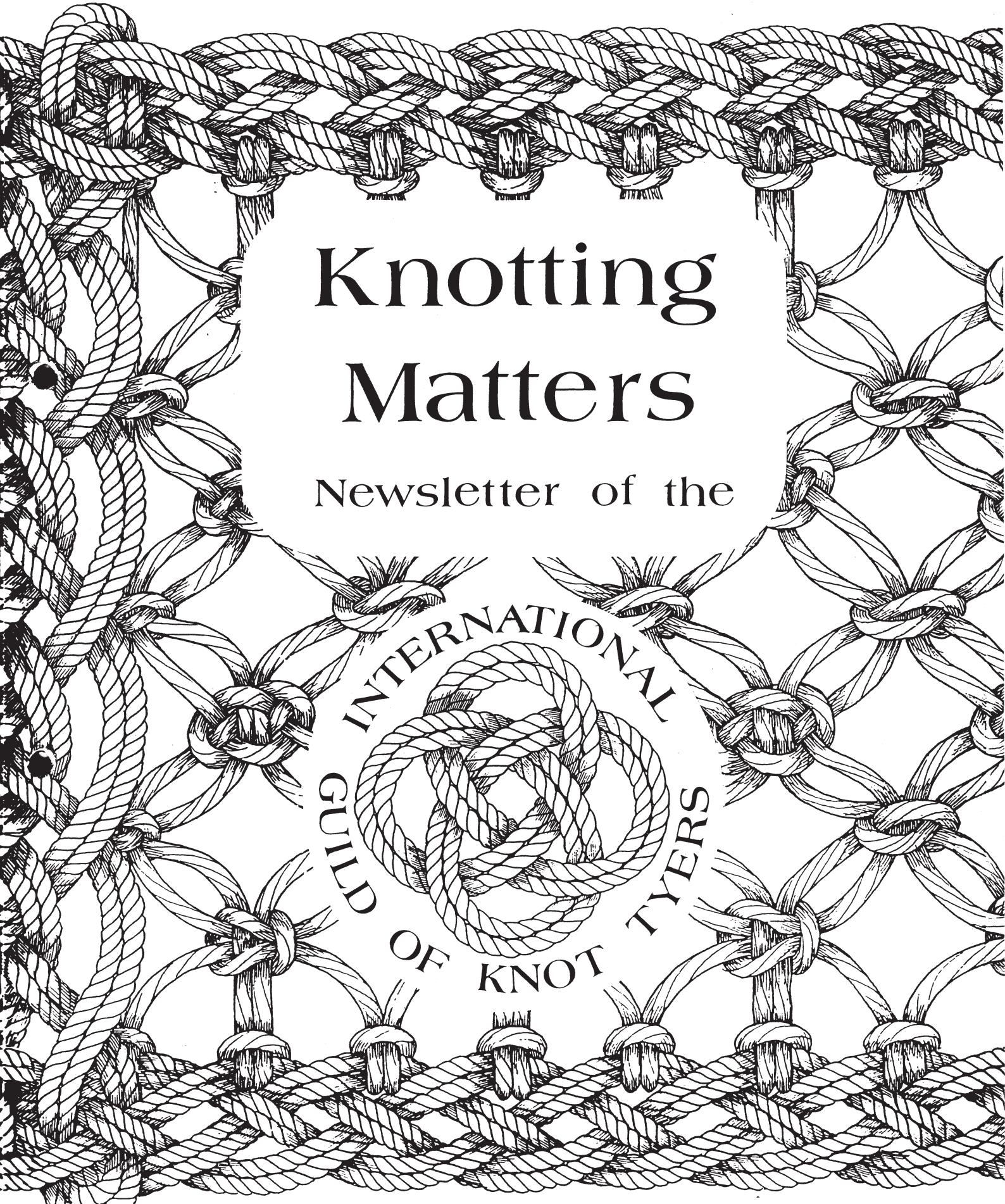
Issue No. 27 April (Spring) 1989

Knotting Matters

Newsletter of the



"KNOTTING MATTERS"

THE QUARTERLY NEWSLETTER OF THE
INTERNATIONAL GUILD OF KNOT TYERS

President: GEOFFREY BUDWORTH

Issue No. 27
April (Spring) 1989

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Editorial

Your new editor will be Robert JACKSON of 10 St. Helier House, Manor Close, Melville Road, Birmingham B16 9NG, England (tel: 021-454 0849).

Send your contributions to HIM from now on: I will, of course, pass on all the writings and drawings I have from you to him.

Do try to lick your stuff into reasonable shape for him to publish. I had to re-write, re-draw, abridge and re-arrange much of what you sent me. He may not be such a soft touch.

ANYWAY - SO LONG, AND THANKS FOR ALL THE KNOTS!

The BOAS BOWLINE (continued)

* These footnotes are displaced from the foot of page 10.

[1]QUIPUS AND WITCHES' KNOTS, by Cyrus Lawrence Day, published by The University of Kansas Press (1967), reviewed in 'K.M.' No. 5, page 19.

[2]THE ESKIMOS OF BAFFIN LAND AND HUDSON BAY, by Franz Boas, published by The Bulletin of the American Museum of Natural History, XV, 1907, 4, 28, 34-41, 82-85.

The Solly

Globe Knot

from Tom SOLLY

Another 'first' from the originator of the Star Knot Turk's Head!

The Turkshead craftsman has always admired the large terminal knot gracing the end of a bell rope. Such a globe is usually produced after a long struggle with multiple strands of a chequer knot, or by patiently arranging the pattern of a pinboard and the following the instructions for one of the fine array of knob knots in chapter 29 of 'Ashley'.

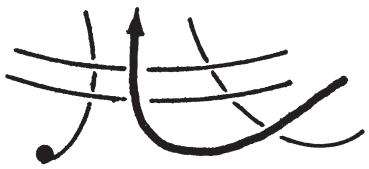
Here is new approach to making a variety of globe knots that so simple to make in the hand that it seems too easy to be true. If you can make a IV x 3 Turkshead, you will find these knots surprisingly uncomplicated.

1. Make a IV x 3 Turkshead loosely over the hand.

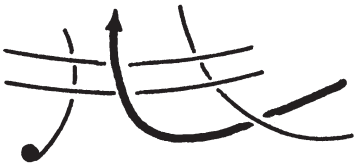
2. Follow round until there are 2 parallel strands throughout the Turkshead.

3. Part the parallel strands.

4a) Bring the working end over, then BETWEEN, the parallel strands... thus placing the 3rd. strand in the centre. This is the new bit.Take care at this stage as it holds the final locking tuck. This start yields, in the finished knot, an increase of more than one bight in one of the polar compartments (3-sided compartment + 5-sided compartment).



4(b) If, however, the working end is taken UNDER and then brought between the 2 parallel strands, this will yield a final knot having a 3-sided compartment at its apex (3 sides + 4 sides).



5. Weave the centre strand between the 2 parallel strands "against the lay"; i.e. wherever they go over, weave thy new end under.

6. Continue thus until the original standing end is met. This is the new basket weave knot as a single strand.

7. Proceed to follow the new knot around as though making a normal Turkshead, so that the new knot - when finished - will contain 3 parallel strands throughout its construction.

B. Mould The completed knot onto its spherical core and tighten it around carefully as for a normal Turkshead. Secure and hide the ends in the usual way (but, with only 2, it is easier).

This Globe Knot could be described as "IV x 3 x 3" since it is made from a IV x 3 which is then interwoven 3 times before being followed round as a completed Turkshead. These knots can be used (over a core of elastic bands) to make children's playballs; as gear lever decorations; window blind pulls; heaving line weights; and so on.

The Solly Globe Knot (continued)

This versatile knot is limited only by the tyer's ingenuity and creativity. Now go ahead and add this whole series of knots to your repertoire. Experiment with various other starts, like III x 4 and V x 4. You will be delighted.

Apraphul

There was much excitement in your Editor's office recently: thanks to the member who sent me a report entitled 'Computer Recreations' by A.K. Dewdney, apparently extracted from that excellent journal 'Scientific American'. It described archaeologists on an island off the North-West coast of New Guinea had discovered the rotting remains of an ingenious arrangement of ropes and pulleys, now thought to have been in effect a primitive sort of digital computer. What a find.

Scouring a site covered by several square kilometers of dense jungle the group found fragments of buried jute fibres; also badly corroded brass pulleys and other hardware. Noting the positions of their finds, it became apparent that these were the remains of a complicated tackle assembly, the purpose of which was to carry out arithmetical calculations. Pull certain input ropes and - operating a binary system - other ropes were in their turn either pulled or not pulled, leading to an end result. The set-up did sums.

Stage-by-stage, with technical drawings and accompanying text, the author established a definite relationship between each bit of the ancient rigging and an allied computer function. Here were gates, flip-flops, inverters, multiplexers, etc., made entirely of rope and blocks,

It was a scholarly and lucid piece of writing. I was fascinated. As the article was undated it was a while before it registered that the project's Chief investigator was nnamed Ripley. Ripley? Wasn't he the journalist who created the 'Believe it or Not' (Fact is Stranger than Fiction) strip cartoon that spawned all those 'Believe it or Not' museums in the U.S.A?

Yes - you've probably guessed it, Re-reading, I saw that the site of this alleged discovery was "...East of the Pulleg Mountains" on the island of Apraphul! Nice work, Mr. Dewdney...you sure fooled me!!

Quotation

"Knots are more numerous than stars;
and equally mysterious and beautiful..."
'BRAIDING - REGULAR KNOTS' by A.G. Schaake
J.C. Turner
D.A. Sedgwick

Published 1988 (see 'Book Review' in this issue of 'K.M.')

Press Release - A New Book On Braiding

BRAIDING - REGULAR KNOTS

by

A.G. Schaake, J. C. Turner and D A_ Sedgwick University of Waikato. and Waikato Polytechnic

The Department of Mathematics and Statistics at the University of Waikato published in August the first of a planned series of books on theory and practice of braiding. The books will present methods for constructing knots and braids, giving detailed instructions based on mathematical principles for designing and tying them_ Research reports and articles which deal with the more theoretical aspects of the work will be written to complement the books. Diskettes for personal computers are being prepared, which will contain software to enable craftsmen to obtain algorithms for braids of their own design.

The project is a collaborative one, involving staff of the University and of Waikato Polytechnic. All the books are based on new mathematical discoveries about braiding processes made in the last decade by George Schaake, a tutor at the Polytechnic. He is being helped to develop these ideas and relate them to classical knot theory by John Turner, au Associate Professor of Mathematics at the University. David Sedgwick, a tutor at the Polytechnic, is the third author of the books; he is developing the computer software needed for the project.

It is a remarkable fact that although knotting and braiding are skills which have been practised since time immemorial and which even today are essential for many aspects of our well-being, there are few mathematical theories to describe the processes of tying knots. Classical knot theory which began with work of Gauss and Listing in the mid-nineteenth century is generally concerned with combinatoric and topological problems relating to the question of how to classify knots according to certain criteria of ‘knottedness’. It has nothing to say on how to go about producing knots and braids with given design criteria or weaving patterns, Schaake’s theories aim to answer these new and practical, types of question about braids. He has discovered many relationships between the numbers or parts and the numbers of bights which occur in cylindrical braids, and these relationships form the basis of a beautiful theory of braiding. It turns out that this theory is a branch of number theory, involving studies of diophantine equations, continued fractions, integer sequences and number trees.

