

ISSUE 60 SUMMER - JULY 1998

ISSN 0959-2881

Knotting Matters

Newsletter of the

The logo is a circular emblem. In the center is a detailed illustration of a reef knot (square knot). The words "INTERNATIONAL" and "TYERS" are written in an arc along the top and right sides of the circle, respectively. The words "GUILD OF KNOT" are written in an arc along the bottom and left sides of the circle, respectively.

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KNOTTING MATTERS

THE QUARTERLY NEWSLETTER OF
THE INTERNATIONAL GUILD OF KNOT TYERS
ISSUE NO 60 SUMMER - JULY 1998

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Advertising rates:Members Non Members

Full page	£32	£49
Half page	£19	£22
Quarter page	£10	£15

For inclusion in one issue only

Cover design produced by Stuart Grainger.

Submission dates for inclusion of articles

KM61	07 AUG 1998
KM62	22 NOV 1998
KM63	07 FEB 1999
KM64	07 JUNE 1999

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KNOTTING MATTERS 60

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NOTES FROM THE SECRETARY'S BLOTTER

They say that as one gets older time passes more quickly, and certainly it seems to have flown by of late. I have now been in my new house a year, and what with decorating, building a shed, greenhouse and a conservatory, going to work, and attempting to keep the Guild ticking over, there has not been much time for any sleep.

In order to check the ever increasing work load, Sylvia has resigned as Supplies Secretary in order to spend more time helping me with the routine administration. Not before time some might say, as we were just beginning to get complaints about the time taken to despatch some of the orders. This is not really our fault, as some of our suppliers are not particularly good with delivery dates. For example, we ordered a quantity of Guild brooches in February, in time for the AGM, it is now the end of June, and still no sign of them yet, despite a call to say that they would arrive a fortnight ago. However, all that said, we are pleased to an-

nounce, that in the absence of any volunteers, Bruce Turley has agreed to take on this role. Our thanks, and wholehearted support go to Bruce, who already devotes much of his time to the Guild in helping Linda to keep the accounts, and prepare all the various financial data and indicators for the Council.

I won't say too much about the AGM, as there no doubt will be others reporting on it, however, I did undertake to invite a membership debate on the merits of a postal ballot for the election of Council members including the President. At present the recently amended Constitution requires that one third of the Council retires each year, and an election must take place at the AGM for the successors, who will in turn, be elected for a term of three years. Those retiring, can of course offer themselves for re-election. The current ballot arrangements have been in place since 1982 when we became a registered charity, although in previous years a postal ballot had been attempted, and had failed. We do have more members now, and it is possible that it is time

that we should consider a return to this method. If we did, the logistics would need careful consideration, for example it would be necessary to receive nominations at least three months before the AGM in order to print and issue ballot papers, all of these difficulties can be overcome, if there is a will. The principal argument involved is the fact that there are only about a hundred members present at the AGM, whereas there are nearly a thousand eligible to vote. We could have an open discussion here in the pages of KM, or I could simply ask those who are in favour to write to me, and I can assess the likely response.

A final note on this subject is to report that the Council for the current year comprises of Robert Chisnall, Bruce Turley, Jeff Wyatt and Ken Yalden who all retire in 1999, Linda Turley, Brian Field and Colin Grundy, who retire in 2000, myself, Charlie Smith and David Walker who retire in 2001.

Enough of that, on to something a little more interesting. I have received a fascinating video from Jack Grice in New

Zealand, showing his restored steam boat The Ernest Kemp, sailing around the beautiful volcanic lake Puriri, in what can only be described as the most idyllic surroundings. The Ernest Kemp is quite a tourist attraction, and the bodywork (is this the right term for a boat) includes a great deal of wood panelling. Following on from the millennium concept of members making a knot board for 'exchangeable public display', Jack has offered space aboard the Ernest Kemp to present a display of knotboards.

Moving on, if you are the Secretary of a local branch, and if you have a newsletter, could you include Jeff Wyatt, The Librarian, in your mailing list. He also compiles the Diary of Events, so if you know something is happening, let him know and he will include it. These need not be exclusively IGKT events, but anything which the membership may be interested in, such as the Wooden Boat Show, or a Festival of the Sea.

If you are a UK taxpayer, would you like to consider covenanting your subscription.

This is fairly painless, although the paperwork looks a bit daunting, it does help to increase the Guilds income by claiming a refund on the income tax which you have already paid the taxman.

Since the last KM we have had the AGM and all that goes with it. Apart from the considerable postbag I receive associated with the meeting, my computer failed, and it took a week for it to be repaired. As you might imagine, this made life very difficult, and of course created a number of delays whilst I was catching up with the backlog. I have also been working on the next edition of Membership Handbook, which hopefully you will have received with this KM. If not, it should be along soon, as at the time of writing, I have already read the first proof, and am waiting for the second.

As always, I am rushing through this in order to post it to Lonnie before I go away on holiday, and as I have now run of time I stop, Ni.....



A BOOK REVIEW

by Joy Mant
Dorn Valley Venture Unit

The Handbook of Knots, A Practical Step by Step Guide to Tying and Using More than 100 Knots. by Des Pawson, published by Dorling Kindersley ISBN 0-7513-0536-7 Price UK £10.99.

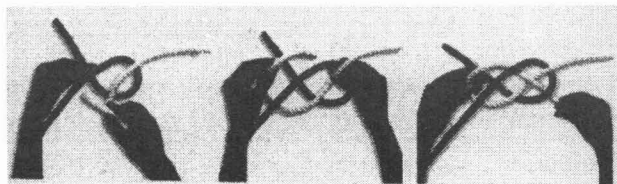
I found this book very easy to use and interesting to read, particularly the first chapter 'Using Rope' that is informative towards understanding and using different parts of the rope.

The book explains well how to tie and use lots of different types of knots, and the 'Quick Reference' symbols are extremely useful if you want to find a knot to use for a particular purpose.

The colourful diagrams are easy to understand and follow, which will encourage younger people and beginners to use and experiment with using knots, as well as being a helpful guide for experts.

The glossary at the back of this book is very helpful as I often found myself looking up words I was unsure of. Overall this

book is well laid out, helpful and certainly well worth buying.



Choose knots for fishing, camping, sailing, climbing and general or decorative use with the help of quick-reference symbols

Select the correct rope for the job by assessing the different types of rope and their functions and breaking loads

Ed: Joy is a Venture Scout and was asked to do this review as the book is aimed at young people just like her, so please forgive us not using a known expert.



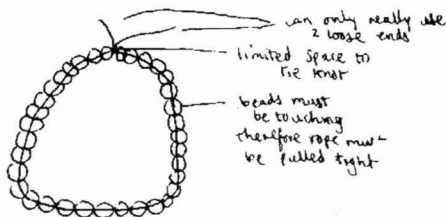
HELP PLEASE: for Ian Williams, Derby UK.

I have a problem concerning knots and I am writing in the hope that someone can give me some advice. I string meditation beads for a Buddhist Centre. This involves stringing 108 beads and tying the rope together at its ends to form a circle with all the beads touching

each other and the rope taut. The problem I have is that the rope I use is slippery and the knot slips. (This rope is optimal and does not snap so I would like to continue to use it.)

I use a surgeon's knot at present which is far from optimal. Unfortunately the non slip knots that I know such as the vice-versa cannot be tied while keeping the rope taut.

I have drawn a diagram to illustrate.



from Owen K Nuttall - Huddersfield.

Reference the letter by me in KM59-30, for security in tying a Dolly Knot use a DIVERS HITCH not a 'Drivers Hitch' (This should have raised a few eyebrows looking in books for the missing hitch).

Reference Roger Miles' KM59-43 on repetitive knots. Roger had previously mentioned in KM43-32 about changing Little Beauty to Corrick Bend (tied the reverse way) but forgot to mention that the reverse tied Corrick Bend turned into a Crown Bend. If Roger had been more observant he would have noticed that my Harmonic Bend is not the same as the Double Eight Bend. Firstly the configuration of the knots are different (slightly I admit) by comparing the two knots when tightening them, the differences become apparent.

Harry Asher's bend Open Sesame might only differ from Ashleys #1453 by a simple interchange, so does the Sheet Bend differ from a Reef Knot by a simple interchange as many knots do. (see articles on Trambles by Desmond Manderville). The late Harry Asher was a knowledgeable inventor of knots and an informative contributor to Knotting Matters with his knots and articles, but above all he was a gentleman and he would have wished Roger all the best with his book Symmetric Bends.

Ed: reference your first comment Owen, maybe KM is not really read by anyone, as no one has commented. Frightening.



from Mike Wilson, Virginia, USA

The new bell lanyard for the USS Constitution (KM58) is a beautiful piece of art. I extend my sincere congratulations to James Doyle for this achievement. And, I learned something new by studying the lanyard's specifications. I have always been under the impression that strict maritime tradition states that the lead of a Turk's head knot goes around 3 times only; no more and no less. In any event, was the wooden dowel treated, in any way, before it was encased? Incidentally, the T.W. Evans Cordage Company was very gracious. It sent me a sample of #72 seine cord free-of-charge.



THE PREHISTORY OF KNOTS

When, How and Why Knotting Might Have Started

Charles Warner, Australia, and Pieter van de Griend, Netherlands

PART 2: What's In A Name?

In this Part we first discuss the materials that may have been used to tie the earliest knots, and how standard knots might have evolved from the tangles that were presumably made in the first attempts to attach those materials to other things. We found a need to adopt a number of terms not often found in the knotting literature.

In the next Part we will speculate on how the earliest standard knots, the binding knots, hitches, stopper knots, bends and loops, might have been developed and tied. We needed to refer to a number of units of structure within a knot and to some techniques of tying for which there are no generally agreed names. So we use this Part also to give extended definitions of the terms we propose to use later.

We believe that many of these terms could also find useful applications in the general discussion of how knots are developed, how they are tied or how they function.

EARLY KNOTTING MEDIA

It is likely that knots were in use a very long time before there was anything that we would recognise as rope or cordage,

so we use the term **knotting medium** (plural **knotting media**), or, for short, **medium**, **media** for the material used to make the knot (see P. van de Griend, *Knots and Rope Problems*, self-published, Århus, 1992, p2).

Many materials were and are still available to use as knotting media, either unmodified, as found; modified to separate or make supple the fibres; or manufactured, by twisting, laying or braiding into rope. Different areas of the world present different kinds of materials. Good guides to materials used in the distant past are given by those used by traditional societies and by various emergency, survival, woodcraft and bushcraft organisations. Some of the possible materials are listed below.

