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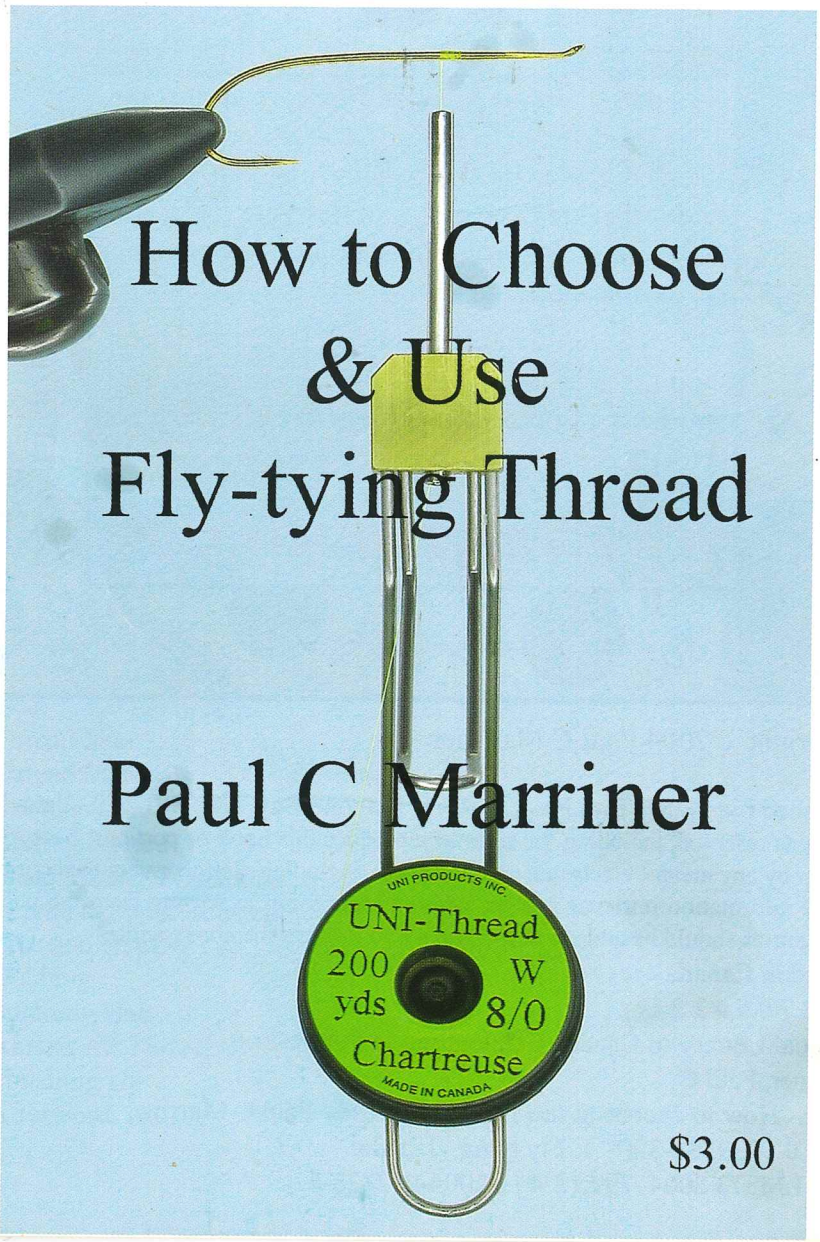
MAKE THE UNIQUE CHOICE



How to Choose & Use Fly-tying Thread

Paul C Marriner

$3.00

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Presents

Paul C Marriner's

How to Choose & Use Fly-Tying Thread

Contents

Introduction

Thread is the most important ingredient in fly-tying. A bold statement, but easily supported. What about the hook? Well, a wide range of patterns are tied on tubes, but only a tiny fraction of patterns are constructed without thread. And some flies are entirely built of thread.

As the most important ingredient, it's vital to pick the right thread for the job, and once chosen, know how to use it. Choose the right thread and your tying will be easier, and the end products neater, "fishier," and more durable. Sometimes a single thread is all you need, but the right choice may be several colors, types, or sizes at different stages of tying the fly. Regardless, you can trust that UNI Products offers all the threads you will need in any situation.

To make intelligent choices about which thread(s) to use, it's useful to understand something about the materials used to make thread and the various types of thread construction. It's also key to be aware of how fly-tying thread is sized and the distortions currently present in the marketplace. Included below are sections covering both topics.

Do you need a selection of thread colors? That depends. You could tie all your flies with, for example, white thread; but then, like substituting nutmeg for oregano in a spaghetti sauce, a recipe calling for red thread wouldn't "taste" the same. Moreover, having only one color of thread precludes a variety of useful techniques. Nonetheless, beginners are best served with a selection of thread types and sizes, filling in their color needs later. Like Henry Ford, begin with black, particularly as a vast number of pattern recipes call for it. True, one can color white thread to match Picasso's palette, but most of us are happy to leave coloring to the youngsters.

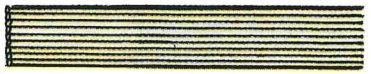
Finally, once a thread has been chosen for a tying task, knowing how to use it is the secret to a pleasurable bench-side session. So this booklet illustrates many of the tasks thread is called upon to perform. Master these and fly-tying will prove to be an interesting and satisfying hobby.

Note 1: Discriminatory it may be, but all instructions and photographs in this booklet are for right-handed people.

Note 2: Frequently, large hooks and large threads are used for the illustrations to facilitate photography.

Thread Construction

With the exception of monofilament, fly-tying threads are produced by combining a number of finer filaments. These filaments can be of different sizes depending on how they were processed. How many, and what size, filaments are used governs the "size" of the thread. As for nylon monofilament, it's a familiar product that's extruded as a single strand.



In what are commonly called "flat" threads, the individual filaments are parallel or have, as a group, only a few twists per foot. If you take an unbonded flat thread and flick the end with your finger, the individual filaments will separate from one another. They are the little brothers of floss and, like floss, can be difficult to handle with rough fingers. Also, without treatment, flat threads have a disagreeable tendency to spread out at the wrong moment. On the other hand, this property is desirable when tying some patterns. An example of an unbonded "flat" thread is UNI Nylon.

Give the filaments a few more simple twists per foot (how many depends on the manufacturer) and you have the first "round" thread. Of course it's not really round like ordinary monofilament, instead it appears round until under pressure. Threads with a simple twist resist fraying but can also be easily "flattened." To further assist in keeping the filaments together, some threads are lightly bonded; UNI Thread is such a thread. Such light bonding does not inhibit flattening.