The first book, entitled Braiding - Regular Knots introduces the reader to the new theories and methods, defines many of the terms and mathematical devices that will be used throughout the Series, and presents algorithms, examples and exercises for producing members of the class of regular knots. This includes many of the knots well-known, to braiders, such as Turk’s Head Knots, Ring Knots, Gaucho Knots, Head Hunter’s Knots. Perfect Herringbone Knots, Slow Helix Knots and Fan Knots.

Later books will cheat with Semi-regular ‘Knots, Fiador, Pineapple, and Grant Knots, and with inter-braiding techniques and the production of transition braids.

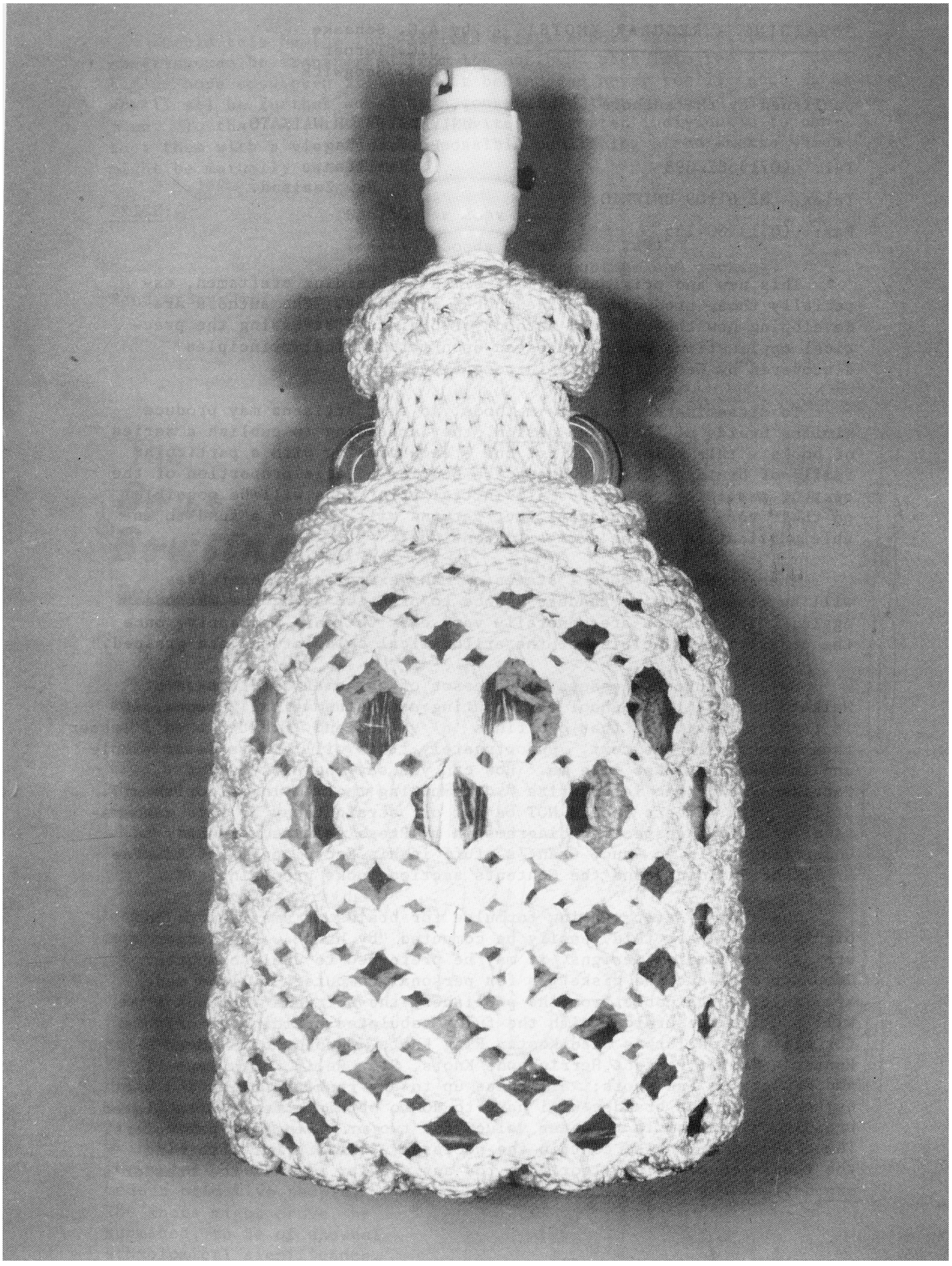
These books will be of much interest to mathematicians, particularly in so far as they give rise to new ideas, problems and methods in knot theory and number theory. For the braider, the creative craftsman working in leather, rawhide or rope, they will he essential reading. Every effort has been made by the authors to make them accessible to nonmathematical readers; all proofs of algorithms have been consigned to the research reports and articles. Not very long ago the braiding fraternity was a closed and highly secretive one; the braiding art was passed on from parent to child. Highly specialised and skilled artisans would create braidwork that was virtually or even totally copy-proof. It was not until the forties and fifties that articles (and eventually encyclopaedias) were written that gave details about specialised braiding technique. Although this literature deals with many thousands of different knots and braids, it is purely empirically based. It gives diagrams and written instructions for producing particular braids only. No genera] theories or methods are enunciated. Craftsmen cannot proceed from these instructions to develop their own designs: there is no rational basis to enable them to do so. The books of Schaake. Turner and Sedgwick, at long last in the history of braiding, will supply such a basis.

The first ‘book was produced by computer typesetting (TEX), laserprinter and offset printing. It is ringbound, in A4 size, with laminated covers and 117 pages on heavy-quality paper. It may be purchased from the Registry, University of Waikato, Hamilton, the price being $26-50 plus GST and postage. A computer diskette is available, with software for producing algorithms for the regular knots.

Fancywork

(The same names appear in this section only because we have good black & white photo’s of their work.)

This quarter - a water jar, complete with stopper and carrying handle, by the late James NICOLL; and a covered bottle table lamp by Geoffrey BUDWORTH. Both articles are practical AND decorative, like all good ropework.



Book Review

'BRAIDING - REGULAR KNOTS' *by A.G. Schaake*
J.C. Turner
D.A. Sedgwick

published by the authors (1988)

Tel: (071) 62-898
Telex: NZ 61109 UNIWKTO
Fax: (071) 60-135

UNIVERSITY OF WAIKATO,
Private Bag,
Hamilton,
New Zealand.

This new and original work is aimed at braiding craftsmen, especially those producing braided horse equipment. The authors are developing new theories and methods of braiding, stressing the practical application, which are based upon mathematical principles discovered by George Schaake in recent years.

To disseminate these new methods, so that artisans may produce similar braids of their own design, they are going to publish a series of books - this being the first one - each dealing with a particular family of braids. The 3 authors are bearing a large proportion of the cost of publicity, so only small initial print runs will be possible on their very limited budget; but returns will go into a fund to enable publication of the series to continue.

The Foreword to Book 1 states; "Many examples and exercises will be given, to give readers chance to practise using the methods." Again; "The methods are generally very easy to learn and apply, once the underlying principles of the arithmetical calculations are grasped."

As John Turner, Associate Professor of Mathematics, is Dean of Waikato University's School of Computing and Mathematical Science, it is perhaps inevitable that one finds 'n' values and 'greater than'/'lesser than' symbols in the text. Unfortunately, this will always deter simple and innumerate blokes like me. How can you say the book is for "artisans" and then later write "... computing the weaving algorithms"? Still, Guild members should NOT be put off straightaway by this mathematical slant. The specimen diagrams in my Press release were easy to understand (akin to Bruce Grant's stuff in his Encyclopedia of Rawhide & Leather Braiding) and the Contents section looks promising.

The step-by-step weaving formulae for braids of small parts and bights can (we are told) easily be computed "by hand". For larger braids with complex designs, it may be preferred to use a computer. Computer software and diskettes for personal computers will be made available. Obtainable from the publisher, the software for Book 1 will provide the braider with the fully tabulated braiding algorithms for all desired Turk's Head Knots, Ring Knots, Gaucho Knots, Head Hunter's Knots, Perfect Herringbone Knots, Slow Helix Knots Type II, and members of Fan Knots; all these up to any required bight and part numbers. All the braider will have to do to obtain a desired tabulated braiding algorithm is to enter values for two or three knot parameters. The diskette will also contain the necessary software for obtaining the tabulated braiding algorithms for any regular knot of the braider's own design.

Book Review (continued)

Could this be the long-awaited bridge across which revitalised knotting can be, transported from its moribund past into the 21st. century? Let us hope so...even if I am left behind and never really catch up again. We will all be further ahead as a consequence than we would otherwise have been. To that end, the authors invite interested individuals to contact them with a view to other possible publishing arrangements which might be mutually beneficial.

PRICE: $26.50 per copy G.B.

(add 10% Goods & Services Tax)
(add $2 per copy for postage and packing)

Send orders to: The Registrar, Book Sales,
University of Waikato (as above).

The **Boas Bowline** by

Geoffrey BUDWORTH

Anthropologist Franz Boas, working in Baffin Lane, around the Scottish 'Kikkerton' whaling station between 1883-4, had the wit to collect several Eskimo knots (Fig. 1) which he subsequently published.1

They were later identified for him by Otis Mason.

60 years late, Cyrus Lawrence day wrote that he had come across no other references to some of these knots - specifically the double fisherman's knot, and the unorthodox bowlines and running bowlines - in any other study of the material cultures of modern primitive people. The knots might prove, he surmised, to be of unusual ethnological significance. He then asked some pertinent questions.

