Knotting

Matters

Newsletter of the

INTERNATIONAL

GUILD OF KNOT TYERS

KNOTTING MATTERS

The IGKT is a UK Registered Charity #802153

EDITORIAL

A HOME FOR THE GUILD?

Since the IGKT's formation in 1982, founder-member Frederick D.
Browne has argued the case for establishing a knot museum - there
is a need for secure places where knotwork can be stored and
displayed for the benefit of generations yet unborn. His researches
have found that such items as parachutes, thimbles and barbed wire
are being preserved for posterity; as are magic, trotting horses,
covered bridges and post (mail) boxes.

It strikes me, as a start, with the guild's experience of major
international knotcraft projects...the 1986 Knotting
Extravaganza...the Rotterdam show in 1987...Knot Year 1990...we
should aim to establish at least ONE public place within 100 miles
of each IGKT member where live knotting can be seen and experienced
throughout the year. From this seed-bed a home for the Guild must
surely sprout.

R.L.J.

THE ENDLESS KNOT PUZZLE by Robert CHISNALL

To date, there are several versions of this puzzle. These are basic variations in presentation and structure rather than in the nature of the problem itself. Here are a few:

1. Hoop frame
2. Square frame
3. Stellated frame
4. Clove frame
5. Board frame
6. Stellated Board Frame

The problem itself is topological. The purpose is to untie and tie increasingly difficult knots and patterns. The cords cannot be detached from the frame in any way. The illustrations depict six patterns using only two loops of cord and six patterns employing all four loops. Three-loop patterns are also feasible. There is a multitude of patterns and problems possible with this basic puzzle structure. All that is required is an initial understanding of a few basic topological manipulations.

The simplest problem, akin to the popular linked-wrists puzzle, is shown in Figure A. The goal is to unlink and relink the two cords. The purpose in all other cases is similar: to be able to link the cords in the patterns illustrated and then unlink them. This must be done without forcibly separating the cords from the puzzle frame. For two cords, the following are shown:

A. Two Linked Cords
B. Reef Knot
C. Granny Knot

D. Carrick Bend
E. Grass Knot
F. Surgeon's Knot

In the four-cord category, the following are presented:

G. Four Linked Cords
H. Four Linked Loops With Elbows
I. 10-Crossing Weave

J. Four Twisted Elbows
K. 12-Crossing Weave
L. Four Linked Girth Hitches

Which patterns, if any, are impossible? Why? What other patterns and knots are possible? More complex structural versions of the puzzle can incorporate more than four loops of cord.

Robert Chisnall

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THE ENDLESS KNOT PUZZLE....

HOOP FRAME
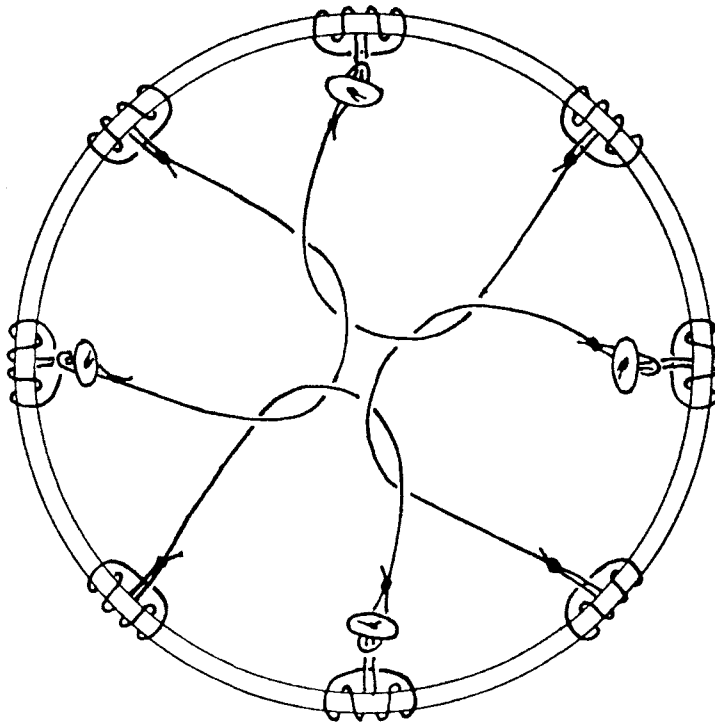
The puzzle consists of a circular hoop frame to which four separate cords are attached. One end of each cord is 'fixed' to the frame with a Prusik Knot. The other end of each cord is looped around a button. Each button is attached to the hoop frame with a separate piece of elastic cord. (See enlargement to the left.) The loops attached to the buttons are loose, but not larger than the buttons. They cannot be pulled free of the buttons. Puzzle patterns are formed within the hoop. The Prusik Knots cannot be rearranged in any way to facilitate the manipulation of puzzle patterns. However, sliding these knots around the hoop helps to solve certain puzzles and tighten completed patterns.

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THE ENDLESS KNOT PUZZLE....

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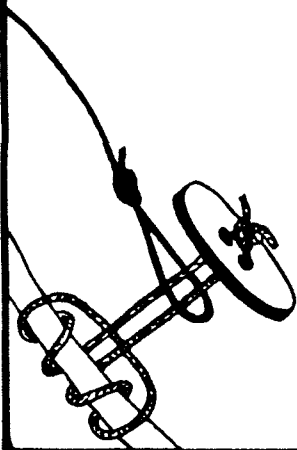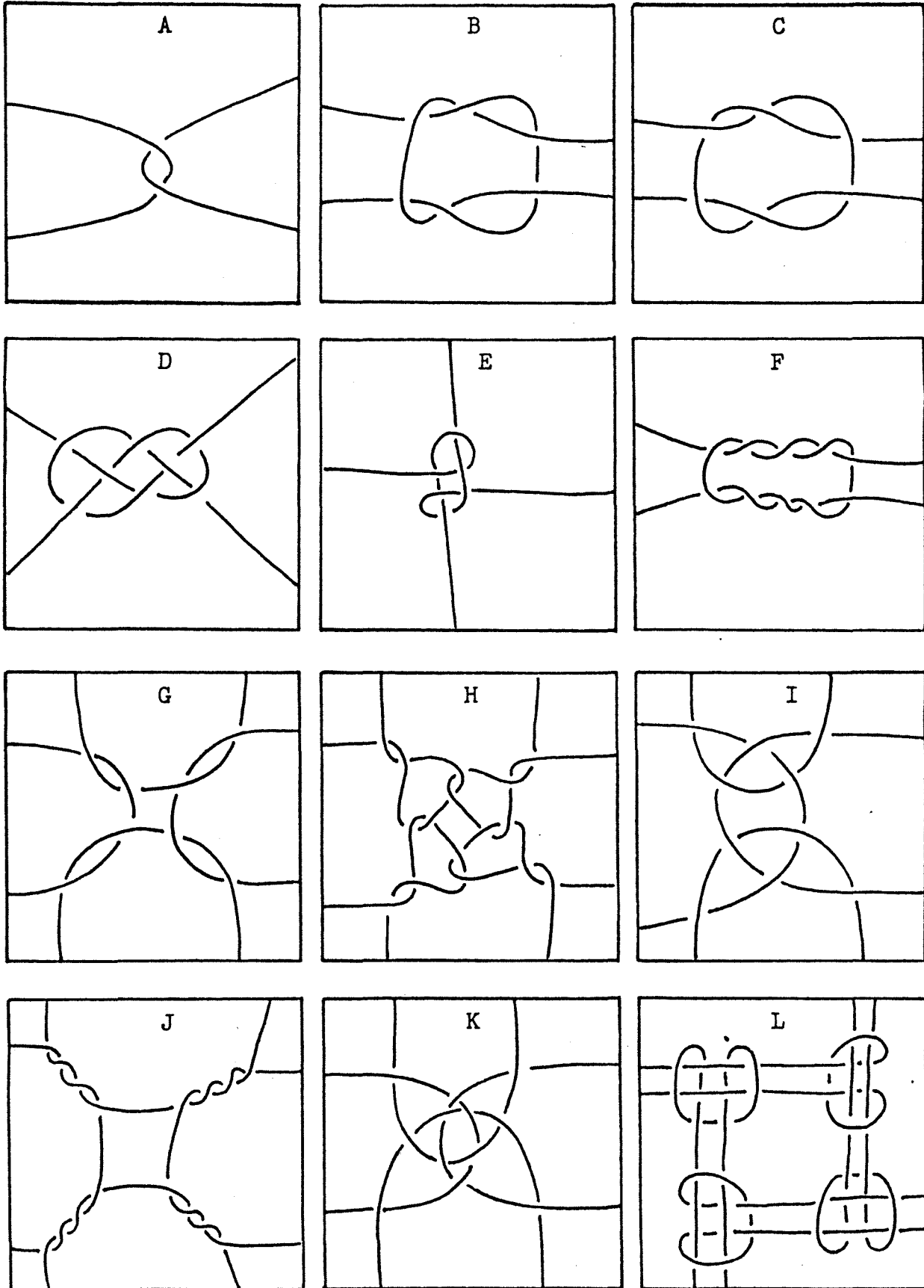
FRANK IN WONDERLAND

I have recently returned from a visit to a wonderland of knot work
and other sailor crafts and curios collected during a lifetime
spent in the Merchant Navy.

The knot boards vary in size and content to an amazing degree - the
smallest 1/2"x3/4" and the largest 28"x36" - some are rectangular,
some circular, some square, some octagonal and some shields. They
depict knots, braids, flags, ships anchors, mats and bends. Some
exhibits have just one knot whilst others have as many as eighty.

Then there are a number of pictures framed in knotted frames which
use yards and yards of different braids, hundreds of Star Knots,
Rose Knots, mats, turksheads and many many more.