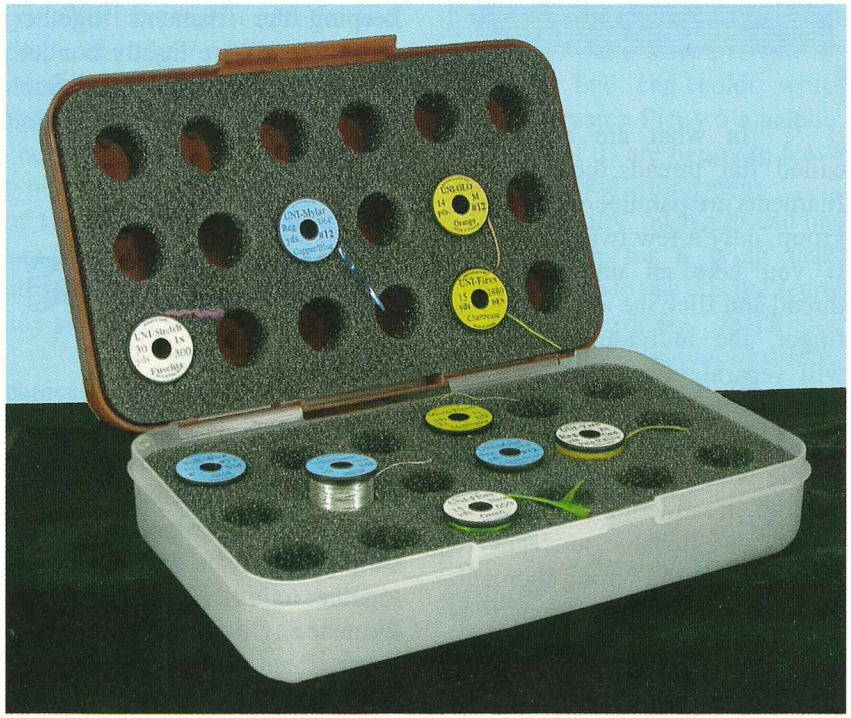
Several strands of a simple-twist thread can be combined in a variety of ways. One way is a rope-twist. This simply twists the several strands together to look like a rope, hence the name. Obviously rope-twists are confined to larger thread sizes. UNI Poly II is an example of a two-strand rope twist.

Wax

Some threads are available in both waxed and unwaxed versions; others come only in one or the other form. Waxing is widely misunderstood because the processes used, and their intention, can be considerably different depending on the seller. UNI Products infuses a proprietary wax into the thread. The wax helps bind the filaments to resist fraying and improves the thread's grip on materials.

It is not, however, intended to work as a sticky dubbing wax. Some other waxed threads have a visible wax buildup on the surface of the thread that can clog bobbin tubes.

Should you use waxed or unwaxed thread? The author uses both, but primarily waxed thread. Unwaxed thread is valuable for putting down a very smooth base, finishing heads, or when the tier is frequently twisting and flattening the thread (described in a later section) while tying a pattern .



The UNI-Tray II: an excellent product for storing and dispensing spooled materials such as tinsel and floss.

Thread Size

For many decades, fly-tying-thread suppliers used an archaic scale of thread sizes. Despite some published claims, considerable research by the author failed to yield the true source of the ubiquitous X/0 scale (the larger the "X" the smaller the thread, e.g. 6/0 is supposed to be smaller than 3/0). It is likely related to an antiquated silk, cotton, or surgical catgut sizing, and it was used in the sewing industry. Regardless, there was/is absolutely no standard associated with this scale. Nor was there any standard for the larger thread sizes like A, A+, or B (listed in increasing size). This comes as a shock to most tiers who, in a world governed by accepted standards, expect that anything with a number means the number adheres to "something" written "somewhere." Moreover, fly fishers are accustomed to using a very similar system for sizing monofilament. However, the X/0 system for monofilament does have an accepted size relationship, but one which bears no relationship to threads.

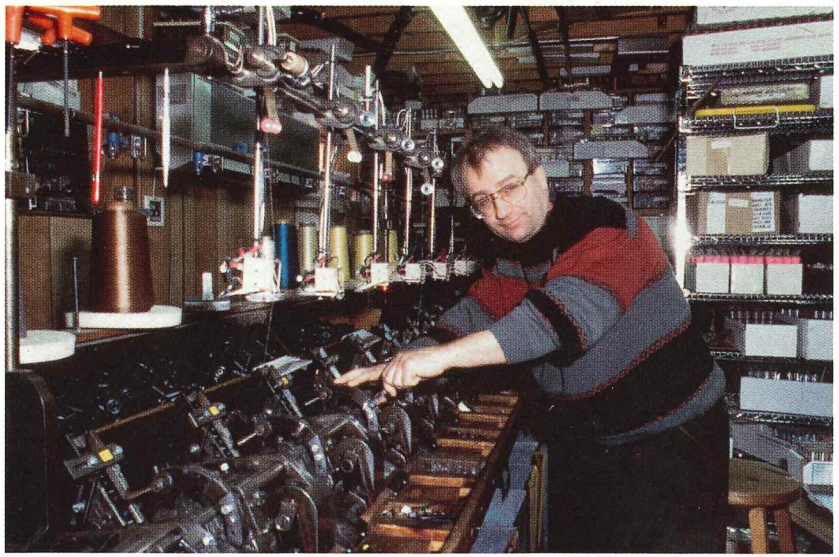
Nevertheless, for many decades only a few thread suppliers occupied the marketplace and the system wasn't all that bad. Within their own product lines they were consistent, so, for example, 8/0 UNI-Thread is smaller than 6/0 UNI-Thread. Moreover, competitors had some respect for system and thus an advertised 10/0 thread would be smaller than everyone else's 8/0. Then a few years ago things changed. Several new entries into the marketplace decided they could appeal to tiers by simply advertising a bigger "X" number even though the thread was in fact no smaller than the competitions supposedly larger "sizes," e.g., someone's 12/0 could be the same "size" as UNI's 8/0. Perfectly legal of course as there is no standard, but it deceived tiers who naturally assumed that the numbers had some real meaning.

Perhaps their antics were a good thing however, as it hopefully marked the beginning of the end for what is an inherently bad system. Today, some major companies are starting to use a scientifically based system, the Denier system, to inform purchasers about the true "size" of the thread. The reason the word *size* is in quotes is because, when it comes to thread, it's relatively meaningless. How can one measure and compare the "size" of a round and flat thread? The Denier system, used by the textile industry, avoids all such problems. The Denier number is the weight

in grams of 9000 meters of thread. So, a smaller Denier number absolutely means a smaller thread, regardless of how one wants to define "smaller." Those who remember highschool physics will recognize that there will be slight anomalies depending on a materials density, but in comparisons of fly-tying threads these will be insignificant. Below is a table with the Denier and common sizing of some threads from UNI Products.