Unmodified media include some vines and creepers, surface roots, longer grasses and waterweeds, rushes and sedges, nettles, seaweeds, bamboo shoots, rattan and canes, and withes which can all be used as found. **Modified media** include the fibres from coconut husks or around the seeds of cotton and similar plants, the fibres split out from the inner bark of many trees and shrubs, from the large leaves from

some plants such as most of the lily family, from the leaves, stalks or trunks of many palms; long thin branches, thicker roots, thicker vines, bamboo stems etc. can be split to give more flexible material. Some of these things can be made more suitable by pounding, with or without prior soaking in cold or hot water, and then separating the fibrous from the non-fibrous fractions.

Often single plant stems are too weak or too short for the job and a suitable medium must be **manufactured**. If several stems are placed in parallel, strength is gained but handling is difficult. Twisting the stems provides some stability and, if the ends are overlapped, allows lengthening. The resulting strands are longer and stronger than the original stems and still quite flexible though prone to unravelling. Braiding several stems together also provides extra strength, but is not so applicable to lengthening the material. The extra complication of using twisted strands to make braid, or twisting them together again to make laid rope, allows long, strong, flexible and more stable cordage, and must have been fairly obvious early in the development of manufactured media. A few short fragments of Z-twisted plant fibres were found in a 19 thousand year old excavation in Israel, and were thought to have been used in fishing nets. Two S-twisted strands were combined as Z-laid rope (7 mm diameter) in Lascaux Cave, perhaps 17 thousand years old. While only the simplest of stone tools would have been needed for the manufacture of cordage, a considerable amount of cooperation between

people, planning and discussion of past and future activities would have been essential. It is often held that this kind of behaviour could only be found after the development of full language.

Animal products were probably also used, either as found, as modified or made up into rope etc. Hair, tendons and whole or split intestines would all have been used. It is possible that tendons might have been used as long as 1.5 million years ago: some cut marks on fossilised bones have been interpreted by some as meaning that skin and tendons rather than meat were wanted. There is also suggestive evidence that hides might have been split into thongs as much as 100 thousand years ago, in the 'cutting boards' already mentioned, scored with parallel cuts.

The nature of the media available for binding, suspending or supporting objects in the early days would have influenced the first knots tied. Such properties as flexibility or brittleness, surface friction and strength would all have influenced the selection of the first knots.

ENTANGLEMENTS AND KNOTS

We can now start speculating on how the craft of knotting might have started, what could have suggested to the early hominids that the process we call knotting could be profitable.

Tropical forests have many plants that wrap around other plants, sometimes strangling them, splitting them, or pulling them over. Spider webs can be large and thick, able to net and trap large insects. Some nesting birds and rodents can shred

the fibres in palms and bark to weave into their nests. Entanglements of vines, brambles or saplings can be found in many jungles, obstructing movement.

All these things could inspire a deliberate making of entanglements, ambushes, snares and traps, using at first vines and other media naturally present at the site, but eventually collecting the materials where they were common and moving them to a suitable site. At some times and places, traps and snares may provide much more animal food than active hunting.

Entanglements can also be used to make fences and shelters, and media can be used to make slings to carry objects and ornamental or symbolic necklaces, armlets, belts and the like.

We postulate that the first knots consisted of random tucks of an end in somewhere. A single such tuck or unit of structure is often insecure; the obvious remedy is to make another tuck, either similar or different, and, if needed, more. We can distinguish two kinds of such compound knots:

Glomerate Knots are haphazard collections of two or more units of structure. The units are often well separated, so that the knot can slip under load as the units work closer together. The normal tendency would then be to add more units until the knot appears secure. It is unlikely that the identical conglomerate would be repeated when the need arose for a similar knot, even by the same person: the procedure would be to simply add tucks, twists and hitches until the knot seemed secure. The more efficient conglomerates would have

the units of structure tightly packed on to one another so that there would be minimal slippage when loaded. The average modern person with little training or interest in knotting is much more likely to make a conglomerate on parcels or the like than anything else.

Composite Knots are deliberate sequences of two or more units of structure. Because the whole thing is deliberate, we may usefully talk of an **algorithm** or detailed method of making the knot. When using vines or other non-uniform media so that, say, you can't always put in a turn or other unit of structure just where you want it, the algorithm would have to be general, rather than exact; the sequence of units of structure would be specified but not the exact place or number. Once a composite knot is found by someone to be suitable for a given purpose, that person is **very likely to try to tie the identical knot whenever a similar need is recognised**, and to deliberately teach the knot to others, particularly others in the same family group.

Before composites can be tied, the tiers have to have cognitive ability sufficient to recognise the problem to be solved, to select the appropriate knot, to remember the final form and the algorithm to tie it, and to manipulate the knotting medium into the knot in the appropriate place.

It should be noted that by far the majority of knots tied would have been put into immediate use in some practical application. Very few knots would have been tied just for their own sake or even just for teaching. Experimentation to find

novel knots seems more likely to have been on the job or as part of a practice for the final job rather than any systematic study of knots isolated from their application. Construction of dwellings, scaffolds, watercraft and the like would have required social cooperation and planning and may well have been possible only after the development of full language, even though the actual tying of the knots might not itself have required language or related cognitive abilities. Modern hunter-gatherers act in cooperative groups much more frequently than is found in our individualistic capitalist societies, so that it seems likely that activities of ancient humans such as binding spearheads or even making necklaces would also have been undertaken in cooperation.

Appropriate knotting media must be available. Specific composite knots would, it seems to us, be difficult to make (and consequently unlikely to be developed) in many of the earliest media, specially the unmodified media, which were often stiff, brittle, rough and irregular in dimensions and properties along their length. However, some early knotting media, such as tendons, might have been a lot better. It seems to us that until manufactured media—spun, laid or braided cordage—were invented, specific composite knots might well have been rare. Artistic expression by braiding the hair or cordage could well have preceded expression in rock art, perhaps by a long time.

Having the cognitive ability and appropriate cordage are not enough to ensure the development of composite

knots. Apes display a lot more skills and activities in laboratories than they do in the wild, in part at least because they are given opportunities and incentives. Indeed, it has been suggested that throughout human evolution, populations were capable of more sophisticated material culture than they used; what was lacking was a perceived need to increase their affectiveness or a social acceptance of new and different behaviour. To tie composite knots rather than conglomerates requires incentives.

The first knots tied must have always been conglomerates (except by accident), and ever since then some people seem to get on all right using only or mainly conglomerates, never or rarely composites. But others, particularly those in some specialised trades or occupations (including members of the IGKT), tie virtually only composites, and would be almost ashamed to be found tying conglomerates. What are the advantages of composites over conglomerates that would encourage our remote ancestors to take a lot of time learning knots and make the transition from conglomerates to composites? The answers that occur to us are:

Tying. After adequate training and experience, it is usually quicker to tie a specific composite knot than any conglomerate likely to be effective. This might not often have been a marked advantage, specially to hunter-gatherers who are more likely to proceed at a measured tempo rather than their more frenetic machine-using counterparts.

Finished Knot. A properly tied composite knot is more likely to be

secure (non-slipping) than a conglomerate, so that the tier may have confidence in the knot, and it is a lot easier to check that the composite is properly tied than that a conglomerate is likely to be adequate. Even a conglomerate that is ultimately secure may often allow some slip as internal slack or kinks are taken up. Admittedly, a wrongly made composite is more likely to fail disastrously and without warning than a simply inadequate conglomerate. However, many people get away with just conglomerates.

A conglomerate is likely to be more bulky, sometimes substantially so, than a composite. This is not always important, but there are situations when it would be—some fishing or hunting knots, knots that have to pass through fairleads or over obstacles, and so on.

A composite knot usually looks better, neater, tidier, often more decorative, than a conglomerate.

Untying. In general, a composite knot is much easier to untie after loading than a conglomerate. When we look at the earliest knots we have evidence for—binding knots, guys, lashings, bends—at first glance we might say that it would be rare to need to untie them. But further thought might suggest that when using the kinds of knotting media likely in early days, it might often have been necessary to untie (and retie) the knots to adjust a fastening, after stretching or shrinking of the medium. If the medium was used to help carry loads, occasional tying and untying would have very probably been needed.

But there are some activities, perhaps only arising a bit later in the story,

that need frequent tying, untying and retying—clothing, temporary screens etc in a dwelling, the use of sails on a watercraft, handling domestic animals, 'first aid' slings, splints, bandages etc.

We are inclined to think that one of the major reasons for preferring composites to conglomerates might have been the greater ease of untying after load. The alternative of cutting the medium instead of untying the knot would have been particularly unwelcome for hand-manufactured cordage.

After the job is done. A competent person will always attain some self-satisfaction after a good job well done. This feeling would be easier to acquire after the skilful use of appropriate composites than messing round with conglomerates. There is by now a long and, in part, glorious history behind knotting, in which it is possible to feel one is sharing.

Non-working knots. All the above apply to working knots, but knots have been used for a very long time (how long we have little idea) for other purposes, decorative, symbolic, mystical or magic, or as aids to measurement, computation, communication or memory, or just for games. In most instances, the specificity of composite knots would have been useful or essential—conglomerates, or even just any old composite, would often simply not have done the job.

Conclusions. Perhaps, some deliberate composites appeared quite early and were tied by specialist practitioners. If so, intelligence, cognitive abilities and manipulative skills might have been the

limiting factors. Our guess would be that the tying of composite knots would only have become a common skill when untying the knots became both frequent and important.

Some members of *Homo erectus* could make more or less uniform stone tools with considerable skill. Modern archaeologists have tried to learn these skills and reckon it takes long practice, perhaps months. One assumes that *H. erectus* would have taken similar times, and quite likely only individuals with appropriate inborn qualities and motivation, that is, only specialists, could manage to become skilled. Perhaps a few specialists in knotting were also found then. But *H. erectus* was no prolific inventor; one of the big puzzles of archaeology is why the stone tools that we can find show so little change in design or manufacture for a million years or more. So we can imagine that if any composite knots were in use, there would have been only a very few kinds, at least in any one region; conglomerates may well have continued in use for many purposes. While we know that *H. erectus* spread over the whole of the old world in the course of perhaps a few hundred thousand years, we do not know how much mingling of populations there might have been. We would expect that not only would the composite knot repertoire (the variety of knots known and used) of any one human group have been small, but the repertoire over the whole population would not have been all that very much greater; only the very simplest of knots would have been known anywhere.

We have no real evidence of when clothing, internal screens in dwellings or 'first aid' might have developed; there are some who believe that they are very ancient, but others hold that no real development in these activities would have occurred before the time of *Homo sapiens sapiens*, or even as late as, say, 30 or 40 thousand years ago. Though the use of watercraft for long sea voyages might have been common in some areas more than 60 thousand years ago, sailing may not have developed until about 20 thousand years ago, and the domestication of animals does not seem to have started until some 10 thousand years ago or later. All these activities probably needed composite knots and good media.