In addition there are button knots, needle hitched bottles, bell
ropes and anchors. Cowboys on horses decorate a bedside table.

Interspersed with this abundance of knot work there are fully
rigged ships, bells, belts, brass-work, coral, onyx and shells.

Wall hangings from Colombia, pictures from Japan, and wooden
figures fill in any spaces.

I found all this in the home of one of our founder members -
Bernard CUTBUSH - Knotter EXTRAORDINAIRE. So if you ever visit the
city of NOTTINGHAM give him a ring - I know he will be delighted to
see you. Please give him as much notice as possible - his number is
0602 815 497.

<u>F.G.H.</u>

FACT OR FICTION asks Alan King

'The knot, sir,' said Dickens. 'Its called an Ashanti knot.'
'You know about knots?' Lestrade shouldn't really have been
surprised.
'Yes, sir. A knot is defined as a loop, or combination of loops,
used for fastening two ropes together, fastening a rope to some
object, or for making a knob or swelling in or at one end to...'
'Yes, yes.' Lestrade reached for his cigar case and began puffing
furiously. 'Why Ashanti?'
'The Ashanti knot is so called because it was traditionally used by
Arabs and others to bind African Slaves together when they were
brought to the coast prior to being sold...'
'Africa?' shouted Lestrade. 'Dickens, get your hat. We're going to
Windsor,' and all that remained of the superintendent was a whiff
of smoke.

This extract is from a murder mystery called *Lestrade and the
Leviathan* by M.J.Trow, published by Macmillan, London.

Is this grisly knot real or, like the book, a work of fiction?

THE ICICLE HITCH BY John SMITH

At the beginning of chapter 27: *Occasional knots (The Ashley Book of Knots)* the problem is posed as to how to tie a rope to a taper and pull in the direction of the taper.

The introduction and tentative solutions offered highlight the difficulty of such a task. Were a hitch to meet this requirement though, how extremely effective it would be on a cylindrical object!

It seems that a suitable hitch (tested at some length from the roof of T.S.STEADFAST at our A.G.M.) now exists. Given the method of demonstration, tied to a fid suspended vertically, an appropriate name might be *The Icicle Hitch*.

* * * * * * * * * *

This is the method:

Figure 1

Take four turns around the fid. This is the minimum number, more can be added if the application is extreme.
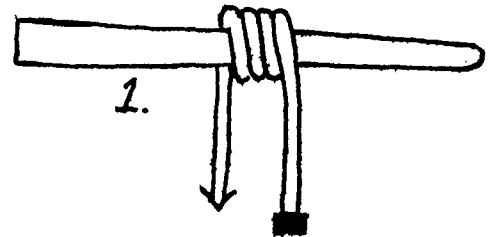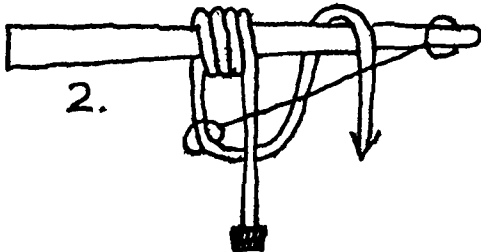
Figure 2

Drape the working end over the point of the fid from behind as shown. leave a generous loop hanging down.

Grasp this loop and pass it in front of all other parts and drop it, without twisting, over the end of the fid.

(Have a look at the Pile Hitch No.1815 and Nos.1886 and 316 in The Ashley Book of Knots. The action should then be quite clear.)

Figure 3

Draw everything up tight by pulling first the standing part and then the working end at right angles to the fid. Then tighten it all again!

4.
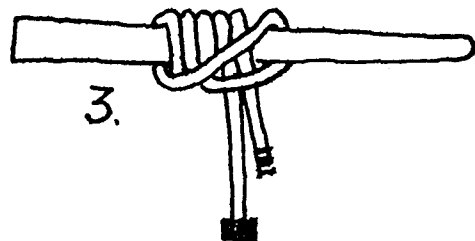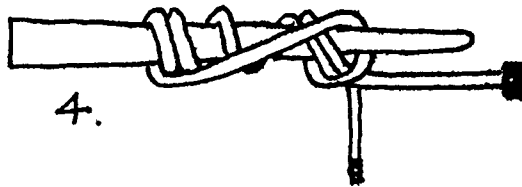
<u>Figure 4</u>

When the load is applied (or you hang from your wooden icicle) the hitch will pull into the shape shown.

There must be *no separation* of the two turns on the thicker part of the fid. If this does occur, then additional turns are required at stage one. But as long as two turns on the thicker part remain snug together, the hitch should hold.

* * * * * * * * * *

Of course this hitch is a development of the Pile Hitch and ought to be called an Extended Pile Hitch. However, if you want to turn the diagrams through 90^0, then Icicle Hitch is quite appropriate.

What is certain is that this hitch provides quite exceptional grip in those applications calling for a lengthwise pull. (Even on a polished brass fireman's pole.)

KNOTTED CARPETS? asks Dr Toby GREEN MA BM BCh

Dear Sir,

During breakfast today I heard that you run an International Guild of Knotters. Congratulations - I thought it was rather a dying art.

Have you any information - perhaps books, on the knots tied in the warps of old tribal rugs from Asia Minor - usually nomadic tribes but sometimes seen finishing Balachi, Afghan, Turkoman and Caucas rugs please?

I repair these old rugs and am completely lost when trying to repeat the patterns of knots on these rugs. They may have a significance too - perhaps identifying the family that made the rugs.

Faithfully,

Toby Green

9 March 90

Whitcombe Farm
Beaminster
Dorset

ASHLEY ERRORS Spotted by John CONSTABLE......PART II

In the second of a two part series of notes, John has listed more
of those irritating and timewasting little problems hidden in his
much loved Ashley Book of Knots.

PAGE	KNOT	COMMENT
200	1103	The knot is not "of similar appearance" - it is IDENTICAL.
204	1121	This is NOT "the same knot".
205	1122	Reference to #1121 should read #1120.
208	1142	Bottom illustration is incorrect. It is in fact a MIRROR IMAGE of the knot formed from the one above. A far easier way of tying this knot is given in Eric Franklin's "Tying Knots" published by Pearson.
210	1155	The lower knot is incorrect.
214	1171	Something wrong here!
215	1182	Cross reference to #1255.
216	1191	"Spot marked X" is missing from diagram.
218	1200	Centre diagram is incorrect.
220	1210	The two ends should be shown slightly longer to reduce confusion.
221	1209	The text could refer with advantage to the use of this knot when a really tight bend is necessary and there is no second person to "put a thumb" on the first half of the knot.
222	1223	This is in fact a single sheet bend #1431!
223	1233 & 1234	The bottom left hand corner of the right hand illustration (#1233) does not agree with left hand illustration of 1234
225	1250	Surely the ring should be a pretzel as this knot is EASY to untie. See page 27.
231	1298	1895 should read 1295.
231	1896	should read 1296.
231	1299	1895 should read 1295.
236	1325	Single black line at right side of right hand diagram should be shown as "under and over".
236	1326	ditto ditto

PAGE	KNOT	COMMENT
265	1458	At the lower end of this knot the short side is shown on the LEFT side. It should be on the RIGHT side.
265	1460	The same mistake as #1458.
266	1467	This is in fact a constrictor knot #1249.
276	1565	For "fay" read "fray".
278	1578	I disagree here with Ashley. It was quite normal for the ends (after tying a shroud knot) to be tucked as for an ordinary splice. In such cases if the shroud knot is tied "against the lay" the lie of the ends is more suitable for tucking.
294	1697	Right hand illustration is incorrect.
294	1702	Could be clearer with advantage.
488		Top Illustrations: For 2659 read 2959. For 2660 read 2960.
577	3690	Should read "First an eye of Six Strand Round Sinnet. Lanyard:- Twelve strand matthew walker etc..
578	3703	a) After "(#3001)" insert "Tie a double diamond knot." b) Should #1593 read #1592?
609		a) Add 269 to "clinch". b) Add 266 to "constrictor". c) Change references for crown sinnet to 478, 497, 482 & 483. d) Add a reference to cockscombing being ring bolt hitching 569 & 570.
612		e) Add 327 to "Jug Sling".
616		f) Add "Rope making, 23, 30 & 70".
617		g) Add 425 to "Splice".

DID YOU KNOW....?

....that Charles L. Spencer, author of 'KNOTS, SPLICES AND FANCY WORK' (the Brown, Son & Ferguson Ltd. publication that influenced many a knot tyer) was actually Colonel Charles Spencer, who during the 1930s was Commodore of the Clyde Cruising Club, a dedicated yachtsman who was largely responsible for the 'Sailing Directions' guide to Scotland's West Coast waters?

ON DISPLAY with Stuart GRAINGER

Your council wants KNOT YEAR 1990 to arouse worldwide interest in knotting. Many displays and exhibitions will be scheduled, so a few notes on making the most of these occasions may be opportune.

NOTHING attracts attention better than someone working,(known as the hole-in-the-road syndrome), so sit and do something, preferably knot work of some kind. When someone drifts up to look over your shoulder, talk to them, stimulate their interest, give them a leaflet, sell them a booklet, anything you like, but be positive, not boring.

STALLS or exhibition stands should be as well presented as possible and a little forethought is a good investment. Plan a colour scheme. Bold bright colours catch the eye, but you can have too much of a good thing. We have used the guild's colours of a predominant deep blue with bright yellow to good effect. Avoid gloss paint, which produces reflections to distract the eye, favouring instead matt surfaces, preferably of emulsion paint, which dries quickly and is easily retouched. A solid base looks better than a table with legs, but a similar effect can be achieved by a floor length, plain tablecloth, neatly pinned at the sides. This provides hidden storage beneath the display, which can be invaluable.

