be less likely to come untied and they exhibit better shock-absorbing abilities.

4. When twisted or hawser-lain cordage is employed, the lay of the cord or rope -- whether left or right (S or Z) -- affects the relative breaking strength of mirror-image knots like Clove and Girth Hitches, Water Knots and so forth. For example, with left-hand or Z-lay rope, the Z/S Reef seems to be stronger than the S/Z Reef.

5. Whether the rope is braided or twisted can also be important. For example, my tests comparing the Direct Sheet Bend to the Indirect Sheet Bend generally indicate that the Direct Version is more secure in kernmantel and braided lines, while the Indirect version is more secure with hawsers.

CONCLUSION

It is possible to rank similar knots according to knot breaking strength or efficiency, provided identical testing methods and materials are employed. However, it is difficult to standardise all qualitative factors, and ranking knots qualitatively is subjective at best.

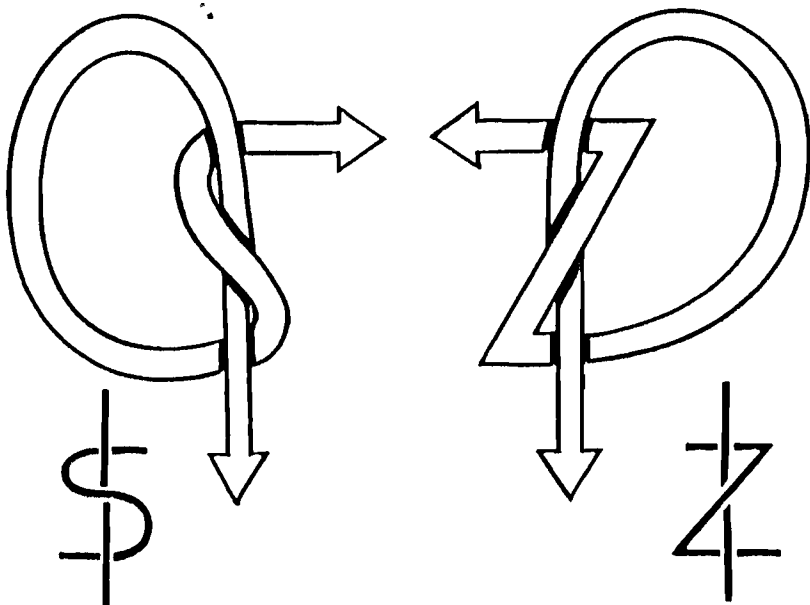
The bottom line is this. Knots must be tested according to how they will be used. The data derived from such testing probably will not be universally transferable. Test protocols must be standardised for comparison and verification, and such tests must approximate the situations in which knots will be used. Ideally, knots must be tested in actual use under safe and controlled conditions.

REFERENCES

- Ashley, C.W. (1944). *The Ashley Book of Knots*. Garden City, New York: Doubleday & Company, Inc.
- Baillie, R. (1980's). The side figure eight knot for rappelling. *Explore Magazine Technical Series*, No. 2.
- Baumeister, T. (Ed.). (1967). *The Standard Handbook for Mechanical Engineers*. New York: McGraw-Hill Book Company.
- Borwick, G.R. (1974). Mountaineering ropes. *Off Belay*. 15.
- Budworth, G. (1938). *The Knot Book*.

- Kingswood, Surrey, United Kingdom: Elliot Right Way Books.
- Canadian General Standards Board. (1984). Standards CAN2-4.2-M77, Method 9.4.
- Canadian Government Specifications Board. (1978). Standards 40-GP-1M.
- Cannon, N. (1985). Air voyagers. *Climbing*. 88, 54.
- Chisnall, R. (1979). In search of a better belay. *Off Belay*. 47, 15-18.
- Chisnall, R. (Ed.). (1985). *The O.R.C.A. Rock Climbing Safety Manual*. Ontario, Canada: Ontario Rock Climbing Association, Ontario Ministry of Tourism and Recreation.
- Chisnall, R. (1991). (personal communication, November 4, 1991).
- Chisnall, R. (1992). Sheet bends - oblique versus direct. *Knotting Matters*. 38, 5.
- Cordage Institute. (1991). Tech notes - elongation. *Cordage News*. Sept/Oct.
- Dickie, D. E. (1975). *Rigging Manual*.
Toronto, Canada: Construction Safety Association of Ontario.
- Dill, J. (1990). Are you really on belay? Parts I and II *Response!* Summer & Fall.
- Ewing, H. A. (1970). *Evaluation of "Polytie" 3-Strand Polypropylene Rope*. The Hydro-Electric Power Commission of Ontario, Research Division Report.
- Ewing, H. A. (1973) *Knots and Hitches in Synthetic Fibre Ropes*.
The Hydro-Electric Commission of Ontario, Research Division Report.
- Filion, J.M. (1979). *Belaying Theory - An Update*.
North Bay, Ontario, Canada: Chevres de Montagne.
- Haxton, H. (1965). The influence of suture materials and methods
on the healing of abdominal wounds. *British Journal of Surgery*. 52, 372.
- Larson, A. (1989). *Belay Competence Drop Test Method for Rope Rescue Systems*. Unpublished manuscript.
- Lenzburg, A. (1975). How old is your rope? *Off Belay*. 20, 16-20.
- Microys, H.F. (1977). Climbing ropes. *American Alpine Journal*. 21(1), 130-147.
- National Fire Protection Association. (1990). *NFPA 1983 Standard on Fire Life Safety Rope, Harness, and Hardware*.
ANSI/NFPA 1983, An American National Standard.
- Paul, W. (1983). Determining rope safety. *Response!* Spring, 9-13.
- Popall, K.P. (personal communication, July 12, 1993).
- Pope, J.F. (1972). Tests on knots, *Summit*. 18(3), April.
- Prohaska, H. (1988). The double bight bowline.
Summit. May-June, 22-23.
- Roco Corporation. (1991). *Rescue I, II & III Study Guide*. Baton Rouge, Louisiana.
- Shaw, G.R. (1933). *Knots Useful and Ornamental*.
New York: Collier Books. (Fifth Printing, 1977).
- Spence, B. (1980). Pam Spence. *Off Belay*. 50, 38-39.
- Trimbos, J.B. (1984). Security of various knots commonly used in surgical practice. *Obstetrics and Gynecology*. 64(2), 274-280.
- Wexler, A. (1950). The theory of belaying. *American Alpine Journal*. VII(4), 379-405.
- Wheelock, W. (1967). *Ropes, Knots & Slings for Climbers*. California: La Siesta Press.

Fig. 9



S-TWISTING OVERHAND KNOT
LEFT-HANDED TWIST (LH, L)
SINISTRAL (S)

Z-TWISTING OVERHAND KNOT
RIGHT-HANDED TWIST (RH, R)
DEXTRAL (D)

S-Z DESIGNATION FOR OVERHAND KNOTS AND HALF HITCHES
BASED ON THE CANADIAN GENERAL STANDARDS BOARD
INTERNATIONAL STANDARD ISO 2 - 1973 (E), NO. 8.3-M89