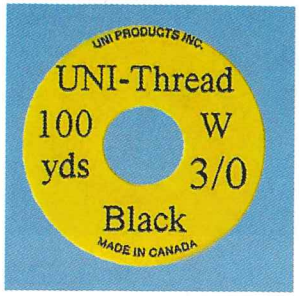
A frequent beginner question is, "what size thread should I buy first?" I recommend 6/0 UNI-Thread as it offers the new tier considerable protection against broken thread while getting a feel for tying pressures. Equally important, this size will properly tie a vast number of published patterns.

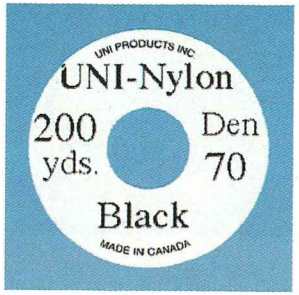
Product	UNI Thread	UNI Thread	Big Fly	GloThread	UNI Cord	UNI Cord
Denier	72	135	400	180	50	110
Old Size	8/0	6/0	B	3/0	12/0	7/0



UNI Products owner Jean-Guy Côté adjusts one of the company's spooling machines.

Thread Materials





Polyester

Fly-tying threads are made from a number of materials, the most common of which are polyester and nylon. In general, for the same size, polyester thread is stronger than nylon. For most patterns, tiers will use threads made of one or the other of these materials. UNI Products signature thread, UNI Thread, is polyester. Polyester thread is available in a broad range of sizes, colours, and treatments. Among the treatments are those intended to achieve special effects such as fluorescence. UNI Neon is a fluorescent polyester thread.

Nylon

Nylon is the other popular thread material. Like polyester, it comes in several styles—flat, simple twist, and rope twist—and treatments. Unlike UNI's polyester, it isn't normally bonded, and so the flat and simple twist styles easily separate into individual filaments. It is also stretchier than polyester. UNI offers multi-filament nylon threads in a wide range of sizes and styles.

To compliment its other phosphorescent products, UNI has introduced UNI GloThread. When charged, this nylon thread is incredibly bright and the glow long lasting.

Kevlar

Kevlar thread is extremely strong, but more expensive than polyester or nylon. Its major use is in tying large flies with difficult materials, e.g., some almost incompressible synthetics, and it is impervious to saltwater damage. Don't try to cut it normally, rather, slide the thread under tension into open scissors blades.

Micro-Tinsel

UNI Micro-Tinsel is small enough to tie down materials, make an interesting head, and serve as a base for, and the core of, dubbed bodies. Available in 3/0 (3 colors) and 6/0 (14 colors).

GSP (Gel-spun Polyethylene)

Although more expensive than Kevlar, GSP threads have mostly supplanted Kevlar for the uses described previously. Why? Because for the same strength GSP thread is smaller, and is generally available in a wider range of sizes and colours. Some tiers also prefer GSP thread for tying large spun deer-hair patterns. UNI Products markets GSP thread in two sizes under the name UNI-Cord. Slack GSP is also difficult to cut, but if one ensures the thread is under heavy tension when the scissor blades are closed the problem disappears.

For some time GSP threads were available in a limited range of colors; however, UNI has recently introduced several new UNI-Cord colors including yellow and three fresh greens.

Monofilament

Fine translucent monofilament has a good strength/diameter ratio and is impervious to saltwater. A slippery surface helps when one wants to twist materials around the thread without the thread itself twisting. Drawbacks include a hard surface that is no help in gripping materials and, because it retains it shape, it builds up rapidly. UNI offers this material in two sizes under the name UNI-Mono. An exciting new mono thread is UNI-Caenis. This is a very small, but amazingly strong, single filament thread. Unlike other monofilament it is available in black and white.

Wire

Wire can be used as a fly-tying thread, likely more widely than generally assumed. The classic example is Frank Sawyer's Pheasant Tail Nymph. Here the wire serves as both weight (underbody) and thread. Other patterns call for dubbing directly onto wire or creating dubbing brushes with wire cores (see pages 31 - 40 for explanations of dubbing and dubbing techniques). UNI Soft Wire is ideal for all these purposes and comes in a variety of sizes and colours.

Bart Carver's Copperhead; this example tied with UNI Soft Wire as thread.

Bobbins

Once upon a time fly tiers took a length of sewing thread, waxed it, and began tying a fly. When they needed both hands for some operation they wrapped the loose end of the thread around a "button" fixed to the edge of their bench. Few modern tiers would choose this arrangement over the convenient fly-tying bobbin. Sticklers would argue that these are actually bobbin holders, not bobbins, but common usage prevails.

The marketplace offers a wide selection of bobbins, but one design is by far the most popular. It is manufactured by many companies with a variety of modifications. Polished steel tubes are the standard on inexpensive models. Stainless steel or ceramic tubes offer additional protection against eventual wear, particularly if one frequently ties with very high-strength threads. While not everyone would agree, I find fine threads are best handled by a bobbin with a finely adjustable spool tension. One pictured below is the Rite Merco bobbin. The star wheel permits precise tension adjustment, both at the start of a spool and the necessary compensation as the effective spool diameter is reduced by thread use.

With standard vises I have long used the common open-frame or wishbone bobbins. Although all are sometimes referred to as the Materelli bobbin, those manufactured by Frank Materelli feature a stainless steel tube to virtually eliminate wear. Inexpensive (excluding stainless steel and most ceramic models) and uncomplicated, this style also lets one see the information on the spool label. UNI goes to considerable trouble to make these labels long-lasting and bobbin friendly (pre-punched hole). Unless one selects a model with integral weight (my preference), this style is rather light. And, as we'll see later, it can sometimes be an advantage to have a heavy bobbin.

Some tiers have asked me if they can get by with only one bobbin. My response is, "yes, if you tie with only a few types and/or sizes of thread." If you tie with multiple thread sizes and/or types, it's convenient to have several bobbins. Here, "thread" is used in the broad sense, as bobbins are frequently used for applying other spooled materials such as yarn. However, it's not necessary to spend a bundle, inexpensive steel-tube bobbins will give you years of satisfactory

performance (exceptions have already been mentioned).

A good friend and consummate professional tier once told me, "unless you break your thread on one out of every twenty flies, you aren't applying enough tension." This is the real world equivalent of saying that your goal should be to be tying close to the thread's breaking strength. Obviously this statement excludes large or superstrong threads like UNI BigFly, UNI-Cord, or UNI Kevlar. With those products you couldn't come close to applying this much tension without mechanical assistance. Why so concerned about tension? It's like tying up a bag of trash, too loose and you'll likely have a mess on your hands.

To get the feel of a typical tying thread, secure (see page 15) a 6/0 UNI-Thread at mid-shank of a standard trout wet-fly hook. Now pull straight down until it breaks. Sorry, that really wasn't fair, was it? It's likely that one of several possibilities arose. First, if you didn't apply pressure to the spool with your hand to prevent it, the spool turned. If you did, the hook bent. Finally, if you held the hook and squeezed the bobbin, you found it surprisingly difficult to break. So, what of my friend's statement? Really only applicable if, like he, you tie relatively large flies with fine threads. So why did I bother to mention it? Because, even if you don't break the thread 1/20 of the time, it's worth emphasizing the importance of wrapping materials as tightly as possible.