GOOD lighting is very important and a few carefully placed highlights are more valuable than an overall brilliance - less likely to make the attendant and onlooker feel hot and bothered. Ask for a power point and take your own extension lead.

CONTRAST promotes interest, so create contrast in shape, colour, texture, light and shade, as well as type of exhibit. If your resources allow it, build a stand with surfaces at various levels. Cubes which will store inside one another, painted in matching or contrasting colours, can be deployed to make an infinite variety of display surfaces on different levels, and they are easily dismantled and transported. Display boards which hang on a wall or support each other are fine, but remember that there are other shapes besides rectangular. If you need lettering or captions of any kind, try to ensure that it is of a high standard. Amateur sign-writing is usually very obvious and Letraset sheets are expensive, so keep text to a minimum, unless you are good at it. Remember that one solid object is worth half a dozen pictures and use photos sparingly.

THE EFFECT of a fine piece of craft work can be ruined if it is
badly mounted for exhibition. Give as much thought to mounting your
exhibits as you would to framing a favourite painting. A mediocre
item can be much improved by careful mounting. Mounting board is
widely available from art shops and stationers in a wide range of
colours and, if you can afford it, felt textured Fablon can make a
rich-looking background for ropework.

PLEASE do your utmost to promote our Guild. Ask for promotional
material and we shall do our utmost to supply it. There will be
leaflets about the Guild and membership application forms, Guild
logos in blue and yellow for display, badges and even banners if
you can make good use of them. So think ahead and plan a sparkling
display for KNOT YEAR 90.

FINALLY, please send us photographs, video tape, and cine film of
your efforts, large or small, so we can compile an album for
circulation and further inspiration in future. we will return any
pictures contributed if you provide a return name and address.

Stuart Grainger with a rope bin that he made

PHOTOGRAPHS FROM THE *GAZETTE* 1ST MARCH 1990

A HONEYCOMB KNOT?

Dear Mr Harris,

I write to see if you might be able to assist me in providing instructions for making a *honeycomb* knot.

This knot I first saw at the London Boat show a number of years ago on a board of knots displayed on the stand of Marlow Ropes. It is in fact a large knob knot and its weave does give the impression of a honeycomb. None of the stand personnel knew any details about it. When I wrote to the company they could only tell me that the knots on the board had been made by some retired lighthouse keepers and they did not know who they were.

The knot board with these knots was then given to the Scouts and was (and perhaps still is) housed at Gilwell Park. Some time later when camping at Gilwell Park on a Father and Sons camp I endeavoured to find someone there who might be able to give me the necessary details - but try as I may none could help me.

The *honeycomb* knot is not listed in the Ashley Book of Knots and neither can I find it in any other knot book I have seen.

Can you help me please?

Also, is there by any chance a branch of the INTERNATIONAL Guild of Knot Tyers out here in Australia and particularly here in Victoria?

Yours sincerely,

David G.C.Pettit
1st February 1990

4 Joanne Ave.
Chirnside Park
Victoria 3116
AUSTRALIA

ANOTHER WAY TO LIFT BOULDERS

IGKT member Jeff Cleaver, of Polesworth, Staffordshire, reports seeing another method for securing ropes to large round boulders ready for lifting and moving them. (K.M.30 page 21 and K.M.31 pages 9 to 11)

In a timber yard in the far-East Jeff saw shear-legs in use; these would both lift and move the boulders sideways, working rather like a three-legged race. The ropes, commercial 1"   hemp, had to be knotted onto the rocks on the spot. Six or eight pairs of doubled ropes were bent onto the line running to the top of the shear legs; then starting about half way down the rock the pairs of rope ends were alternately reef knotted building up a net around and below.

Purists would flinch, no doubt, seeing the first row of reef knots distorting under the load; but it seems this simple method worked.

COLLECTOR'S ITEM

Geoffrey BUDWORTH bought this carved ivory cross in 1978 from an antique arcade shop in the Paddington district of London, England.

(The Reverend William Rodgers was Rector of Mawnan Parish Church, near Falmouth, in the County of Cornwall from 1838 to 1890.)

Carved by Revd Wm Rogers
Mawnan
1880
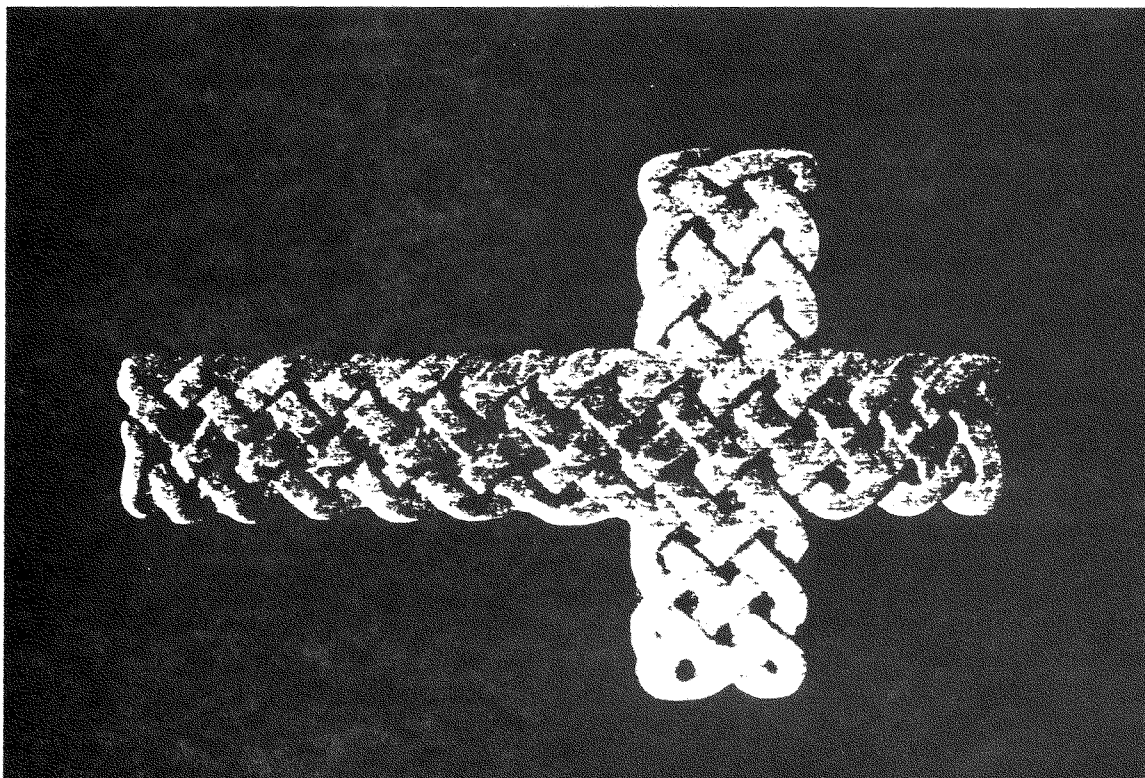
REGULAR TURBANS by Pieter van de GRIEND

In KM 31 page 5 Harry Asher states to contest the claim of existing irregularities in a 4-strand 5-loop turban, furthermore that this unresolved matter needs a solution, and that until such is found the turban will not be held in high esteem.
In this article I will come to show that the above mentioned turban cannot be tied singlestrandedly without introducing irregularities, thereby solving two of the problems above. As for the latter I can only remark that I personally hold the turbans in exceptionally high esteem, since they are derived from the class of spiral braids, which form the spine of many solid sennits. To that end consider the 5-stranded component part of Ashley No. 1388, which is both regular and turban.

In what follows I have written down some group-theoretic reflections on the construction of   the 4-strand 5-loop turban, from which I will show that any single-stranded version of the knot incorporates distortions/irregularities.

Simple analysis of a 4-strand spiral plat reveals that it is a repetition in series of the pattern shown in figure 1. I call such a segment a Length Block (LB). In Harry's case 5 of such LB are concatenated and their ends joined up to form a grommet. To enable us to perform some calculations on the weaves I introduce a scheme in which is indicated where a strand enters and where that strand leaves the weave. I call such schemes Permutation Matrices (PM). In figure 2 is given the PM for the LB of Harry's turban. From this PM it is immediately obvious that there exist 2 cycles in the LB, namely (1,4) and (2,3). This implies that pasting any odd number of LB, one after the other, will yield a weave requiring 2 strands to complete. On the other hand you will need 4 strands to finish a weave resulting of the concatenation of any even number of LB.
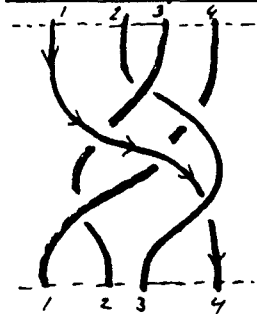
LB of Harry's turban.   PM for LB of Harry's turban.

$$\begin{pmatrix} 1 & 2 & 3 & 4 \\ \downarrow & \downarrow & \downarrow & \downarrow \\ 4 & 3 & 2 & 1 \end{pmatrix}$$

figure 1.   figure 2.

So, one would be inclined to think that Harry's turban would require 2 strands to complete, if it were not that the definition (?) of regularity did not permit some flexibility. One can introduce twists (LH) or (RH) after every LB and still have a regular braid. Regularity only demands that these twists have likewise handedness throughout the turban. This leaves us with two paths to explore.

The introduction of one twist results in a cyclic interchange of the PM entries, either to the left or right. The introduction of several twists, up to 4, yield different PM per handedness. That means we have to consider 8 cases.
Due to symmetries of handedness we only have to look at the four cases resulting per chosen orientation. I will consider the RH twisted turbans.

Righthanded twists.