Conglomerates might have been adequate for the earliest uses of knotting media, but the development of composite knots might well have begun hundreds of thousands of years ago, though it might not have become widespread until 30-40 thousand years ago. Knotting repertoires might still have been fairly limited in any one area, but quite extensive when the whole world was considered. Many of our present knots could well have been tied before perhaps 5000 years ago by someone, somewhere in the world.

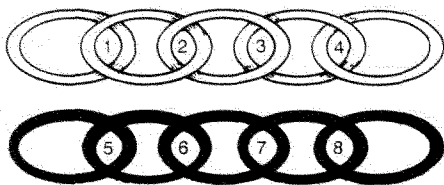
From here on, when we talk of 'knots', we almost always mean the knots² referred to in KM49, p28, that is, knots¹ (using a single cord), bends (two cords) and hitches (one cord plus another object), otherwise referred to as working knots. Decorative knots, multi-strand knots, splices, braids or the like will not be further considered without specific

notice.

THE STRUCTURE OF KNOTS

A very few knots are made up of only one unit of structure. Examples include the Overhand Knot, the Half Knot, the Half Hitch and the Single Hitch (Ashley's #46-49). Composite knots contain two or more units of structure, and we must say what we mean by that.

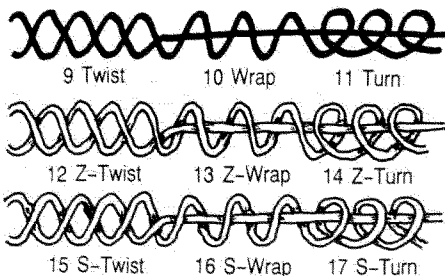
Many units of structure can be found in two forms, one twisted in one way (right-handed or Z-twist) and the second in its mirror-image (left-handed or S-twist). It is often convenient to use a special kind of drawing to show both twists at once. This is the **shadow**, or projection on to a plane surface.



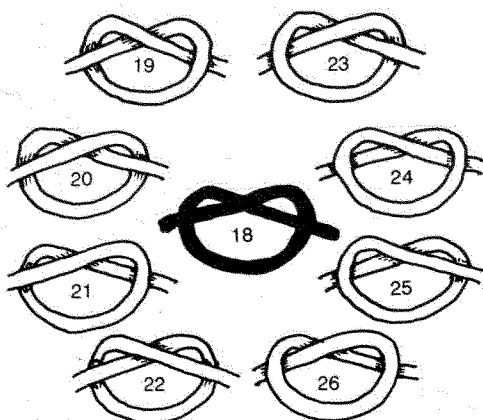
Shadows and Links

If we imagine five chain links overlapping each other in four different ways (1, 2, 3, 4), then it can be seen that their shadows (5, 6, 7, 8) are identical. Note that overlaps 2 and 4 are really inter-links, that is, useful, whereas 1 and 3 are just one thing on top of the other, and not useful.

Common units of structure are **twists**, where two knotting media are twisted together, **wraps**, where one medium is wrapped round another without otherwise affecting it, and **turns**, where the wraps are made more rounded, and the core medium may be omitted.



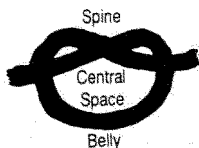
Shadows are shown in 9, 10, 11; Z-twists in 12, 13, 14; and S-twists in 15, 16, 17.



Overhands and Shadows

The simplest knot containing the Twist unit of structure is the Overhand Knot. Its shadow is shown in 18, and the Z and S forms in 19, 23. The other forms, 20, 21, 22, 24, 25, 26 have the same shadow but are obviously non-knots. It is usual to omit such forms when interpreting the shadows of knots, though the possibility of their existence must be borne in mind.

Following Harry Asher (*A New System of Knots*, IGKT 1986, Vol II, p8), we distinguish the **spine** (the twisted part of the knot), the **belly** (opposite the



27 Overhand

spine) and the **central space** of the Overhand Knot (27)



29 Z-Parallel



31 S-Parallel



28 Centre-Pierced Overhand



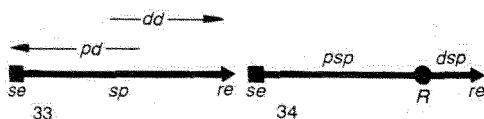
30 Z-Transverse



32 S-Transverse

In many knots there is an Overhand Knot structure **pierced** (28) by another medium through the central space. The piercing may be either **parallel**, that is entering and leaving the central space on the same side of the knot as the two ends (29, 31) or **transverse**, entering and leaving on the opposite side (30, 32).

PARTS OF THE STANDING PART

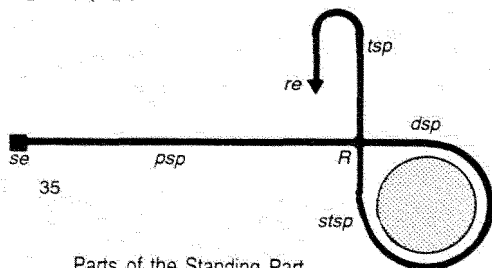


Parts of the Standing Part

It is sometimes inadequate to recognise only three parts of a knotting medium, the two ends, the **standing end** (*se*), unavailable for use, and the **running end** (*re*), the working end, and the part in between, the **standing part** (*sp*).

We recognise in 33 the direction towards the standing end as the **proximal** direction (*pd*) (proximate means near, near the bulk of the medium, the unattached or unavailable end) and the direction towards the running end as the **distal** direction (*dd*) (distant means far, far from the unavailable end).

If a reference point *R* is then recognised (34) along the standing part as the place where, for example, a knot has been or is to be tied, we can distinguish the **proximal standing part** (*psp*), that section of the standing part nearest the unavailable end, and the **distal standing part** (*dsp*), furthest from that end.



Parts of the Standing Part

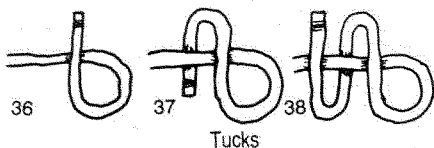
Finally, when the medium is taken round an object and brought back to cross the standing part at the point *R*, we can recognise (35) the proximal standing part (*psp*) as before, the distal standing part (*dsp*) immediately distal to *R*; the **subterminal standing part** (*stsp*), approaching *R* from the distal standing part; the **terminal standing part** (*tsp*), between *R* and the running end (*re*).

These terms are useful when describing exactly how to tie a number of knots, specially hitches, as we will see later.

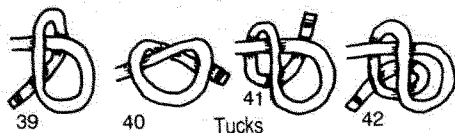
TUCKS

It seems to be impossible to find a single definition of a tuck that meets all the usages of modern knotters. We use the following in these papers:

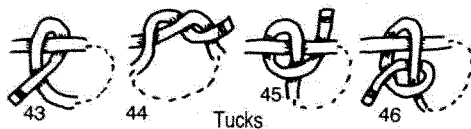
A **tuck** occurs when a running end is inserted into a space between a knotting medium and another object (which may be another medium or another part of the same medium or something else), such that when the knot is tightened, the terminal standing part is nipped between the medium and the object.



There is no tuck in 36–38 because there is no nip.

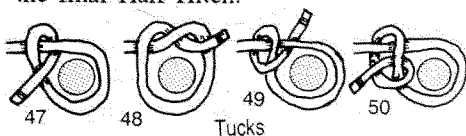


Likewise, there are no tucks in the arrangements of 39–42, where the knotting media are simply laid down in formation without being inserted in any space. These are all non-knots.

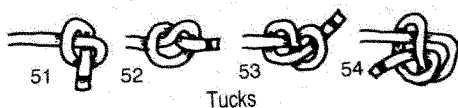


If formations with the same shadows as 39–42 are made, but with different crossings as shown in 43–46, and either using two different media as if for a bend, or to form a long loose loop (not drawn up) as indicated by the broken lines in 43–46, then it can be seen that there are still no tucks in 43–45 because

the running end will not be nipped; however, there is now one tuck in 46, in the final Half Hitch.



When the same formations are made round an object and drawn up tight, it can be seen that there is now one tuck in each of 47–49; 50 has two tucks, one between the object and the subterminal standing part, the second between the terminal and the subterminal standing parts.

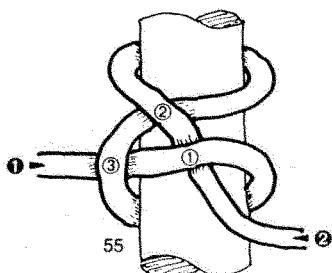


Finally, if these formations are made in the end of the medium and pulled tight, we again find one tuck in 51–53; again, there are two tucks needed for 54, despite the fact that if the knot were tightened completely it would collapse to a non-knot.

Whenever one piece of a knotting medium passes over or under another, there is a **crossing** point. Thus there is one crossing in 36, two in 37, three in 38, 39 (43, 47, 51) and 40 (44, 48, 52), four in 41 (45, 49, 53) and five in 42 (46, 50, 54). These crossings are described as **alternate** if there is a regular change in **parity** (the type of crossing: over or under) as you move along the medium. Thus there are alternate crossings in 37; 38; 43, 44, 45; 47, 48, 49; 51, 52, 53. There are non-alternate crossings in the remainder. Note, however, that the alternation of parity of the crossings as they are made, rather than

as they appear in the finished knot may be different. Thus the crossings in 46, 50, 54 are made alternately (over, under, over, under), though the crossings as seen in the finished knot are non-alternate. The other formations retain their alternate or non-alternate crossings whether they are regarded while being made or as finished. Consequently, it is essential to state how the crossings are regarded when they change between alternate and non-alternate. If no qualification is made, it is to be understood that the order of parities in the finished knot is meant.

Note that the number of tucks needed to make a knot depends not only on the nature of the knot but also on the algorithm used to make it. Thus, the knot shown in 55 needs only one tuck (①) if tied starting from ①, but needs two tucks (②, ③) if tied starting from ②.



Tucks and Algorithms

FURTHER READING

- K. R. Gibson and T. Ingold (eds) *Tools, Language and Cognition in Human Evolution* Cambridge University Press, 1993.
- R. Graves *Australian Bushcraft* Child & Associates, Sydney, 1989
- J. Kingdon *Self-made Man and his Undoing*, Simon & Schuster, London, 1993.
- J. Wiseman *The SAS Survival Handbook* Collins, London, 1986.