Fig.10

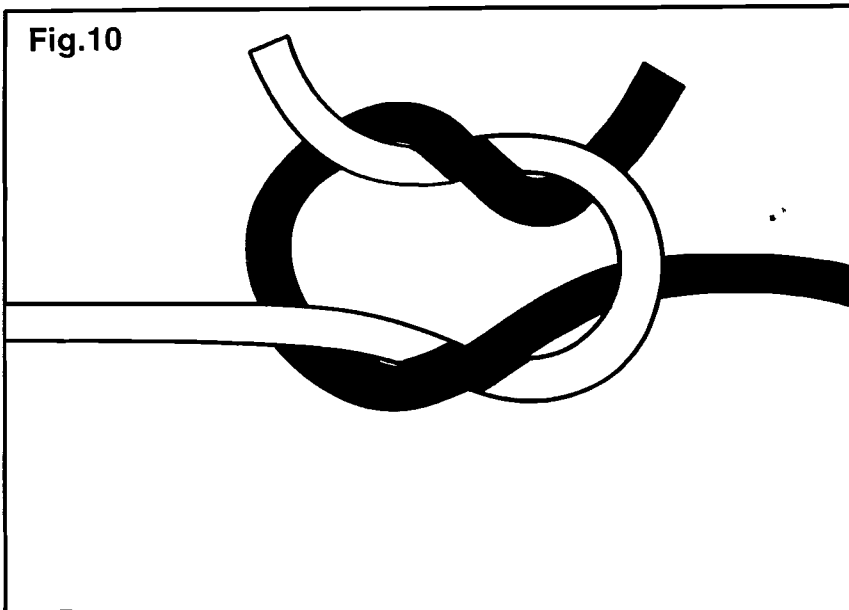


Fig. 11

REEF KNOT

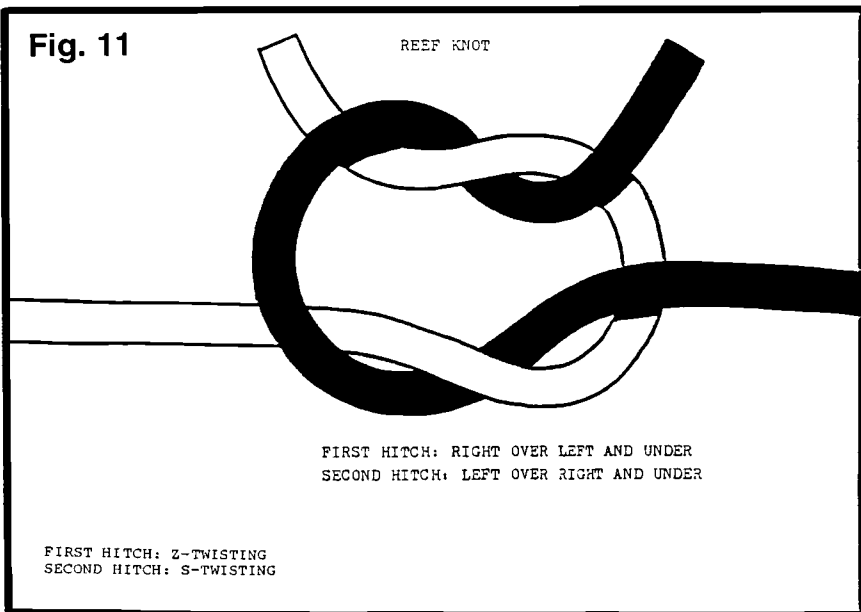


Fig. 12

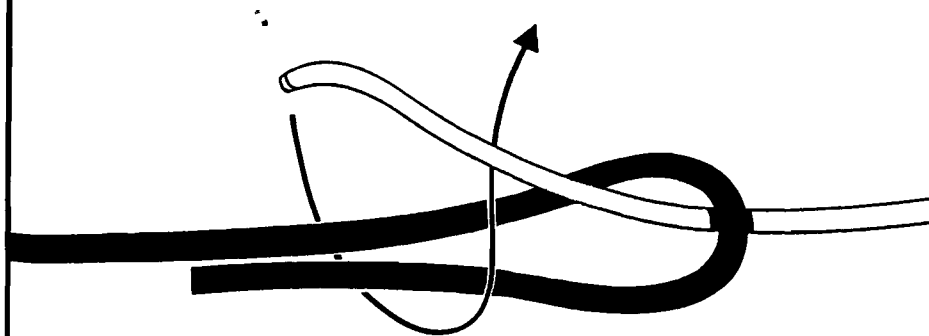


Fig. 13

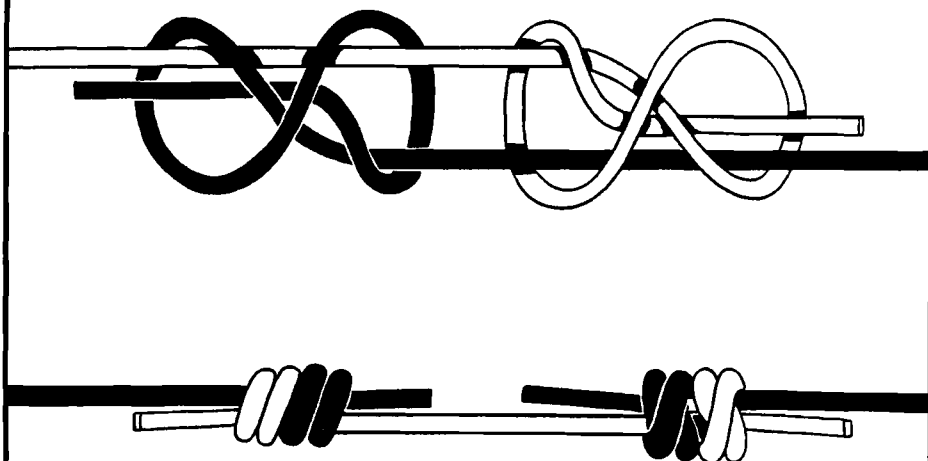


Fig. 14



Fig. 15

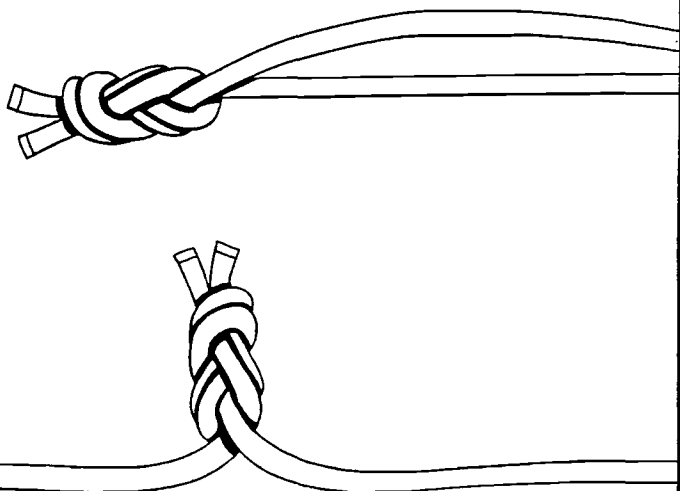


Fig. 16

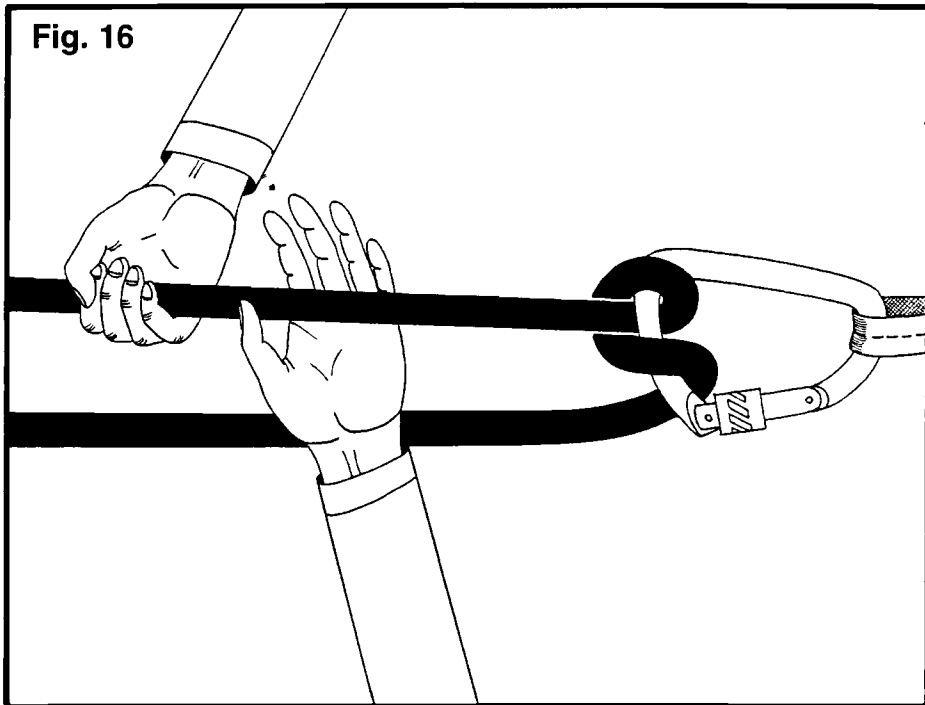


Fig. 17

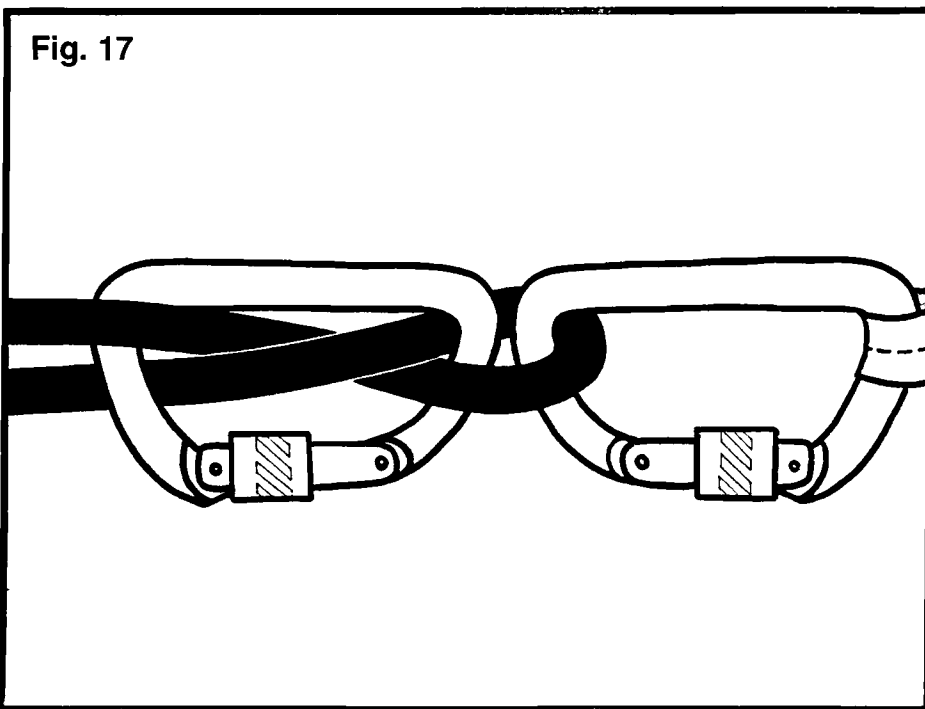


Fig. 18

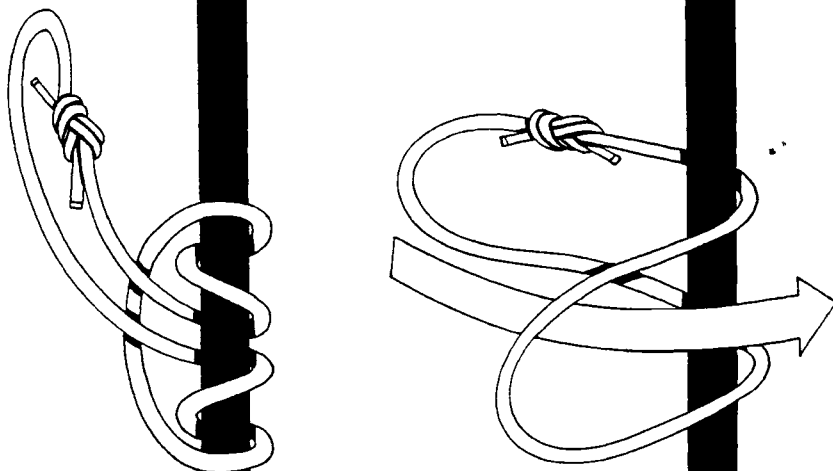
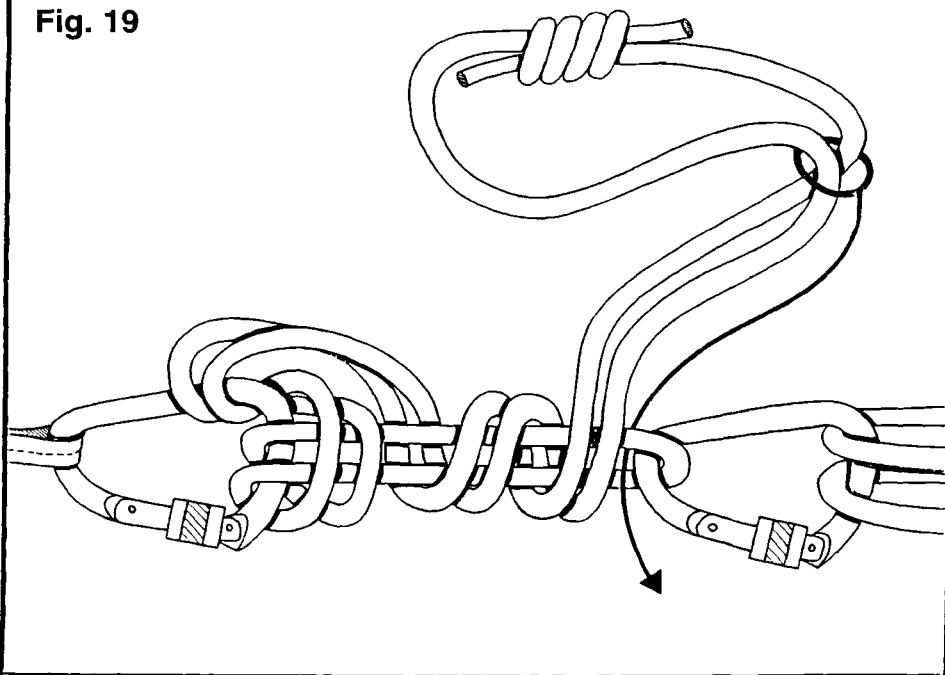


Fig. 19



© R. CHISHALL, 1992

LETTER FROM PERCY BLANDFORD

ARE WE MISSING THE WAY?

I get the feeling we are steeped in knotting tradition, which is fine, but what about knotting today and in the future? Dare I say it, but to many knot tyers, knotting begins and ends with Ashley. His is a marvellous book, but he wrote it before the coming of synthetic cordage. Many of the knots suitable for natural fibre ropes are less suitable for synthetics - and some even dangerous. Are we the authority on modern knotting? We ought to be, but I have doubts. Books on knotting for yachtsmen are written by non-members. Real progress has been made by the climbing experts. Their lives may depend on knots. If they stuck to Ashley, some of them would be dead. They have gone their own way in knotting, without reference to Guild "experts". Their recommended climbing knots are developments of the old faithfulls or completely different. Synthetic cordage will slip as a knot tightens or takes a strain. Most modern climbing knots have the end taken care of with a half hitch or an overhand knot. For instance, a climber's bowline has enough end left to secure it to the side of the loop (A). Do you still tell people to join ropes with a sheet bend? Climbers would not trust it. They now favour a fisherman's knot with the ends taken care of (B). The result is a bit lumpy, but they claim it as their most secure joining knot (bend to you traditionalists).

There is life beyond Ashley. I think we should regard his book as a terrific piece of history and try to move from there.

One thing we should do is discourage others from calling all synthetic rope "nylon". I know some of the chemical names are discouraging, but "synthetic" is a safe term, not "plastic", in relation to cordage. Much of it has the trademark "Terylene".

Incidentally, did you know where the name "nylon" comes from? The giant DuPont Corporation patented the stuff at the same time in New York and London, and put together the abbreviations for the names of these cities - NY and LON.

Percy Blandford.

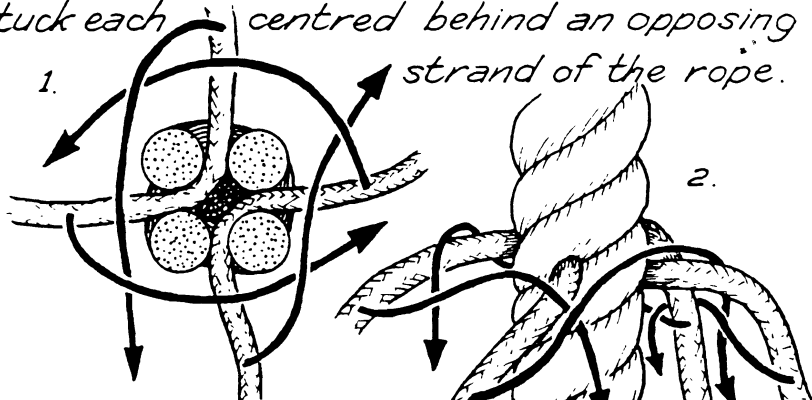
LETTER FROM STUART GRAINGER

Dear Editor,

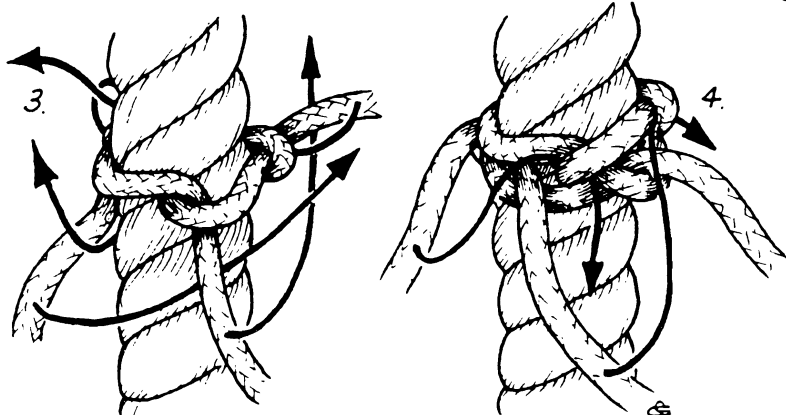
I was asked recently to teach a couple of employees of a firm that supplies gymnastic equipment how to tie what they call Turksheads on their climbing ropes for schools. Apparently they used to buy the ropes from the manufacturers with so-called Turksheads already tied at 2 ft. intervals, but the man that used to do the work had retired and died without training a successor.

The climbing ropes are of high quality four strand manila hemp laid around a core, and the material for the Turksheads is a braided cotton sashcord, so the materials could not have been more pleasant or easy to work with. In addition to teaching two men to tie these knots, which was not difficult, I was asked to draw up some instructions as an 'aide memoire' and precaution in case of future retirements and or deaths and I enclose a copy of the result, which might prove to be of interest to some Guild members. In the relevant trade these knots are known as Turksheads, but this is not strictly correct in my view, because I have always understood a Turkshead to be a single strand knot, and, of course, these could be tied in a single strand, although they would be less secure for the purpose. Des Pawson might like to comment, but my definition would be a four strand tripled Footrope Knot.

Middle two approx. 3ft lengths of cord and tuck each centred behind an opposing strand of the rope.

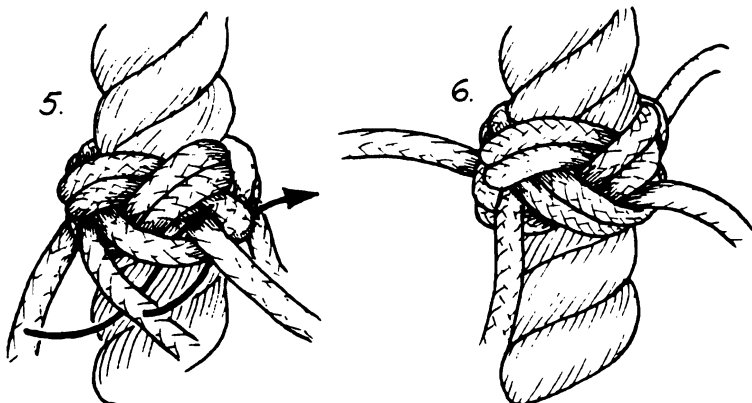


Tie a Crown knot around the rope with the four ends of cord. Similarly tie a Wall knot below the Crown. Double the lead first

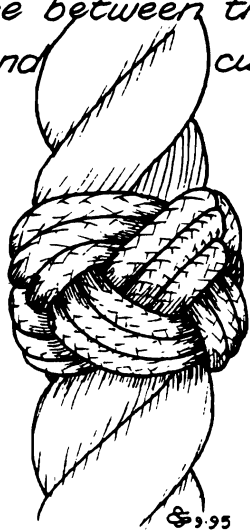


through the Crown and then through the Wall.

Figs. 4, 5 & 6 show the doubling process which is then repeated to triple the knot.



After tripling, the knot is completed by tucking the ends up through the whole, so they emerge between the rope strands. Pull all snug and cut the ends off.



A Turk's Head for a Gym Rope.

MORE LETTERS

LETTER FROM DAVID WALKER

Dear Editor,

Nigel Harding originally got in touch with me to ask whether or not I would represent the Guild at the Inland Waterway Festival which this year was being held in Chester. I said I would be happy to organise this. After a little thought I got in touch with as many members as possible, while talking with them it was suggested that we get together and have a meeting to discuss the Festival and also to 'talk knots'. This meeting was held at the Albion Inn, Park Street, Chester on Sunday 23rd July. 8 members including myself turned up (P & R Long, Fred Burkes, Jonathan Farrar, Arthur J. Campbell Jr., Arthur Campbell Sr., John Elliot and myself, David Walker).

I received letters of support from members who were not able to make it. At this first meeting, Mr. Fred Burkes who works at Rolls Royce at Crewe brought some examples of leather work with him. He explained how he worked with leather in his job and hobby. We all got to know each other, passed tips and books. We decided to hold another meeting on the 10th September.

Those who wished to help out at the Festival put their names forward. It was decided for each to bring along to the Festival examples of knotting to put on show. I was able to hire a small market type stall for the three days.

A division of the Inland Waterways Festival was 'Waterways for Youth' This involved 15 organisations to teach various canal related subjects to the younger members. i.e. knot tying, boat painting, canal restoration skills, vehicle driving etc. According to the organisers 40,000 people turned up at the gates, 567 youth passports were issued to the younger members taking part. (If they got 10 or more stamps on their passports they were given a waterways hat).