In the figures 3, 4, 5 and 6 below are shown the LB for Harry's turban, extended with respectively 0, 1, 2 and 3 additional RH twists. Directly under them are given the PM for each subsequent LB and under thát is given the PM raised to the fifth power. From these it can be seen that one requires respectively 2, 3, 2 and 3 strands to complete the 4-strand 5-loop turban. Adding (even) more twists would be without any sense, since these superfluous twists can be twisted out of the turban when finished anyway.
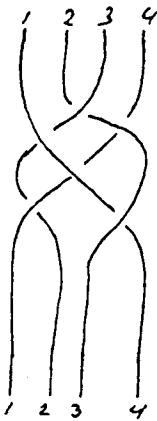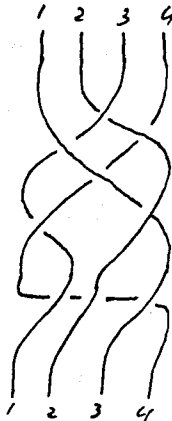
0-RH twist   1-RH twist   2-RH twist   3-RH twist

figure 3.   figure 4.   figure 5.   figure 6.

$$\begin{pmatrix} 1 & 2 & 3 & 4 \\ 4 & 3 & 2 & 1 \end{pmatrix}^{5} \quad \begin{pmatrix} 1 & 2 & 3 & 4 \\ 3 & 2 & 1 & 4 \end{pmatrix}^{5} \quad \begin{pmatrix} 1 & 2 & 3 & 4 \\ 2 & 1 & 4 & 3 \end{pmatrix}^{5} \quad \begin{pmatrix} 1 & 2 & 3 & 4 \\ 1 & 4 & 3 & 2 \end{pmatrix}^{5}$$

$$\Downarrow \qquad\qquad \Downarrow \qquad\qquad \Downarrow \qquad\qquad \Downarrow$$

$$\begin{pmatrix} 1 & 2 & 3 & 4 \\ 4 & 3 & 2 & 1 \end{pmatrix} \quad \begin{pmatrix} 1 & 2 & 3 & 4 \\ 3 & 2 & 1 & 4 \end{pmatrix} \quad \begin{pmatrix} 1 & 2 & 3 & 4 \\ 2 & 1 & 4 & 3 \end{pmatrix} \quad \begin{pmatrix} 1 & 2 & 3 & 4 \\ 1 & 4 & 3 & 2 \end{pmatrix}$$

As a very similar argument holds for the other four cases, we have herewith shown that 4-strand 5-loop turbans cannot be regular. In fact I conjecture that there exist no even-number-stranded any-number-looped regular turban. This is based on the observation that any-number-stranded Spiral Plat's LB can be represented on the conventional Turk's Head grid with the same number of strands, but with (exactly ?) two rows. By employing the Law of the Common Divisor, as stated by Ashley and a proof shown in print by Schaake and Turner, we get that an even-number stranded any-number-looped turban neccesarily requires more than one strand for its construction.

References: Clifford Warren Ashley   THE ASHLEY BOOK OF KNOTS.
p 233 number 1308-1311.
New York 1944

A.Schaake/ J.Turner   A NEW THEORY OF BRAIDING
Research report No. 165.
University of Waikato. Hamilton.
1938.

ON TYING MOEBIUS BRAIDS

A NOTE AND FOUR CHALLENGES

A.G. Schaake
Waikato Polytechnic
Hamilton
New Zealand

J.C. Turner
University of Waikato
Hamilton
New Zealand

Our book 'Braiding-Regular Knots' was described and reviewed in the I.G.K.T. Newsletter, *Knotting Matters*, No. 27, April 1989. In it we provide many diagrams and formulae for tying cylindrical braids. We also give the mathematical details to enable artisans to work out for themselves how to construct regular cylindrical braids of any desired numbers of parts and bights and weaving patterns. As the reviewer says: "The specimen diagrams are akin to Bruce Grant's stuff, in his Encyclopaedia of Rawhide and Leather Braiding". But Bruce Grant offers no theories at all to connect classes of braids together on some well-defined, logical basis, in a way from which general laws of braiding can be deduced. Our book, and the subsequent ones which we are now writing, do just that. We are writing a series of books which will deal with very many infinite classes of beautiful knots, describe their mathematical properties, and show how methods for tying them can be worked out. In the past ten years, Georg Schaake has developed enough of these ideas to keep the two of us busy sorting them out, providing theorems, developing algorithms, and writing books on them for the next ten years. There is one snag with this programme of work, however. A large one! As fast as we write up our theories of braids, we discover new connections between the mathematics of braids and the related mathematical theories of numbers, Diophantine equations and graphs. This is a fascinating two-way process. So we keep turning aside from our labours on braiding books, in order to write research papers for mathematics journals.

The purpose of this note is to tell you about one small deviation we made last year from studying the kinds of braid you are all familiar with. One day in June, we asked ourselves if a regular one-string braid could be tied in the form of a Moebius band. We found that such braids can be tied, but only with certain combinations of numbers of parts and bights. That immediately roused our curiosity. Which can be tied, and which can't? If not, why not? Our investigations quickly led us into some very interesting mathematics, which promises to tell us new things about the rational numbers (i.e. the fractions).

We shall not, of course, give you any of the mathematical details here. What we may do, however, is to tell you what a Moebius band is (perhaps most of you already know), show you a photograph of a Turkshead Moebius braid, and challenge you to tie one.

The pictures below will save us from writing a thousand or more words of explanations.

MAKING A MOEBIUS BAND

Take a strip of paper

Put a 180° twist in it

Bring the ends round,
and glue them together.

In 1858, the mathematician A.F. Moebius made this band and discovered that
it had only one-side to its surface, and one bounding-edge. If you don't
believe this, make a band up and then move a pencil point around the
surface and along the rim of the paper. You will quickly agree that it has
the one-side and one-edge properties. It has many more fascinating
topological properties, but these two are enough for now.

A photograph of a one-string, 6/64 Moebius braid
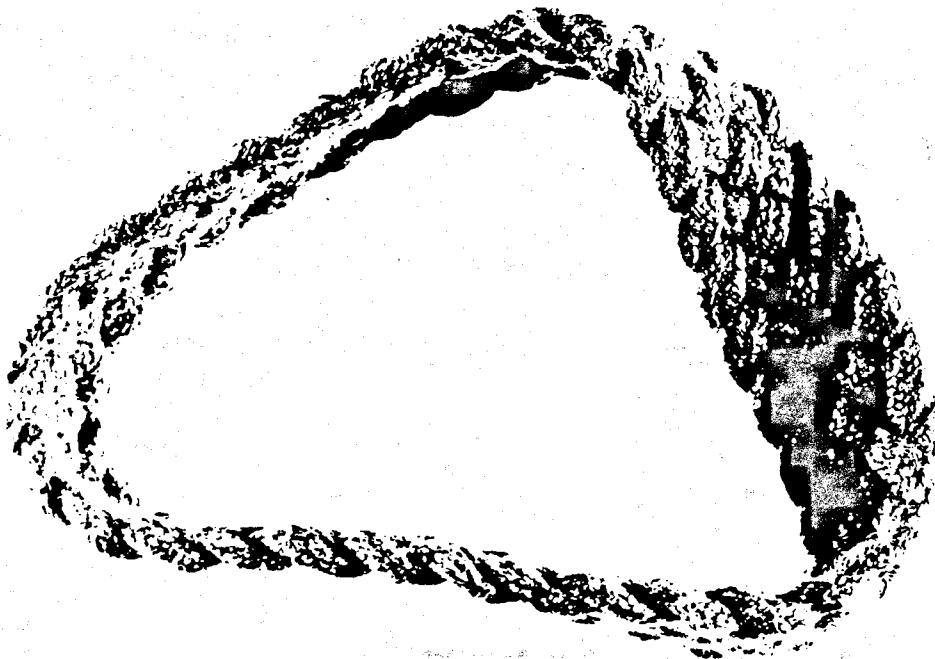
We hope you can make out from the photograph that the braid is a 6-part
one. And the weave-pattern is under-over everywhere (Georg and I call
regular braids with under-over weave-patterns Turksheads, so this is a
Turkshead Moebius braid). You can clearly see the single twist in the
knot. You must take our word for the 64 bights; but please note that since
the braid has only one edge, this is the **total** number of its bights,
counted right around the edge.

CHALLENGES

Number 1: Construct a 4/14 Turkshead Moebius braid. Don't forget that the 14 bights are to be counted right around the single edge. (Hint: you will find it helps to use a 5mm flat leather strip.)

Number 2: Discover which 4-part Turkshead Moebius braids it is possible to make, and which not. For example, in the following sequence of p/b combinations can you decide which can be used for a Moebius braid? 4/2, 4/3, 4/4, 4/5, ..., 4/11, 4/12, ... etc.

Number 3: Tie a 6/64 Moebius braid, as in the photograph.

We hope you will respond to these challenges. Tying a Moebius braid is not very hard at all, actually. Just find the secret, as Georg did. It doesn't need any mathematics; that, as always with us, comes afterwards.

We'll divulge the details in a later Newsletter. Or you can catch one of us at the International Knot Year Exhibition in London, in August.