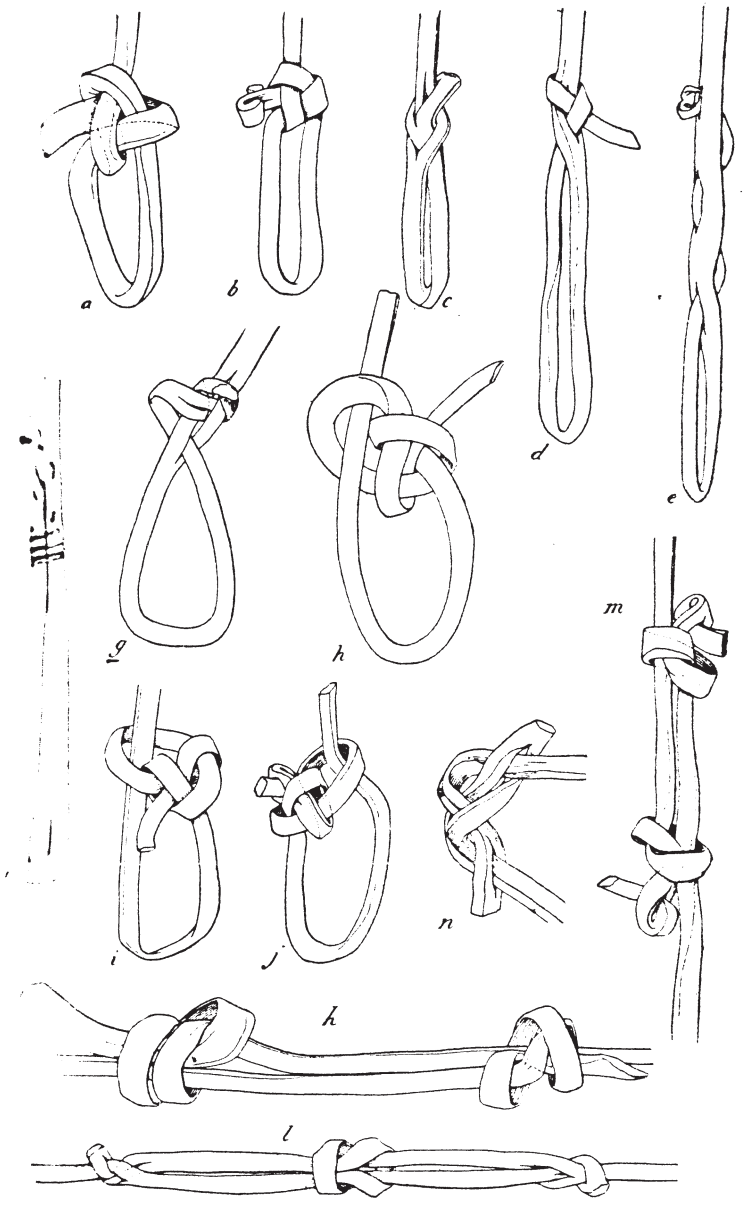


Fig. 1

The BOAS BOWLINE (continued)

Were they genuine Eskimo knots, or imperfect copies of those used by European sailors? Did all members of the group use them, or just one individual? How did the Eskimos tie them and could they be better for Eskimo purposes than the European versions? Now, a further 22 years on, I have some answers to Day's questions.

Following my involvement with the British Museum's bog body ("Lindow Man") investigation in 1984 (see 'K.M.' No. 11, pages 11-12), I was asked in 1985 by Jonathan King, an assistant keeper with the Museum of Mankind here in London, England, to look at an old Inuit Eskimo sled (Fig. 2).

This sled - literally a lash up of bones and ivory bits - was held together by rawhide thongs in which were numerous knots. It was a remarkable example of the sort of technical achievement necessary to survive in the world's harshest environment, collected by Sir John Ross in 1818 when he was searching for that great semi-mythical route to Eastern ports and fabulous riches, the North-West passage. The occasion was - quite definitely - the first time that these Polar Eskimos had met people from the outside world. So, as the sled was an old and valued heirloom when it was given to Ross, we can assume that the knots used on it were pure Eskimo inventions.

(It is remotely possible that there could have been Norse influences on their ancestors, as, in the early medieval period, the climate was warmer and travel easier. But the Polar Eskimos had been isolated from other Inuit groups for many centuries when Ross met up with them, and so it is considered there was no such influence.)

What knots did I find on the sled? Simple overhand or thumb knots; granny and reef knots; paired half hitches; clove hitches; ground line hitches; loop-to-loop ("throughfooting") bends; common sheet bends; Chinese (?) button knots; and bowlines. Now it is those bowlines I want to tell you about here. All were the unorthodox version (Fig. la) first recorded by Boas in 1907. Incidentally, this kind of bowline is the one I grew up calling "a Mongolian knot" since hearing somehow as a child that Mongolians used it as a bow-string attachment. I queried what it might be in an early issue of 'K.M.' (No. 7, page 4), and Ian Marson told us ('K.M.' No. 8, pages 16-17) that he knew it as "a Panama bowline" and showed a slick and quick way to produce it. But could the Eskimo sled maker, as Day later asked, have copied it wrongly from visiting sailors? Well - no, because he had never seen a white man. That puts the knot back nearly 100 years earlier than Boas.

It was used on the sled to make a loop through which the working end of each separate lashing was passed to secure the start. As it tightens into a snug 3-part triangular knot, neat but unrecognisable as a bowline, it is a more secure knot. Thus it could be better for rawhide. The fact that Sir John and Ross came across samples separated by both distance and time suggests it was NOT just one man's aberration, but a device in regular use.

Knotlore students should note that the Aleut and South Alaskan Eskimo produced the most interesting knots and cords. The Museum of Mankind has samples in its storehouse which would repay study.

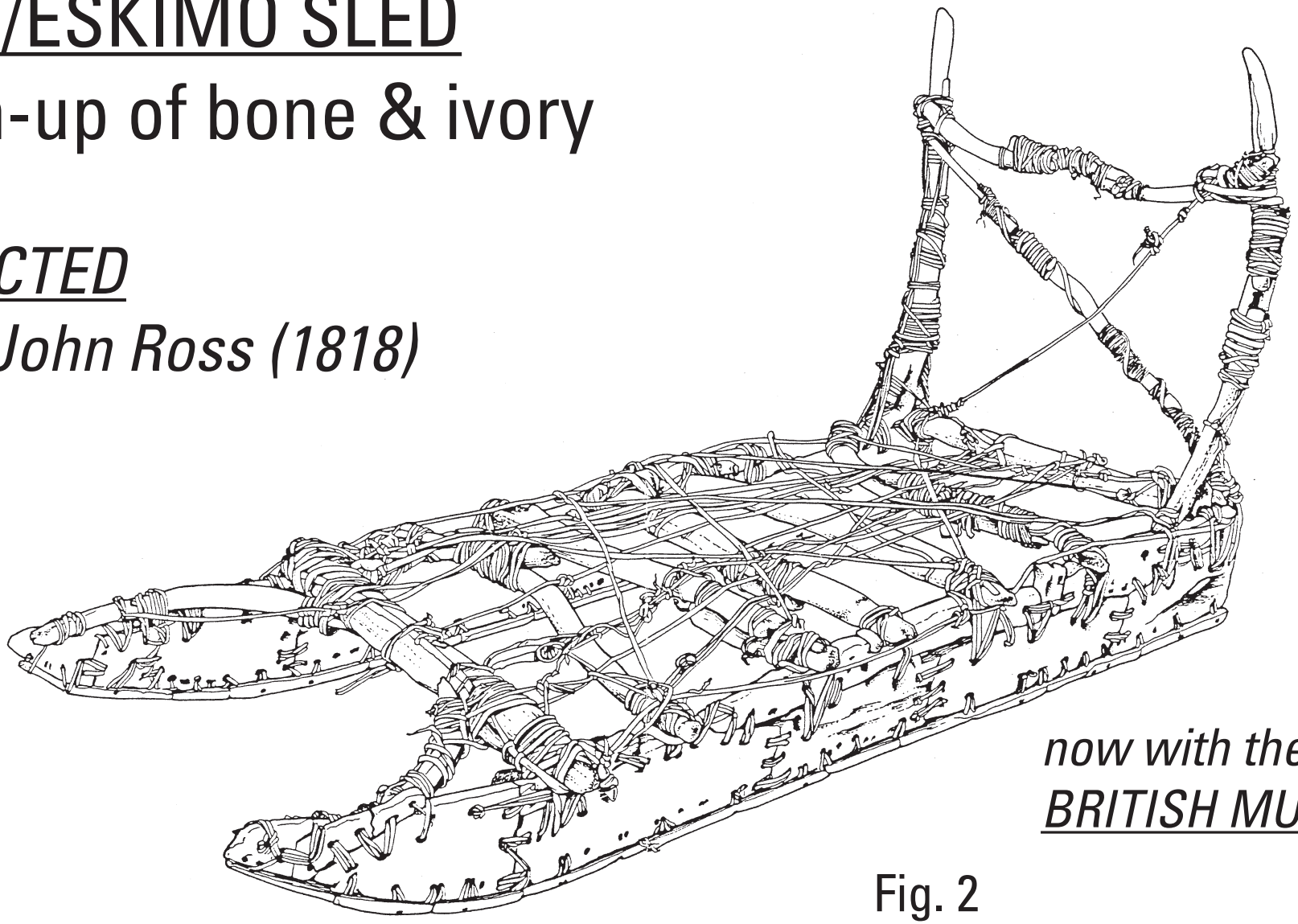
* Turn to foot of page 1 for footnotes.

INUIT/ESKIMO SLED

a lash-up of bone & ivory

COLLECTED

by Sir John Ross (1818)



now with the
BRITISH MUSEUM

Fig. 2

[drawing by Sue Bird]

Make it possible

PART 1

BY COURTESY OF 'SCOUTING' 04-1985

A few of my boys have muscular problems which make participation in certain games almost impossible and test work, where the hands need to be used, very difficult.

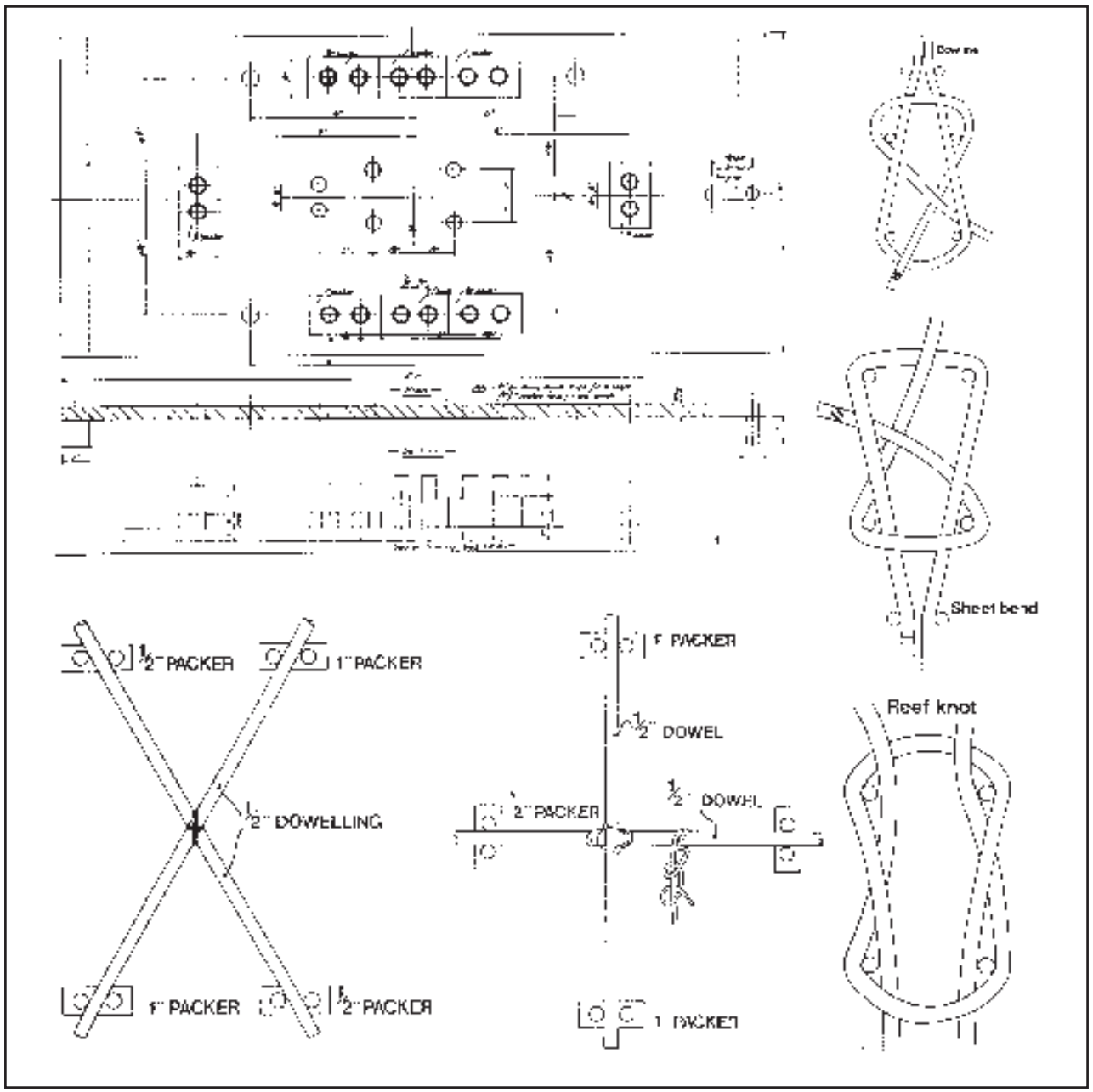
Knotting and bandaging are also very difficult, the boys being unable to hold a rope loop. Ball throwing is another problem, most of the boys are only capable of dropping a ball. You may ask why do knotting and first aid? I personally feel it is essential that the boy knows how to instruct others even if not capable of doing it himself. An answer had to be found, to hold a rope or enable a boy to guide a ball. The following are some ideas I find useful.