We had several hundred children coming to us to learn to tie knots. This was over three days by the way.

As you can imagine we were kept busy. To cover the cost of the stall etc. we made and sold various bits and pieces (Fenders, dog leads, bell ropes, key fobs). This attracted many adults who came over and asked for advice on best knots for various situations.

For the record the members who turned up were Ron and Pauline Long, John Elliot, Jonathan Farrar, Clive Williamson, Arthur Campbell Sr. Arthur J. Campbell Jr. David Walker. PS. Arthur Campbell's daughter Sammy turned up - 3 generations all knotting.

We are hoping that at our next meeting we will be able to sort out transport so that we can visit Leeds in October. Happy knotting. Dave.

Hagavagen 1,
S-610 60 Tystberga
Sweden
2nd October 1995

Dear Editor

SWABS - I am writing to you as editors of Knotting Matters in the hope of getting a letter published, I am in search of some information on oyster swabs. I have been in contact with a number of recommended members on this subject to no avail and a published letter may find the person I am looking for.

In the search for information on swabs I have contacted a number of guild members privately and an assortment of museums to no avail, and as such this is a call for help on this elusive subject.

In particular I am looking for information on the oyster swabs used by fishermen, they are mentioned in Ashley's text above knot 3578. He gives the length of these swabs as being around 5 to 8 feet long and had the purpose of removing starfish from the oyster beds.

What is lacking from this text is the type and size of the material used, the method of construction and what means were used to join and operate them.

If there is any one out there in the world of knotting who could possibly help with any information on swabs it would be greatly appreciated.

David Davenport

MORE LETTERS

17 Gosfield Road
High Garrett
Braintree
Essex
CM7 5NZ
6th July 1995

Dear Editor

On Monday 19th June, on BBC Radio 2, Terry Wogan and the newsreader John Marsh announced to the world that they did not possess a Woggle between them. Taking pity on them, I set to that night

Dear Terry and John

On Monday's programme you said that you did not own a Woggle. Please find enclosed a 3 Lead 4 Bights Turks Head Woggle for each of you, to correct this serious discrepancy.

In advance of being described as a TOG, please find me a sticker.

Yours sincerely

Peter Dyson

(A member of the Scout Movement, and also of The International Guild of Knot Tyers).

and made them a matching pair of Turk's Heads, and sent them to the BBC with the following letter: For those who do not listen to Terry Wogan in the morning (apparently some people cannot stand him), or who cannot receive the BBC, the radio show is made up of music in between listeners letters. Many of the letters purport to come from people with strange sounding names or representing strange sounding organisations . . . So just in case, I enclosed a leaflet setting out the purpose of The Guild. I have it on good authority that the woggles were received, and that my letter was read out. (I received my Car Sticker by return of post). The question is, did he mention the Guild? I could have mentioned my membership of other organisations, including The Sutton Hoo Society, and The Raynauds and Schleredomia Association, but only one of those is relevant, and I did not want to be thought of as eccentric.

I hope that you have been overwhelmed with membership enquiries as a result.

*Peter Dyson. TOG
(A Terry's Old Geezer)*

ROPE SPLICING KNIFE?

A.L.D. Summerley's Rope Splicing knife has generated many letters in answer, all with various amounts of background information agree that this is an RAF dinghy safety knife which was part of the equipment carried in a pilot's rubber dinghy, which inflated if he bailed out or ditched in the sea. The knife was orange so that it could be seen easily, the lanyard attached it to the sheath which was attached to the dinghy. The holes were simply for buoyancy, the rounded tip and curved outside edge are to make it safe and easy to insert it under the webbing and straps before cutting the restraints away. The rounded tip also stopped punctures to the dinghy and sinking in a flurry of bubbles. It is also used by the British Fire Service and Civil Aircraft Rescue teams.

Richard Hopkin adds: The second edition (1989) of Levines Guide to knives and their values, gives prices of about \$18 for good condition knives of this sort. These are collectors prices and do not necessarily reflect what it may be worth to a purchaser.

Godfrey Budworth adds: Just after WW2 outdoor and camping shops sold a lot of ex-military gear, including orange inflatable rubber dinghies with a knife like the one described.

Keith Paull adds: The relevant RAF Stores ref. numbers are 27C/2023 and 27C/2024. Leather doesn't take embossing too clearly. I hope this has not disappointed Mr. Summerley too much. After all, no-one can prove that this particular knife did or did not fly in the Battles of Britain or ride in one of the Lancasters on the Dam-busting raid!!

Percy Blandford adds: I still have one as a souvenir of my wartime service. The dinghy came with a telescopic mast and a sail printed with instructions on how to sail home. To those of us with sailing experience, this was comic, but they gave the chap something to think about while he was waiting to be picked up or shot up.

John Woosey adds: Mr. Summerley was correct in his assumption that the object is probably fairly common and of little significance, unless of course you happen to be a casualty being dragged along by your parachute, in which case its significance takes on a greater importance.

Alan King adds: Obviously Mr. Summerley did not have the advantage of the education provided by browsing the Government Surplus Stores of the 1950s. As for Splicing, I would have thought that for anyone being adrift in the Atlantic in time of war the use of the knife for this purpose is extremely unlikely.

Ivan L. Thurlow adds: I am sure I have one in my collection somewhere. I cannot recall a specific purpose for the hole in the end of the blade but I am fairly sure that it had nothing to do with splicing! Splicing in the RAF was confined to balloon threaders and Air Sea Rescue teams, apart from mainbrace splicing on reaching a) a new pub or b) an old pub.

Colin Grundy adds: This same pattern knife is used in the Fire Service, known as a "Harness Knife". Our pattern however does not have holes in the blade and has a hard fibre handle rather than cork.

Niall Dunne adds: I work as a member of the Irish Naval Service, of which I am a Petty Officer and an instructor in seamanship and as part of this I also instruct in sea survival. This knife is very much like the two types issued with inflatable liferafts made by RFD and Beaufort. The liferafts, like the ones you see on board the ferries and look like big tables, are fitted with one of these knives at each of two entrances and are used mainly to cut the painters after launching.

John Addis adds: The serial numbers Andrew refers to are in fact the stores section and reference numbers - all items of equipment in the Armed Forces are identified in this way. I have to come clean! In 1965 I had to change trades in the Royal Air Force and chose the Supply Group. My first job was an all night stint, changing over from the good old sect/Ref. numbers to the new NATO numbers.

Peter J. Wright (Shiner) adds: One like it was my first sheath knife; cost me 6d (2.5 pence) just after the war. They came on a sequence of rubberised fabric. I understood they had been cut from the one man liferafts out of the fighter aircraft. There was a bigger one (at about 1/6d) that came off the bomber liferafts.

Ken Yalden adds: Splicing knife - my foot! Junk shop owners are good at inventing names and even better at spinning yarns. I sometimes wonder how many soup tourines are sold as firemens hats - or have I got hip baths mixed up with bidets?

PENTALPHA SINNETS

From Mac Mackenzie

Dear Editor

I hope you can be of some help to me: Over the last three years Kismet has plucked me from my sunny Plaistow home and set me down in slightly sunnier Melbourne. Having not really had my feet on the ground for any substantial length of time between the two I now find my first opportunity to give you a new postal address and hope that you can let me know my current membership arrears.

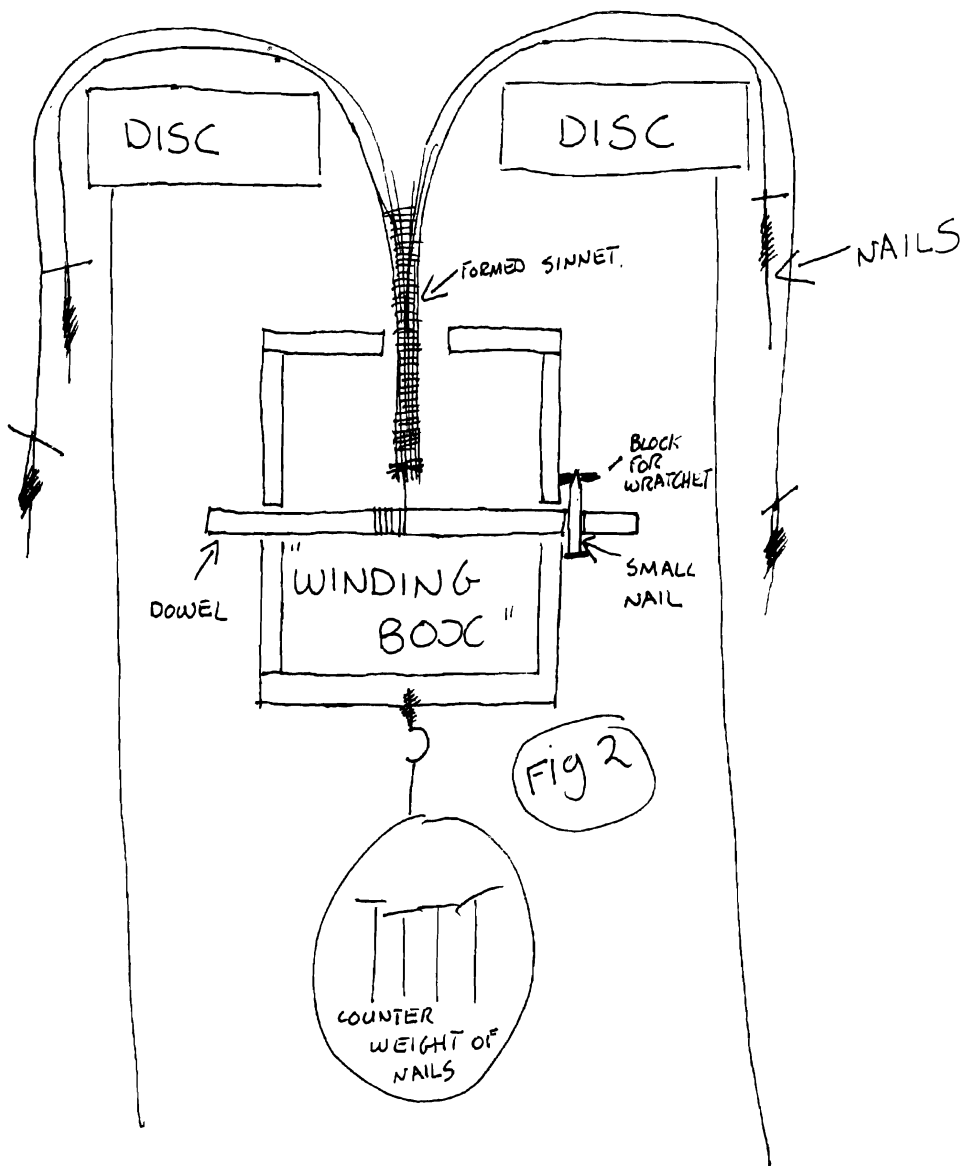
Recently I have been experimenting with our friend Mr. Ashley's Solid sinnet section and have had an element of success. Mr. Ashley did write "Many of these sinnets . . . lend themselves to application" but then left it at that. Having stared at the diagram, and instructions, for the "61 strand Pentalpha" from the age of 14 until I eventually tied it some ten years later I decided that it would be a good idea to start with that. With some thought and much time I have completed a 91 strand pentalpha (formed into a Jute fly switch) and a 121 pentalpha. The 121 strand pentalph has still to be drawn fully into shape but I have completed the structure and believe it to be fully workable.

I have included the charts for both and diagrammatically you will have to imagine (sorry) an extension of Ashley's on page 510. With regards to the disc for working this on I would say that about a 30cm diameter piece of chipboard with an 8 or 9cm hold in the middle seems best. If you make the disc any larger the extra size doesn't seem to make it any easier and you lose substantial lengths of workable material on the flat top. My first sinnet working was under the instructive and careful eye of Frank Harris with a sweet jar and some lead weights. A couple of years later he showed me a disc that he had once tied No. 3082 on and it was only slightly smaller than his living room. It reminded me of a story I once heard of an enthusiast that hadn't fully anticipated the complications of moving his boat to water after he'd built it in his house. I think Frank's disc is still in his living room held prisoner by the dimensions of his front door. The key, in my opinion, is organisation within each section of your disc so as to eliminate the possibility of mistakes and to identify problems when you arrive at them not after they happen. For the 91 strand version your disc will be divided into 60 sections, and for the 121 strand version 80 sections are required, in both cases those sections need to be divided by panel pins. In addition to this I find it useful to further divide each section (again with panel pins) into individual strand areas and to brightly colour the departing strand area of each section (Fig 1) sections containing one strand only are still clearly marked as having a departing strand area although that area is not separated by a panel pin from the rest of that section. Marking the departing strand areas in this way means that it will be easy to see, when you make each move, which strand to pick up. This works well if you make a practice of only moving a strand into one of these areas as it is forced to go there by a newly arriving strand in the same section. In effect it means that the disc returns to an identical state at the end of each cycle: The only bare areas on the disc will be the departing strand areas of the single strand sections, where the strand itself awaits another to push it into that space. If you find that there is an empty bright space where your next departing strand should be then you can pretty much guarantee that last time round you took the wrong strand from that section. Similarly, if you find that instead of having to make space for a new strand, by advancing those already in that section, and that there is already a space there you may have previously moved the wrong strand from that section when you last visited it. This means that you can backtrack and rectify mistakes. As long as you systematically advance each section's strands then you will soon find that it is possible to keep track of what you are doing without the constant panic of unidentified mistakes halving your finished product. This method of dividing and colouring the disc sections works very well on the smaller sinnets and again makes mistakes rare or rectifiable. Also, if you mark and pin this way you have a template over which to set the next sinnet of the same type. You simply

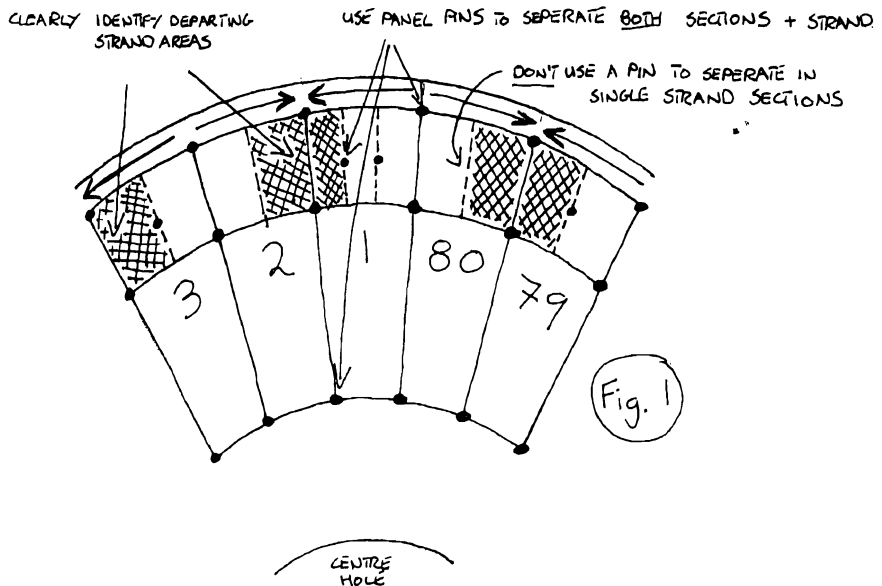
distribute the correct number of strands into each section: no pins = 1 strand, 1 pin = 2 strands and 2 pins = 3 strands. You don't have to consult your original chart constantly and it makes a long job shorter.