As a final challenge, and to encourage you to explore further the beauties and mysteries of Moebius braiding, we show you a photograph of all-part 79-bight braid, with one twist and 2-under, 2-over weave pattern throughout. We call it a Headhunter Moebius braid. Try it!
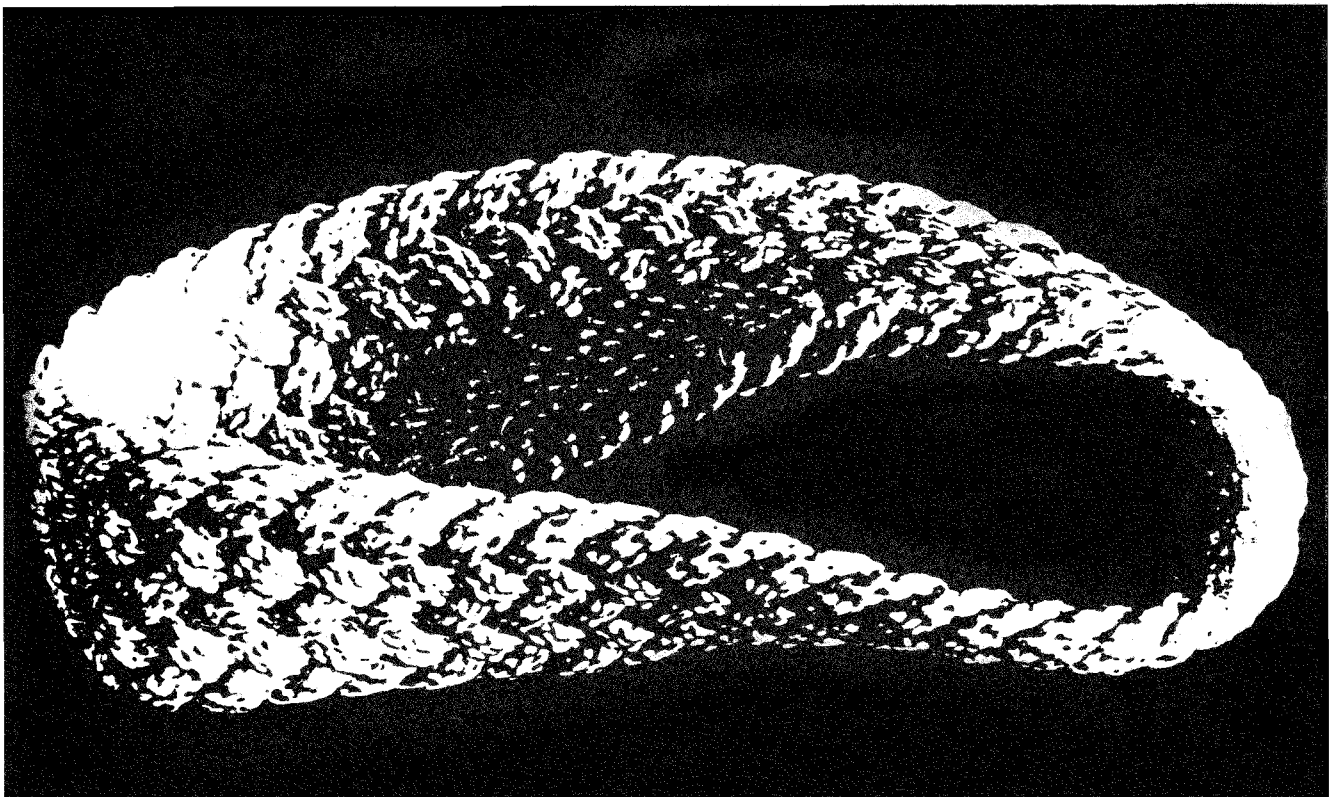
Bye now,
A.G.S
J.C.T.
February, 1990

BOOK REVIEW

'THE HARRISON BOOK OF KNOTS'

by P.P.O. Harrison, Master Mariner

published (originally 1964; 3rd edition 1978)
    by   Brown, Son & Ferguson Ltd.,
         4-10 Darnley Street,
         Glasgow G41 2SP,
         Scotland, United Kingdom

         Tel: 041-429 1234

Price £4.95   ISBN 0 851743 46 3

This book is mostly about tying complicated bellropes, and a few
other bits and pieces, for which Capt. Paul Harrison had won a
prize or two in the Annual Seafarers' Education Service Handicraft
Competitions.

It is an idiosyncratic work - a good thing in this case - featuring
his original interlaced (almost embroidery) threads of turkshead
variants, and the excellent single-cord Star Knot turkshead which
he invented.

I visited him 25 years ago and handled the various items so clearly
drawn by him in his book. They were as good as they appear. (He
even had one of his bellropes stolen from Rochester Cathedral.)

In hard cover, 102 pages, with over 150 line drawings, it is aimed
at the creative knot tyer. Although my signed first edition from
the author's hands cost me just 25/-, it is still value for money
at five pence under five pounds.

                                                      G.B.

WHO?	Professional strongman David Wilkins.
WHAT?	Pulled a 9.9 Tonne double-deck bus.
WHEN?	At 4.00pm on Monday 28th May 1990.
WHERE?	Beside the gates of the National Waterways Museum, Gloucester Docks, England.
HOW?	With a rope made from 21 rolls of *ANDREX* toilet paper.
WHY???	For KNOT YEAR 1990!
YES	Yes...yes...the perforations WERE still in the paper roll and no, it mustn't get wet and definitely we HAVE heard the tacky joke about....

NOTTBIB - k<u>NOTT</u>ing <u>B</u>ook l<u>IB</u>rary

by Pieter van de GRIEND and Sten JOHANSSON

First of all I would like to thank Robert Jackson, editor to Knotting Matters, for the possibility made available for me to address the members of the International Guild of Knot Tyers via the newsletter.

The subject of this letter is about the creation of a comprehensive listing on the literature which describes 'knots'. I will outline a bit of the history of, and the ideas for the future, which caused Sten Johansson in Sweden, Des Pawson in Britain and me in Denmark to commence a collaboration on the compilation of the literature on 'knots'.

Studying the phenomenon of 'knots' in this world is a fascination. It leads to an incredible variety of encounters with foreign cultures, occupations, applications and ideas. In short 'knots', are in a very intimite way tied up with the many things people do. Ideas about 'knots' are hard to convey. Just try for yourself, if you have never done so before. To study such a diverse topic, one is often forced to resort to information presented on paper. Books, writings, illustrated printings in general are a prime source for such kinds of ideas. Therefore it is inevitable that in the quest for knowledge about this subject one needs sources, or acces to sources. In a way that was also a reason which brought an organisation like IGKT into existance. We all share an intrest in 'knots', expressed in many different ways, and we all have questions about the mysteries presented to us about this topic. Besides that, people have that inborn urge to know things. What is it about, where can it be found, where to learn about it ? One of the easiest ways to solve such troubling questions is just to ask somebody who knows something about the things you have questions about. That is a principal reason as to why people would turn to IGKT on a macroscopic scale and it was the reason correspondence between Sten, Des and me started off on the more individual level.

Over the years the idea developed among us that, as a lead in structuring knowledge about 'knots', we should try and combine our respective libraries. Each of us had already made a cardfile over our own books and also over other works, which we might have heard about, but did not have. Last year, after about four years of writing and talking to each other over the phone, we finally made a

NOTTBIB.....

start on gathering our knot book knowledge into a common pool. At the time of
writing, april 1990, we have proceeded to concretise the format of our records,
after having 'testfiled'about 600 works on the letters A to F and exchanged our
(almost) daily letters per parcel post. Letters, which in the most of cases were
written on-line, while filing the data, and to me are evidence that guildmembers
are only kept apart by distances within themselves.

We have come to call our work NOTTBIB, which stands for kNOTTing Book lIBrary.
Let me explain what NOTTBIB, in our eyes, at the moment, is. It is a never end-
ing, tremendously big project, which is being centrally coordinated from Sweden
by Sten Johansson, Skeboksvarnsvaegen 123, S124-35 BANDHAGEN, Sweden. To give
some indication of some of NOTTBIB's facets magnitudes. We expect it will come
to contain knowledge on more than 3000 works pertaining to 'knots', excluding
the field of mathematical knot theory, on which an additional 2500 works are
expected to be filed.
Due to NOTTBIB's loosely formulated function, retrieving anything faintly related
to knots, it is as good as impossible to give indications of what the current
state of affairs will be at any given time, but we hope to be able to produce
the initial results, that is the first copy of about half of the works on knots
and rope work, around summer 1991. The next half to follow about one year later.
Note that the results are only intermediate, since NOTTBIB is something that
changes all of the time. There will be a relatively tranquil 'final'state, where
not much will be changed, but in which new works will be added and hopefully
the many existing question marks will have been replaced with the correct data.
This will yield an eternal flow of updatings.

As for the future. NOTTBIB, at the moment is just a listing, but it has eventually
to evolve into a database. NOTTBIB as database, will be able to give information
on almost anything ever written about 'knots'. A very ambitious project, indeed.
It is however something that an organisation like IGKT should be able to come
forth with. Therefore we are delighted to invite members to participate in this
huge project by sending in lists of works on 'knots', that is books, leaflets,
brochures, articles, anything the members themselves would consider to be found
in a listing as NOTTBIB. In fact anything the members themselves have on their
shelves, have seen in their local libraries, know about, or just even believe to

NOTTBIB.....

have been published at one or other time. In the course of time this will allow us to sharpen our definition of NOTTBIB's final function, which for the time being is as stated above; retrieving <u>anything</u> ever written on the topic of knots.

To structure the data, Sten Johansson has designed a worksheet/entry form, which has resulted from our work so far. A copy will appear in this issue of Knotting Matters. We would appreciate the participants to use these schemes as they facilitate the work considerably. We do however welcome ideas and suggestions from the members on the worksheet.

To increase interaction between the members we suggest comparison of the listings <if possible>, before mailing them to the central coordinator in Sweden. Every work entered in NOTTBIB will have a source. That means that indications are given as to where it can be found, or in the least case, who refers to it. This will enable guildmembers to see where a specific work may be found.

We have not yet decided how the final NOTTBIB will be published. Be it privately or via IGKT? In any case the particpants will be in priority of receiving a copy of the list.

When NOTTBIB is in that 'final' state we intend to keep the members informed about updatings via Knotting Matters or any other way, which will prove best suitable at the time.
When we reach that state we would have tangible evidence that cooperation between members is indeed international. The more discourse going on among the members, comparing their lists, all over world, the finer a result NOTTBIB will eventually yield, the more international the Guild will prove to be.
And that would be something we all could be really proud about.