Knotting board

A plywood board with guides on the underside, one of the guides being fixed, the others movable and secured by a bolt and wing nut, thus enabling the board to fit over the arms of wheelchair.

The board has a series of holes drilled to take 1/2" diameter dowels. With the central dowel pins the reef knot sheetbend or bowline can be tied. By inserting dowels and fitting 1/2" and 1" packers, pioneering can be done.

When the boy first starts knotting, I use electrical wiring as it will bend and hold its shape, later, rope can replace the wire.



Extending the **Tingira** *Mat*

with M. "King" de KONING

In 'K.M.' No. 25 (pages 14-16) and No. 26 (p.24) Charles H.S. THOMASON shows how to proceed from the smallest 1-crossing pattern via a 7 to a 13-crossing design. Trying to go, on from there, I found that the Tingira mat can in fact be extended to any size required.

To illustrate this progression I will here use a different system of indicating the size of the mat. Instead of Mr. THOMASON's principle of counting "crossings", I use the number of times a straight horizontal line in the pattern is cut by a vertical. Thus, in my system, the 1-crossing mat is called a 5-point (Fig. 1) and the 7- crossing equals an 11-point mat (Fig. 4).

Working out progressively larger patterns, I found that 5, 7, 11, 13. 17 and 19-point mats can be made from a single length of rope, but that 9 and 15-point mats would require more than one length. In other words, there is a general rule:

A single rope Tingira mat can be made to any uneven number of points, with the exception of multiples of 3.

when following these patterns, two other sequences become apparent relating to the moment at which one reaches the loops in the corners.

As shown by the heavy lines in the drawings, starting from the left hand top corner down to the left hand vertical, one arrives at the right hand top corner loop first in the 5, 11 and 17-point mats. The general formula here is: every mat with 5 + n x 6 points. The left hand bottom corner loop comes first in all mats with 7 + n x 6 points.

Shop Talk

GUILD BADGES

We now nave a new stock of enamel badges, with the same fronts as before, but you now have a choice of fasteners:

Clutch - push through and clip, as before.
Stick pin - straight upright pin.
Brooch - safety pin.
Tie tack - push through, Clip and chain.

If you do not say which you want, expect to receive e clutch type. All at £1.80 (US$3.25) from the Supplies Secretary: Mrs. Ivy Blandford, Quinton House, Newbold-on-Stour Stratford-upon-Avon CV37 8UA, Warwickshire, England.

PAYING THE GUILD

lf you have to send money to the Cuild for subscriptions, purchases from the Supplies Secretary or any other purpose, please pay in English pounds where possible, but we are able to accept personal checks in U.S. dollars at the currant rate of exchange. At the time or writing $1.75 = £1.00. If you wish to pay in any other currency please allow extra for the commission an English bank will charge to change your money.