I use six inch nails for bobbins and counterweights and prefer working with small stuff (whipping twine). When making smaller sinnets (up to about 30/40 strands) I have found it useful to introduce a "winding box" (Fig 2) between counterweight and formed sinnet. This means that instead of a close relationship building between the top of your head and the ceiling, as the sinnet grows ever longer, you can just work on one level. Every time your counterweight gets close to the floor you just wind the sinnet back up close to the working part and start again. Apart from that I would say that I couldn't be any more help than Clifford. I hope this proves useful information to enthusiasts and would appreciate any other information on Sinnet expansion if it's out there.

Chart for 121 strand Pentalpha						Chart for 91 strand Pentalpha					
Section	Strands	Move	Section	Strands	Move	Section	Strands	Move	Section	Strands	Move
1	3	66-64	41	1	33-1	1	3	50-48	31	1	25-1
2	1	63-67	42	2	80-34	2	1	47-51	32	2	60-26
3	2	68-62	43	1	35-79	3	2	52-46	33	1	27-59
4	1	61-69	44	2	78-36	4	1	45-53	34	2	58-28
5	2	70-60	45	1	37-77	5	2	54-44	35	1	29-57
6	1	59-71	46	2	76-38	6	1	43-55	36	2	56-30
7	2	72-58	47	1	39-75						
8	1	57-73	48	2	74-40	7	1	1-37	37	2	26-24
						8	1	36-2	38	1	23-27
9	1	1-49	49	2	34-32	9	2	3-35	39	2	28-22
10	1	48-2	50	1	31-35	10	1	34-4	40	1	21-29
11	2	3-47	51	2	36-30	11	2	5-33	41	2	30-20
12	1	46-4	52	1	29-37	12	1	32-6	42	1	19-31
13	2	5-45	53	2	38-28						
14	1	44-6	54	1	27-39	13	3	2-60	43	2	37-13
15	2	7-43	55	2	40-26	14	1	59-3	44	1	12-38
16	1	42-8	56	1	25-41	15	2	4-58	45	2	39-11
						16	1	57-5	46	1	10-40
17	3	2-80	57	2	49-17	17	2	6-56	47	2	41-9
18	1	79-3	58	1	16-50	18	1	55-7	48	1	8-42
19	2	4-78	59	2	51-15						
20	1	77-5	60	1	14-52	19	1	13-49	49	2	38-36
21	2	6-76	61	2	53-13	20	1	48-14	50	2	35-39
22	1	75-7	62	1	12-54	21	2	15-47	51	1	40-34
23	2	8-74	63	2	55-11	22	1	46-16	52	2	33-41
24	1	73-9	64	1	10-56	23	2	17-45	53	1	42-32
						24	1	44-18	54	2	31-43
25	1	17-65	65	2	50-48						
26	1	64-18	66	2	47-51	25	3	14-12	55	1	49-25
27	2	19-63	67	1	52-46	26	1	11-15	56	1	24-50
28	1	62-20	68	2	45-53	27	2	16-10	57	2	51-23
29	2	21-61	69	1	54-44	28	1	9-17	58	1	22-52
30	1	60-22	70	2	43-55	29	2	18-8	59	2	53-21
31	2	23-59	71	1	56-42	30	1	7-19	60	1	20-54
32	1	58-24	72	2	41-57						
33	3	18-16	73	1	65-33						
34	1	15-19	74	1	32-66						
35	2	20-14	75	2	67-31						
36	1	13-21	76	1	30-68						
37	2	22-12	77	2	69-29						
38	1	11-23	78	1	28-70						
39	2	24-10	79	2	71-27						
40	1	9-25	80	1	26-72						



SECTION OF DISC FOR 121 STRAND PENTALPHA



LETTER FROM RICHARD HOPKINS

Dear Editor,

Recently I came across the definition of Network given in the Dictionary of Samuel Johnson produced in 1755 and it made me wonder about other knotty words.

My library has no complete copy so I have been unable to delve in depth as I would wish.

I believe the last complete reprint was in 1855 and if produced today would run to ten volumes. However I did find a book - "Johnsons Dictionary - a modern selection" by E.L. McAdam Jr. and George McLae, published by Victor Gollanez Ltd. in 1982 (second impression) ISBN 0 575 03098 4. and went through its 465 pages to extract these definitions.

NETWORK

Anything reticulated or decussated, at equal distances, with interstices between the intersections

To decussate. To intersect at acute angles

Reticulated. Made of network, formed with interstitial vacuities.

Makes of a net Meshes

Ropery Rogues tricks

Ropetrick Probably rogues tricks - tricks that deserve the halter [hanging offences]

To sley To part or twist into threads

Toil Any net or snare woven or meshed

Twister One who twists - a ropemaker

To belace (sea term) To fasten; as to belace a rope (belay?)

To Bottom To wind upon something, to twist thread upon something

Crack-rope A fellow that deserves hanging

Crack-hemp A wretch fated to the gallows; a crack rope

Knacker 1) A maker of small worth

2) A ropemaker

Fimble Hemp. The light summer hemp - picked first about Lammas when a good part of it will be rope but bears no seed.

Line (15) A line is one tenth of an inch

(17) Lint or flax

Included in the definition for Twister was the following 'poem' which Johnson says explains twist in all its senses.

When a twister a-twisting will twist him a twist,
For the twisting of his twist, he three twines doth intwist;
But if one of the twines of the twist ~~do~~ untwist,
The twine that untwisteth untwisteth the twist.
Untwisting the twine that untwisteth between.
He twists with his twister the two in a twine;
Then twice having twisted the twines of the twine,
He twitcheth the twine he had twined in twain.
The twain that in twisting before in the twine
As twins were untwisted, he now doth untwine,
Twixt the twain intertwisting a twine more between
He, twisting his twister, makes a twist of the twine

Or as one of my lecturers used to say

This I think clearly shows the meaning of the word twister

Should anyone have access to the full volume and be able to extract definitions of words such as knot, bend or hitch and any other IGKT related words I am sure they would make an interesting item.

Remember Johnson introduced the word exdignite.

Back to KM 50. It is gratifying that Charles Warner has picked up the point about names of knots.

Almost every paragraph of his letter adds weight to the argument for some sort of standardisation and removal of ambiguity although this may not have been intended. I feel that as an educational charity the IGKT should work to prevent confusion and perhaps become THE Internationally recognised authority on knot nomenclature

At the risk of becoming the Salman Rushdie of the knotting world I do not accept that errors or confusion in Ashley should be accepted uncritically by his disciples and allowed to spread uncertainty to future generations of knotters.

This attitude has caused enough problems internationally without disrupting our peaceful and relaxing hobby.

I agree that the use of a 'common' reference book enables correspondents to agree on terms and names but when in contact with someone not so deeply involved in knotting it may be necessary for them to use the local library and it's stock of knot books.

My local library only has one knot book which shows about 60 knots. Other books would take about 10 days to arrive if ordered specially.

The resulting delay in communication may not always be acceptable and is surely a good reason to standardise.

REFERENCES

Knacker - a rope maker.

Now generally used as a horse slaughterer.

Near Keynsham there is a building on the river Avon currently occupied by a Crane parts supplier

Formerly this was a slaughter house and the entrails and hides used to be put in the river to wash them. Very smelly. It is said that the leather (?gut?) ropes used by Captain Scott in his Antarctic expedition were made at this site. These ropes were supposed to be better than fibre rope in freezing conditions as experienced on the trek to the Pole.

Perhaps they were used on the traces and lashings for the dog team.

Might other Guild members know if ropemaking was a sideline of slaughterers or did they become slaughtermen in order to obtain raw materials?

Perhaps there is a link with tanneries leading to leather straps, braiding and boot laces.

I would be interested to hear if anyone has any further information on these lines.

WOODY'S KNOTS

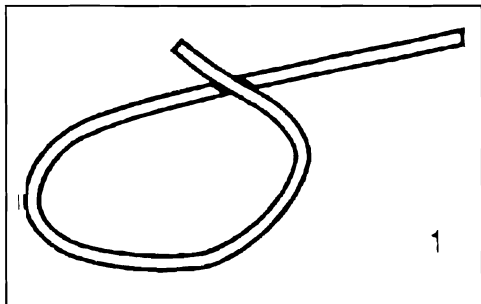
by Dave Williams

The bowline is one of the most perfect knots invented by mankind. It is the ideal loop which may be adjusted easily. It does not seriously weaken the rope. It holds almost perfectly in any type of rope. And finally and probably the most glorious, there are more ways of tying it than (almost) any other knot, while still coming up with the same (correct) end result.

Here, I hope to describe two ways to tie it (although the same set of diagrams will serve them both).

Unlike the knots which I have described before, the bowline is made in the end of the rope, so there is only one working end and one standing end.

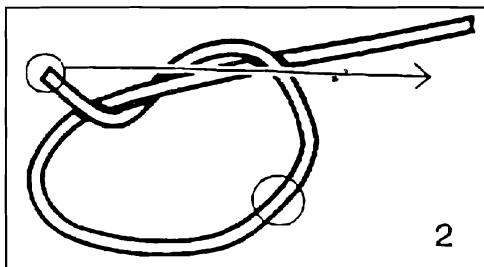
The first method to be described works best with a heavy rope laid flat on the floor. You will not



often have to tie a bowline in such a large and heavy rope, but the method does serve to demonstrate a few principles.

Start by crossing the working end over the standing part of the rope to make a half hitch. Tuck the working end through the loop you have made, to produce a (very open) thumb knot.

Now, with one hand, hold the loop near the standing part (where the circle is), indeed if it is a large and heavy rope lying on the floor, you can put your foot on it. Then with the other hand, hold the working end and pull it in the direction shown by the arrow (a jerk is better than a steady pull). If you keep the first hand firm till the

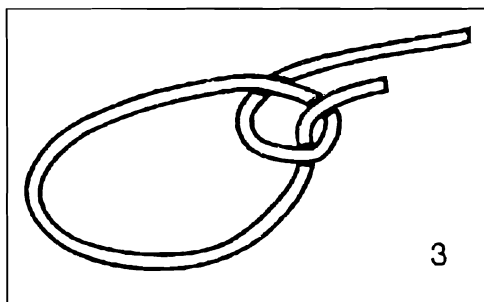


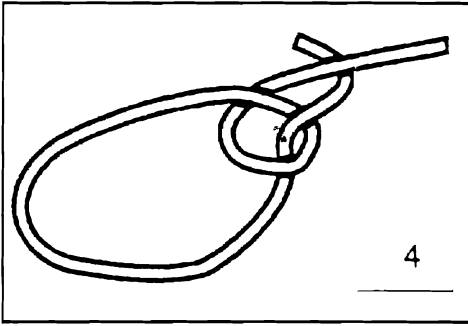
working end is straight, then the thumb knot will capsize into a half hitch in the standing part, made round the working end as in the diagram below. The end is now perfectly placed to finish the knot.

The next move is to weave the working end behind the standing part, so that the half hitch is locked.

Now, adjust the size of the loop by sliding the working end through the half hitch, and when it is the right size, finish the knot by passing the working end back into the half hitch so that it lies beside the first part in the half hitch.

Work the knot tight by closing the half hitch and pulling the working end so that the bight is locked firmly round the standing part of the rope.

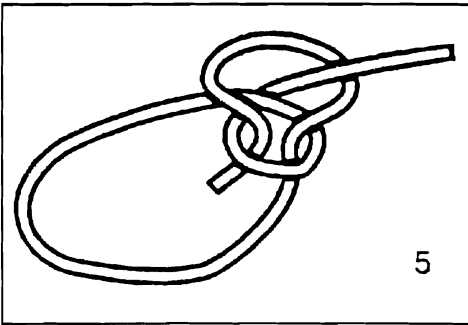




The bowline is now complete.

I did however, promise two ways of tying it. The second way can be used in any thickness or weight of cord.

Start by crossing the working end over the standing part, as before, but make the half hitch smaller and further away from the end. Now pass the end through the half hitch in such a way that it locks it (you will see how this looks in the third diagram). But, please don't just do this by copying the diagram. If you experiment with passing the end different ways through the half



hitch, you will soon find which way locks the half hitch, and thus will understand how this stage of the knot works.

Finish off the bowline the same way as before by locking the working end behind the standing part, and tucking it back through the half hitch to finally complete the knot.

Some other time, yet more ways with this fascinating knot.

SPLICING CLOCK ROPE

George Aldridge

The only method of splicing a Long Case Clock rope I have seen published is to unlay six inches of the rope at both ends, tie square knots at irregular intervals, and then stick up and down the joined ends to hold them together. I have tried this method about two years ago, and although it did the job, and as far as I know is still working, I was not at all happy with the results. It seemed to me that the splice was only as strong as the stitching.

With the method described below, no stitching is involved, and any knots are very soft, and do not detract from the natural lay of the rope, which is in fact maintained throughout. A test piece suspended a fourteen pound weight, and was worked on pulleys for a couple of days with no ill effect.

The rope is made up of twelve strands plus a center core which is about the same diameter as the strands. The twelve strands are braided or plaited around the center core to form the rope, each strand passing to the right and under the next two. The rope is very "soft laid", which is necessary for the spikes of the clock's weight pulley to grip. This is of academic interest only, as it is not required to match the lay of the rope precisely when starting the splice.

The only knots used in this exercise are the Reef or Square Knot, and the Overhand Knot which is only half of a Reef. See diagram.

1. A piece of twine or cotton is first tied about eight inches from the end of the rope at both ends. The strands are then separated into their component parts as far as the twine. You will now have twelve separate strands and a center core at both ends of the rope. Now lightly wax all of the strands, just enough to hold the fibres together.

2. Locate the center cores at both ends, and tie them together with a Square (reef) Knot. Fig 1. It is important to pull the ends of the rope as close together as possible without distorting the lay of the rope. The strands should then be loosely tied with an Overhand Knot. This is just

to keep them separate from the others, and will help to identify them later. Fig 2.

3. Now take any strand and find it's opposite partner i.e. the strand which lies closest to it on the other half. It is not necessary to try and match the lay. Then tie a single Overhand Knot close to the rope, and continue with the other strands in the same way. These are only temporary, and will be untied later.