Woody's knots (1)

Reef Knot

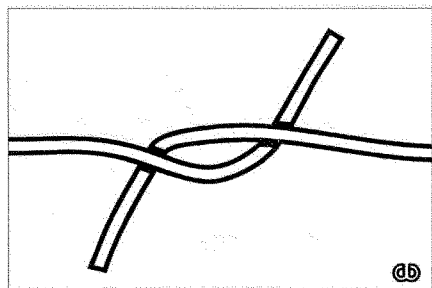
I believe a knot is tied best when its structure is understood, and not by reciting a magic formula such as "left over right and under, right over left and under". So here is the structural approach to the knot of that quotation.

A **reef knot** lies flat so that each end points back towards the direction it came from. A reef knot is practised best by tying it round something, and in order to get it correct, you must look at it from on top (which is the only way possible if it *is* tied round something). The knot is tied with the "ends". The part of the rope on the other side of the knot, which takes no part in the tying, is known as the "standing part".

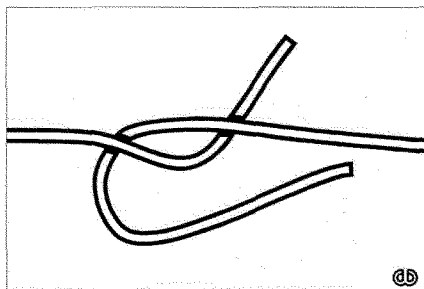
So start your reef knot with a **half knot** (which has the same structure as the overhand or thumb knot). This half knot may be made by either left

over right or right over left. For the purpose of these notes, *it does not matter which*.

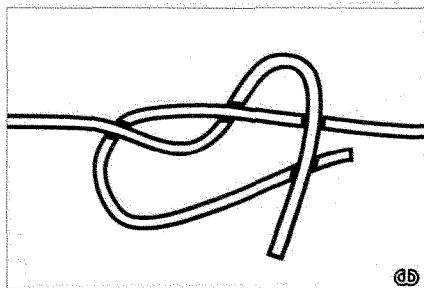
If you are tying it around something (these notes were made while I tied it round my thigh!), notice that when you have pulled the overhand knot up tight, the two ends fall naturally at an angle to the standing parts, just as I have shown in the diagram.



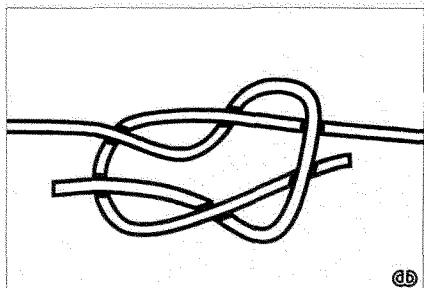
Now take one of the ends (it does not matter which), and fold it gently so that it lies opposite the other end and beside its own standing part. This folding is what knot tyers call making a bight.



Next take the other end and bring it across both the first end's standing part and then the first end itself.



Tuck the second end through the bight you made with the first end.



Finally, tighten the knot by pulling both ends.

At this stage, let's try to explain some terms. Obviously, a piece of cord, rope or string has two **ends**. The part of rope between the ends is **the bight**. This is different from a fold made in the bight of the rope which is **a bight**! I have already described how the parts of a cord may be distinguished on the basis of how they take part in the tying of the knot, as **working** and **standing** parts. In the case of a reef knot which effectively joins the two ends of the same piece of cord (after it has been wrapped round a parcel), both ends are working ends and the bight is the standing part. When tying a **bend** which is a knot which is used to join two ropes, one working end is supplied by each rope, whose standing part includes the bight *and* the standing end.

FROM OUR POSTBAG

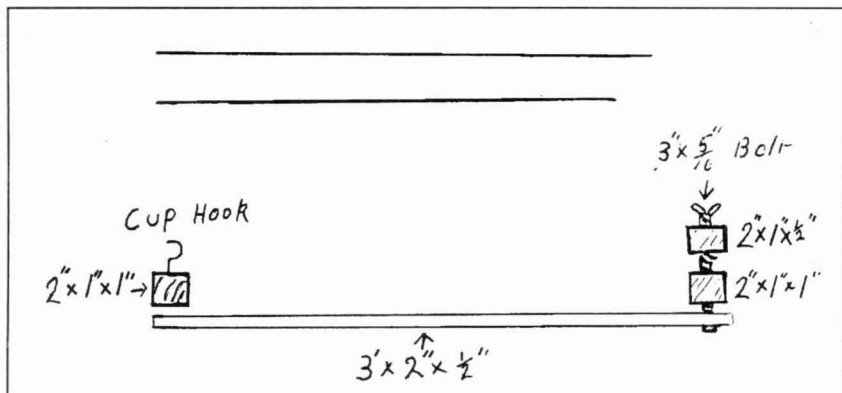
from Bernard Collins-Somerset,
UK

Former for Holding Portuguese
Sennit for Light Pulls

For some time now Richard
Hopkins has been pushing me

scouts, guides and adults on the
making of light pulls.

It is very useful, as I can have
a group of 8 or 10 at any one
time and get them in a half cir-
cle around me. It's much better
than hanging the cord around a
chair leg etc, also it can be put



to let other knotters know of my
Former. I have been using it for
quite a few years, to teach cubs,

aside on the former during
breaks.



The assembly is quite a simple one, the 2" x 1" x 1" block is glued and screwed to the 3' x 2" x 1/2" plank and the cup hook screwed into it. The opposite end has to be drilled. There are various ways to drill, but make sure the holes line up. The 2" x 1" x 1" block is to be glued and screwed. So do the drilling first then you will see where to put your screws. That's all there is to it.

It can be laid on the table for younger members of a group, also for guides when wearing skirts. Most people sit on chairs with the former held between their knees. I usually use it to make light pulls, but it has as many uses as one wishes to apply.



from Alan King-Worcester, UK

I wrote some years ago when I thought that I had discovered the oldest member of IGKT, unfortunately it proved only to be a misprint in KM.

However, I think I am now on surer ground, how about the youngest potential member? My granddaughter, Amber, was

born with her umbilical cord tied in an overhand knot (Ashley #514). We were told by the midwife that although it was unusual, it was not unknown for this to occur.

Could this explain the fanaticism of the members of IGKT? Were we all born with this distinctive anatomical feature, are we all programmed from birth to tie knots?

I am watching my granddaughter very carefully to see if she exhibits unusual knotting abilities as she gets older and I will report further should this occur.

On a different matter can I draw the attention of gardening membris to the Espalier knot (Ashley #363). I was somewhat sceptical as to the efficiency of this knot on reading about it in Ashley; but when I tried it, I was greatly impressed and found it an easy and very effective way of tying roses, clematis, vines and the like to both wires and trellis.



from Bill Holt-Bucks, UK

Concerning the Portsmouth weekend, the venue in the old docks was magic, the display

work of the craft was brilliant, but there was something missing. It wasn't clear at first but come Sunday morning it stuck out like a sore thumb that there seemed to be a lack of people about.

On Saturday there were a lot of people there but they were mostly guild members meeting and greeting each other, so consequently when that died down, there was only about a dozen ordinary members of the public walking about. Then Charlie (Smith) had the idea of making the Biggest Turks Head in the World, one for the record. This we thought would have attracted a lot of people but no, there was myself, Tony, Charlie and just one other guild member. We worked on it until 5.30pm and still nobody came. We left the knot til the Sunday morning and repositioned it towards the big double doors. Come Sunday I think it was then more so that I realised the lack of public awareness of the event.

On a personal basis I wasn't aware of the guild's sign outside the dock gates, and I had never seen one inside either and

it seems people found us by chance by merely wandering around the docks. Three or four people came up and asked us where the knotters were and we told them they were finished. One woman said she had been told it was on 10am to 5pm, so did I. By 3pm everybody had packed up and gone, I was totally amazed, by this time there was only Steve, Geoff, myself and Ken, he was putting the chairs and tables away. Some of the public asked me what was happening and I told them that some of the people came from a long way and they had to start back early to miss the traffic. I am sure this was true in some cases, but not all.

I don't want this letter to be read as a negative criticism, I just wonder if the event was advertised in the local paper or not? I am sure you know as well as I that all craft fairs are placed in the paper 2-3 weeks before the event and certainly right up to the event taking place. Is the problem that we have a lack of funds for this kind of advertising and, if so, why not at the next meeting

have an open forum where we can get some ideas together to raise cash for advertising future events.

I as said, I am trying to be constructive. I think we have enough brains in our guild to make more of an impact next time we display our crafts. I feel a little sad for those who were displaying and teaching anybody who wanted to know how, a shame though that they could not sell their crafts. Still it was a good weekend, and it was good to see everybody again.

One idea I had was perhaps to get everybody to make one knot, display them all on one big board and raffle the board to the public. Providing this is well advertised it should make some funds for us.

Ed: According to the gate guards the whole docks were not busy that weekend. I am sure Ken made every effort to advertise, but if people are not interested, nothing can make them come out. More signs might have helped though.



from J Heapy-Cheshire, UK

EUREKA! My birthday arrived on the 12/3/98 and with it a present from my Mary my wife. A pair of socks? No. A pullover? No. It was a copy of Geoff Budworth's New Knot Book. Well written, good drawings, informative and very interesting. The knot that drew my attention was the Icicle Hitch. Devised by John Smith and shown on pages 70/71 of Geoff's book. Little did I know that 10 weeks later, I would need to use this hitch for real, and not just once but twice.

One evening in mid May, while busy in the back garden, Mary called me and told me she had found one of those tree things growing in the bushes. The tree thing turned out to be a young self setting sycamore that was growing in the middle of a Pieris shrub. 'What are you going to do' asked Mary. Dig it out? 'I'll get a trowel'. 'No Mary, digging it out is not an option, as I may damage the other shrub, some light chains and a crowbar and I can lever it out like that ancient Greek bloke Atlas.' I wrapped some light chain around the young

sycamore and shackled it to a crowbar, a good heave and I nearly went flat on my back. Oh dear! (censored) The chain had slipped off. I'll get a trowel said Mary. No said I, I will use plan B. A rolling hitch tied with some parachute cord and a Chinese hitch round the crowbar will do it. Heave! No good, the rolling hitch had simply stripped the bark off the tree, leaving the young sycamore intact. I was now left with a semi-ridged perpendicular tapered and very slippery object to remove. Dig it out? No! Remember Robert the Bruce and the spider. I decided to try the Icicle hitch that is in Geoff's book. The Icicle hitch was duly tied with the parachute cord to the sycamore then the Chinese hitch to the crowbar. A cautious heave, it held, then a good heave and, yes, out it came roots and all. The Pieris shrub undamaged. Two days later Mary spotted another sycamore in the back garden, this time it was easy. The Icicle hitch again. Job done.