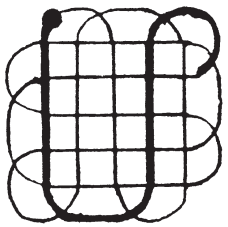


Fig. 1
5-point

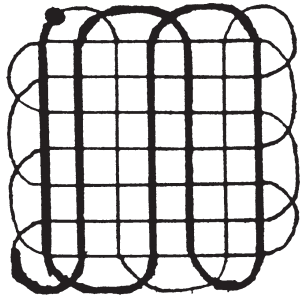


Fig. 2
7-point

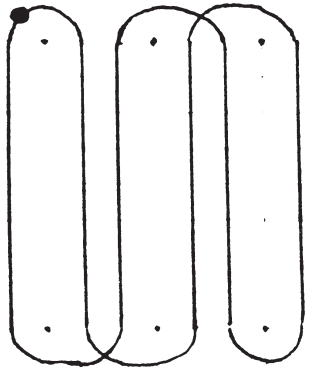


Fig. 3
9-point

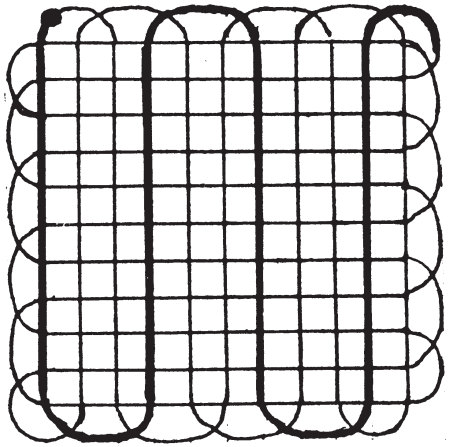


Fig. 4
11-point

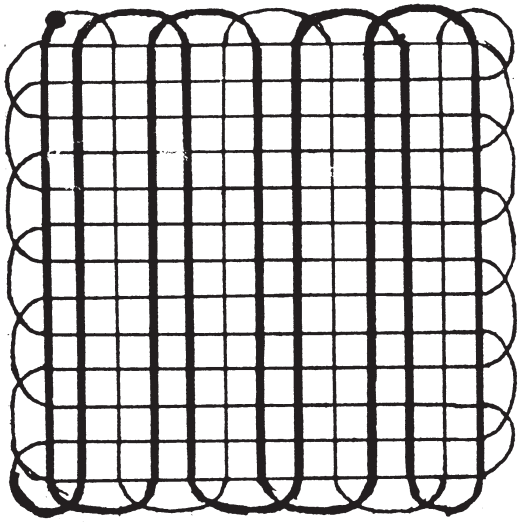


Fig. 5
13-point

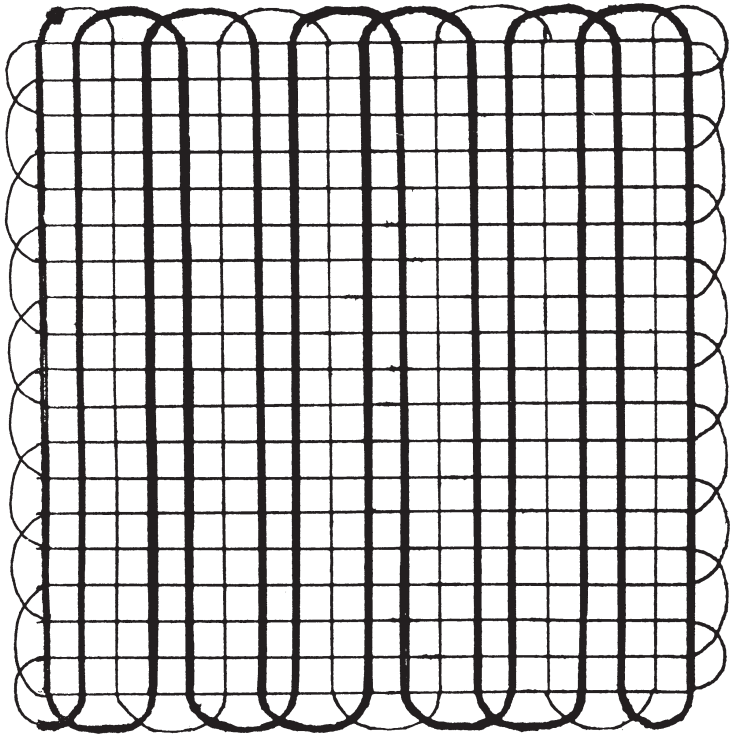


Fig. 9
19-point

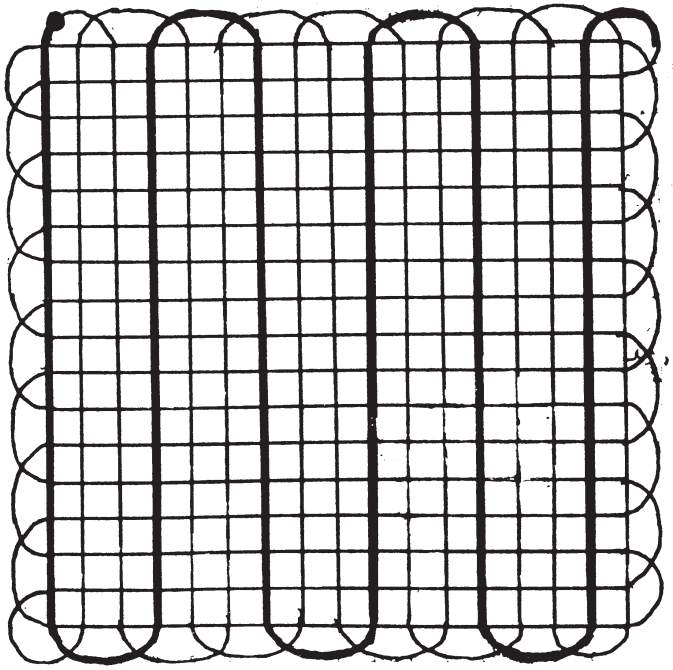


Fig. 7
17-point

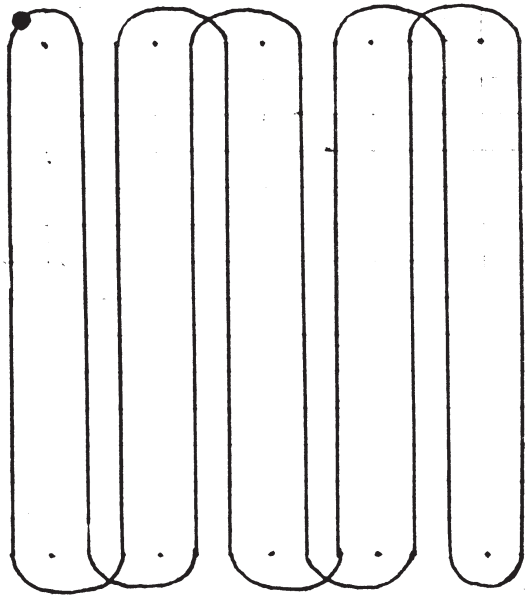
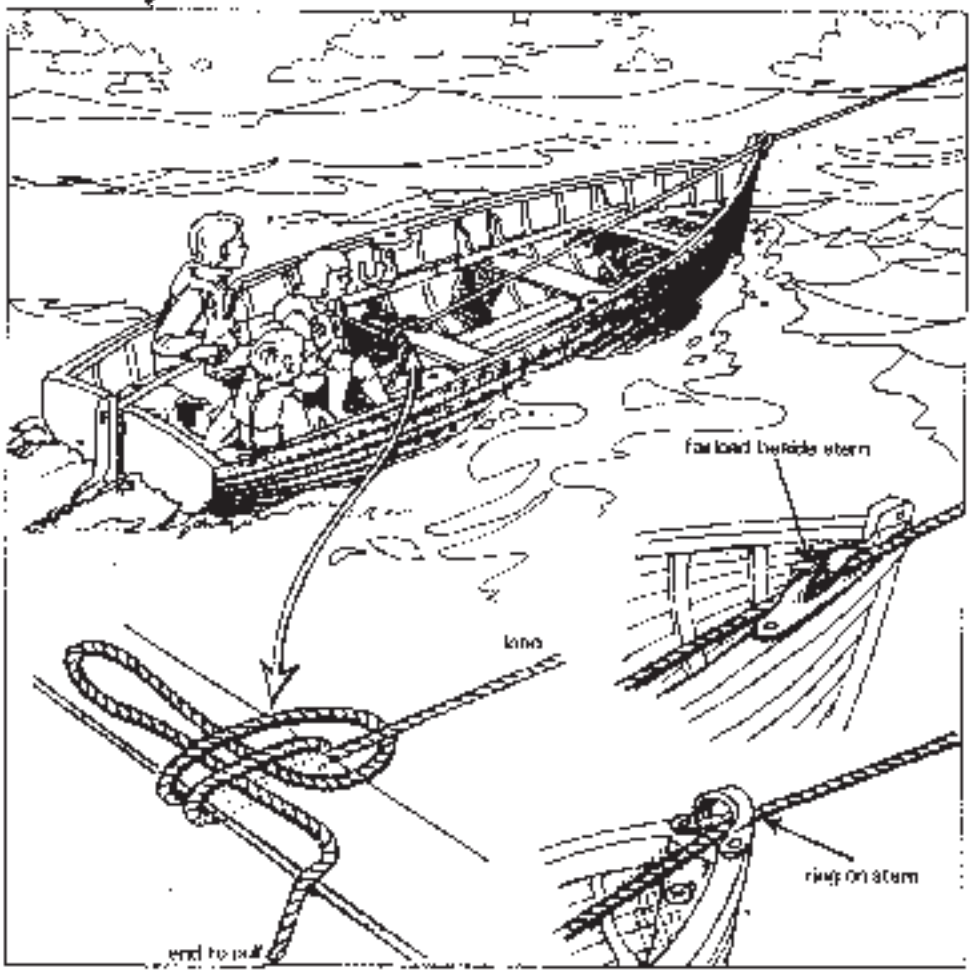


Fig. 6
15-point

From ' SCOUTING' 12-1976

Fun On The Water

Percy Blandford
illustrated by
Doug Mountford



Want A Tow?

The crew is tired, the boat is slow and the tide is against you. A passing motor boat offers you a tow. Apart from feeling relieved, what do you do?

If possible, use their tow rope. Steer with a rudder or an oar over the stern. The pull must come over your bow, otherwise you could be pulled broadside and turned over. If there is a fairlead, ring or other device there to keep the rope in place, that is fine, otherwise arrange a rope loop on the stem head. Take the rope back to a strong point that will take the strain. This may be mast or, more likely, one of the thwarts. You must be able to let the rope go quickly in an emergency, so use some form of slippery hitch, then pulling the end releases the rope.

Being able to let go is important. Every boat has an optimum speed. If made to travel much more than this there is a real risk of capsize and being pulled under. Your pulling boat could be in trouble at 10 knots and plenty of power boats go faster than this. Get your crew aft, so the bow is high. Have the end of the rope within reach. If the exhilarating tow gets too much of a good thing and you cannot persuade the tug to slow down, pull the end of the rope, but make sure no-one is likely to be hit by the flailing rope as it runs out.

A tow can be great fun, but it is only seamanlike to look at all the possibilities and be prepared if anything goes wrong.

Granny-into-Reef

and vice-versa by Desmond MANDEVILLE

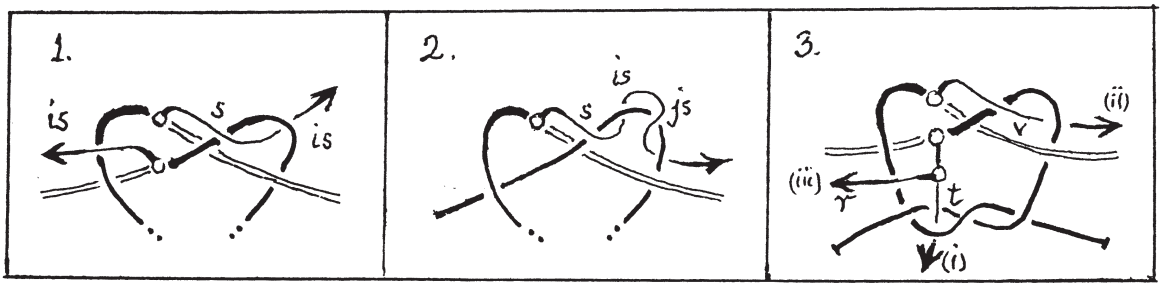
Eh, what grief
For the poor wee Danny -
He intended a Reef
And it turned out a Granny!

Wolf cub Danny would take heart, did he but know there are at least a dozen routes for converting a Granny into a Reef, without the sad disgrace of having to untie completely and start again.

Nine shorter routes are sketched out below. Others will be assembled into a Maxi-Route, Route 10, the size of a Full Tramble -exhibiting eight other different bends en route from Granny to Reef - which the writer hopes to present in a further article, bringing to a conclusion the present series on Trambling.

Granny-into-Reef (continued)

The first three routes are easy enough, demanding only modest intelligence on the part of Danny! They are set down here for the sake of completeness, and to demonstrate the Tramble cyphering system coping with simple moves.



1. The REVERSE TWIST Route | s.2is or 2s.js in either direction

The two cypherings differ only in the order of the moves. The first of the two is preferred and is the one actually sketched here. It works either way, from Granny to Reef, or vice versa. (The symbol s standing by itself, as here, commonly refers to an untucking move.)

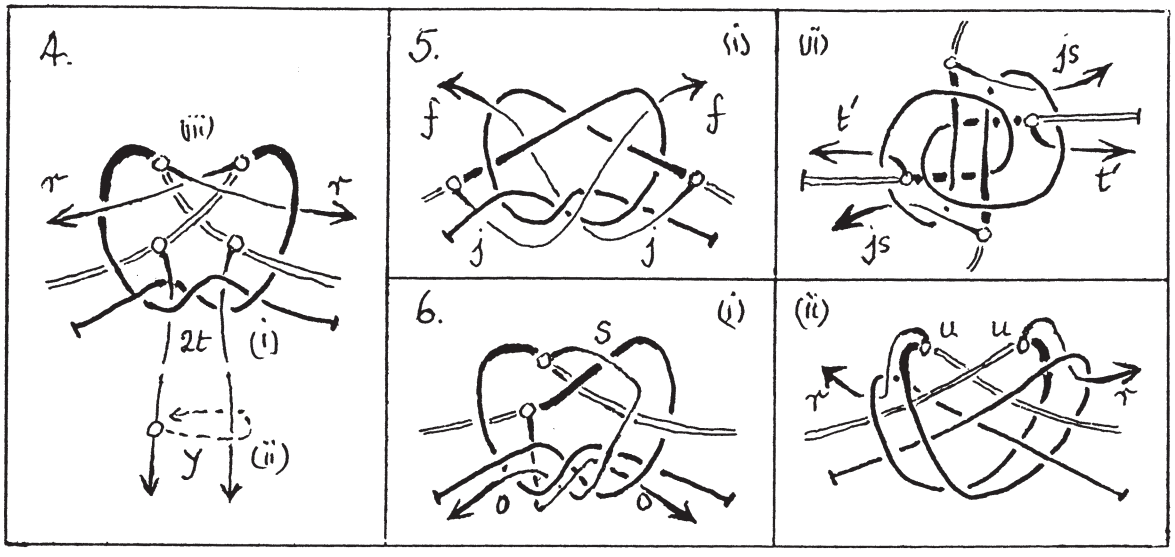
2. The ONE WEND Route | s-is-js in either direction

A modified route, first shown me by our Editor, in which only the one wend is active. (Hyphens in the cyphering indicate that the same wend is used throughout. Regarding moves is and js, the reader is referred for details to my previous article - see 'K.M.' No. 25, p.9-11)

3. The REVERSE TUCK Route | G?R: t.v.r R?G: a.v.t

Here a wend is tucked aside, making it simple to reverse the tuck of the other wend; finally the first wend undergoes a second untucking move. In this way there is little risk of the bend falling apart en route. The reader will note that two rather unimportant bends make a brief appearance: the Single Carrick Bend and the 'Off-Hand' Sheet Bend (also that the reverse tuck symbol v, introduced here, stands as shorthand for s-is or s-js).

The next four routes each involve an intermediate bend of some importance. The routes are named accordingly (Cub Danny will I fear have given up by now). The colon (:), when it occurs in the cyphering, indicates just where this intermediate structure will emerge.



Granny-into-Reef (continued)

4. The JINX Route

G?R: 2ty:2r R?G: 2a:y2t

A prime example of the shuffle (symbol 'y'). Here the unstable Whatknot (Ashley #1407), which is formed first, shuffles to the stable Jinx (# 1406); and vice versa. It is good practice - but not in fact essential - to tuck as far as these. A very similar shuffle may be carried out on one side of the bend, "in the air" as it were (cyphered as sjy.is) and this could rank as a further variant of Route 1.

5. The HUNTER Route

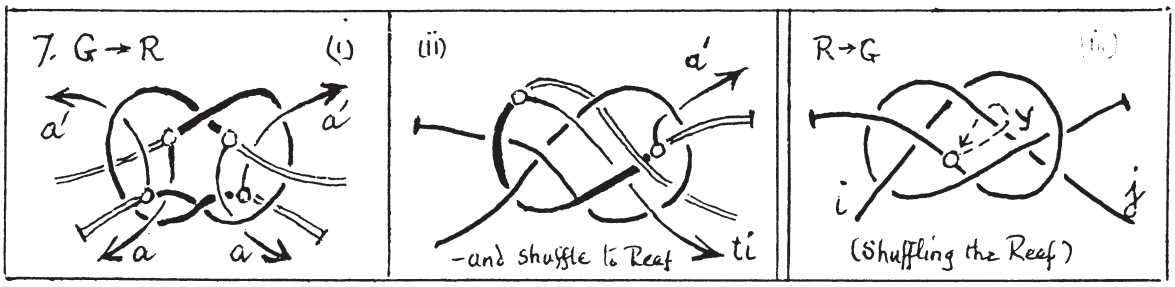
G?R: 2jf:2jst' R?G; 2jf's:2p

These moves, particularly between Reef and Hunter's Bend, call for care but are very satisfying when they come off. (They form good approach routes to the triangular Tramble of my last article "Hunter's Shunts".) Note that the wends in moves 2jf and the stands in moves 2jf' must stay parallel and NOT cross, as they "jut out & jump" around the bend.