Pieter van de Griend   Risskov 250490.

ENTRY FORM FOR
RECORDS OF BIBLIOGRAPHY OF KNOTS
AND ROPE WORKS

PLEASE
MARK

NOTTBIB

NEW ENTRY	
CORRECTION	

AUTHOR SURNAME AND FORENAME(S) INITIAL(S),TITLE	
COAUTHOR(S) SURNAME(S) & FORENAME(S) INITIAL(S), TITLE(S)	
COMPLETE TITLE OF WORK	
LANGUAGE IF NOT ENGLISH	
DESCRIPTION OF WORK (ASPECTS,P.T.O.)	
PUBLISHER'S NAME	
PLACE AND COUNTRY OF PUBLISHING.YEAR OF PUBL.	
PUBLISHER,PLACE,COUNTRY AND YEAR(S) OF REPRINTS AND/OR NEW EDITIONS	
SBN/ISBN/LCCC NUMBER(S)	
ILLUSTRATED BY B/W AND/OR COLOUR DRAWINGS AND/OR PHOTOS.NUMBER OF PLATES AND ILLUSTRATIONS AND FOLD-OUT PLATES	
NUMBER OF PAGINATED PAGES IF PAGES NOT PAGINATED TOTAL OF PRINTED PAGES EG: 302 PAGES OR 302 PAGES UN-PAGINATED. NOTE IF:GLOSSARY;INDEX; APPENDICES;TABLES ETC. IF ASPECT IS ONLY PART OF WORK,GIVE PAGES BETWEEN WHERE ASPECT IS SHOWN.GIVE CHAPTERS AND DESCRIPTION OF ASPECT EG:PAGES 7-34 CHAPTER X:KNOTS; PAGES 35-47 CHAPTER XI:SPLICES	
REMARKS: ANYTHING TO SPECIFY RECORDS OR ASPECTS. LOCATION OF WORK OR WHERE IT HAS BEEN MENTIONED.	

900507 STEN JOHANSSON/PIETER VAN DER GRIEND

P.T.O

NOTTBIB

ASPECTS TO BE USED ON THE ENTRY FORM,
TO DESCRIBE WORK, PLEASE USE THE FOLLOWING ASPECTS
AND COMBINE GROUPE 1-2-3 ,1-2 OR 1-3,WHICH IS MOST SUITABLE.

1. MONOGRAPH ON
   SEGEMENTS ON
   ARTICLE ON
   MANUSCRIPT ON
   LEAFLET ON
   NOMENCLATURE ON
   HISTORY OF
   TESTS OF
   TOOLS (OF)
   FORENSIC (OR ETHNOLOGICAL) RESEARCH ON

2. KNOTS
   ROPE WORK / WIRE WORK
   ROPE / WIRE
   ROPE MAKING
   DECORATIVE ROPE WORK
   ORNAMENTAL KNOTS
   MACRAMÉ
   BRAIDING
   MNEMONIC KNOTS / QUIPUS
   WITCHES' KNOTS
   ROPE TRICKS / ESCAPES
   STRING FIGURES / GAMES
   ROPE SPINNING / LASSOS
   KNOT THEORY (MATHEMATICS)

3. AS USED IN:
   SHIPS
   YACHTING
   SAIL MAKING
   RIGGING
   CANVAS WORK
   FISHING
   NET MAKING
   ANGLING
   WEAVING
   MAT MAKING
   RUG / CARPET MAKING
   BASKET MAKING
   WHIP MAKING
   LEATHER WORK
   NEEDLE WORK
   SURGERY
   FIRE RESCUE
   AGRICULTURE / FARMING
   SCOUTING / OUTDOOR LIFE
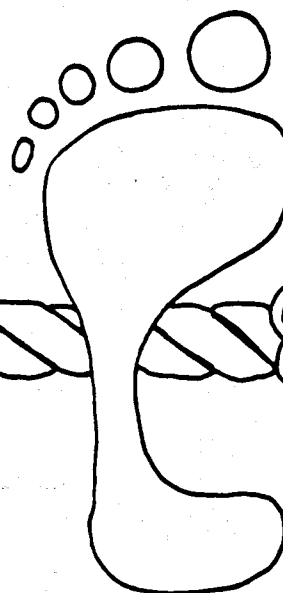   MOUNTAINEERING
   SUPERSTITION
   LORE
   MODEL MAKING

900507   P.T.O.
STEN JOHANSSON
PIETER VAN DER GRIEND

FOOTROPE KNOTS

Des & Liz Pawson

501 Wherstead Road
Ipswich, Suffolk, IP2 8LL

Craftsmen in ropes, twines and cord

Suppliers of knotting books, tools and materials

Telephone: Ipswich (0473) 690090

13.5.1990

Dear Robert,

Re the all-metal sewing palm owned by Lester Copestake, this is most certainly a saddlers palm iron. According to the William Marples Tools for all trades catalogue 1909 they cost 11/- per dozen. I think that you will find that they are cast in the same way as the iron from a sailmakers palm.

The cup on the end of the palm is echoed in a similar cup at the end of some sailmakers stitch mallets or heavers.

A great source of information on all leather working tools is *The Dictionary of Leather Workers Tools 1700-1950 and the Tools of Allied Trades* available from Roy Arnold, 77 High Street, Needham Market, Suffolk. Price £50.

What other tools do people have that are a little unusual?

All best wishes

Des Pawson

Members of The International Guild of Knot Tyers   V.A.T. Reg. No. 521 2431 00

BOOK REVIEW

<u>ON ROPE</u>   ISBN 0-9615093-2-5

By Allen Padgett and Bruce Smith,
Vertical Section, National Speleological Society.

Available only from:

>   The National Speleological Society Bookstore
>   Cave Avenue
>   Huntsville, Alabama 35810
>   U.S.A.   Tel USA+(205) 852 1300

Retail Price:- $20.00 (U.S.Dollars)
               plus a postage and handling fee $3.00

North American Vertical Rope Techniques For Caving * Search and
Rescue * Mountaineering

If you need to go up and down fixed ropes this is the book you've
been waiting for. *On Rope's* 340 A4 pages contain over 425 detailed
drawings by Pandra Williams, eight comprehensive comparison charts,
three how-to workshops and an extensive glossary.

On Rope describes proven rope techniques indispensable for:

*Cave exploration
*Search and rescue
*Industrial users, including:
>   *Window cleaners
>   *Painters
>   *Steeplejacks
>   *Construction workers
*Rock climbing
*Mountain rescue

On Rope covers everything you need to know - from ropes, knots and
harnesses to ascending, descending and belaying - plus a detailed
programme for training and practising ropework. *On Rope* is equally
valuable for beginners and advanced users of vertical rope
techniques.

IGKT founder member Frederick Browne says of this book:

>   "*On Rope*" is a large and sturdy hard cover book written for
>   those who use rope for climbing and rescue purposes. I am not
>   an expert on climbing techniques, but I am happy to have a
>   practical book on rope available. There is a chapter on knots
>   related to climbing.
>
>   The one thing that really caught my eye is the section on how
>   to wash a rope, and its discussion of the proper type of
>   machine to use.
>
>   There is a "tree history" of ropes that claims that first
>   ropes appeared 5,300 years ago. Perhaps someone in the
>   International Guild of Knot Tyers can either support or
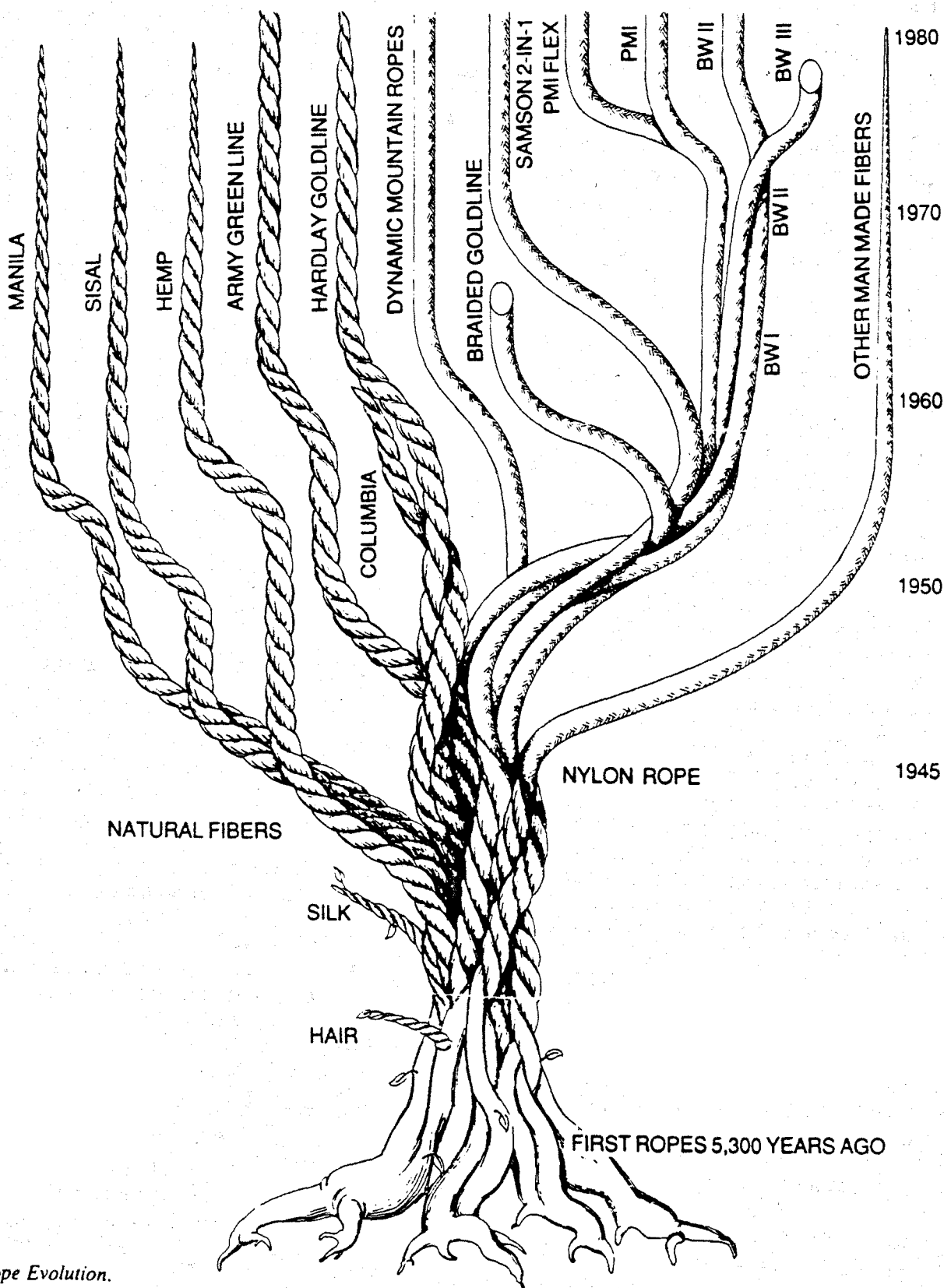>   contradict the 5,300 year number?