In my experience, most thread breakage occurs after damage to some of the thread filaments. Rough fingers, the hook point, nicked bobbin tubes: these are obvious evildoers that can break some filaments resulting in that annoying "snap." Another potential culprit is pulling thread quickly from the bobbin with the thread contacting the lip of the bobbin tube. The friction-generated heat can melt some filaments with the result that the thread looks frayed. My first line of defense against the snaggers is the lightly-bonded property of UNI-Thread, with the optional waxing in reserve. When thread filaments are kept together, they aren't snagged as easily. With unbonded nylon threads, I keep the thread twisted whenever possible. As for friction damage, this is easily avoided by only pulling thread from the spool when it's parallel to the tube (i.e., not touching the tube lip).

I set the tension of my regular bobbins so that the thread pulls out smoothly and control the tying tension by hand pressure on the spool. In the smallest sizes of nylon and polyester threads, it's

possible to set the tension just below the breaking point of the thread. Frankly I don't like this because if you accidentally put a little extra pressure on the spool, snap. I'd rather have the infinitely more adjustable hand pressure controlling things. However, the exception is the super-fine threads such as UNI Trico and Caenis. With these threads, because I use them so seldom and thus have little sense of their strength, I prefer a bobbin with finely adjustable tension such as the Rite Merco mentioned above.

Rotary tying on a true rotary vise (hook shank remains level during rotation) begs for an automatic bobbin. Why? Because the thread must continually be lengthened to reach the bobbin holder and then rewound on the spool. The automatic Norlander bobbin (not shown) requires re-spooling of the thread onto its own spools. Although more expensive, the Ekich bobbin is an excellent all-purpose bobbin. Not only automatic, satisfyingly heavy, and perfectly balanced for all threads, it accepts standard spools.

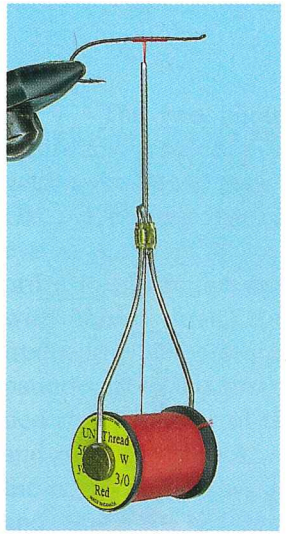
The length and diameter of bobbin tubes also varies. For working around the bend of small hooks, a long, small-diameter, tube makes life easier. At the other end of the scale, bobbins designed to handle materials have large diameter tubes.

Tip: Like us, thread ages, particularly that portion exposed to the air. So, if you mount a spool of a size or colour that hasn't been used for some time, pull off a layer or two to ensure the material is fresh.

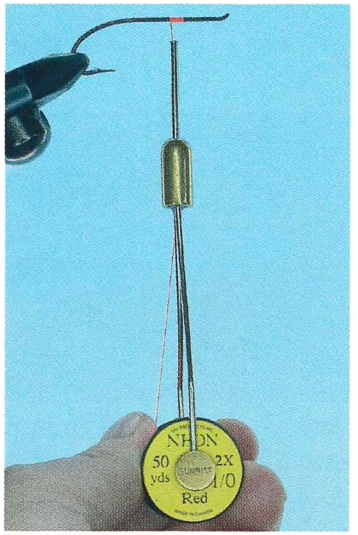
Tip: Cut the tip off the finger of an ordinary kitchen "rubber" glove. Make a hole in the center and push it down over the bobbin tube. When you need to hold some material out of the way while finishing the head, slide the guard up and over the eye and invert it. When finished, slide the guard back onto the bobbin. Always there and it stays out of the way.

Tip: After a spool is inserted in a bobbin the thread must be pulled through the tube. An inexpensive bobbin threader is a dental floss threader from the pharmacy.

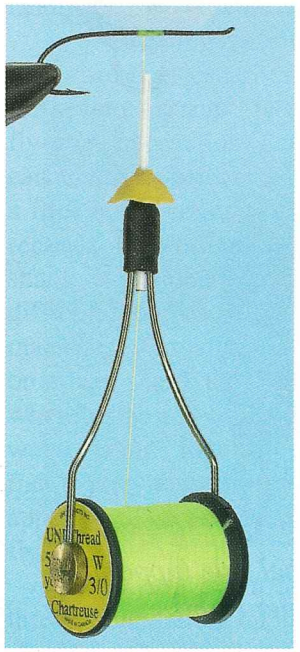
Tip: To keep the loose end of thread from the bobbin under control for storage, pull out enough to run the end into the nick on the spool rim.



A Materelli bobbin

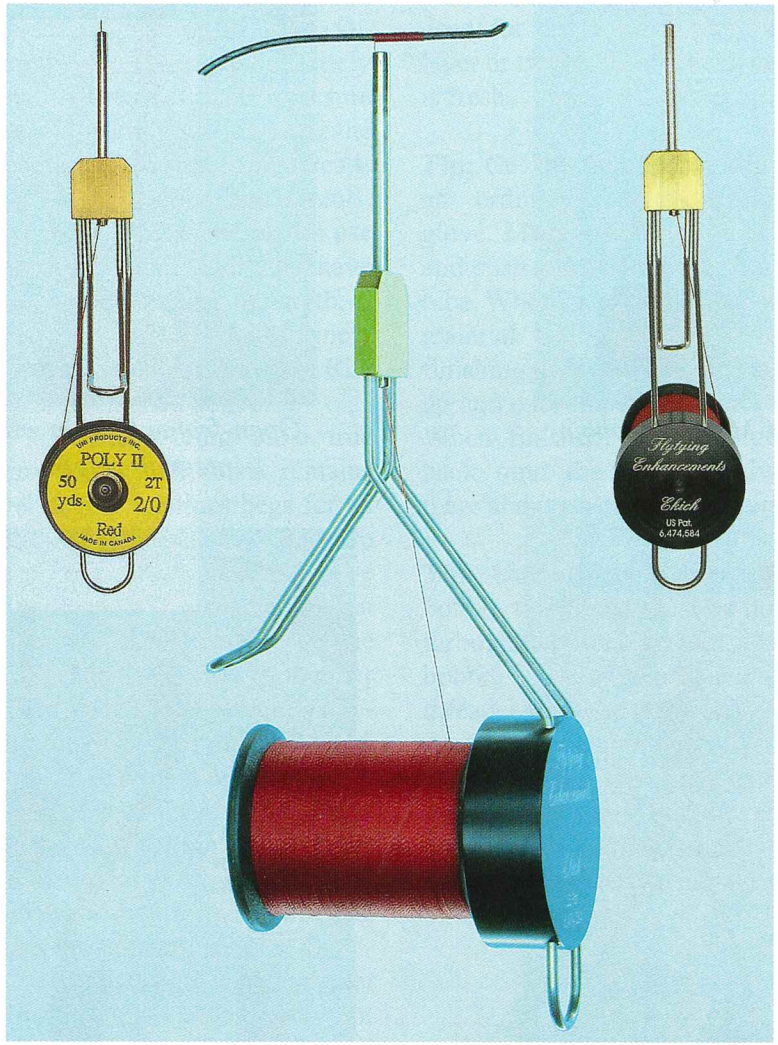


Open-frame bobbin with integral weight



Tiemco ceramic tube bobbin with glove tip "hackle guard."