6. The RINGED WATER Route

G?R: s2o:2ur R?G: 2so:2ipli

The Ringed Water Knot is the bend illustrated by Ashley as #1412, but with the stands and wends swapped over...and much more secure as a result! (N.b. The untucking moves 2s in R?G should be undertaken simultaneously; if one is completed before the other, the latter will lack a bight to untuck from. Much the same applies to moves 2u in G?R.)

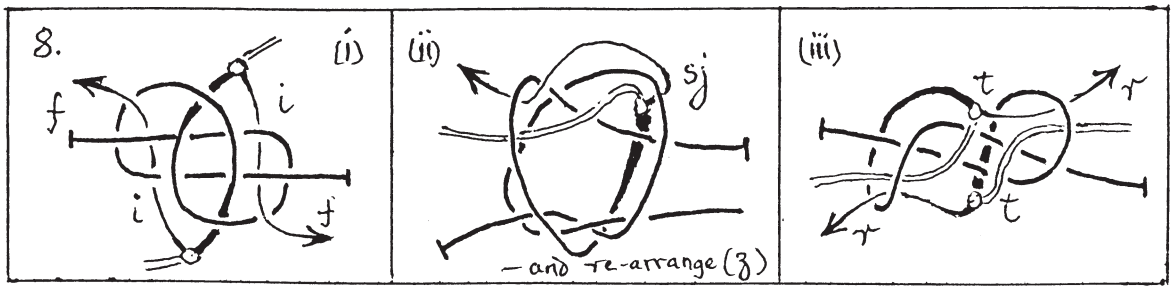


7. The FULL CARRICK Route

G?R: 2aa':tia'y R?G: ijy.tia':2ss'

A splendid and satisfying route! The Full Carrick Bend (the one with ends adjacent) has obvious affinities with both Reef and Granny. Interchange with the latter is straightforward; with the former, less so, involving a "Shuffled Reef" having more in common with the Tumbling Thief. The righthand diagram shows how it derives - the cyphering is ijy - from the Reef itself. (The Full Carrick Bend, with wends emerging opposite, will figure in Route 10.)

Finally we meet two Routes, each of which involves a pair of intermediate bends. These pairs, which have already figured on their own in published Trambles, are mentioned afresh as constituting effective bridges between Granny and Reef...routes requiring a certain finesse, however, and a clear head.

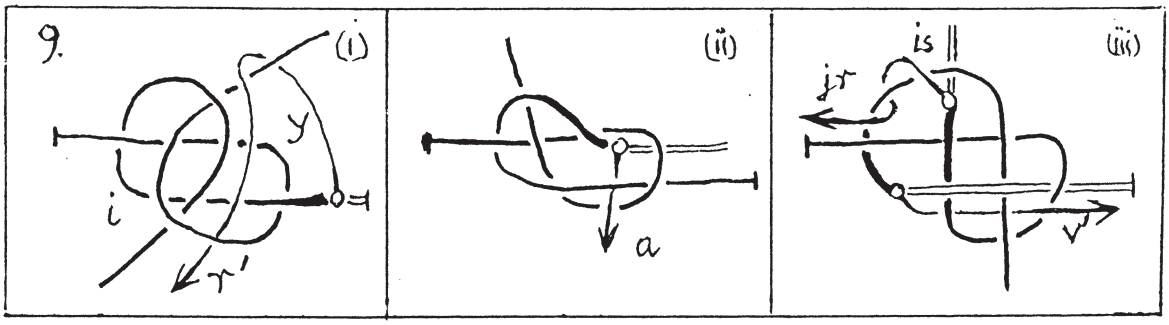


Granny-into-Reef (continued)

The M/F Route

G?R: 2if:sjz:2tr	R?G: 2ic:zsq:2p

Intermediate on the route are the Matthew Walker Bend (#1426) and the Fisherman's Knot (#1414). Attention is drawn to the meaning of symbol i. This is the 'insider' starting tuck for both Granny and Reef. No problem should arise with the Reef (there is an example to study in diagram 7(iii) above. On Route 8 one must ensure that the wends to be centre-tucked at move 2ic keep to their own side, and do not cross). To commence an i-tuck with a Granny, however, it must first be given a half-twist, yielding the figure shown here on the left (thick lines), so that both wends will emerge on the inside of the bend.



The S/T Route

G?R: i.yr': a: is-jr.v'
R?G: is'-ja'.v: r: a'y

Intermediate here are the Sheet Bend and the Tumbling Thief, two close neighbours (rather surprisingly) on the Tramble map. Their links with Granny and Reef are less direct, but still significant. (Our Wolf Cub would be thrilled at the bold moves Granny?Sheet Bend and back, if he could be shown them in practice.)

Attention is once again drawn to the varied functions of symbols i and I. The move is' in R?G, for instance, calls for calm and collected thought. Yet when, finally, all the moves is'-ja'.v have been carried out correctly, and a-somewhat off-putting tangle unwinds to reveal the Tumbling Thief - looking as if you had just succeeded in tying it from scratch - that, dear reader be assured, is its own reward!

11. The MAXI-Route is planned to be the subject of a further article.

Meantime, the enterprising reader will find much scope in working out - maybe with the assistance of the cyphering, maybe not - what are the return moves from Reef to Granny of Routes 3 to 9 above (to keep the article within bounds they are not illustrated here). A full schedule of Trambling terms and symbols was given in KM No. 19 on page 16...but note that symbols i and I may now relate to stands as well as wends; in that case they are always directly attached to a symbol for a stand tuck, as for example in jf' or in is'.

Cavandoli

by

Cy CANUTE

Workers of Cavandoli - that solidly half-hitched offshoot of macramé - may like to use this pattern (see page 20) which I knotted together in 1968, from a tracing I took off a blueprint of the old Thames spritsail barge 'Venta'.

Working from stem to stern (or vice-versa), so as to have a long but narrow piece, you need at least 80 vertical strands to conceal and reveal the one horizontal coloured strand.

Each square on the graph paper represents one complete knot, with each black dot for a knot tied with the coloured strand on a vertical strand. So you will tie a minimum of 8,800 knots (twice as many half-hitches!).

I prefer to use the REVERSE side of the clove hitches (i.e. diagonal bars showing) as the front of the picture...it always seems to me subtler somehow on the eye.

Picture completed, there's still more knotting to be done since it is wasted unless made up as a panel in a bag or something.

Bear in mind that Cavandoli absorbs 8-10 times the finished length of line, so stagger joined ends to make burying them easier; and the edges inevitably are not straight, where a pattern occurs, so do not worry about it.

Cartoon

I am unaware what

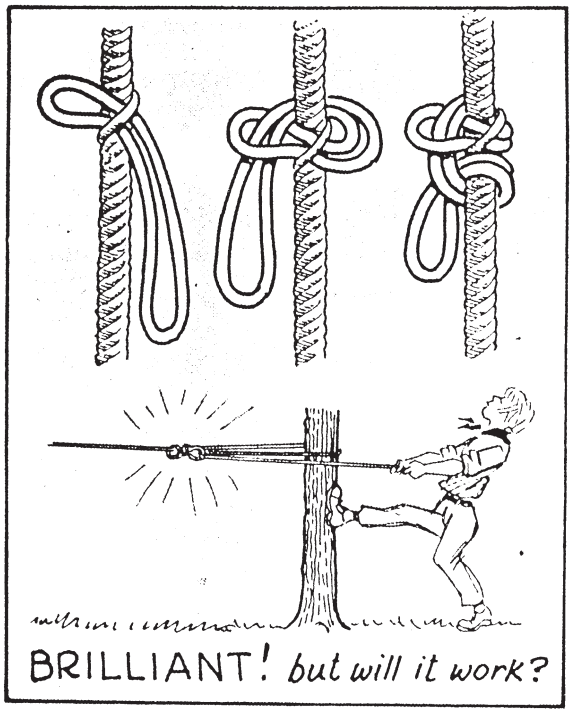
Scouting story lies

behind this drawing

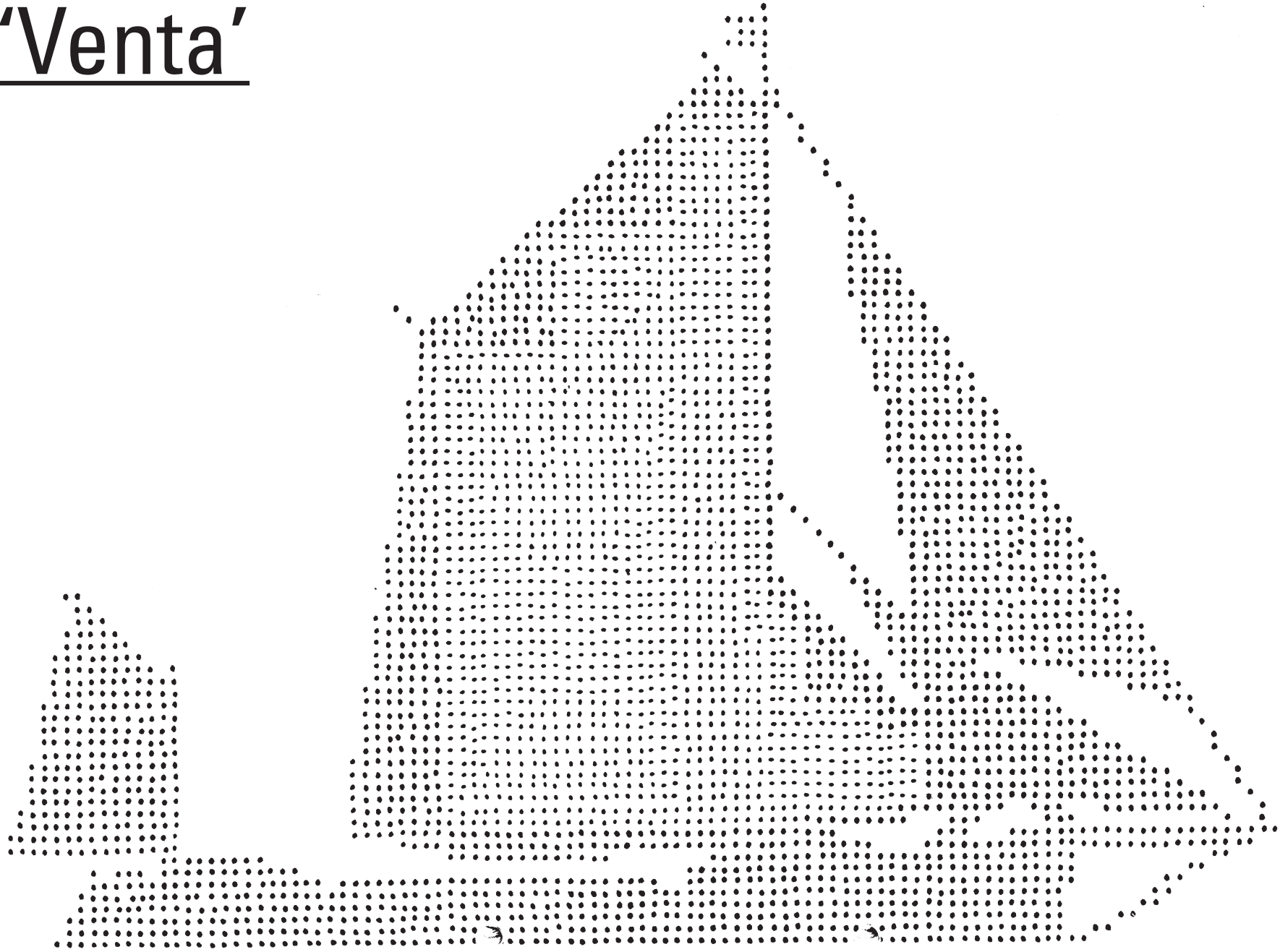
...but there is a

moral here for all

of us.