Still ON ROPE...

1980

1970

1960

1950

1945

MANILA

SISAL

HEMP

ARMY GREEN LINE

HARDLAY GOLDLINE

DYNAMIC MOUNTAIN ROPES

COLUMBIA

BRAIDED GOLDLINE

SAMSON 2-IN-1

PMI FLEX

PMI

BW II

BW III

BW II

BW I

OTHER MAN MADE FIBERS

NYLON ROPE

NATURAL FIBERS

SILK

HAIR

FIRST ROPES 5,300 YEARS AGO

Fig. 2-2. Rope Evolution.

The TREE HISTORY of ROPE, from "ON ROPE"
© 1987 NSS/Pandra Williams

OBITUARY

Mike Drynan of Macclesfield, Cheshire, died very suddenly on 6th March 1990.

He spent nine years happy retirement when he was able to persue the hobbies of his choice - knots and sailing ships being his main interests - latterly researching three 18th century East India Company ships named *Macclesfield*. Mike enjoyed his membership of our guild - knotting being a hobby for which he had a great affection, possibly starting as a Scout.

We wish to send our condolences to his widow, Isabel.

R.L.J.

LETTER

Dear Mr Budworth,

I have to inform you that at 8.50am Friday 9 March 1990 I came in to hear the finish of your chat with Derek Jamieson on BBC radio 2.

I am very interested as my father who died aged 84 some time ago ran away to sea at the age of 14. Later he was in the Merchant Navy and the Royal Navy. He was discharged ON RESERVE shortly after the end of world war 1 and then took employment in Tilbury docks as a rigger for the precarious 15 years that followed until his retirement because of age.

He was an EXPERT in all things to do with ropes and hawsers (wire). I well remember two anecdotes.

About 1936 a GRIMSBY based trawler skippered by 'Dod' OSBORNE with a mate and, I think, two deck hands sailed from England to South America across the North and South Atlantic with only a Woolworth sixpenny (6d) atlas for navigation. On return the trawler and crew were feted up the Thames to Tilbury Landing Stage. Then, in the pleasant rivalry existing between men of the sea, as my father had served on trawler-minesweepers out of Grimsby, the mate challenged my father to a splicing contest with ropes. My father won!

At the age of 16 I returned from the Australian Mails in February 1939 and, walking up the garden path of our house at Stanford-le-Hope, found church bell pull ropes lying the full length of the garden. Dad was splicing them where they had broken because of pulley wear. I can assure you that no charge was made - the church funds were not great! He returned the ropes perfectly repaired during my shore leave.

Yours sincerely,

R. Jeffrey
13th March 1990

11 Rutland Gardens
Rochford
Essex SS4 3AX

GLYNN GRIFFITHS

Riggers prepare the 200ft suspension bridge over which the smugglers will enter what is easily the most expensive opera mounted in Britain, Bizet's *Carmen*, which opens at Earl's Court on Monday for the first of seven performances. Up to 105,000 people will see the £4.4m production, which aims for mass appeal, at Europe's biggest arena. The cast of 500 includes flamenco dancers, Spanish Toreadors and a troupe of horses. Tickets are £25, £35 and £45.

ARTIST OF KNOTS

Dr Harry Asher, author of *The Alternative Knot Book* reviewed in Knotting Matters £29, tells me that his diagrams were prepared by a professional artist. Harry suggests that other budding knot tying authors who are not satisfied with their own drawings may wish to use his services too.

He is: Phil VERNON
                     164 Middlemore Rd.
                     Northfield
                     Birmingham
                     B31 3UN, ENGLAND
                     Tel 021 (or UK+21) 475 3300

CARRICK—A—REDE

A REAL ROPE BRIDGE.

Birmingham's free daily newspaper recently carried a brief holiday guide to Northern Ireland.

"For those with a daring nature," it observed, "there is the Carrick-a-rede rope bridge, a narrow spindly construction swaying 80ft above the sea as breakers crash on the rocks beneath. This fragile-looking rope bridge is all that connects one of Antrim's coastal islands with the mainland. Not for the faint-hearted."

NORFOLK KNOTS

At the A.G.M. John HALIFAX, of Gorleston, near Great Yarmouth, Norfolk put on a very impressive display of knot boards and showed a variety of knots which he claims as new - possibly correctly.

He has prepared a dozen-sheet description of what he calls the *universal knot* and the *distinctive Norfolk knot series*. Between them these form an interesting progressive series of decorative knots. There is a lot of original thought gone into this work and it deserves a wider discussion amongst enthusiasts. We hope that at later meetings and possibly by correspondence those interested can find out more about these decorative knots.

In this issue we reproduce two of John's excellent drawings and sets of instructions. John will welcome your comments and enquiries.

T H E   A M A Z I N G
U N I V E R S A L   K N O T

To form:
Project downwards and
away from yourself;
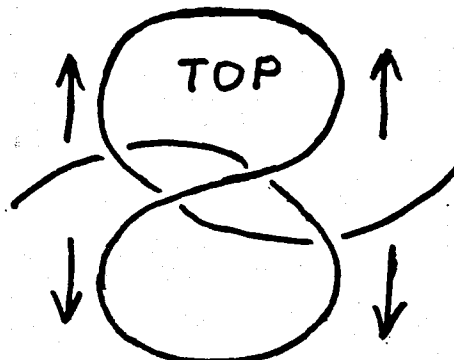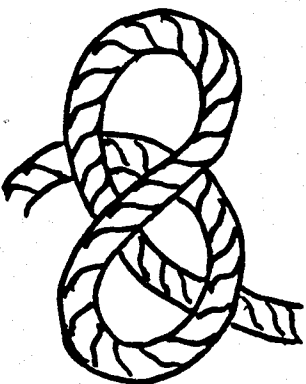right over left to
form a bight/loop.
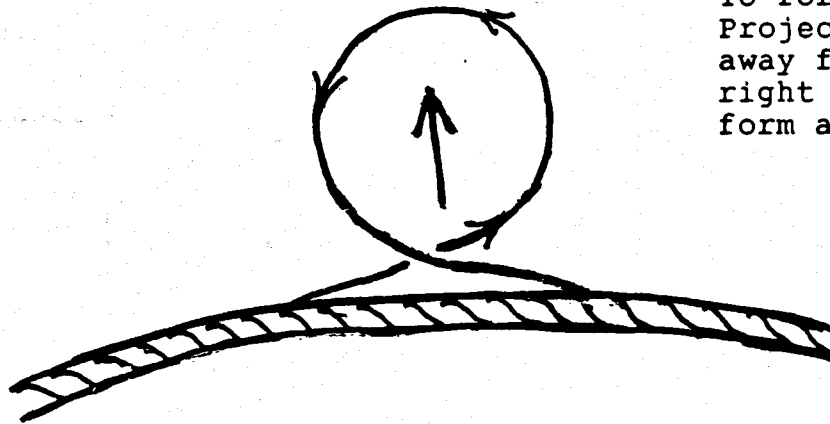
Then continue to swivel the
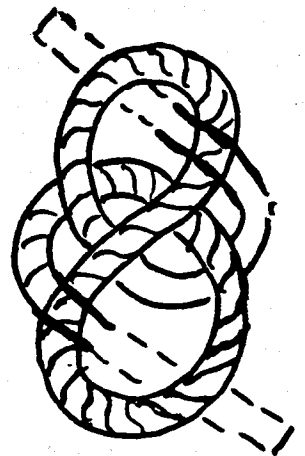bight/loop down and upwards.
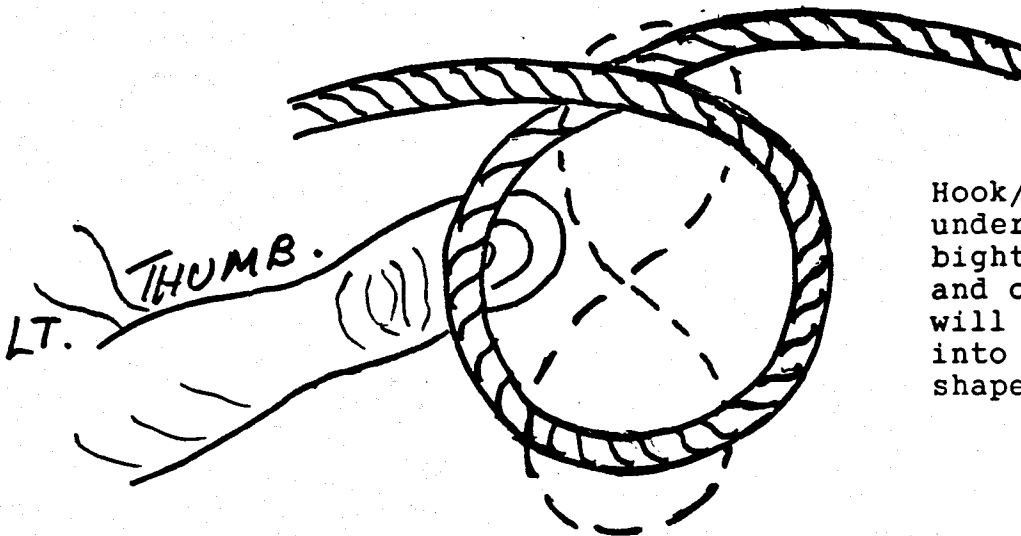
LT. THUMB.