My congratulations to John Smith for devising that hitch

and good thinking by Geoff Budworth for choosing to put it in his new book. The Icicle hitch works and it's great. A must for all knot tyers and now gardeners.



from John Smith-Surrey, UK

Here is an offering for Knotting Matters. Are you going to get an email address soon? Anything that makes it easier for lazy people like me to send stuff can only give you a greater choice of material.

Knot another Pile Hitch!

Here's heresy. Throw out the Marlingspike Hitch. So it has been used for hundreds of years. So there is nothing new about the Pile Hitch. When did considerations like that stop a knot tyer from trying a new technique?

I confess that developing this application of the Pile Hitch was just as a result of looking for yet more ways to use this simple structure to replace, however tenuously, every knot in existence.

What I saw, however, was a use that was:

Every bit as quick as an experi-

enced forming of the Marling-spike Hitch

Strong and secure while doing it's work

Entirely un-jammable, no matter what the strain

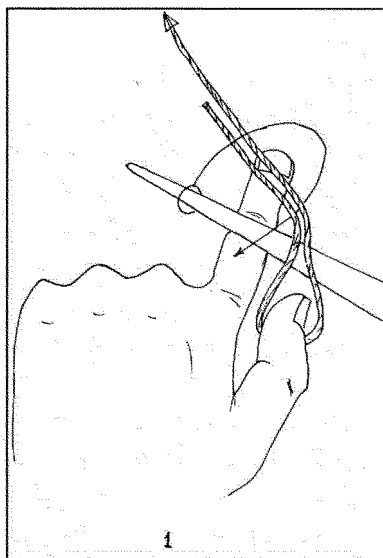
Much kinder to the line, with no sharp curves

This is how you make it. Catch a bight with your thumb as in Figure 1. Make sure that the two parts are the right way round. In the illustration, the part marked with an arrow is the part you are going to haul. What is shown as the end of the line will in reality lead to the yet unused line.

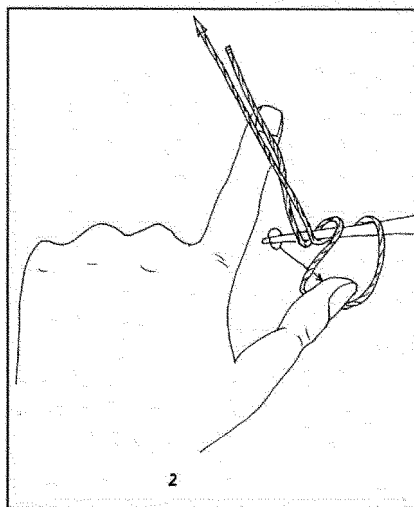
Sweep the spike under your hand and the line, away from your body. Use your forefinger to guide the two parts.

Twiddle the spike over and under, to arrive at Figure 2. Now just touch the point of the spike to your thumb. At this stage, the hitch is quite loose and a subtle forward and upward movement of the spike will allow the loose hitch to slide a little down the spike.

This hitch will draw up all by itself. Just pull and a perfect



Pile Hitch will be on your spike. After you have hauled on your line, the Pile Hitch will fall off your spike and disappear.



From Mike Wilson
Alexandria, VA

A couple of comments about KM56. A Guild Flag of burgee is a super idea? Sign me up now to receive one. If you need a supplier, I recommend Mr Stu Fried. He is the owner of Prestige Flag and Banner located at 7052 Orangewood Ave, #2 Garden Grove CA92641. His products are excellent in every way.

I was surprised membership certificates *were not* given out as a matter of course for joining or renewing. Of course IGKT must initiate issuing membership certificates - the cost of which is included in the amount of dues. Wallet sized versions might be made available for purchase.



from Joe Barry, Brockton, USA

I am a new member of IGKT in the past year. I am doing research on sailor's chest beackets. Can you tell me if anything has previously been published in Knotting Matters and which issues so I can order copies.

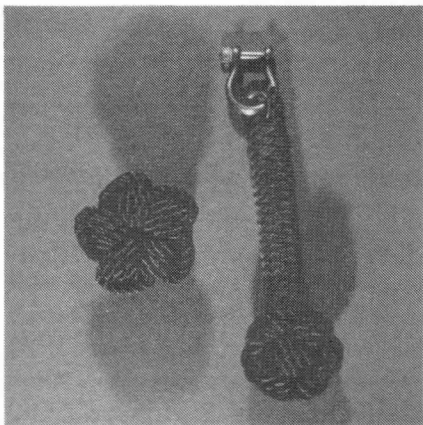
I would also appreciate hearing from anyone with any interest or expertise in this area. I can be contacted at: Joe Barry, 12 Kent Street, Brackton, MA 02402, USA.

Ed: We have sent this letter on to Richard Phelan and Mrs Wyatt for their help; can anyone else help Joe? We also received a similar letter from Renholt Berg, USA re sea chest beackets, so have also passed this one on too.

Meantime, Mr Berg would also like help re KM56 page 47 mention of Australian Hard Laid Twisted Cord. I beleive this is available from Ray M^cLaren PO Box 5, Moonbi, NSW 2353. Mr. Berg has been unable to find hard laid cord for about five years and has been using medium laid. The hard laid he has left is brown and requires painting. It would be nice Mr Berg if, as you say, you could attend a General Meeting, the enthusiasm of members is very infectious. ED



From Jerry Cronan, Michigan,
USA



I tied this Bell Rope for the Edmund Fitzgerald, 7.10.95. The ball is a Diamond and Crown Knot, doubled. (There is one on display at the US Naval Academy) The stem is covered with coach whipping, and a six strand Turk's Head at each end. A round brass thimble for wear and a bronze screw pin shackle to attach to the bell clapper.

The Edmund Fitzgerald was launched in 1958. She went down in Lake Superior with all 29 hands 10.11.75. The ship's bell was raised from 530 feet of water, 4.7.95. I attached the bell rope 8.2.96.

The five point Star Knot is just for comparison and to see

how it would look in 1/4 black nylon line. A friend, Ken Stephens (master metal finisher) removed the paint type finish that had been put on the bell at Michigan State University, and brought the bell to the beautiful gleaming finish displayed today in the Shipwreck Museum, almost within bells toll of the ships resting place, at Whitefish Point Michigan. A point of interest; the clapper on a ship's bell swings on a rod that is athwartships, in the top of the bell. That permits the bell to be rung ONLY in a fore and aft direction. This prevents ringing as the ship rolls in a heavy sea.

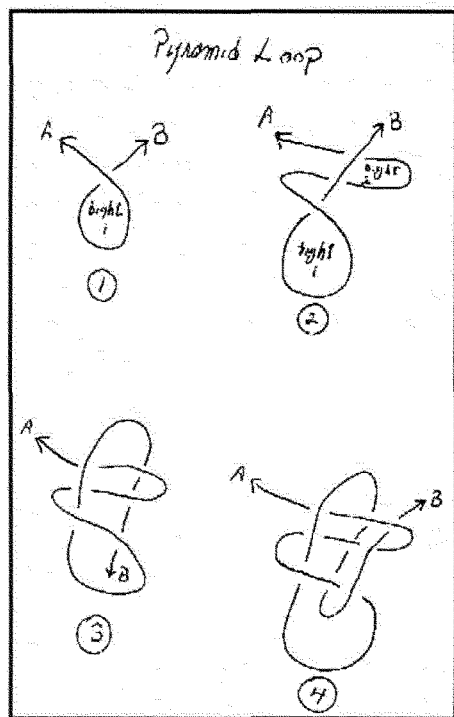


From Edward Greene, New York USA

In KM58, Mr Wolfe ends his excellent article on the pyramid loop by asking if anyone has seen this knot. As it turns out, I had never seen it before and liked it very much. Imagine my surprise when at the Wooden Boat Show in Maryland, Dan Machowski of the IGKT demonstrated the very same knot! It was made in an alternative

manner which I will attempt to describe as follows:

1. Form bight 1 by crossing end A over B
2. Form bight 2 in end A and slip it UNDER end B
3. Bring end B UNDER bight 2 and pass it UP through bight 1
4. Finally, pass end B DOWN through bight 2 alongside itself
5. Tighten and shape.



From Karl Bareuther, Germany

In KM59 Charles Warner said that he really cannot see that the Ditty Bag has much relevance to knotting. I am sure if any sailor from the old days could read this he wouldn't agree at all. Beside the sea chest the ditty bag has been the daily companion of the sailor. He took pride in making the very best of a ditty bag and especially in tying an intricate lanyard for it.

From ship to ship and during his whole life he saved his highly valued tools in it and at sea it hung very close to him on a hook on his bunk in the foc's'le. Not only some traditional mariners made ditty bags in their spare time but able bodied seamen who were familiar with knotting, splicing and sewing did them.

The ditty bag didn't stand just for knotting, that is right, but it had much more relevance to the men at sea and the ropework they were used to. It stood for seamanship and sailor's pride. At the moment I am sailing in the German Barkentine 'Lilli Marleen' as a watchkeeping of-

ficer, and of course, I have one of my ditty bags (probably made by an old shellback) with me. Where else would I keep my highly valued tools. For my part I say thank you to Louis Bartos who told us so much about the history of the ditty bag in KM58.

Ed: Judging by the look of things at the recent AGM, so did many others, a great deal of the people present had made themselves a ditty bag for the their knotting work.



From F C Brown, Tasmania,
Australia

I wish to add my support of the suggestion made by Charles Warner in KM59 concerning the publication of articles in differing formats. Firstly I am always pleased to receive my quarterly newsletter, particularly as a remote, isolated member. The range of material is astonishing, entertaining, educational and in my view, well presented. However, I agree with Charles that much of the material merits a different level of presentation. Technical articles do not have to be without humour but in general there is a need for a publication that

presents 'serious' articles'. These could include Taxonomy, Test Results, Forensic reports, Structure analyses, Knot theory (mathematical) etc.

I would suggest that Charles' suggestion be taken up with the initial publication of a periodical (annual?), bulletin/journal devoted to the technical/scientific aspects of knots and ropework. Perhaps the concept of a magazine as suggested by Charles could be considered later, one new publication will require considerable planning and organisation.

In considering this matter, I offer a new (?) work NODIOLOGY, the study of knots, plaiting and weaving. The word is based on the latin root and does not appear the Oxford or Webster as far as I can determine.

I would suggest that the proposed 'Journal of Nodiology' be organised/administered by an international board of editors, drawing on the skills, knowledge and standing of established authors, such as Charles Warner as indicated in your editorial note.