S.B. 'Venta'



Letters

Dear Geoffrey,

I have at east got around to reading the pile of 'Knotting Mattes' which has been mounting on my desk and, as ever, have been informed and entertained.

I was, however, peturbed to see the "anonymous" cartoon in Issue No. 24 (p.16) unattributed; I am surprised the following issue was not full of letters from irate Francophile members (on do we not have any?)! The artist, Pierre JOUBERT, is renowned, indeed virtually revered in Scouting circles in French-speaking countries, as perhaps the best illustrator of children's books; for over 50 years he has enjoyed similar status in France as master of illustration to John SWEET in this country as master of word.

Yours ever,

4 XI 88 *Mark NASH-WILLIAMS*

Peterborough House,
Burley Road,
OAKHAM,
Rutland LE15 6DN.

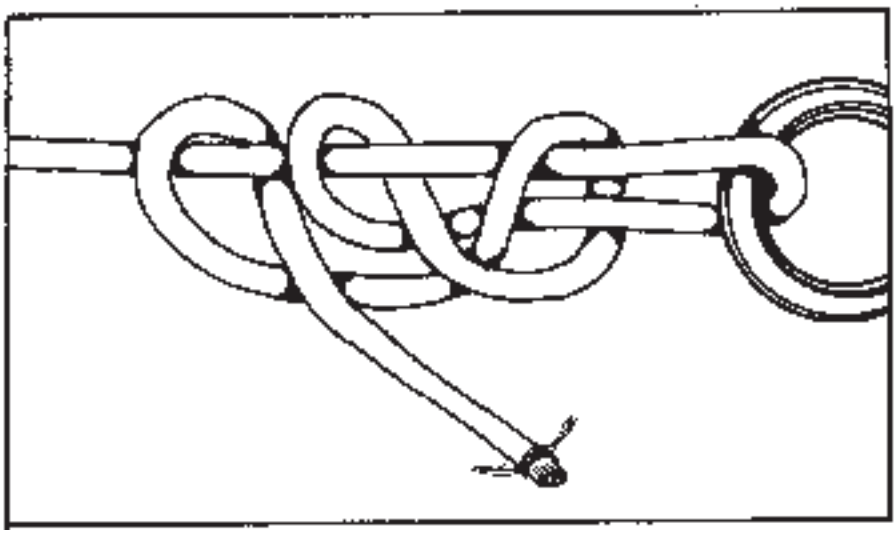
Dear Geoffrey,

I enclose a picture of a knot! I took it in the small Brittany town of Erquy where it was securing a fishing boat. Quutions: (a) Was it deliberate, onr an ignorant error? (b) Does anyone recognize it? It's easy to tie and seems to work.

All the best,

1 Dec 66 *Brian STAMMERS*

69 Oxford Road,
MOSELEY,
Birmingham B13 9SG.



Dear Geoffrey,

May I reply to the letter by Sten JOHANSSON ('K.M.' No. 25, p.22) and explain some of the difficulties we had when making the video of the Extravaganza.

Letters (continued)

The first was the quantity of knotting material:- 3,800 knots from Ashley, plus a room full of knots not in Ashley, quite apart fromn all the other rooms on all floors of the mansion house which were packed with knotwork and knotting demonstrations. The job of cataloguing such a number is enormous...and is it necessary? The best catalogue of the event is The Ashley Book of Knots itself.

It would be nice to think that we could have made a video catalogue but with only 15 seconds per knot the tapes would have had to be about 16 hours long! I do not think anybody could watch such a long tape of just knots.

The idea of the video was to give the members who could not come to the Extravaganza a chance to taste some of the atmosphere and to hope that - having watched it - they would make a special effort to come to the next one. The "old men" he refers to are all part of the wealth of experience that makes the Guild an informed body and such a help to our youth and the not so expert.

I had hoped that the video was an advert for the Guild and a record of a small part of the "Big Day". I would ask Sten to reconsider his involvement with the next event, as without all our efforts it will be impossible to put on such a massive display again.

Your, faithfully,
Howard Denyer
I.G.K.T. Video Archivist, and
Video Editor of the Extravaganza

19 Broad St.,
Guildford
Surrey,
GU3 3AQ

10.11.88

(See also the second paragraph of Dick ROMING's letter in 'K.M.' No. 26, p.18.)

Dear Mr. Harris,

I have been looking for a copy of John Hensel's 'THE BOOK OF ORNAMENTAL KNOTS' (out of print) for quite some time, without success. If you know where I can buy a copy, I would greatly appreciate the information. Perhaps you could mention it in 'Knotting Matters' in case other Guild members either have a spare copy or know where I can get one. Thanks.

Happy holidays,
Dan SPERLING

2203 42nd. St. NW #302,
Washington,
DC 20001, U.S.A.

15 Dec 88

(Reviewed in 'K.M.' No. 13, p.17, this book was published by Charles Scribner's Sons (a division of Macmillan Inc.), 866 Third Avenue, New York, NY 10020, U.S.A.: tel. 212-702 2000)

Quotation

"The Giant Panda of Peking

Eats only bits of knotted string."

Nancy Banks-Smith on the perverseness of the giant pandas of Wolong, in 'THE GUARDIAN' on Wednesday, April 30, 1986

Dear Mr. Budworth,

I was interested to see your review of "Will Roger's Rope Tricks" by Frank Dean in K.M. No. 25.

The film "ROPIN' FOOL" was made in 1922 and makes one of the earliest use of slow motion. This makes clear the extraordinary control of the rope that Will had and, of course, it helps we lesser-skilled to see not just what to do but also WHEN to do it!

There are 53 tricks in the film, including throwing a thumb-knot in the end of the rope, and throwing a figure-of-eight knot and capsizing it to a pretzel (which will continue to capsize alternately - pretzel/fig. 8/pretzel - while the knot is slack).

Frank DEAN, who died a few years ago, started the International Trick and Fancy Ropers Association. The Association adjudged Vince BRUCE - an Englishman - World Champion, although I don't think they had the authority or a properly constituted competition. Not that I am casting aspersions on his ability...he is incredible! Frank Dean considered Vince to be the modern day "Ropin' Fool".

Another friend of mine is the roper in the Maxican Folchorico Bellet. He too is unbelievable. He rolled a loop across the stage* of the Festival Hall in my presence. I still do not believe it.....but, as Jose speaks no English and I speak no Spanish, I cannot tell him that his tricks are impossible.

* (He ran behind, spinning alternately left & right, to keep it going.)

Mexicans are really the best ropers. Anyone can spin quickly. They vary the spin, frequently so very slowly, switching from vertical to horizontal and back with amazing ease; and they use just ONE rope for every trick.

Frank Dean's book is not a good instructional manual. The majority of the diagrams are incorrect and he confuses one or two tricks (which is no help to a beginner) that an expert might use in a performance. Such "combined" tricks make good viewing but are difficult for learners. Two better, simpler, clearer and accurate books, reissued by Dover (when available) are:-

'ROPE SPINNING' by D.W. Pinkney,
pub. H. Jenkins Ltd. (1930);
'ROPING' (reissued as 'Cowboy Roping and Rope Tricks')
by Chester Byers,
pub. Dover Publications Inc. (1928).

I have these and several others, as well as film of several performances. I enclose the Western Horseman book 'TEAM ROPING' for the Guild's library with my compliments.

It occurs to me that the Western Horseman magazine might be the ideal vehicle to advertise any future knotting exhibition in the U.S.A.

Yours sincerely,

22 Nov 88 — Ivan L. THURLOW — 68 Carlton Road, REDHILL, Surrey RH1 2DD.

Dear Geoffrey,

Looking through my files I came across I.G.K.T. work chart No. 19 bearing your name and showing what I call an 11-point Tingira mat - which makes me wonder -if you and "the old hands of the R.A.N." drew from the same source.

Kind regard6s,

9 Jan 89 — M. 'King' de KONING — 1901 CV Castricum, Ph. Beattixstraat 15, The Netherlands,

The Holton Village Ropewalk

John Sweet and Les Howard

An OTL `Make-and-Use' Feature

We do not, of course, claim to have 'invented' this apparatus but we hope you will find that it has been developed in one or two interesting new ways which still leave scope for further experiment and research.

The purpose of the exercise is to convert a ball of two-ply sisal twine into a length of cable-laid line 10mm diam. (approx. 11 ins. circ.) using improvised apparatus only.

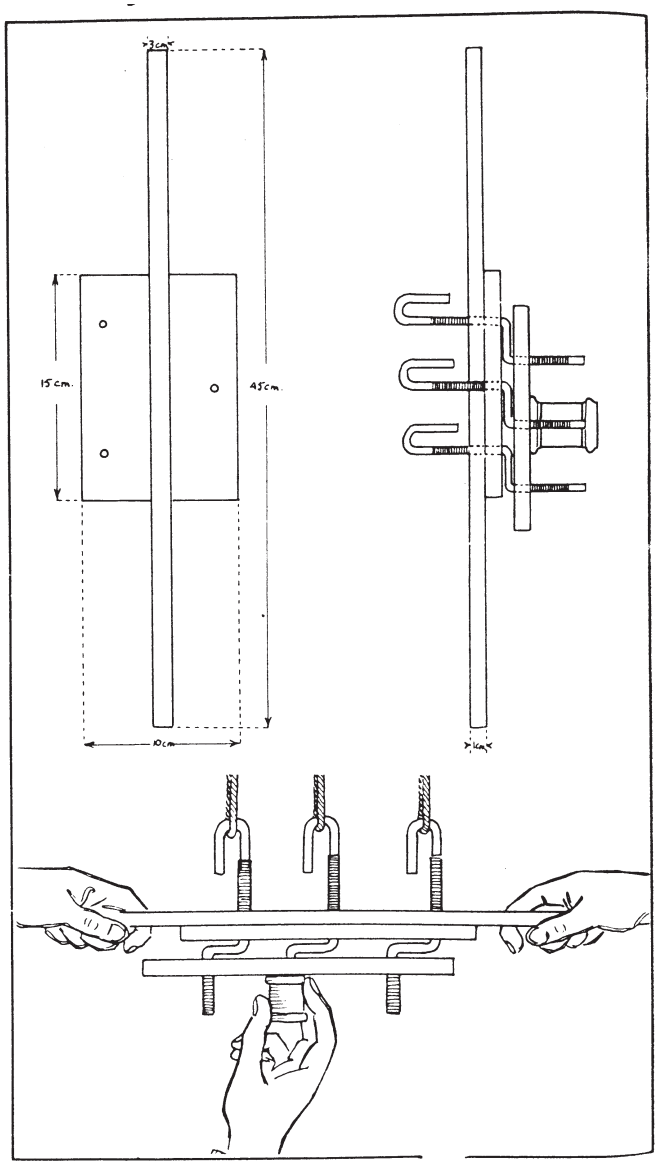
This will involve the laying up of three times three lengths of twine 'on the double' to make three hawser-laid strands, which must then be laid up together to make the 'cable'. It will be necessary to build up the torsional strain in the material by twisting it in opposite directions at each stage, so that when all the components are assembled to form the completed 'cable', the counteraction of potential energy in the rope will be held in balance. A sophisticated process, but well within the capability of any Scout Patrol that is prepared to take the trouble.