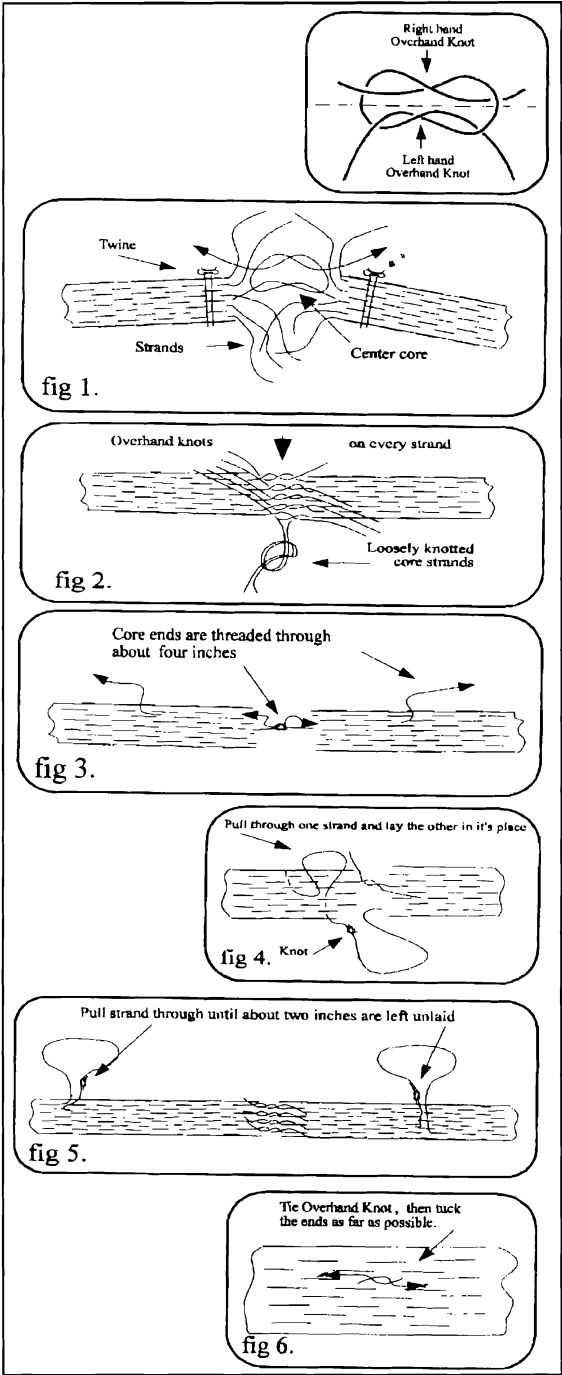
4. The Overhand Knot is now removed from the center core strands, plus the two pieces of twine. The core ends are then threaded into the rope at the point where the rope ends meet, using a blunted needle, in both directions for about four inches, and then exit. If a long needle is not available, thread as far as possible, exit, then re-enter and thread the rest of the way. It is important to thread between the core and the strands without snagging any of them. Fig 3.

5. Take any pair of strands, untie the Overhand Knot, and Square Knot the ends together as tightly as possible. This knot will be pulled through the lay of the rope, so it needs to be secure. Fig 4.

Keep unlaying the strand until about two inches of the new strand is left unlaied. Treat all of the other strands in the same manner, working in alternate directions, each time stopping just short of the preceding one.

7. When all of the strands have been laid up, take one of the farthest pair, cut away the knot, tie a right hand Overhand Knot close to the rope, and thread the ends in both directions into the rope as you did with the center core strands. Do the same with all the other strands. Note: A right hand knot matches the pattern of the rope nearer then a left hand.

8. At this stage it is still possible to make any adjustments or corrections if necessary. If you are sure everything is in order, cut the strands close to the rope, and the job is done.



BOOK REVIEW

Lester Copestake writes

"In the second of these short notes I venture, greatly daring, to ask Geoffrey Budworth to try again to 'get on' with Annie Proulx. But first I offer a review of a cheerful book which takes you to the boundary where knots begin to have shortcomings. It is a paper back entitled

"BUNGEE JUMPING FOR FUN AND PROFIT" by a lady called **Nancy Frase**

She explains that Bungee Jumpers leap head first from a great height attached by Rubber Shock Cords, also called Bungee Cords and that this is done for fun; She goes on. "It is usual to use five cords for safety and the ends have to have some sort of loop or eye in order to attach to the cliff above and the jumpers heels far below. It is, she says, her opinion, that **TYING** the ends is one of the more dangerous methods and if used it is surely with **"much trepidation"**. Yes Indeed! Certainly heed Clifford Ashley's Warning in his BOK(*1017p399) 'If you propose to trust your life to a knot, rehearse it a few times in the back-yard before going afield, afloat or aloft with it; and ---

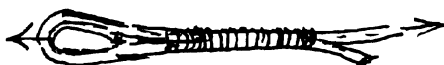
Tie it carefully and deliberately -- "Nancy Frase says proprietary fittings can be used but another method is to "Bend the end of the shock cord over once and then fasten the end with whipping." She explains that whipping is waxed thread applied with the end loop under 100% extension. When the tension is relaxed the seizing tightens up and remains firm even when the diameter of the cord contracts; as it will as the load comes on. Typically with 5/8" diameter cord the working load is 500lb at 100% extension.

All she says is most instructive.

Surely it is fair to say this procedure is **tying**

a knot - A seizing loop if you like. But distinguish her loops from the late Harry Asher's "seizing bend" KM37/23 which is very different. Almost she tempts you to join her fun. If so you might try the perfection loop (GB'sKB *46p89) also called the angler's loop (CA*1017p186). It is said this knot will hold in shock cord as well as in wet gut and nylon.

All the same test and rehearse first. Five knots might bulk too large. For Safety, Jumping



gear has five of everything in parallel excepting only the intrepid jumper herself, who is on her own.

This second notice arises from Geoffrey Budworth's review of the wonderful book by **E. Annie Proulx** about life in Newfoundland called the Shipping News (A Touchstone Book, Simon & Schuster Inc 1994)

This is the book whose chapter headings are quoted will ullstrations from knotting books mostly Ashley's. I have looked them all up except the one on Quipus because Cyrus Day's book is published in Kansas. You don't need to do this. Just get on with the book iteself and Geoffrey Budworth do try again, skipping past the first few chapters).

Soon the action moves to the maritime coast of Candada and the quirky characters come to life. In the end the spell of the witch's knots or whatever is exorcised and you are left with a hope of happinecess for the lonely journalist, his entrancing small daughters and the aunt too. Books as real as this are rare. Annie Proulx didn't get the Pulitzer prize for knothing. The knots are a bonus. Most local libraries will have a copy.

THE THREE BASIC SKILLS

Robert Pont

March 1994

Among the Primitive Peoples, there is a tradition that I would like to tell you.

By Primitive Peoples, or better: "Primordial Peoples", as it is now said in the scientific world, I don't mean a kind of under-human, rough and backward half-ape beings, but peoples that have succeeded in escaping from the seduction of civilisation, and keep alive and in full the incredible richness of traditions, knowledge and techniques that come from more than 50,000 years of practice.

So these Primordial Peoples say that there are three Fundamental techniques, that give origin to ALL the others, whatever they can be, and that everybody must absolutely know.

When you master them, you have the key to economical independence and freedom.

They used to be taught a bit before puberty, and the initiation. They would allow a man, left alone and naked in the forest.

- first to survive

- then to recreate around himself comfort, abundance and culture.

They are in order:

- (1) be able to light a **fire**, (with flints, fire bow, -)
- (2) be able to produce cutting **blades** (out of flint, obsidian or other material)
- (3) be able to make **links** (i.e. ropes, strings, threads -)

in three words: **FIRE KNIFE LINKS**

So, if making and using links and ropes is one of the three basic first and oldest skills of mankind, therefore the use of ropes means the knowledge and use of knots. In "The Art of Knotting and Splicing", C. L. Day says that the rope "implies or at least suggests knots". And Dominique Lebrun, in "Noeuds et Matelotage" goes a step further.

"Les trois premiers outils furent le caillou, le baton et le cordage, sous forme de liane ou de lanier. Mais de quoi servirait une corde si on ne savait la nouer?" "The three first tools were the stone, the stick and the rope, in creepers or strap form. But what would be the use of a rope if one would ignore how to tie it up?" A rope without knots is not only useless but also unthinkable. Link implies knots.

If we agree to this, we must recognise, with humility, that knowing the knots is one of the three most important and ancient knowledge of Man. I would say 10,000 to 50,000 years for most of the knots, and certainly far more for basic knots. C. L. Day speaks of "hundreds of thousands of years".

With still more humility, we must then recognise that, according to this old Primordial Tradition, and after of course the International Guild of Fire Lighters (I.G.F.L.) and the International Guild of Flint Cutters (I.G.F.C.), IGKT is unquestionably the third most important society or association in the world, far before UNESCO, Red Cross or WWF!

MORE LETTERS

LETTER FROM REGINALD E. WHITE

Dear Editor

In my hometown Aberystwyth we have had a new Lifeboat Station built (RNLI) also a new inflatable Lifeboat.

As the year went by and the Station had settled down, the Duke of Kent was invited to open it. The Duke came in the middle of July.

We the bystanders waited for his arrival. Quite a crowd gathered. There he was stepping out of his R.R. We all clapped and cheered and the Duke went to meet the people, crew members, the Ladies R.N.L.I. Guild, the Mayor and Town Council. He then went into the new station and remarked (it looks more like an Hotel than a Lifeboat House).

On the walls are several glass cases with my knotwork in. The cases are made of pitchpine from the old timber from our old wooden pier by a craftsman.

The Duke spent a long time looking at the knotwork and asked who did it? The local president told him. the man that did them was outside. Well, said the Duke! Bring him in. Out came the President and pointed at me in the crowd and I said who me? Yes you. He wants you. Well, in I went (crowd looking). The Duke said you did these? Guilty sir I said. Don't put me in the Tower. That made him laugh.

Having a long chat with him and explaining the do's and don't of knotwork I asked him if he tied any knots. Not really he replied. Me, what about your shoe laces Duke. Standing on one leg but I don't have shoelaces I have slip on shoes (Hope the cameras get a good shot of the Duke standing on one leg. Ha. Ha). Right I said what about your tie? Can you do a Windsor Knot! He looked at me as much to say you b---er.

I told him I belonged to IGKT and that the Guild showed their craft near him on the KRIS. CRISUM. Why don't you have a show on HMS Belfast so's I can spell it?

Chrysanthemum or is it the President by London Bridge.

It would be a good idea to invite the Duke I'm sure he would come.

Well I've said my party piece. Hope you understand it. You see, I am over 80 and getting shakey.

Regards to you all.

LETTER FROM RICHARD M. PHELAN

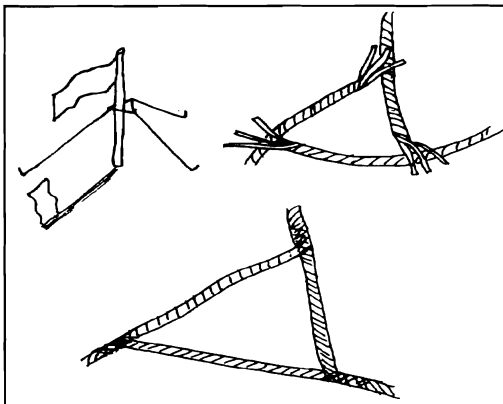
Dear Editor

I wonder if you could be so kind to give me some information on the following. A couple of meetings ago a chap was demonstrating and showing how he made a 3-way splice for I believe flag pole.

I tried this but did not think it was what he designed. I just did a straight splice as:-

Is this or was this a straight splice or was there another method used.

I can't think who did this but you may remember and if there is a better way of doing this I would very much like to hear of it.



On 4-stranded Turk's Heads

Frans Masurel

Drawings by

Pieter van de Griend

Nederland

In the literature there are methods for raising [1], [4], [5], [6] and even lowering [3] Turk's Heads to various dimensions. Unfortunately for the novices it is a subject which very quickly gets lost in a complexity of mathematics, excepting perhaps the case of 3-stranded Turk's Heads. Although the method I am about to show is suited for making any 4-stranded Turk's Head, it is very easy to remember and can be done in the hands.

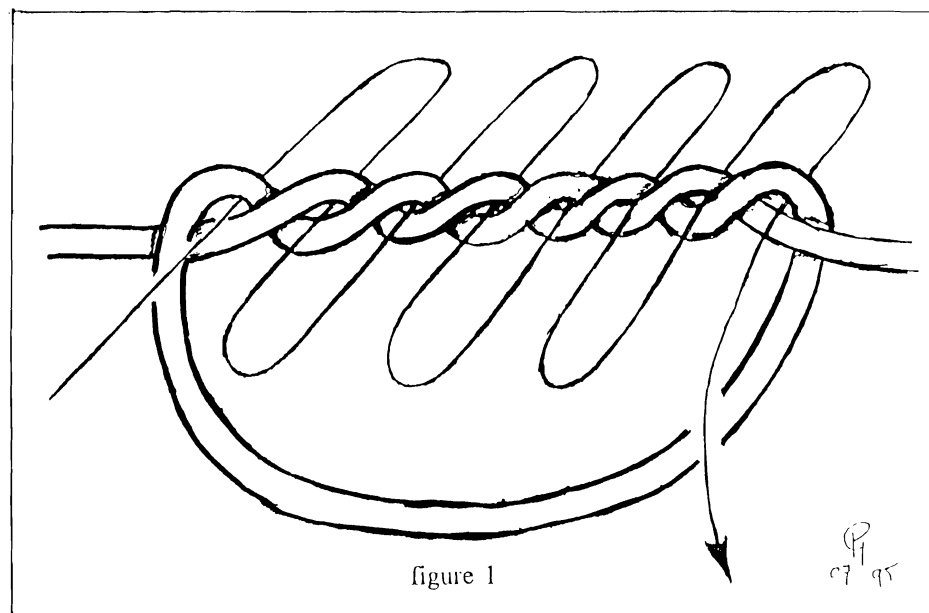
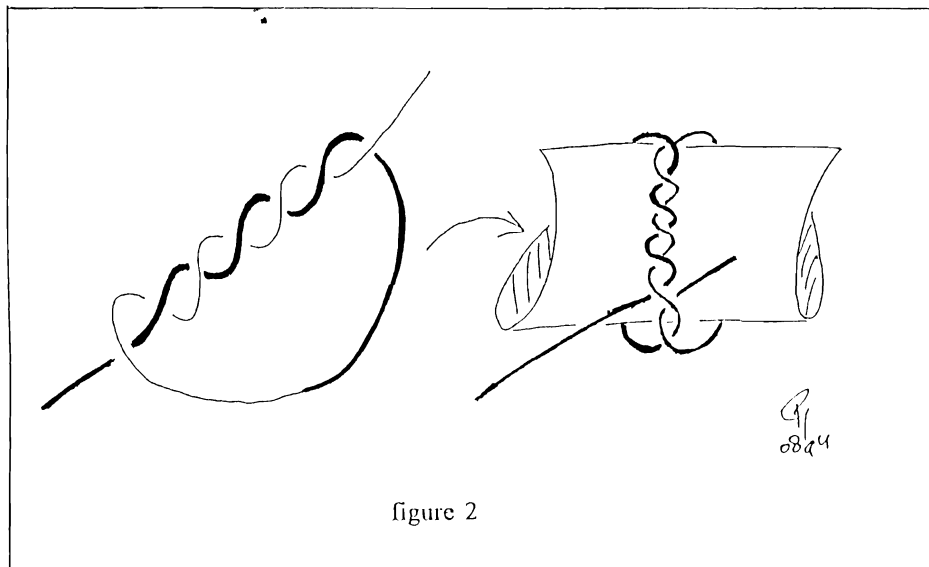
You start with a Multiple Overhand Knot and split its spine, such as is shown in figure 1. This splitting can be done in one of two ways. If you arrange your Multiple Overhand Knot as shown in figure 2, then you can start splitting its spine on either an ingoing or on an outgoing track. These two ways correspond to letting the working end continue its track to either the left of the standing end or to the right, i.e. the so-called left and right expansions of Turk's Heads [5]. Both ways and how to complete the structure into a 4-stranded Turk's Head are shown in figures 3 and 4.