And on the same subject
From Richard Hopkins, Bristol,
UK

What follows is my comment
or reply to the articles in KM59
about the 'direction of future
IGKT publications.

Discussion in KM and the
AGM covered the way ahead
for the Guild. There seems to
be a move among those with
inflated egos and limited pa-
tience to create an elite branch
of self styled 'experts' with new
publications of a 'high profes-
sional standard'. This I believe
to be a mistake as far as the
Guild is concerned because it
would destroy the relaxed but
serious and enthusiastic ap-
proach which works so well at
present.

It would also be difficult to
fulfil the aims of the Guild as
an educational charity if the self
appointed 'elite' are restricting
or diverting the flow of infor-
mation to those that they con-
sider worthy, or to those who
can afford an additional sub-
scription for a 'technical' maga-
zine for the professional, expert
or academic, thus implying that

the rest of us could not under-
stand what was being published.

I am reminded of the expres-
sion:-

**The product of science is
Knowledge**

**The product of scientists is
reputation**

Reputations are notoriously
fragile.

Furthermore, a division
among the membership would
remove access to the vast pool
of knowledge held by the rank
and file members. It is always
useful to attend Guild meetings
because you can invariably find
a member with specialised ex-
pertise that he or she is happy to
share with anyone that shows an
interest. The elite, to their loss,
would be cutting themselves off
from this wide ranging data-
base, and assistance from those
who can initiate, through per-
sonal contacts, research among
non-members.

We must not forget that there
are many people who have
made a living from knotting
who have no interest in joining
the Guild but are happy to give
advice if asked in the correct
fashion by interested members.

As examples of this, I knew someone, now retired, who used to get, amongst other knotting work, regular timed contracts to make 350,000 grommets as ammunition box handles. I don't know how fast he had to work, but another acquaintance used to produce 50+ eye splices an hour. Neither of these men wished to join the Guild, but were undoubtedly professional knotters whose income depended solely on their digital dexterity and knotting ability and had a fund of anecdotes and information to impart.

If some members have such a high opinion of themselves and their abilities, why don't they form their own Society. The product of their deliberations could then be offered to the knotting world as and when they think we are capable of assimilating it. This would of course require a lot of organisation and probably some expense but would save the rest of the Guild membership having to subsidise a piggy-back 'elite'. However, as so many members are in regular correspondence, why not continue to exchange

academic views by post, and then publish, or submit for publication to KM when ideas have been sorted out.

We are an educational charity, not an academic institution, and our magazine (or newsletter) reflects this by filling its pages with knotting news. The publications of most academic bodies, from architects to zoologists, rely for much of their funding on commercial advertising, so that the relevant technical information is sometimes hard to find. We do not have this problem with Knotting Matters.

As a final thought, and without a copy to hand, I am not sure if the Constitution of the Guild caters for funds being used to diversify in this fashion on the publication front. As a charity we cannot afford to break any constitutional rules. Perhaps I misunderstood the gist of the articles in KM58 & 59 and these wonderful new publications would be included in the current subscription to all members. This would presumably satisfy the constitution, but since we are getting the ar-

ticles anyway in KM, I do not see any benefit to the general membership.

It has not been my intention to offend anyone during this commentary, although I believe that some of my statements may be so construed. The comments in part are based upon conversations with many Guild members and I may have tightened (and cleaned) up some of the thoughts expressed to me.

Ed: These were the only comments on the proposal, even the AGM were totally unimpressed. Can we presume apathy or are you all still thinking about it? Please anymore comments on such a huge proposal would be appreciated. Or do we take the lack of interest as a no and the idea dies a death. What do the membership want?



also from Richard Hopkins..

Recently Ken Yalden and I attended the Classic Boat Show at Bucklers Hard in Hampshire. We were sited alongside Footrope Knots and were the only stall to be flooded, with water over our ankles. A fold in the ground outside channelled

all the rain that weekend straight through our stand. It was a wet weekend.

An exhibitor on a neighbouring stand, UK ATLANTIC CHALLENGE, watched our efforts to attract competitors for the Six Knot Challenge, and the instruction we gave to passers by of all ages and genders. He came and asked us to instruct some of his people in April 1999 at Fishguard, Pembrokeshire.

The UK ATLANTIC CHALLENGE is the UK part of an international maritime organisation with 8 member nations, Canada, Denmark, France, Ireland, Mexico, Russia, USA and the UK. Each year a team of 20 young people is selected, trained and compete in contest events which include sailing and rowing a traditional gig, navigation and seamanship. Included in the training are basic knots, bowline, reefknot, sheetbend, clove hitch, sheepshank, round turn and two half hitches, sack knot and perhaps one or two others. Instruction in knots is often done as an evening activity of two hours or

so, to help relax after a day of rowing.

The request was to the Guild to see if anyone could attend for one of these evenings, possibly on a Tuesday, early in April 1999 to instruct and talk about knots they need to learn.

As we have several Guild members in Pembrokeshire I thought that it would be a great opportunity for them to participate, especially since Pembrokeshire is so far from most Guild activities. It might even help to start a small branch. So can anyone help in Pembrokeshire, if you start now, you have time to get organised by April next year.

The Challenge is, like us, an educational charity, so cannot provide fees, but will cover travel costs and can provide overnight accommodation with one of its volunteers.

Anyone able to help please contact:

Jane Kerr on 01559 363201 or write to her at

UK Atlantice Challenge Maritime Training Trust, Y Bwthyn, High Street, Llandysul, Cardiganshire, SA44 4DN

The Supplies Department of the JGKT

*Wish to announce the appointment of
Bruce Turley
as the new Supplies Secretary
following the retirement of
Syloia Harding, after six
years at the counter.*

*Please send your orders direct
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B45 9ST*

*Phone 0121 453 4124
email:
106077.1156@compusero
.com*

*Syloia and Nigel wish Bruce
every success in this new
venture.*



From Mariann Palmborg, Bequia, St Vincent & Grenadines

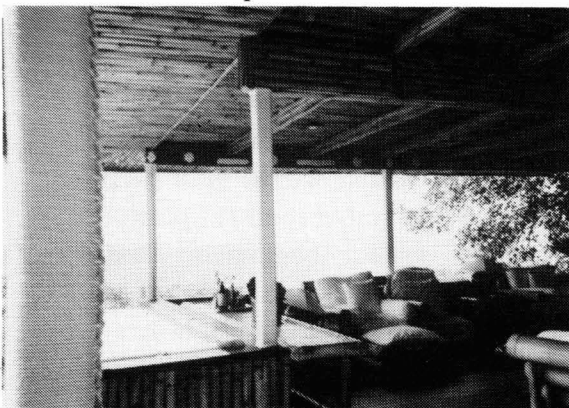
Coming home from my first IGKT meeting in Liverpool I felt small. On the other hand people had shown me the width of the knotting art, and all of the possibilities we have.

A couple of weeks after arriving home I got an interesting job, to decorate the bamboo room in Mandalay House, Mustique. The house used to belong to David Bowie, but for the past two years has belonged to Felix Denny. Mustique is the neighbouring island I can see from my veranda. It is where the rich and famous have houses including Princess Margaret.

I had a lovely week knotting day and night. I covered about 75 feet of poles and used approximately 1.5 miles of rope! The employer and I were very pleased with the result.

The season has started back here on Bequia so I am back at the harbour selling my stuff from my 1958 Landrover. One of the first days a lady from England

showed up and told me she is a member of IGKT, I was so excited I forgot to ask her, her name. That's the right attitude folks, come and visit me on my wonderful paradise island - Be-



quia in the Carribean.

Ed: Oh Marriann, if only.



IGKT AGM
FLAGSHIP
PORTSMOUTH
9th & 10th MAY 1998

by Lonnie Boggs

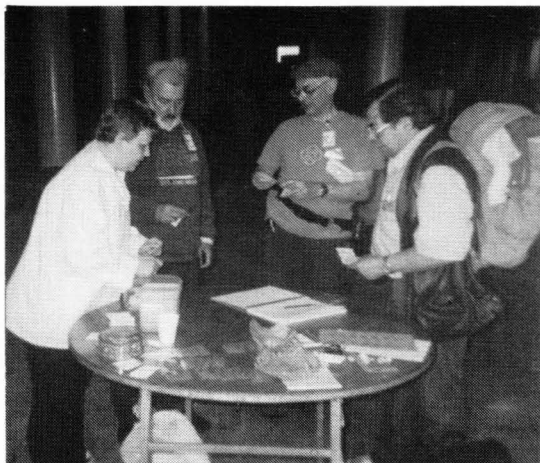
"Are you doing anything this weekend, Lonnie?"

"Oh yes, I'm off to Portsmouth Historic Docks for an AGM of the Guild."

"Oh, your ANORAKS club!"

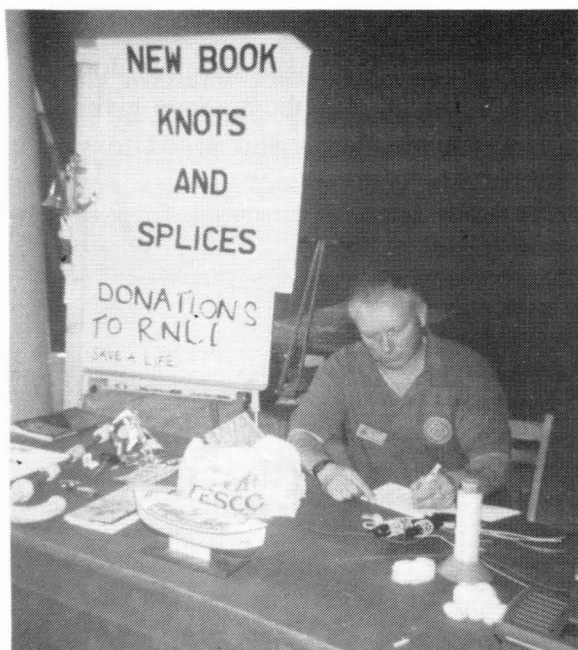
Well, in fact, yes, and proudly so too. The AGM weekends are always interesting and very busy. I have the best job of all I think. I show up on the day, walk around the stalls and displays and talk to people about what they are doing. The stall holders get nailed to the floor tending their stalls and the organisers get continually side-tracked getting water or cups or milk for the coffee etc. Boat-house No. 6 was a huge space, wide and tall, to be in! It was built to work on the great masts of the tall ships of yesterday. As the public came in at the gate they were given a handout telling them about the Guild and where we were on a map.

Coming in the big double doors, members were given a name badge and asked to sign the visitors book.