Rite-Merco bobbin; insert shows adjustment wheel.



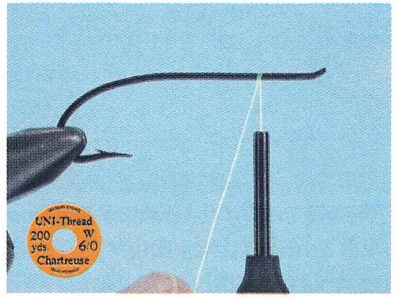
Ekich bobbin; inserts show the spool label side (upper left) and the bobbin spring side (upper right).

Getting Started

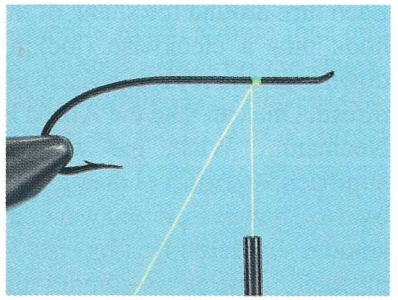
The two photos in the right-hand column illustrate getting the thread onto the hook. Ok, but where? Just behind the eye is a common approach in order to cover the hook shank with thread first, but this is frequently unnecessary. Many patterns have the first materials tied in at the rear of the shank, and so for large hooks starting at the front can be a waste of time and thread. The thread must move forward as we tie, so why not attach it near the rear and neatly cover the shank as we go?

Covering the hook shank with thread is usually desirable for several reasons: 1) when the fly goes into action, dark hooks can adversely affect the colour of a flies body; covering the shank reduces this effect; 2) a bare shank is "slippery," making it difficult to precisely position materials; 3) materials wrapped on a bare shank may later rotate when being tied to the leader or when being removed from a fish's jaw, thus destroying the appearance or usefulness of the fly.

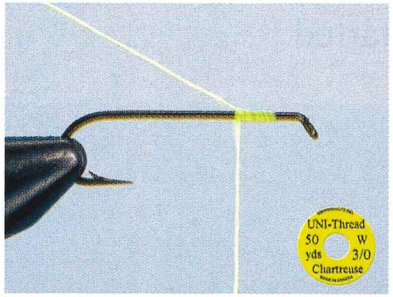
Laying down a smooth thread foundation on the hook shank may be very important for a fly's overall appearance. For example, to finish with a good-looking Mylar tinsel body, a smooth underbody is essential. This means keeping the thread wraps tight together when winding rearwards. As seen in the photo on the following page, the tag end of the thread can help. By holding it up at a slight angle and not cutting it off until the end of the shank is almost reached, it puts the thread winds tight together.



Begin by looping the thread over the shank with the waste end towards the rear.

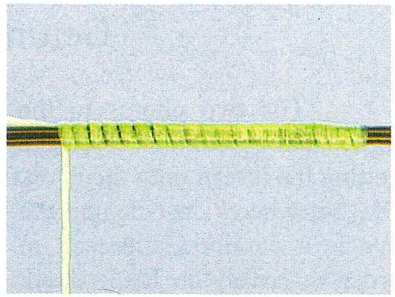


Wrap rearward with the bobbin trapping the waste end against the shank.

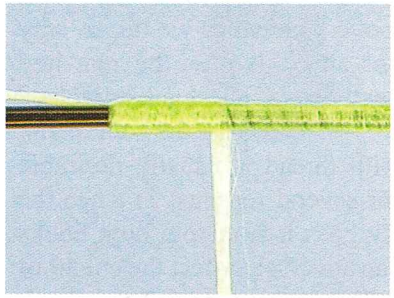


The tag end of the thread is being held upward at an angle to guide each wrap tight to the last.

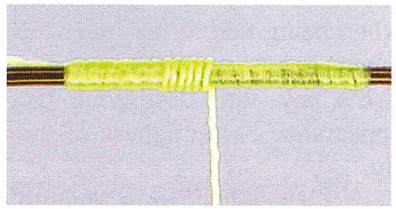
An insidious devil is at work while we wrap our thread. Each turn around the shank of the hook puts a clockwise (looking down from above) half-twist in the thread. One can take the Alfred E. Neumann, "What, me worry?" approach, and most of the time get by. Not, however, if you want that smooth underbody, or, in a nutshell, control. Assuming the latter, all that is really necessary is to recognize what is happening and decide whether or not to take countermeasures. For example, to produce a smooth underbody we don't want the thread to keep twisting ever tighter. So, after every half-dozen turns, spin the bobbin a few counterclockwise turns. At other times we want the thread to be tightly twisted to apply maximum force in the minimum space, as in the case of tying in a hair tail. So, spin the bobbin clockwise. The following photos illustrate the process.



The thread has been wrapped rearward without any attempt to keep the wraps tight; the effect of inherent twisting is beginning to become visible.



Bobbin has been spun a few turns counter-clockwise to remove the twist, then wound forward.



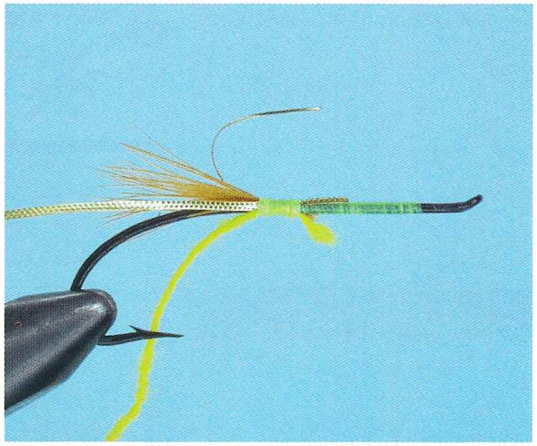
Bobbin has been spun clockwise many turns to induce twist and the thread wound further forward.

Basic Thread Operations

To begin, the words "tie in" or "tie on" refer to attaching a material to the hook shank. "Tied off" refers to the final wraps securing a material before it is trimmed.