Setting Up

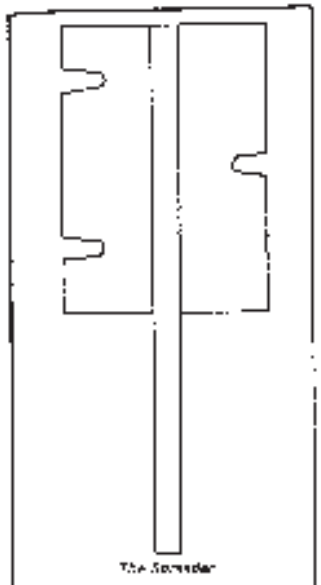
To set up the Holton Village Ropewalk you will need a good stretch of flat ground with a convenient fence rail or other secure anchorage at one end. The only materials required, apart from your ball of sisal, are three oblongs of 9mm plywood 15 by 10cm; two 9mm plywood strips, one 45 by 3cm and the ether 30 by 3cm; three 15cm lengths of 3mm dia. soft wire and a few squeezes of quick-drying glue.

Glue the longer plywood strip across one of the boards lengthwise with the ends protruding to provide a two-handed grip on the board. This and one other board should be matched and clamped together in a vice while three 3mm diam. holes are drilled through them in the form of an equilateral triangle of 8cm side. A small cotton reel is glued to the middle of the second board, again for convenience in handling.

Make two right-angle bends at 3cm intervals at one end of each wire. It is of the greatest importance that the three cranks should be identical in every way and for accuracy it is best to measure off and mark each wire at the angle, holding it at that point in the vice when making the bend. The wires should then be assembled in the wood and prevented from moving forward or back by the simple process of fitting collars of insulation tape. The hooks may then be made. This is best done by turning the wire with pliers round any cylindrical object of suitable size. The rope-maker is ready for use.



To make the 'spreader', glue the second (shorter) plywood strip to the board to form • convenient handle. Drill three 5mm holes near the sides and cut notches to correspond with the position of the hooks of the ropemaker. Smooth the notches with glass' paper to minimise friction.



Manning

Three Scouts are needed to man the Holton Village Ropewalk.

Cut the twine into three equal lengths, double each length and slip the bights over the hooks of the machine. Stretch the lines of (doubled) sisal down the ropewalk and secure the free ends, still under tension, to your chosen anchorage, taking care that the lines do not cross. Insert the spreader to hold the three lines apart and prevent them twisting up together, and, keeping it in this position, carry it down to the far end of the walk.

Scouts 1 and 2 hold the handles of the machine and keep the lines at full stretch while No. 1, with his free hand, grips the cotton reel handle and turns the backboard in a clockwise direction, thereby twisting the doubled lines of sisal counter-clockwise to build up the necessary torsional strain in the twine. This process should be continued until the twine shows signs of 'kinking' when the strain is relaxed.

The three lines should then be taken off the machine one at a time, stretched thoroughly to remove any embryo kinks and transferred (all three) to one hook only. The backboard should then be turned counterclockwise, so that the throe lengths of twine are laid up together right-handed (hawser-laid).

At this stage it will be found advisable to brine the spreader up to within a few metres of the machine and move it slowly backwards down the rope to ensure that the strands are laid up evenly, bearing in mind that the lay will tend to become more open if it is allowed to travel freely down the rope. The aim is to keep it under control.

It is possible, too. that from time to time one strand will leapfrog over its neighbour and put the whole lay adrift. When this is seen to occur, the operation should be halted while Scout 3 corrects the fault manually - a very simple process if caught in time.

Three lengths of hawser-laid line should be prepared in this way to make the strands of your 'cable.

The cable-laying process follows the same general pattern, except that at each stage the machine will be operated in reverse. Again the spreader will be brought into play to keep the strands apart while the machine is turned counter-clockwise to twist them right-handed to the point of kinking, after which they will be stretched, transferred as before to one hook so that when the machine is turned clockwise they will be laid up left-handed (cable-laid). And again the spreader will be moved, as before, down the ropewalk to control the laying up process.

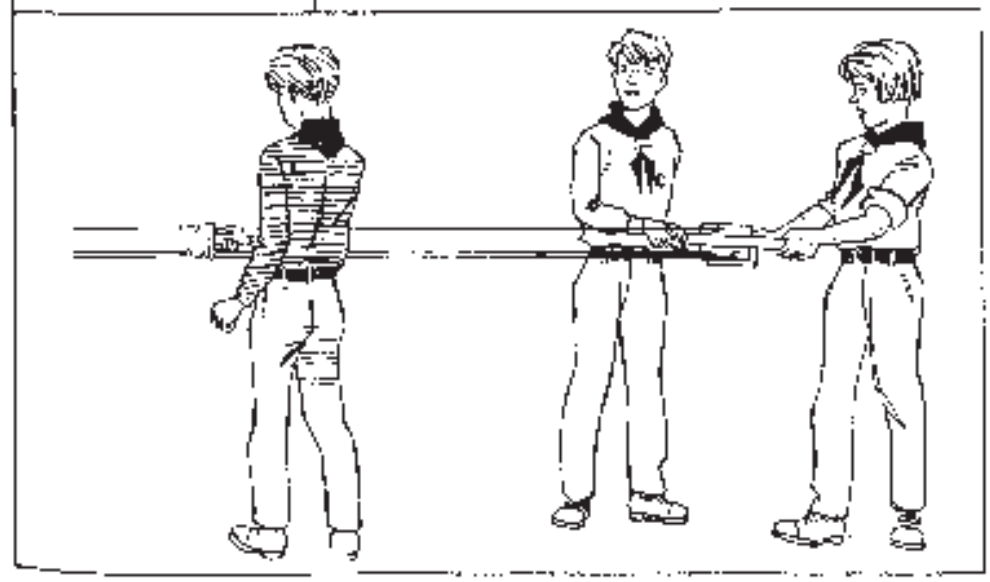
Display and Research

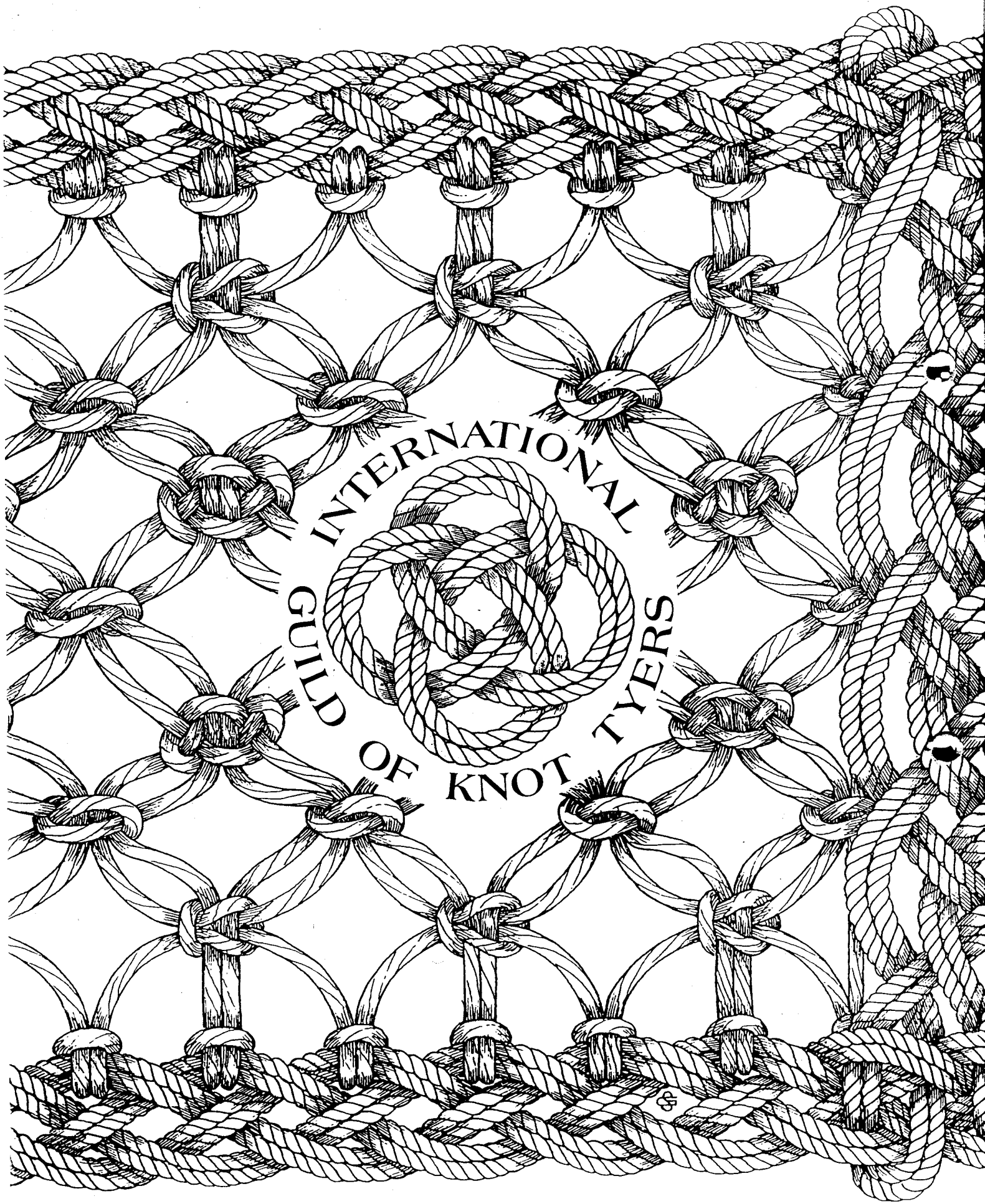
From all of this it will be clear that although the making of a rope is a complicated process it is quite within the scope of three intelligent boys who are prepared to work together as a team.

Run as a Patrol competition it should make quite an attractive display item for your next 'Open Day', particularly if the 'cables' are immediately put to some practical use.

Another Idea - passed to your Patrol Leaders for research, please - would be to put a core of heavier cord into your cable. One possible complication would be that, whereas the strands of the rope will shorten progressively as the cable is laid up, the core will not.

Here In Holton we shall be particularly interested to hear how your boys cope with this small problem.




INTERNATIONAL
GUILD OF KNOT TYERS