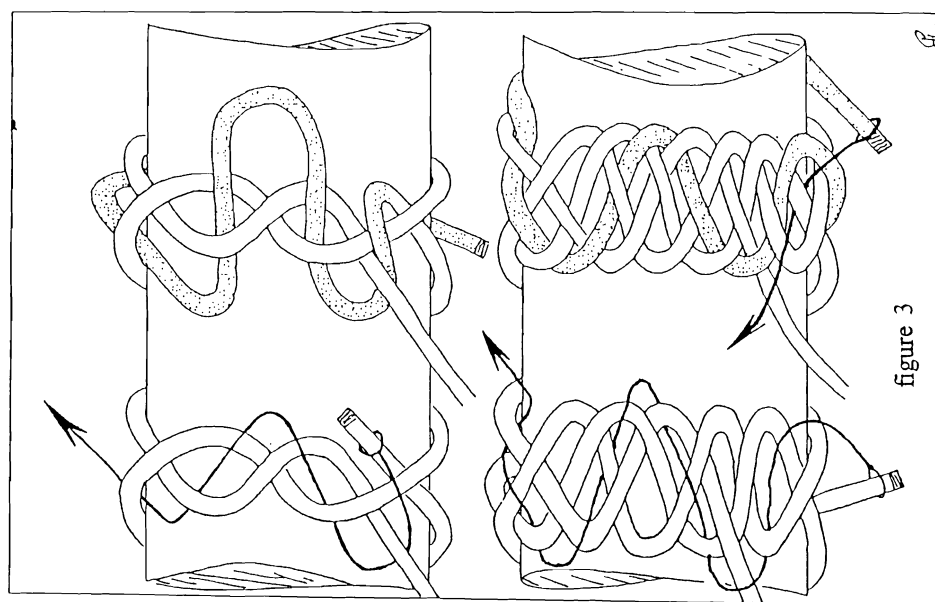
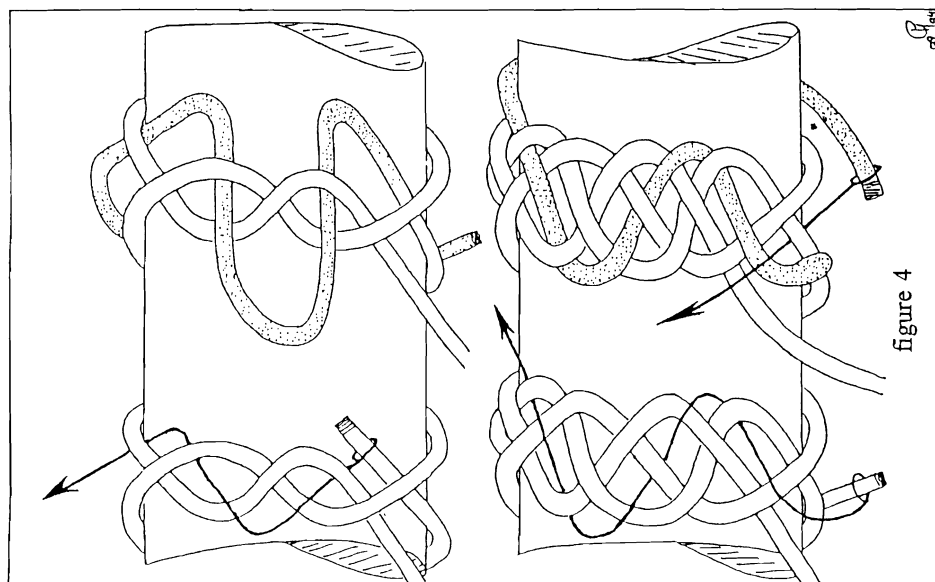
In [2] is shown that the method

described above leads to all 4-stranded Turk's Heads and [4] shows how it fits into the larger expansion scheme of Regular Grids.

REFERENCES

- [1] C.W. Ashley: The Ashley Book of Knots. Doubleday, New York 1944.
- [2] P.v.d Griend: Over het maken van Smalle Turkse Knopen. Privately published, Terneuzen 1994.
- [3] A. Karner: On the Development of Turk's Heads. IGKT, London 1984.
- [4] G. Schaake and T. Hall: The Regular Knot Tree and Enlargement Processes. Casa-coded Regular Knots. Topics in Braiding Theory and Practice, Supplement to Pamphlet No. 4, privately published, Hamilton 1995.
- [5] G. Schaake and J. Turner: A New Theory of Braiding. Research Report No. 165, University of Waikato, Hamilton 1988.
- [6] G. Schaake and J. Turner: The Regular Knot Tree and Enlargement Processes. Topics in Braiding Theory and Practice, Pamphlet No. 4, University of Waikato, Hamilton 1991.



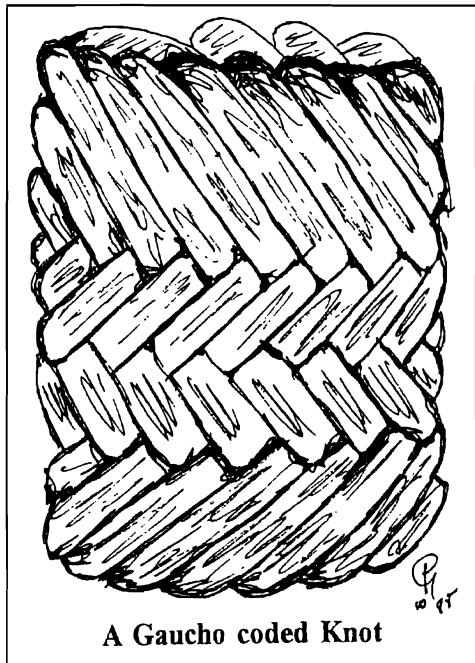


THE MARGARET KNOT

Frans Masurel and Pieter van de Griend

Combining ideas from different fields leads to innovation. The Margaret Knot shows how the merging of two simple knotting techniques may give rise to an array of beautiful structures. The first idea: one of the simplest of Multistrand Stopper Knots is the Single Diamond Knot [Ashley 693]. By placing two of them on top of each other, inverting one to the other, a larger symmetric structure arises. The second idea; in the world of braiders there is a technique which is frequently used whilst expanding Turk's Heads. Let the

working end follow a track till a bight is reached. Take the working end over (or under) the track which is being followed and continue the following process till the working end links up with the standing end. This technique is called **splitting pairs**. By combining both ideas one gets huge classes of apparently unrecorded knots. They all have weaves on their surface which fit a regular grid with a so-called constant column coding, also called a gaucho coding. Among the simplest of them is the Margaret Knot.



A Gaucho coded Knot

Making the Margaret Knot

The topview in Fig.1 shows how to make the 4-stranded version of the Single Diamond Knot. In fig.2 the second and inverted Single Diamond is put into place. In the sideview of fig.3 the working ends are tucked away along the already existing bights. In fig.4 the pairs are split and the working ends are tucked away along their track. In fig.5 the pairs are split for the second time and the working ends are taken out through the centreline of the knot (fig.6). Leaving the working ends from where they emerge is useful if one wants to put in extra ply or if one wants to decorate the centreline with something like a Star Knot. Otherwise they can be concealed under the weave such as is shown for the two right-most strands in fig.6.

F. Masurel & P.A v.d Griend - Margaret Knot

A few remarks

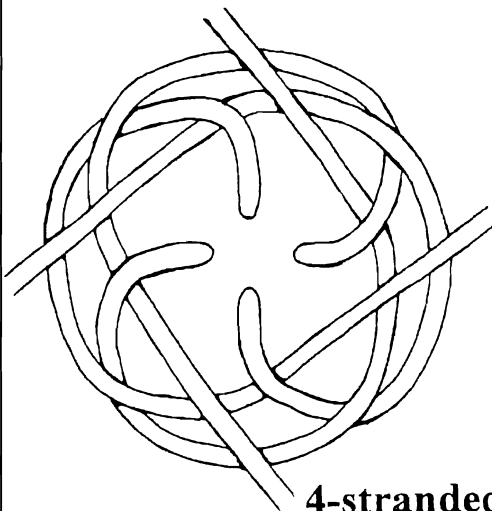
The topviews in Figs.7-8 and figs.9-10 show the 3-stranded and 5-stranded starts of the Margaret Knot. Completing the structure can be done using the sideviews given in figs.4-6.

The Margaret Knot can suitably be used to conceal the transition between segments in a piece of knotwork which differ in their number of strands. The greater diameter of the segment with most strands will cause the knot to have a somewhat tapering appearance.

It will be obvious that the number of bights on the Margaret Knot will always equal twice the amount of strands with which one started off. The number of parts is nine. So, unless one starts off with a number of strands which is a multiple of 3, the weave on the surface of the knot can be accentuated with one single strand of a different colour. In fact it is very simple to adapt fig.6 to form a Regular Knot with an U202 coding throughout.

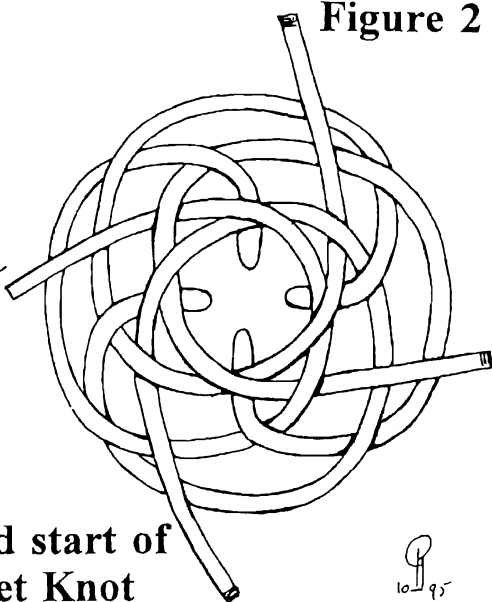
© F.Masurel & P.A.v.d Griend October 1995

Figure 1

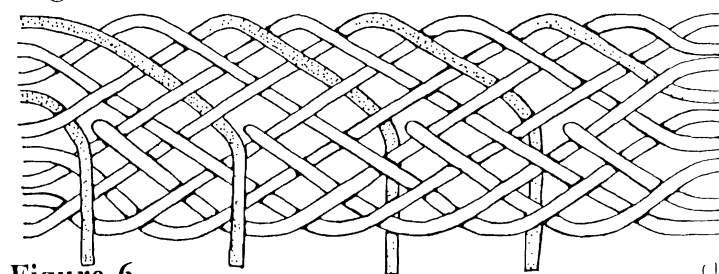
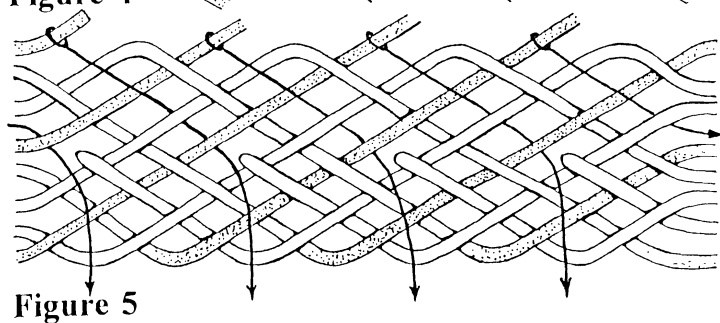
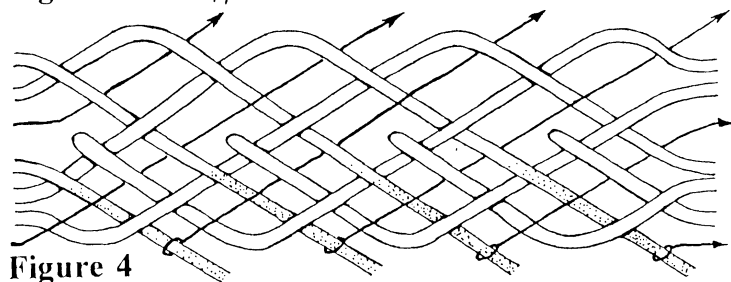
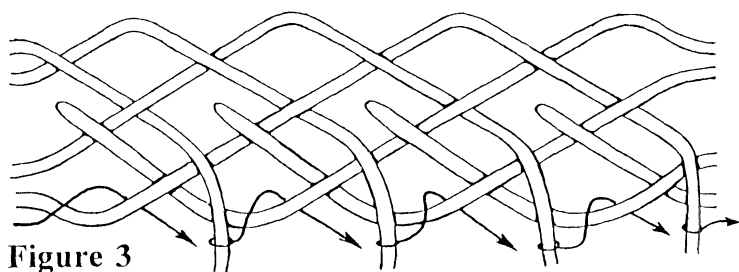