Having attached the thread to the hook shank and moved it to the reference point where the first piece of material will be tied in, the next step is to tie in the material. How this is done depends on the material. Moreover, it may be important for ease of construction, or for the look of the fly, to have the tie-in point at a particular place on the hook shank circumference, e.g., on the top, or bottom, or side. For example, to make a tinsel rib appear first at the "right" point on the facing side of the shank, it's useful to attach the tinsel on the top of the shank. This of course has nothing to do with the effectiveness of the fly, merely how it looks when held in the normal position. A second example is when more than one material is to be attached at the "same" linear location on the shank. Spreading out these tie-in points around the circumference reduces bulk.

Another consideration is the direction of pull. It is rarely correct to apply thread tension at a fore or aft angle other than the minimum necessary to advance the thread. Angled tension yields slanted wraps which are less effective at holding materials and cause unsightly lumps. Virtually all tension should be perpendicular to the shank.

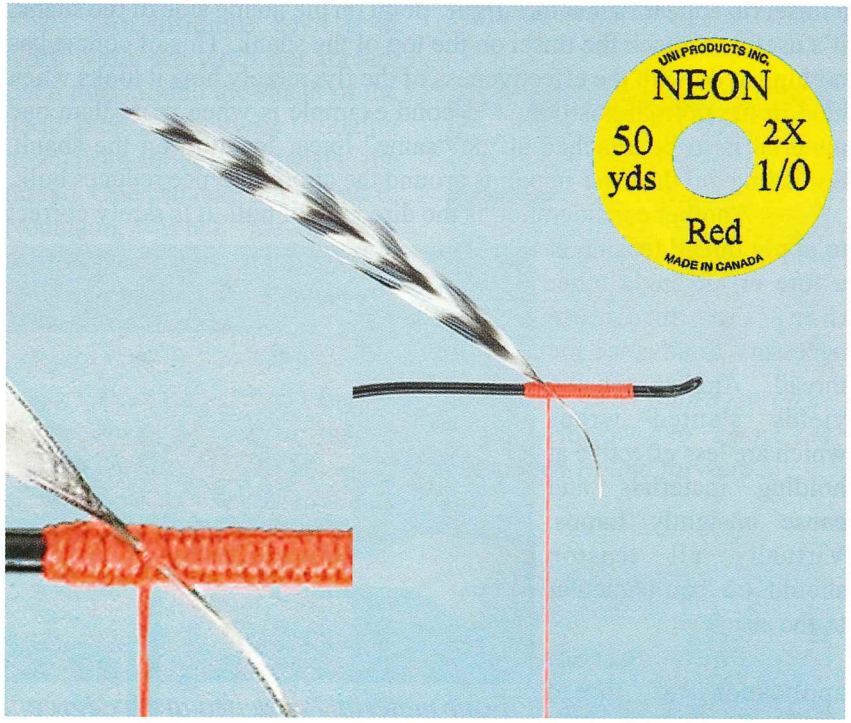


Four materials attached at 90 degree points around the hook shank.

The correct application of thread tension is the secret to effective material attachment. For example, by first applying a light tension to position a material, followed by a heavy tension to secure it, materials can be prevented from rotating away from the desired location.

Hard Wrap

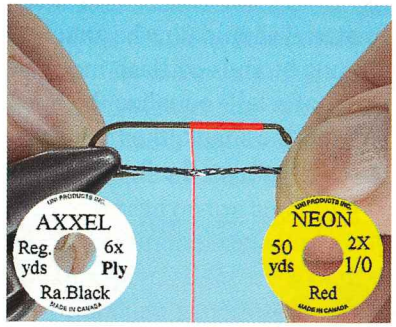
The first method could be called the hard wrap. Here the material is held against the side of the shank and the thread, under light tension, is brought up over it, over the top of the shank. Now heavy tension is applied and the thread is moved forward of (assuming the material is being attached to wrap forward), but touching, the first wrap and around again. Now additional locking wraps (page 25) can be made if necessary to hold the material. When used for attachments, the materials are usually hard like the hackle stem shown below, and typically unsuitable for tying-in elsewhere on the shank. More often the hard wrap is used to tie-off materials.



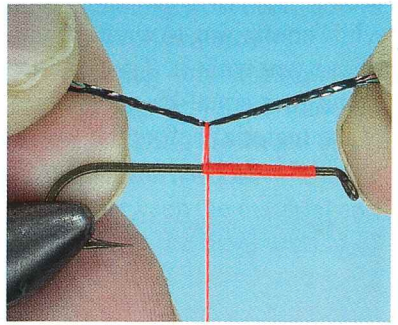
A hard wrap used to tie-in a hackle, dry-fly style. The insert, lower-left, is a closeup view of the tie-in point. As revealed by the upper-right insert, the thread is UNI Neon, a two-ply rope twist that is particularly stable for photography. Additional locking hard wraps are taken forward of the first.

Lift-and-Lower

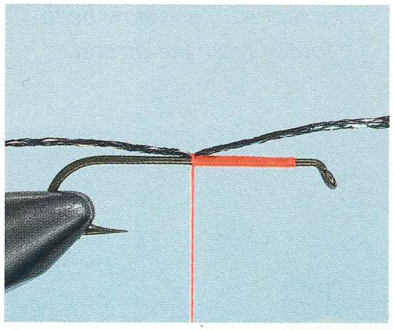
Many materials, including bunches of hair or feather fibers, may usefully be attached on the top of the shank. Moreover, if you are using a true-rotary vise (hook shank remains level during rotation), this technique can be applied at any point around the hook's circumference. The following photos and captions illustrate and describe the technique.



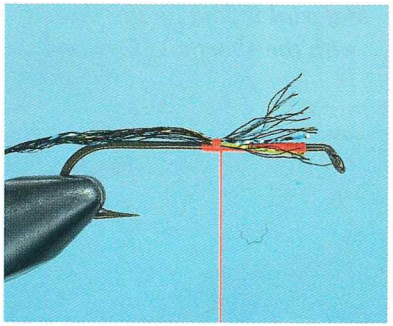
A length of Axxel flash material, waste end forward, is brought up against the thread. Both ends are moved so as to be behind the shank.



The material is moved upward with both hands to a position shown above.



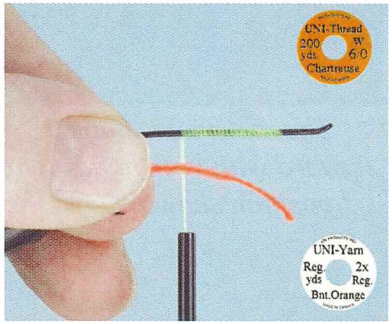
Still held in both hands, the material is lowered until it contacts the top of the hook shank. Once there it can be released.



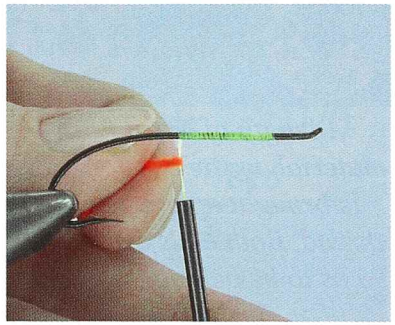
The material may now be drawn rearward to minimize or size the waste end. Afterwards, several locking wraps are taken forward.