It's always good to see so many people I haven't seen for at least six months. I spend more money than I should buying rope, books and tools from the Guild Traders. Behind this table is the raffle books and Steve Judkins signing copies of his book and asking only for donations to the RNLI.

This little book, **KNOTS AND SPLICES** by Steve Judkins and Tim Davison, (64 pages, 11¹/₂ X 17 cm), from Fernhurst Books (High Street, Arundel, West Sussex, BN18 9AJ) packed with 201 beautiful and easy to follow illustrations and text, deals with modern rope in



a clear and concise way. The chapters cover the ten knots everyone should know, other useful knots, splices and whippings.

It was good to meet and talk to Steve, an interesting man to listen to. He gave us a Members Profile to the meeting and for KM.

One of the best parts about coming to Guild meetings are the demonstrations and explanations by people doing the work I'd like to be able to do if I was shipwrecked on a desert

island. Alex M'ardle of the Hampshire Guild of Weavers/ Spinners and Dyers was using a portable weaving machine with 4 shafts that carries 8 Heddles and each Heddle carries a thread. The pattern is determined by which Heddles are moved up or down. Alex just kept talking as she sat weaving away.

Next to her was Elizabeth Happ, using a travelling spinning wheel. She showed me how easily it folds right up into a 'briefcase' with a handle. Elizabeth was spinning up some Jacob fleece into yarn and people could have a go, great.



Europa Dawson speaking to Alex M'ardle



Elisabeth Happ and her wheel

Dave Williams had a display of Woody's Knots. Dave also gave me three years worth of Woody's Knot for KM. You can see the first one in this issue.

Derek Chipperfield had a good display of knot boards covering a whole table.

Bob Stroud's bell pulls, light pulls and knotwork was impressive.

John Smith, of the London Branch, was doing a very entertaining demonstration of the

Icicle Hitch and George Aldridge's Versitackle. With a meter long chrome plated pole, he asks you to tie a non slip knot for this cub that has just moved into his cub camp tent and wants to hang a bag from the tent pole?

"Oh yea." says I. "I can do this, gi'me some rope!"

"Enough to hang yourself sir?"

"What? What did you say?"

"Oh nothing sir, you were about to....???"

Well, I should have known I was going to learn something from the slick way he just encouraged me into making a **FOOL** of myself.

Margaret said, "You don't need any help to do that dear." She says that so sweetly that I'm not sure if she is yanking my chain or trying to pet me!

John shows me a hands-on way of tying the Icicle Hitch.

"Just a pile hitch with a few extra internal turns." He says.

Well, it seemed simple enough when he was showing me how, but it's not so easy sitting here trying to remember!

John attaches the cord to the other end of the pole via a versi-

tackle and pulls it tight, very tight, 'play-a-tune-on-it' tight. "Pull the versitackle down (i.e. away from the load) to tighten it and pull the end up (i.e. towards the load) to release the self-locking pulley." John explains as he demonstrates.

On John's back is a list of **FLYING** knots! OOPS, there goes another flying pig.

"No, really. Remind me of the list and I'll show you." He says. So with the ends in each hand he throws, twirls, swings or rolls a Flying Anglers Loop (looks like a perfection loop to me John?), a flying Tugboat Bowline, a Half Figure Eight, a $\frac{3}{4}$ Figure Eight, a Flying Pile Hitch, a Self forming Snug Hitch. By the way, if you ever meet John, ask him to show you his **FLYING BOWLINE**, it's a winner!!

I have a note in my book at this point that says "Brian Toss, 'Riggers Apprentice' - STROP-CYCLE'. If any-

one can remember why I wrote that in my notes I would appreciate being reminded.

Mr. T. Weeks, from Dorset displays his knot boards and demonstrates how to use that stiff water pipe lagging foam tubes to make turksheads. He just pushes pins into the foam each time he reaches the end of a twist around the tube and has to turn back down the tube for the next twist. When he gets to the point where he needs to start going under as well as over, as you do when making turksheads, the tube is stiff enough to hold the cord secure. What a good, cheep idea, a 'round' static knot board!!



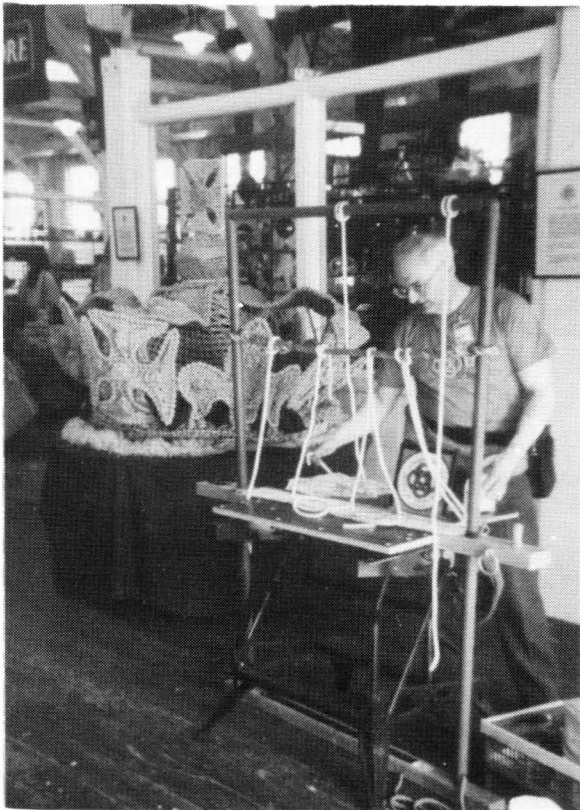
Mr. T. Weeks and display of pipe-insulator formers.
KNOTTING MATTERS 58 - JANUARY 1998

Ken Yalden called the rabble to order for the business meeting and introduces Frank Harris to welcome everyone. Frank thanks Ken and his helpers for all there hard work and comments on the tremendous open spaces we have for the meeting and displays. Ken has organised knot tying displays and demonstrations around the Historic dock Yard and the members servicing them will be wearing smocks and are known as the 'Smockmen', even the ladies. The light blue smocks are worn by Council members while the 'Worker Bees' are in dark blue will be demonstrating to the public in other buildings to 'Sing for our supper' here on the Historic Dock Yard. I only managed to see Richard Hopkins in Boathouse No. 7 doing the Six Knot Challenge.

Nigel Harding gives the Secretaries Report, speaking for only 7 minutes(!) and sits down. The Guild now has over 900 members and a new members

list has gone to the printers. (Full report included later.)

Linda Turley gave the Treasurers Report. All 'Deed-of-Covenant' members are urged to complete the form and return to her.



Richard Hopkins with Six Knot Challenge and Stuart Grangers Crown on display

Nigel then proposed a change to the constitution that would alter the terms of office of the Council members. Council members would be elected for a

three year term and only one-third of the Council would be re-elected each year. This would cut down having to vote on every member every year, making it simpler and quicker. This would also improve continuity of the Council overall. Candidates should be noted to the Secretary in writing at least 14 days before an AGM meeting. This is to make it less hectic when a name has to be hand written on every ballot minutes before a vote is taken. Maurice Smith asked if this might cause a problem if not enough people came forward? Ken Yalden answered that in these days of telephones people can be called and asked. Glad Findley says its a brilliant idea, lets get on with it. Denis Murphy asks if a postal vote of all members couldn't be used. Every member should have the opportunity to vote on the business of the Guild not just those that come to the meeting. Nigel thinks there is never a good response to postal votes but this is a different subject to what we are voting on here and perhaps this could be discussed in KM and brought to the next meeting at

Gilwell in October? Someone asked how this new Council would be divided up into thirds? The new members would draw a number out of a hat, 1, 2 or 3 and that would be their term for this council. The one year terms would be re-elected next year and the two years terms would be re-elected in two years. The proposal was overwhelmingly approved with only two against and one abstention.

Ballots where distributed as the candidates were asked to stand and be recognised. The results are the members below:

Linda Turley - Treasurer

Nigel Harding - Secretary

Colin Grundy

Brian Field

Charlie Smith

Bruce Turley

David Walker

Jeff Wyatt

Ken Yalden

During the counting two members came forward to give profiles of themselves.

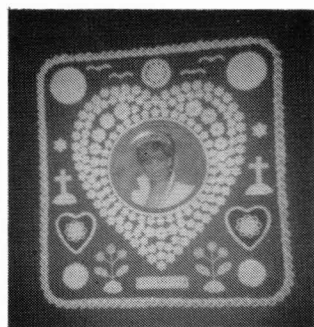
The first was Don Bellamy. A local man, he first became interested in knots in Scouts and often doodles with bits of string. He was given a copy of Geoffrey Budworth's 'Knot

Book' and joined the Guild from the address in the back of the book. He has also been encouraged by Brian Field at Malden. His main interest is very general fancy turksheads. Don also does up old boats here at the dockyard also as a committed Christian he does Church work.

We stopped by Bernard's table and admired his wonderful knotted frames including his newest one, a Diana Memorial Frame. Then Paul Cook modelled Stuart's Rope Crown for this photo.



Paul Cook wearing Stuart Graingers crown, from which he then designed the large one.



Bernard Cutbush and Capt. Bill Sparks with some of Bernard's many knotted frames, including the Diana Memorial Frame.



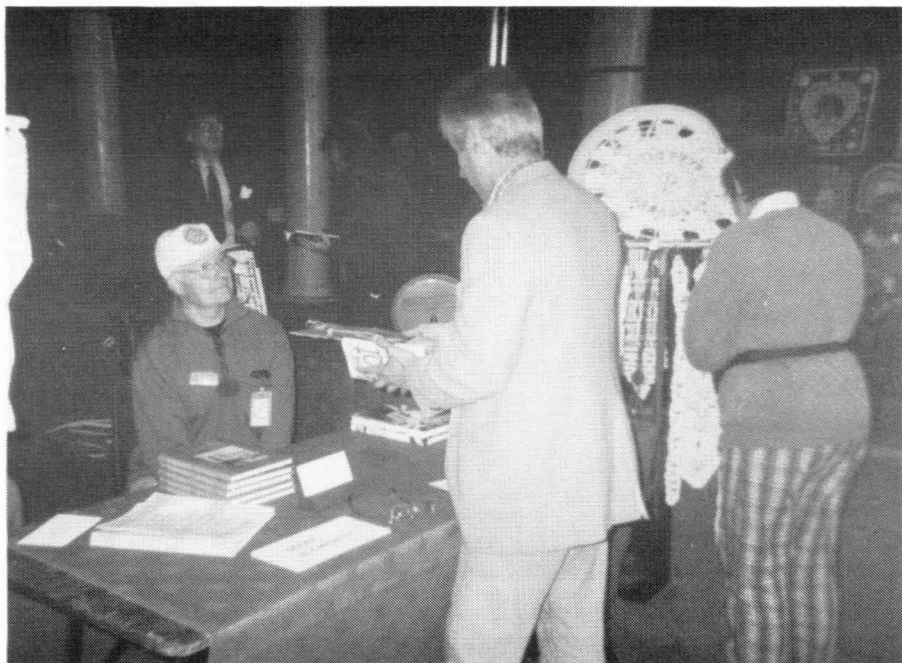
Bob Srtoud
and his
display of
Bell Ropes
and Turk-
sheads.