**4-stranded start of
Margaret Knot**

Figure 2



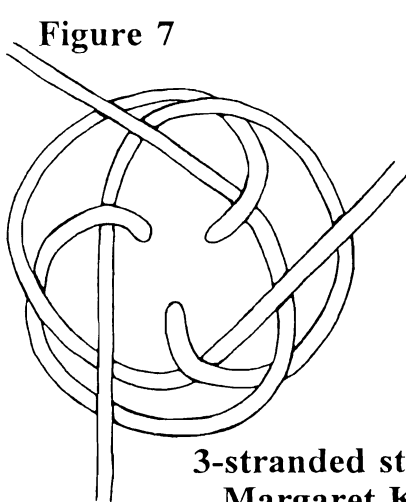
10-95



Margaret Knot

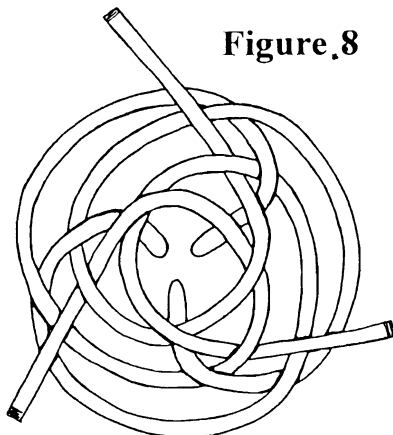
10-95

Figure 7



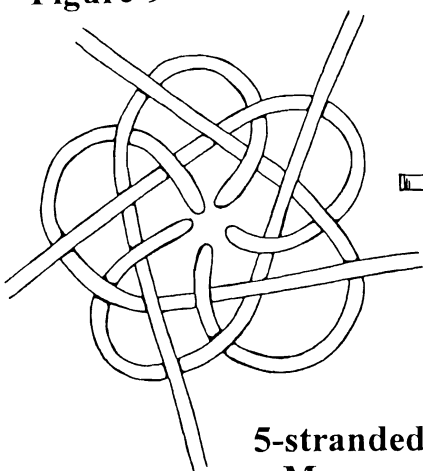
**3-stranded start of
Margaret Knot**

Figure 8



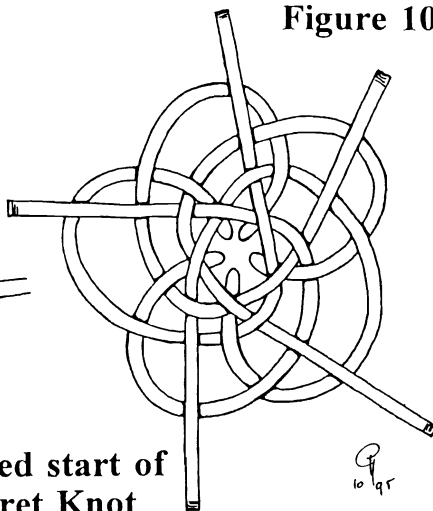
10.95

Figure 9



**5-stranded start of
Margaret Knot**

Figure 10



10.95

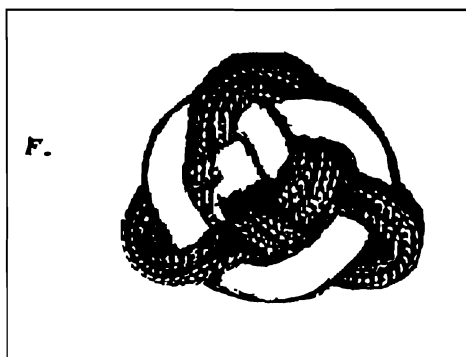
**‘The Four for the Price of One’
‘Clove Hitch’
and ‘Three in One’ continued:**

D/A & E. Again commence with a double half hitch into a ‘Clove Hitch’ in the hand and put the left/bottom half hitch through the right side half hitch and it will appear to be half of a ‘Sheepshank’. Now weave the right side end over and under anti-clockwise through the body of the knot and follow round into two or three ply finish. Now arrange into whichever of the shapes you desire.

The next part I call sheer ‘Frustration’ because try as you might to position the top bight of the triangle so that both parts of the weave run down to the left & right lower corner bights is a ‘teaser’. The trick is to spin the knot downwards towards yourself and turn it over and then cant to the left and ‘Hey Presto’ it is balanced and symmetrical.

I believe this is the first time that this has been published but I cannot help feeling that someone else somewhere must surely have stumbled upon these ideas at sometime or other. Comments are invited please.

SPOT THE ‘HEART’ within the Triangle.



'THE FOUR FOR THE PRICE OF ONE' 'Clove Hitch'

Four new single strand, flat two dimensional Button Knots.

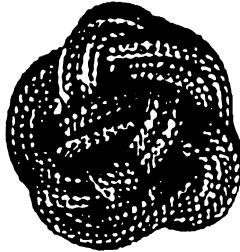
No.1. From the simple 'Clove Hitch' in the hand method @ a,b and c. To a pleasing Five Pointed 'Star Button' with a closed three part centre layout.

by John HALIFAX, Endeavour Ropcraft, Lowestoft, Suffolk, England.

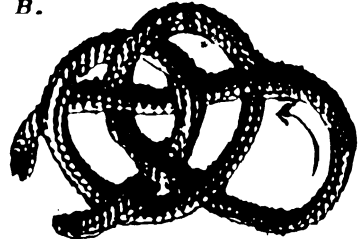


A1.

C.

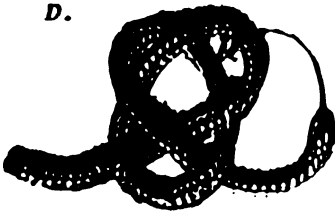


B.

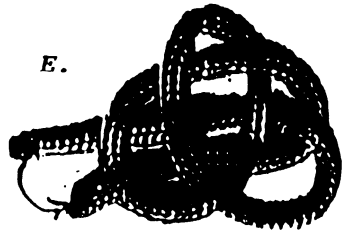


- A. Make a Clove Hitch in the hand.
- B. Weave end at A1 over, under anti-clockwise and follow round again for two or three ply finish.
- C. This knot requires careful adjustment to achieve a good symmetrical finish. (Length required in 2.5/3 mm. cord is 42cm/17")

D.



E.

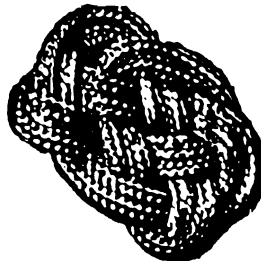


No. 2. 'THREE IN ONE' Again from the simple 'Clove Hitch' in the hand to three new single strand 6 bight x 4 part closed centre layouts of a 'Triangle', 'Rectangle' and 'Disc/Star' as @ F,G & H below. (Relatively quick and easy to make.) Length required: 75cm/3/4 metre/2'7")

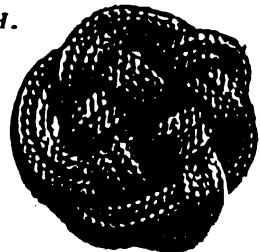
F.



G.



H.



EXTENDING TURKS HEAD MATS & PLAQUES

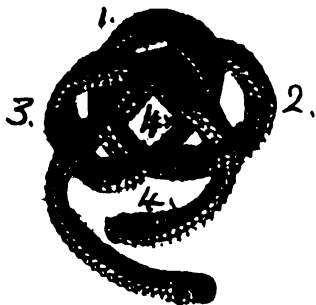
*by altering the Leads & Rim Bights whilst maintaining the original
centre layout.*

e.g.

The simple 3 lead x 4 bight Turks Head (As per the Guild Logo) to a 4 lead x 7 bight outer rim with the centre remaining at a 4 bight layout and the 3 lead x 5 bight Turks Head can be extended to a 4 lead x 9 bight @ the outer rim, keeping the centre at 5 bights. (This is the most pleasing finish). and lastly the 4 lead x 5 bight Turks Head extended to a 5 lead x 9 bight rim finish.

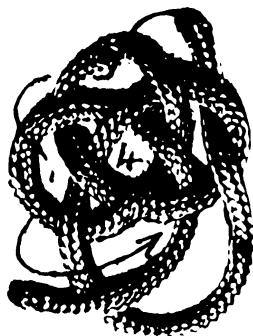
The 3L x 4B Turks Head Mat/Plaque/Rose.

A.



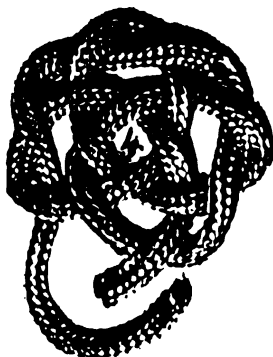
A. Form the basic layout from the clove Hitch/cylinder method or the double half hitch method in the hand.

B.



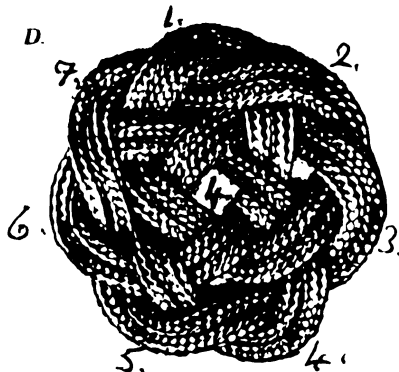
B. Now instead of marrying the ends and commencing to double round into two ply. Carry out the under over continuity depending on how you formed it and by pass the joining point.

C.



EXTENDED TO 5L X 9B

D.



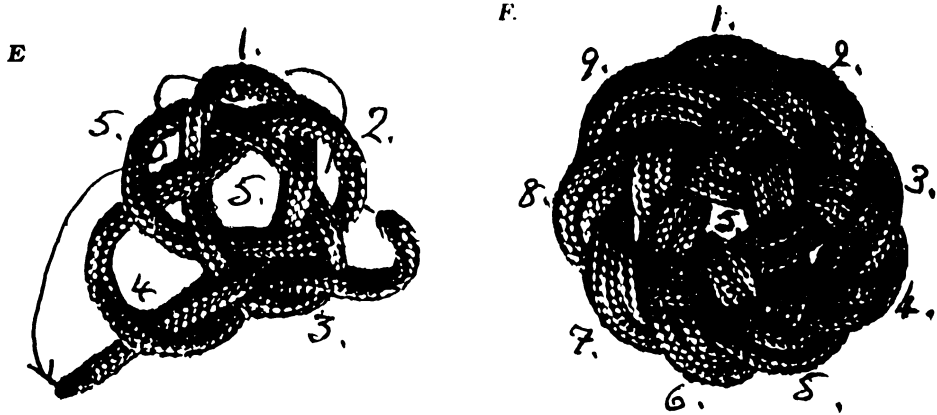
C. Now depending on whether your working end exits under or over? cross over or under the other working end and tuck up or down through the next bight round anti-clockwise and continue round through all bights until you arrive back at the joining point. Then fair up symmetrically and double round to whatever ply width you require for a much improved and extended 4 lead x 7 bight finished job with the centre layout remaining at the same original 4 bights.

D. Completed.

EXTENDING TURKS HEAD MATS & PLAQUES

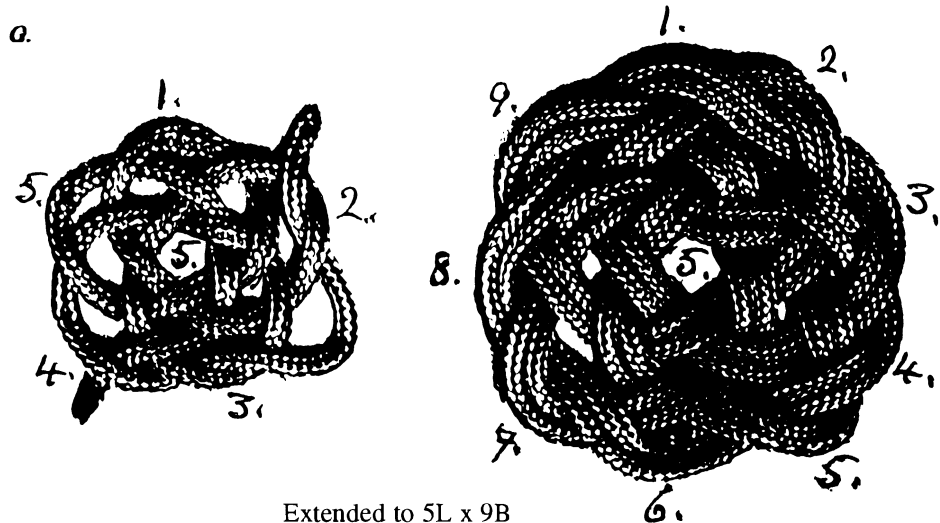
continued.

The 3L x 5B Turks Head Mat/Plaque/Rose Formed from the Capsized figure of '8' method or the plain Fig '8'.



Extended to 4L x 9B

4L x 5B Turks Head Mat/Plaque/Rose
 From the Extended Overhand Knot method.
 See Brian FIELDS 'BREAST PLATE DESIGNS'



Extended to 5L x 9B

IGKT TRAINING

Continuing our series discussing the problem of whether to design a system of training or remain as we are, teaching on an individual basis, publishing books and submitting articles in K.M. Some prominent people in the Guild have explained in their own words what they feel we should do, how we should move forward. This issue we hear from Ken Yalden and Europa Chang.

THOUGHTS ON TRAINING

BY KEN YALDEN

The Editor has asked me and a few other Guild members on our feelings towards a Guild training scheme; what follows are my personal thoughts and ideas on guild training and they can be followed or ignored by the rear or the sub-committee as they think fit.

The Guild, it is fair to say, has its strength in its network of personalities and skills, linked worldwide by the 'membership handbook'. The members have mixed talents running from strong personalities with limited knowledge or abilities in knots, to those who are very knowledgeable and have the practical ability, but are naturally reticent. That with a broad brush is what we have as a Guild.

As for training, it can be divided into two clear aspects: Internal Qualifications and External Qualifications.

1. I feel internal qualifications would bring an end to our Guild by inflating the ego of some and overshadowing the remainder. As a Guild we are geographically too widespread and subject wise too wide ranging for one person to be called 'Master'. Some members have expertise in one or more subjects, but no-one can span all. The most wide reaching span is our 'network of members' and even that has some gaps.
2. Our Guild can and should be part of the 'external qualifications' for knot tying. Knot tying is rarely a stand alone subject. It is usually part of a City and Guilds certificate in

art, craft or a study in textiles. Even then it is specific i.e. button knots, macrame etc. The majority of knot tying is formally taught at a very basic level by unenthusiastic instructors who cannot wait to get on with the main subject of first aid, scouting, etc., teaching knots from an out of date manual copied from yet another bad copy.

As a Guild we should revise such works so both the pupil and instructor can enjoy the subject matter of knot-tying (if we only stop the reef knot being taught as a bend, that will be a major contribution to knot tying). For the special knots tutorials can be arranged through the Guild Council to match the specialist skills required. This brings me full circle to the network of members, now highlighting, to progress any further we must list our abilities and subject skills in a register, first proposed by Stewart Grainger when he was President. A lot of teaching and talking is currently being conducted by Guild members, we must now list who can do what and who is willing to do what and from this register the training sub-committee can then take the matter forward.

What we must be very careful of is not destroying our unique Guild by elevating one member above another because of knotting ability, or any other ability come to that. Maintaining and increasing our membership with friendship and good communications, while not becoming so single minded we are

THOUGHTS ON TRAINING

BY EUROPA CHANG

Dear Editor

What would I like to see in some sort of training programme?

reason for keeping the twist of the ropes spliced, but I had to ask several people before one explained that it made the rope run easily through grooves and pulleys.