Fold Wrap

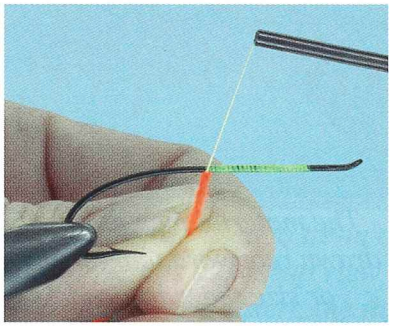
Most vises don't accommodate the use of the lift-and-lower tactic except on top of the shank. So, while it's often possible to place material circumferentially after the initial turn of a hard wrap attachment, some materials such as floss or multi-strand flash materials make this approach difficult. An alternate strategy is the fold wrap. Lay the material on the thread with the waste end pointing forward. Fold the material around the thread as shown. Move the thread and material around the shank until the desired spot is reached. Slide the fold up to the shank and hold there while continuing to wrap the thread. The material should now be attached where you want it. Try the following with two strands of flash material to put four equal-length strands on each side of a tail: equalize the ends of the material before the fold is drawn tight to the shank, then bend the forward ends rearward and take another hard wrap over the four strands.



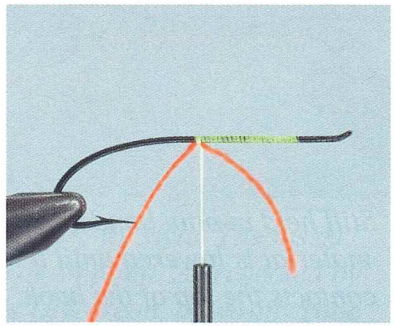
Material is laid on the thread with the short end forward.



The material has now been folded over the thread.



The thread has been lifted and the fold has been slid up to meet the shank.

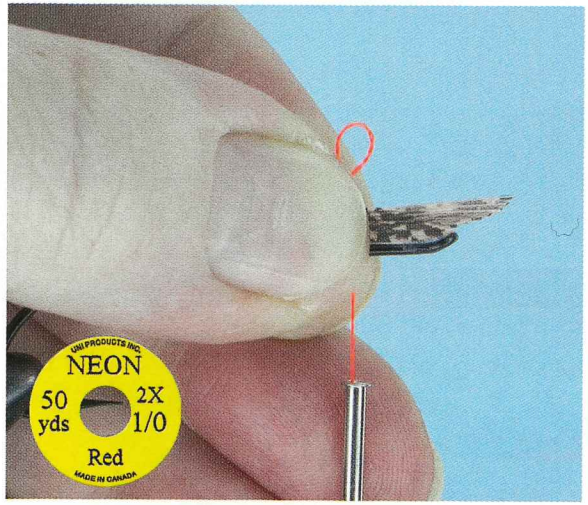


The thread has been wound around the shank with tension to position the material.

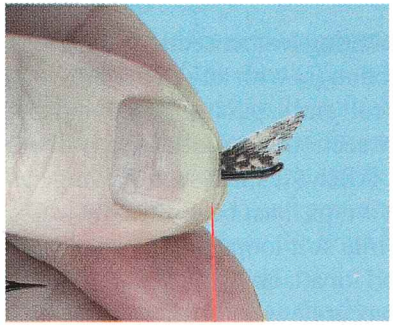
Soft Loop

Soft loops are essential when mounting feather sections for wings or tails. If one tries to attach a feather section (s) with any of the previous techniques, the individual feather fibers roll and separate. To prevent this the thread must pull straight down on the section(s) to collapse the fibers at the tie in point one on top of the other. After a feather-section wing has been attached with a soft loop all further wraps must be toward the waste end or all your work will be undone. While soft loops are indispensable for feather sections, many use this method for attaching most materials on top of the shank as it becomes fast and accurate with practice.

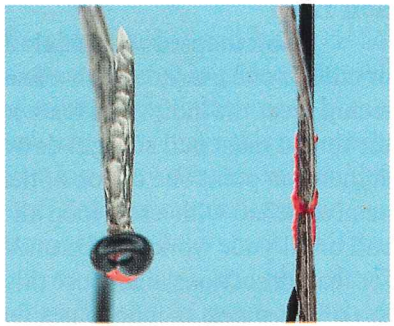
To make a soft loop, begin by removing any accumulated winding twist to stop the loose loop from furling. Hold the material between thumb and forefinger on top of the shank. Bring the thread up on the near side of shank between the thumb and material. Leave a loose loop of thread on top and bring the thread down between the material and forefinger on the back side of the shank in line with the front section of thread. Next, with the material and two sections of thread squeezed between thumb and forefinger, pull straight down. This brings the thread loop down directly on top of the material and stops it rolling.



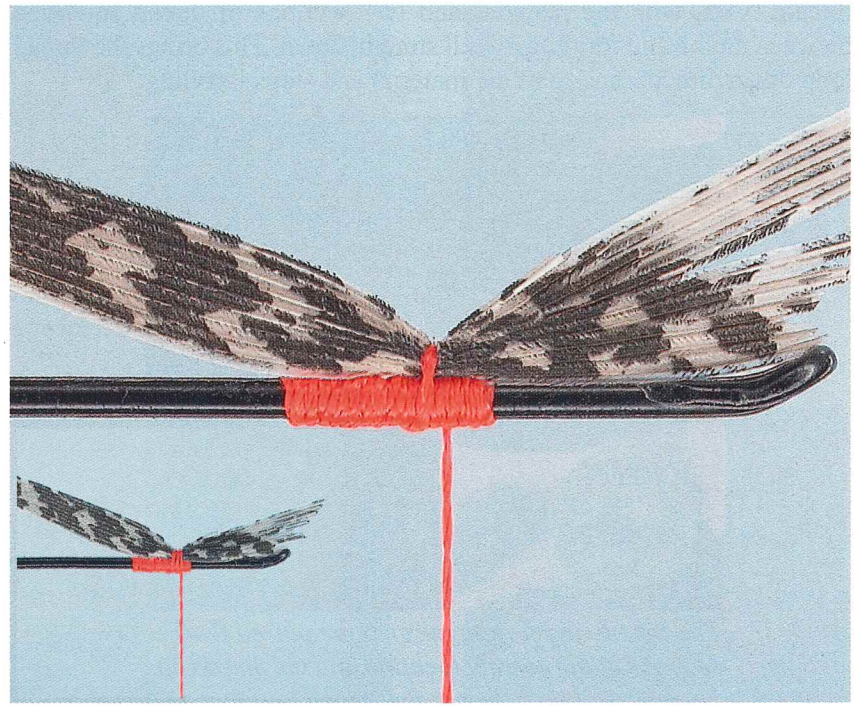
The thumb and forefinger grip the paired feather sections at the correct location and the thread has been passed up between the thumb and material and then down between the finger and material on the far side of the shank. A small loose loop is formed on top of the material during this process.