Derek Chipfield's display of Fenders and rope Knot Boards was the heavier end of the knot tying profession. Some of those bigger fenders did weigh a bunch.



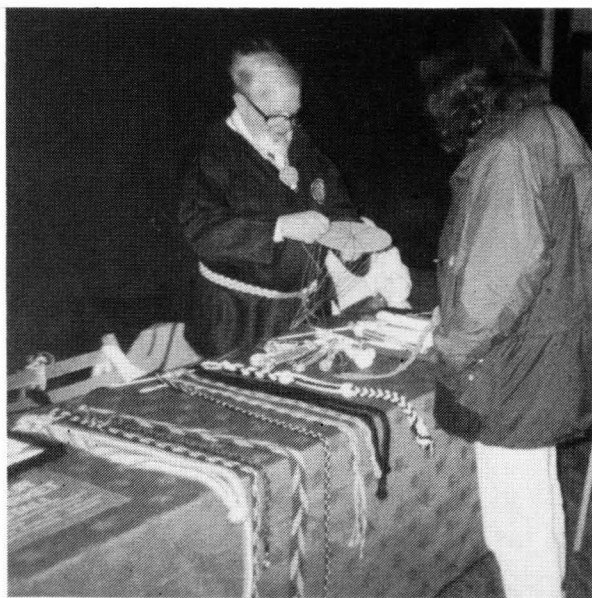
Later I got this photo of Derek (left) demonstrating to Ben Selfe the answer to the question of "How do I.....?" Sometimes the best way to answer the question is to "Show me."





Here Geoffrey Budworth is busy talking to one of the public that did find us and enjoyed what we had to see and do. Geoffrey is happy amongst his books and gorgeous wall hangings.

Ken Higgs is here demontraighting how to do Braiding on a Disc or Perovian Plating or Japanees Braiding depending mwho you learned it from.





Ron Long and his display of knot boards and many different types and styles of boat fenders.⁷



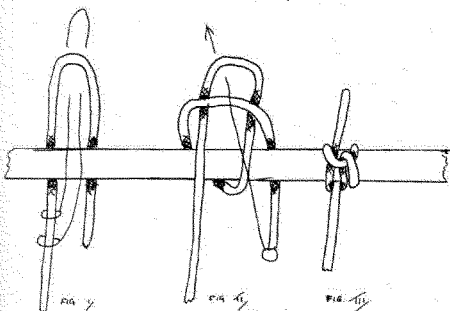
Fred Watkinson showing Margaret Boggs his "Chip-in-a-Bottle" and the rest of his interesting and unusual work. Now that's my kind of humor.

TWO PYLON HITCHES

by Owen K Nuttall

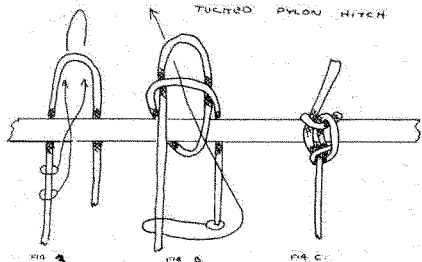
Here are four hitches, two Pylon hitches and two hitches based on the Figure of Eight.

PYLON HITCH



The first Pylon hitch is easy to tie and secure if weight is kept on the standing part. After fig 2, pull on the standing part to pull the top loop down. When the top loop is pulled down, secure by seesawing the standing part. (Allow for initial slippage)

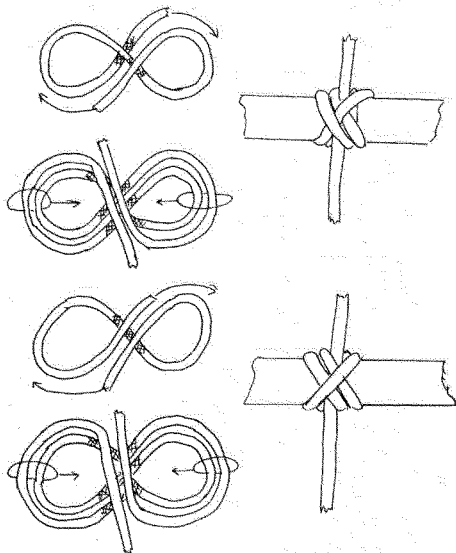
TUCKED PYLON HITCH



The Tucked Pylon hitch is secured the same way as the first Pylon hitch. When the Tucked

Pylon hitch is secured the hitch will hold even without weight on the standing part.

DOUBLE FIGURE OF EIGHT HITCH'S



The second two hitches are both formed with doubling the Figure of Eight. Fig 3 has starting ends on opposing sides and Fig 4 has ends on the same side. After doubling both of the above hitches the ends finish on the same side irrespective of which side is doubled first. After doubling each side of the figure of eight to the centre of the knot over the top of the working ends, slip the loop over a spar or pile. Both hitches

need to be worked tight by pulling each end in turn.

Finally tighten by seesawing each end to complete the finished knot. Both hitches are the same on the reverse side, each should have four round turns lying parallel and each end coming out of the loop in the centre 'two turns on each side'.

Both of the figure of eight loops could be tied in situ, but they would be time consuming and difficult. Both the Figure of Eight loops are very secure when tightened. I find the four hitches useful for different situations. Have fun tying them.



An article from 'Knot News' Pacific Americas Branch of IGKT, from their March newsletter.

Rope Beds

by Marty Combs

Now we have mattresses with names like Serta, Sealy and Kingsdown. There is also Buckwheat form fitting pillows to help give us a good nights sleep.

It wasn't always like this, people used to sleep on whatever was to be had in their local

area like straw, feathers, corn-husks or even dried seaweed. Mattresses were stuffed and laid directly onto a bed frame; one style of bed frame that seems to have been in common use was a rope or corded bed. The one drawback was that they had a tendency to sag and would have to be tightened up once or twice a year.

To make a rope bed you simply build a frame to the dimensions you need that has four end posts and four side pieces. Bore a row of holes through the sideboards, spacing them nine to ten inches apart. They should be directly opposite each other on the paired sides. Now you are ready to begin the actual rope weaving. Begin at the headboard and string the bed lengthwise as shown in the diagram. When the last hole in the headboard is filled, bring the rope around the bed post to the first hole in the side of the bed and begin the over and under weaving. When the last hole is filled, loop the end of the rope around the sideboard and tie it securely to one of the laced ropes.

I remember sleeping on a bed in one of the back rooms at my grandmother's house. It had holes drilled along the sideboards but I thought it was some kind of decoration. There wasn't any rope on it because it had been modified for a set of box springs. So if you see a bed frame with holds along the sideboards in an antique shop or museum, there is a good chance at one time it was a rope bed.



Another article from the Pacific Americas Branch of IGKT, from their April newsletter.

The Improvised Ridgpole

by Mike Storch

At times it is necessary to run a rope between two trees in order to set up a tarp or poncho for shelter. All too often this rope loses its tension and sags, but this need not be. The answer lies in a simple loop knot tied toward the centre of the rope. The trick is to put the loop in before the rope reaches the second tree. By going around the second tree and then through the loop before applying tension, leverage can be gained. The rope can be made

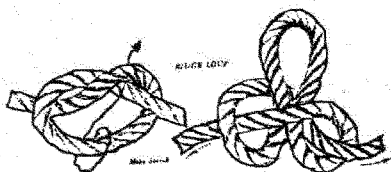
tight enough to act as a ridge-pole.

There are several cautions to be considered. First, avoid any loop knot that becomes difficult to untie after tension is applied. Even some of the easier loop knots will become a problem when wet with rain. Untying the knot is important so the rope can be used for other things after it has served its purpose. Even if you intend to break camp, hike down a trail, and reuse the rope for the same purpose the next time you set up a shelter, you may not find two trees the same distance apart as the previous two. The loop will now be in the wrong place and of little use. The ridge loop will untie easily under almost any conditions.

The next caution is being aware that too much tension can be applied with this system. When using thin line for the purpose, it is possible to exceed its limits and snap it. Likewise, even a fair-size line that is worn and weathered may be close to its breaking point. Just be aware of this applying tension so there will be no surprises.

The third and most important caution is to use some sort of padding under *any* rope where it wraps tightly around a tree. Rope is more easily replaced than a tree. A thin or very tight rope can have the effect of girdling a tree, especially a young or thin barked species. The result will be much the same as if a porcupine munched on it. A piece of folded cloth or even some thick dead twigs spread between the rope and tree will distribute the effects, and all will be well.

To tie the ridge loop, form a very loose overhand knot in the rope a few feet before the second tree. Pull a 'bight' through the crossed part of the knot, as in the sketch.

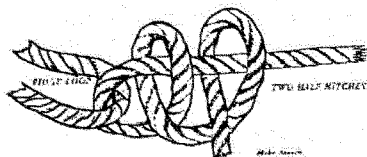


Once the bight is pulled through and the loop is formed as large as you want it, pull out on the two ends of the rope to set things snug. (Also known as an Artillery Loop or a Manharness Knot which was used mainly for its utility as a means

of hauling field guns into position with man power Ed)

The system: Tie the rope to the first tree, add a ridge loop a couple of feet before the second tree, continue around the second tree, and then pass the rope through the ridge loop. Pull back on the tail end of the rope to set the tension. What you have created is a primitive block and tackle. Allowing for some loss to friction, the ratio of power applied to pull received approaches two to one.

The finish: If there is enough rope to go back around the second tree, do so, and put two half hitches in close to the tree. This is the preferred method as it is easier to maintain tension while putting in the two half hitches in at the ridge loop, as shown in the sketch.



The drawback to this second method is that the two half hitches will be difficult to undo.

Another good place to use two half hitches? Sure! It's a great way to fasten the beginning of the rope around the first tree.

Guild Supplies

Price List 1998

Item	Price
Geoffrey Budworth	
Knotlore <i>a miscellany of quotes from fact and fiction</i>	£2.50
Much Ado About Knotting <i>history of the 1st 10 years of the Guild</i>	£2.50 *
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Knotting Matters <i>copies of past editions</i>	£2.50

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