- 1) I think that, as we describe ourselves as an educational charity, we should have some sort of training so that our "instructors" go out with the evidence that they know their subject. don't mean a certificate necessarily, nor a copy of Ashley after all, anyone can look up a knot in Ashley if there's enough incentive. But perhaps a reference folder (like the knot-boards) which shows the knot, how it is tied, whether on the hand or by chart, when it is used and why and how, and when it is not used (e.g. a reef-knot joining two cords of different diameter) and why not. The same applies to splices of course.
 2. Such a folder would cover most of the health and safety requirements that should go into a practical course. I think the other really important safety aspect is about breaking strains of ropes and what should or shouldn't be used in specific situations (e.g. abseiling). Certainly I don't feel competent to tell anyone anything about practical knots ... and if you want a guinea-pig to make up a sample folder, I'll gladly volunteer. [Though, having said that, I'm heavily committed till July '96, so wouldn't be able to do much before that] You'd find the gaps that way.
 3. To some extent, we are the stewards of a tradition. As the materials and applications have changed, some of the knots and splices have been developed while others have been forgotten. It seems to me that it would be worth our while to have a historical "module" before the traditions die completely and have to be re-"invented". For instance, the sailmaker's splice has a good
 4. The above point does also apply to traditionally used decorative knots (and braids) so perhaps an historically based module could have more freedom in its plan. Only, so many of the decorative knots have interesting associations in themselves that it would be a cultural loss to forget the history. [Oh dear, having said that, I really must get on with that article on Chinese knots that Brian Field has been urging me to write!]
 5. And then, there's the creative applications Macrame, decorative netting (the Victorians had a big craze on that), needlehitching as lace, tatting, knotstitch embroideries, flatknots,..... any of these has enough to provide a complete module in itself.
- I've not said anything about assessment of folders, but rather assume there would be panel of several assessors for each module, so that each folder is checked by two or three people expert in the area. This would be recorded in some way (with IGKT) so enabling a quick check by phone if necessary.
- I'm not suggesting that every member must take every module: but it would be nice to have a system set up so that instructors and interested people could take a module as and when they pleased. [The Lace Guild does something similar, and each assessment costs the candidate £10.]

This letter was originally sent by Brian Glennon to “Wire Rope News: Sling Technology Magazine”. It could be of interest to members in reference to our series on training.

Dear Editor:

I am a 38 year old professional rigger who is writing regarding a simple matter that has now become an issue with me. That simple matter is the title of Master Rigger, an expression I have read in nautical magazines with increasing frequency.

In my now twenty-odd years of rigging I have never met a master rigger in the United States. I have worked with some great riggers who were working the trade well before I was born, but none of them ever professed to be a master. Now, I must contend with individuals who claim the title yet whose skill level is equal to or less than my own.

Normally this is a situation which should be ignored except that the reputation of the rigging trade can be injured by self-appointed master riggers. Bear in mind that the marine industry no longer has a monopoly on rigging as it once did a hundred and fifty years ago.

Rigging has become central to other industries as well; e.g. a world record lift of 750 tons was recently made in New York City without the advice of a master rigger; the lights, curtains, speakers, and microphones of a theatre or symphony orchestra are suspended daily without the input of a master rigger; and expensive merchandise like the space shuttle or the Craig super computer are routinely rigged into place without the guidance of a master rigger.

The point is that the term master rigger has fallen into desuetude and damages the credibility of individuals who claim that title. It is my opinion that nautical magazines have inadvertently contributed to that damage while attempting to perpetuate a romantic association with the sea. There is still a large pool of contemporary riggers in America working within the industry and forming innovative rigging technique, unaware of the presence of any master rigger.

What I propose is to standardise the trade by rating a rigger according to his skill and specialty; e.g., first class rigger-nautical, or first class rigger-industrial, or even, second class rigger-shipyard, with the expression master rigger being avoided altogether. The skill level and specialty can be ascertained by standards set within the cordage industry.

A uniform national rating system for rigging is needed to avoid every halfway decent artisan or worse from calling themselves master rigger in order to compete in a dwindling market.

Thank you!

Brian A. Glennon

REVIEW

By Geoffrey Budworth

THE KNOT BOOK

An Elementary Introduction to the Mathematical Theory of Knots

by Colin C. Adams

Published (1994) by W. H. Freeman & Company,
41 Madison Avenue
New York, NY 10010, U.S.A.

and 20 Beaumont Street
Oxford, OX1 2NQ, England

U.K. price: £23.95

ISBN 0-7167-2393-X



Knot theory is over 100 years old but on of the most active areas of math's today. It is making an impact on biology, chemistry and physics, from DNA research to assembling new molecules.

The author, a Massachusetts math's professor, amply illustrates and describes the different knot groups, their properties and complexities, and just what knot theory has to offer scientists.

"Is it knotting or is it math's?" Guild members will ask. It's both - and that's the trouble, because most of us who panic and give up at the sight of algebraic formulae, miss out on a secret world of knots.

Colin Adams hardback book of 302 pages, 10 chapters and over 500 line drawings, might help some of us to discover this other perspective.

INDEX TO 'KNOTTING MATTERS'

ISSUES 47 - 50 (1995)

	Issue No	Page No.
ADVERTISEMENT		
I.G.K.T. Supplies	47	Covers
I.G.K.T. Supplies	48	Covers
I.G.K.T. Supplies	49	Covers
I.G.K.T. Supplies	50	Covers
Nylon Novelties - a book by Eric Franklin	47	24
ARTICLE		
Around the World in 47 Days	Higgs, Ken	50 19
Bergkvara Splice, The	Nilsson, Torsten "Pampas"	48 17-18
Chinese Weave - plus photographs	Dawson, Europa Chang	47 5-8
Daft as a Brush!!	Harding, Nigel	48 39-40
Fenders	Budworth, Geoffrey	50 19-20
Infallible Experts	Grainger, Stuart	50 29
Jackstay Lines		47 17
Knots & Life	Pont, Robert (France)	47 11-15
Knot Knots - Training Aid	Keene, Jack	50 30
Lucet Cord	Hands, Ann	47 10
The Mayflower Society	Boggs, Lonnie	50 3
Memento Mori	Harris, Frank G	49 6
Notes from the Secretary's Blotter	Harding, Nigel	49 3
Notes from the Secretary's Blotter	Harding, Nigel	50 4
Of Strings	Canute, Cy	50 27
Secretary's Blotter, From the	Harding, Nigel	47 3-4
Secretary's Blotter, From the	Harding, Nigel	48 2-3
Testing Knot Strength & Security - Part I - Terminology	Chisnall, Robert	48 29-34
Testing Knot Strength & Security - Part II - Testing Methods	Chisnall, Robert	49 14-18
The TIES That BIND reprint from "Popular Science"	Skerret, P J	48 9-16
Tools!	Malhoit, Chris	48 35-36
Use of Ropework Fenders on Inland Waterways	Grainger, Stuart	50 20-25
Why not Try your Hand at Tying Knots	Hughes, Peter	47 9
BOOK REVIEW		
Knot Puzzle Book, The	McLeay, Heather	47 19
Making Friendship Bands	Silver, Lynette	50 33
Nylon Novelties	Franklin, Eric	50 28
Rope & Twine Crafts	Gypsy Hussey-Smith	49 19
CARTOON		
	Whalley, Stephen	48 26
"Know your knots"		50 5
CROSSWORD		
Knotty Puzzle	Salty Dog	47 20
EDITORIAL		
Editors Bits and Pieces	Boggs, Lonnie & Margaret	50 2 - 3
Editors Bytes and Pieces	Boggs, Lonnie & Margaret	49 2
	Perry, Gordon, MBE	47 2
GUILD MATTERS		
Badges, Scrolls & Medals	Budworth, Geoffrey	50 34
Calender of Events/Knotting Diary/What's on in Knots	Wyatt, Jeff	49 20-21
Calender of Events/Knotting Diary/What's on in Knots	Wyatt, Jeff	50 26
Congratulations to Frank Harris on his 80th birthday		48 39-40
Diary of Events	Harding, Nigel	48 19
Education and Training	Boggs, Lonnie	50 33
IGKT North America Annual Meeting 1995		48 28
Members Profile - Richard Hopkins		48 6-7
New Zealand - extracts from Spring 95 newsletter		49 38-39
Normal service will be resumed as soon as possible	Harding, Nigel	47 22-23
Phone ONE day	Harding, Nigel	48 7
Profile of our new President - Des Pawson		49 7-9
Response to articles in American mag "WoodenBoat"		48 27
Training - A Personal Opinion	Grainger, Stuart	50 35-36
West Yorkshire Branch	Field, Tim	49 22

KNOTS, MATS & SPLICES

Bend-related Knots	Thomson, Eltrick	48	22
Bergkvara Splice, The	Nilsson, Torsten "Pampas"	48	17-18
Big Ben	Field, Brian	48	4-5
Fire Service Knots	Grundy, Colin	50	31
Flat Knot (Square Knot) Pendant	Field, Tim	49	26
From a Bend to a Lanyard Knot	van der Griend, Pieter	50	16-18
Game Sling	Steehan, R A	50	13
A Greek Knot	Perry, Gordon	50	12
Murphy's Mat	Field, Brian	48	20-21
Proper Bellpull, A		49	10
Sealed Knot (The)	Grainger, Stuart	50	30-31
Single Strand "Hunter's Bend"	Halifax, John	48	23
Solomon	Field, Tim	49	23
What are Knots and Splices?	Field, Tim	49	24-25

KNOTMASTER SERIES

1 - Oysterman's Stopper Knot		50	14 - 15
------------------------------	--	----	---------

LETTERS

Tangles from the Tub	Aldridge, George	47	9
The Ties That Bind	Bodger, Penny	48	25-26
Contacting Colleges etc	Brown, Fred (Mass.)	48	8
Eighty Not Out - Frank Harris	Brown, Frederick (Mass.)	49	30
Mantlets	Budworth, Geoffrey	47	16
	Budworth, Geoffrey	49	35
	Budworth, Geoffrey	47	8
Knotty Problem	Constable, John & Ann Norman	47	16
	Csebfalvi, Karoly (Budapest)	48	38
	Erickson, Gus (Minnesota)	48	37
	Franklin, Eric	49	39
	Glennon, Brian	49	29
Cat o' Nine Tails / Multiple Crown	Grainger, Stuart	49	35-37
Forty Knots	Hopkins, Richard	49	32-33
Clothes line	Hughes, P W	49	31
plus photograph	Langford, Alf	49	40
	Lee, A C	49	27
	Lewis, C A	48	38
	Miles, Roger (Australia)	47	8
	Nuttall, Owen K	47	8
Tow Lines (Ropes)	Perry, Gordon	50	12
Internet	Perry, Gordon	50	9-10
A Sad Resignation	Pettit, David	50	31-32
Clothes line	Prohaska, Heinz	49	31
Stuart Grainger's Dahlia Knot	Roming, Dick (Maryland)	48	16
Internet	Skemp, Tom	49	35
	Sorenson, Bill	49	31
	Sullivan, Wesley E (Maryland)	48	38
Rope Splicing Knife - Help Please!	Summerley, A L D	50	6
Your Comments on KMs Past	various authors	50	7 - 9
	Wallace, Harvey	48	37
	Warner, Charles Australia)	49	28-30
Left-hand Lay, Mantlets and Tom Bowling	Yalden, Ken	50	10-12

MEMBERS

"Stop Press" Death of Dr Harry Asher	Harding, Nigel	50	14
--------------------------------------	----------------	----	----

OBITUARY

Albert RN	Carrington, Fred	50	5
-----------	------------------	----	---

PHOTOGRAPH

Basket of jute knotting	Grainger, Stuart	47	6
A Cavanoli Work Chair Seat	Grainger, Stuart	47	7
President Glad Findley & Geoffrey Budworth at Farnham '95		47	18
Richard Hopkins with TS Swiftsure cadets at Farnham '94		47	18

INTERNATIONAL GUILD OF KNOT TYERS

Calender of events - 1995/96

1995

DATE of EVENT	EVENT	LOCATION	CONTACT NAME	TEL. NO.	HELP NEEDED
Nov 21 (Tues) 8pm	IGKT Yorkshire Branch Meeting	The Beulah Hotel, Tong Rd, Farnley, Leeds 12	D R Pearson	01132 572689	

1996

Jan 5 -14	The Boat Show	Earl's Court, London			
Jan 14 (12noon)	IGKT Essex Branch Bi-monthly Mtg	Nat Motorboat Mus, Pitsea	Don Woods	01708 229178	
last Saturday in Jan,	Dutch Branch meetings	Rotterdam Maritime Museum	Jan Voss	0355 266 116	
Feb, March,					
April & May					
March 10 (12noon)	IGKT Essex Branch Bi-monthly Mtg	Nat Motorboat Mus, Pitsea	Don Woods	01708 229178	
May 11 (Sat)	IGKT 14th AGM	Gilwell Park, Essex			
May 24 - 27	International Festival of the Sea	Bristol Historic Docks	Watch this space for further information		
June 13 - 16	Wooden Boat Show - Footrope Knots (London Knot Tyers (George Aldridge)	Nat'l Maritime Museum, Greenwich	Des Pawson	01476 690 090	No
June 28 - 30	Wooden Boat Show (USA)	Mistick, Connecticut, USA	Des Pawson	01476 690 090	
July 4 - 8	West Cornwall Maritime Festival	Penzance			
July 13 - 21	Int'l Rendevous for Boats & Mariners	Brest, France			

MORE EVENTS REQUIRED, PLEASE!!!!!!

To those who have sent information on forthcoming events, many thanks. HOWEVER, the 'veritable flood of notifications' has yet to happen! Come on Guild Members and Branch Secretaries, please let me know about meetings and events in your area so that visiting knotters can meet like-minded souls. Advice of overseas events would also be most welcome.

Jeff Wyatt
91 Luton Road
Dunstable, Beds
LU5 4LW
Tel: 01582 664504 (Ansaphone)

GUILD SUPPLIES

I.G.K.T. BOOK PRICE LIST 1995

ITEM	PRICE
THE KNOT BOOK Geoffrey Budworth	£2.50
MUCH ADO ABOUT KNOTTING (The 1st 10 years) Geoffrey Budworth	£2.50*
BREASTPLATE DESIGNS Brian FIELD	£2.50
TURKSHEADS THE TRADITIONAL WAY Eric Franklin	£1.50*
NYLON NOVELTIES Eric Franklin	£2.00*
KNOTCRAFT Stuart Grainger	£3.60*
ROPEFOLK Stuart Grainger	£1.30*
TURKSHEAD ALTERNATIVES Stuart Grainger	£2.20*
SOMETHING DIFFERENT Over 50 Button knots John HALIFAX	£3.95
KNOTTING MATTERS - Past Editions	£2.00*
*Indicates 33.3% discount available on orders worth £30 or more at retail prices.	
Cheques payable to IGKT, or use your VISA, MASTER or EUROCARD simply by quoting your card number and its expiry date.	
Don't forget to allow for postage!!	

SUPPLIES SECRETARY
3 Walnut Tree Meadow
Stonham Aspal
STOWMARKET
Suffolk IP14 6DF