Hook/insert left thumb
under left side of
bight and flip upwards
and over and the bight
will naturally form
into a figure of eight
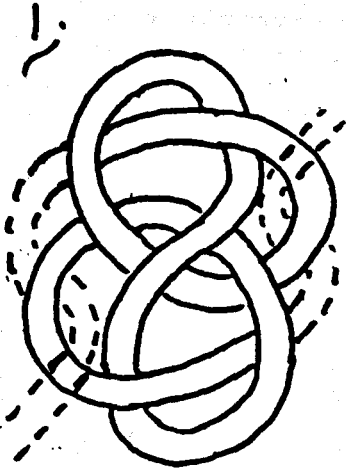shape.

IF YOU FOLD THE
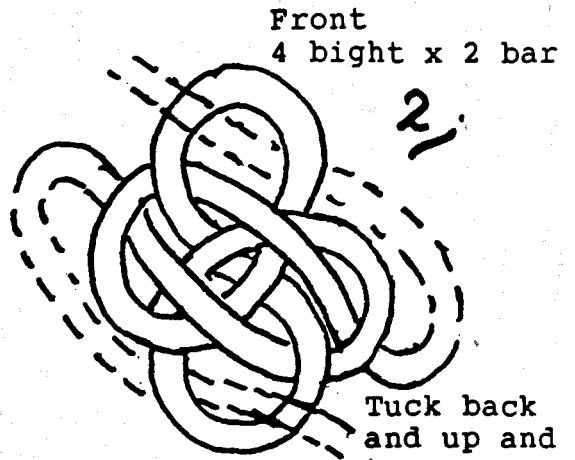TOP DOWN THIS FORMS

TOP

A CONSTRICTOR KNOT
In just two seconds.

Two interlocked
overhand knots.

This forms the foundation of the *Distinctive Norfolk Knot Series.*

DISTINCTIVE NORFOLK KNOT SERIES 1990

1.

Front
4 bight x 2 bar

2.

Tuck up under
next bight and
turn over to No.2

Tuck back
and up and
turn over
for No.3

THE DOUBLE STAFFORD KNOT

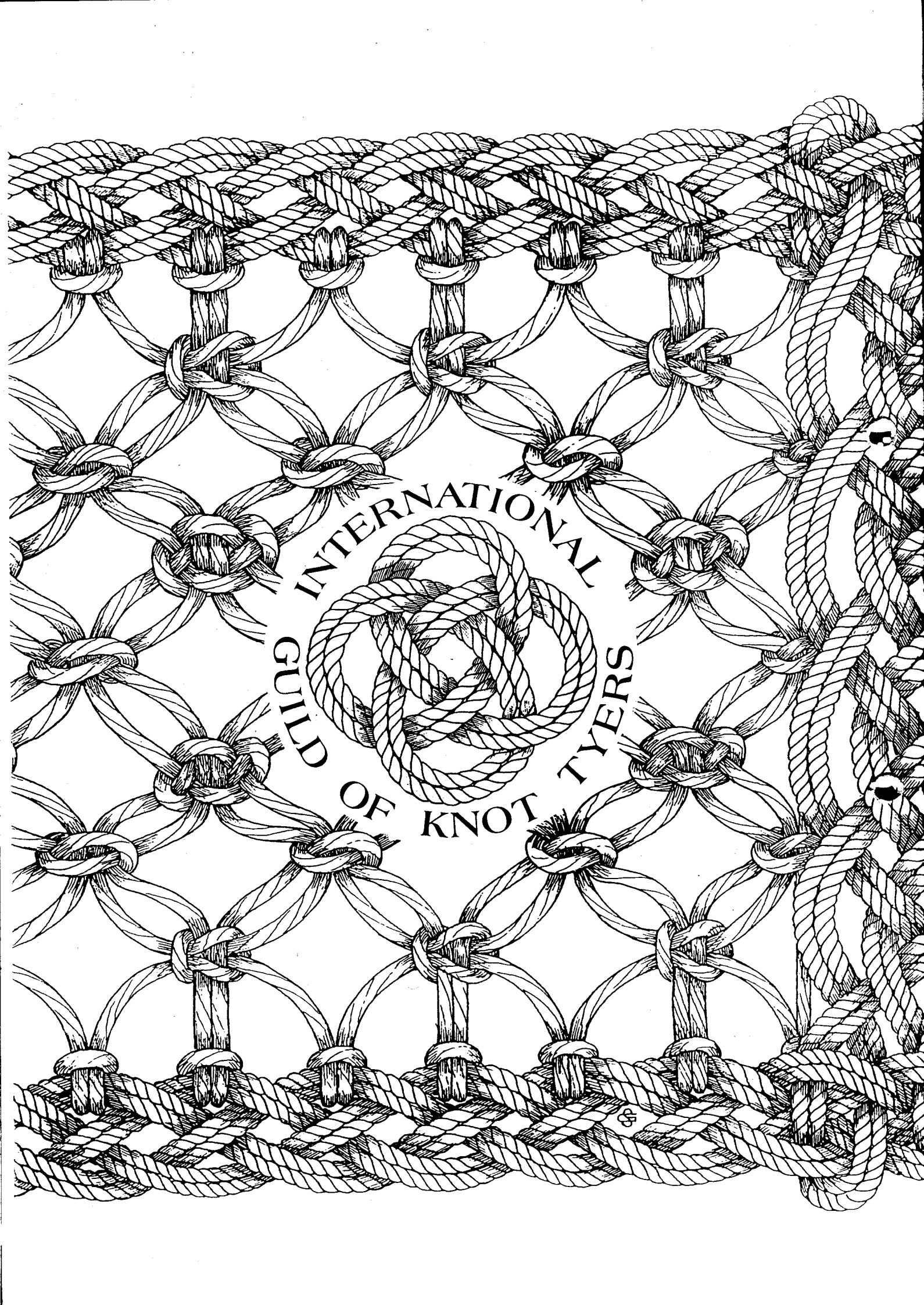**3.**

2A.
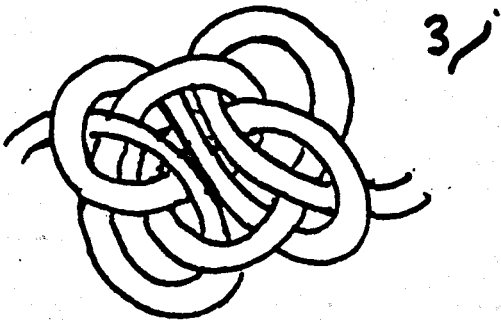
4 bight x 3 bar
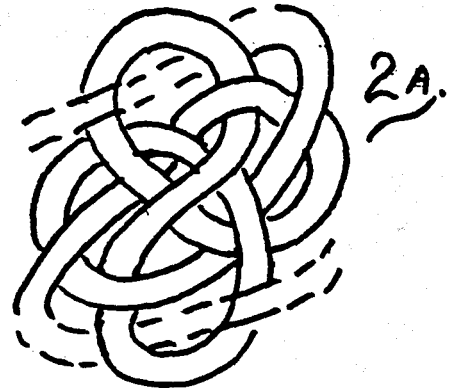
NORFOLK TRIPLE BAR

4.

4A.
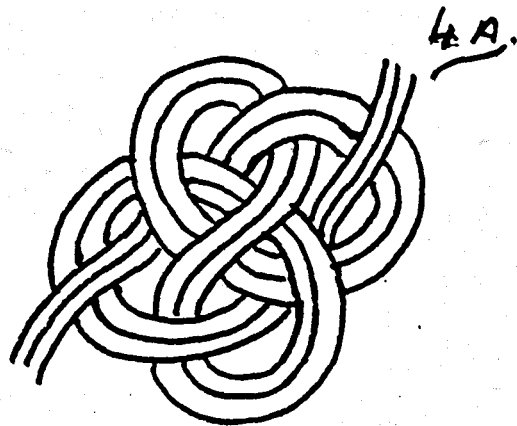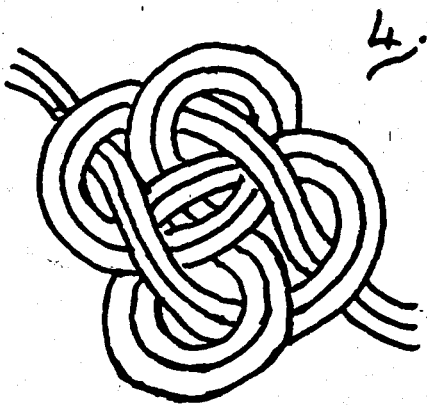
GANGES SQUARE KNOT

(Being the double Stafford knot tied in 2 ply)

INTERNATIONAL GUILD OF KNOT TYERS