Loop drawn tight by pulling thread straight down; pinch held while tightening. Some experts rock pinch back and forth while tightening.



To avoid rolling, the feather slips must be centered on the top of the hook shank as the two views, front (L) and from above (R), show.



Main: the first soft loop—the paired feather slips have collapsed properly even though the loop isn't perfectly vertically aligned. Insert: after two more soft loops were applied for security.

Noose Loop

Wings that call for multiple bunches of colored hair often frustrate beginning tiers. Hard slippery hairs such as squirrel tail are downright nasty as they squirt out from underneath the thread wraps or spread like the plague around the shank. As it is so often, the secret is patience. Keep the hair bunches small, make the wraps tight, and keep the thread wraps one on top of another. For the worst culprits, use the noose to choke the fight out of them.

To make a noose, hold a hair bundle above the shank and take a complete thread wrap around the bundle. Now grasp the waste ends of the bundle with the right hand.. Make sure the bobbin is hanging on the far side of the shank. Now lower the bundle slowly into place, letting the weight of the bobbin keep the loop snug. When the bundle contacts the hook shank, let go the waste ends and take two tight locking wraps over the noose loop. Repeat with additional bundles if building a multi-layer wing.

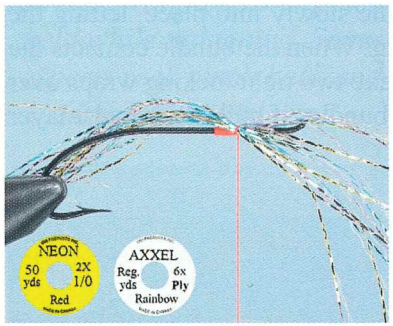
A second hair bundle is being added to the wing. The noose is in place and the bundle is ready to be lowered.

The bundle has been lowered into place and locking wraps have been added.

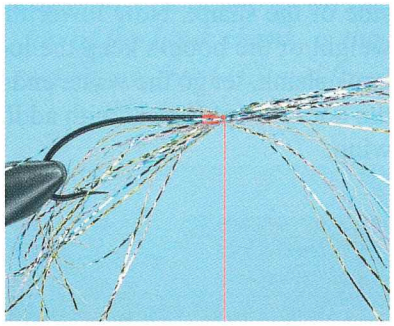
Distribution Wrap

Sometimes it's desirable to have the material distribute itself partially or completely around the shank, such as when tying a collar of flash material or using oversized hackle barbs (spinning hair is treated in a later section). Here, working on a bare shank is best.

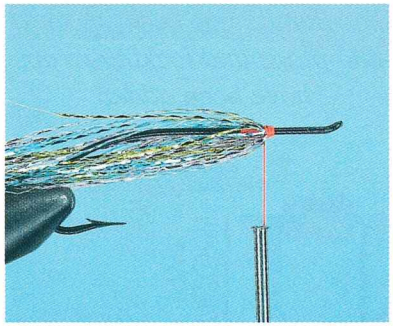
Begin as if making a hard wrap, but don't tighten completely. Instead, loosen your hold on the material so it can move and tighten slowly while taking another turn of thread around the shank. Once there is no danger of the material falling out, release it and encourage it to distribute evenly with the left hand.



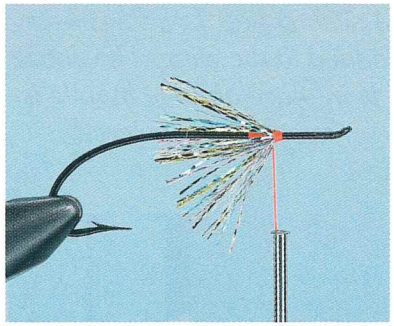
A bunch of Axxel flash material has been pinned to the side of the shank with the start of a hard wrap.



The thread is now brought under, up and around the shank with increasing tension. This pulls the material with it.



Now distributed around the shank, the material is folded back and secured.

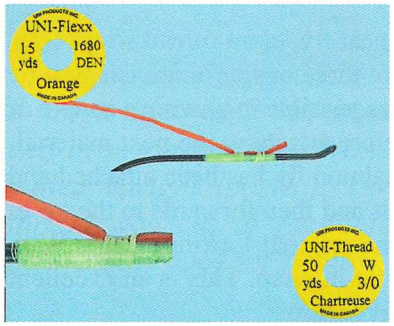


The Axxel Flash has been clipped to form a flashy collar.

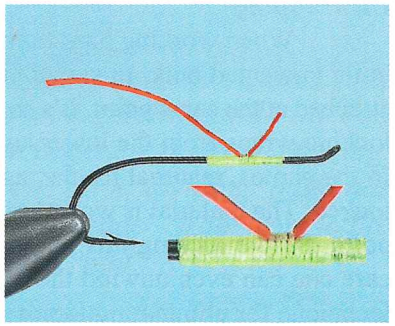
Locking Wraps

After the attachment wrap(s), additional thread wraps are called locking wraps. The type and number needed depends on how easily the material collapses and/or clings to the thread and shank covering. The following photos illustrate and describe four options. The names are in common, but not universal, use.

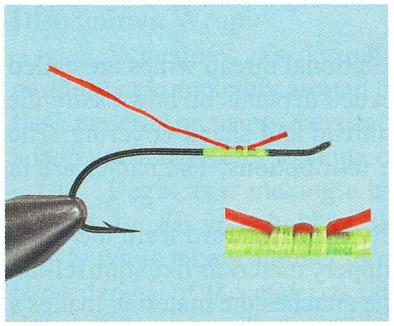
Type 1 locking wraps are usually made forward from the tie-in (or tie-off) point. However, some hard slippery materials like squirrel-tail hair often misbehave. For example, if one attaches the material, makes a few locking wraps forward, and then cuts the waste end, future forward wraps tend to push it out from under the thread. To minimize this, place the tie-in point a bit further forward than usual and take the locking wraps rearward. This increases bulk but helps prevent the wing from pulling out. Of course a daub of a penetrating cement helps as well.



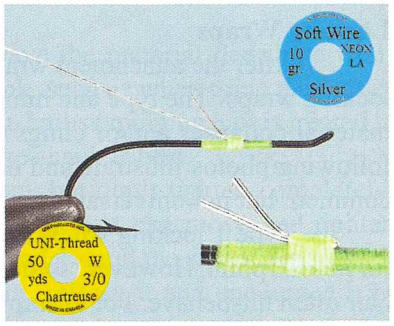
A Type 1, or common, locking wrap. The material was attached to the top of the hook using two soft loops. Three hard wraps follow with the full tension being applied after the thread passes under the hook. The wraps on the far right of the shank were tie-offs to cut the thread for photography. In the insert, the last wrap has lifted because the material is elastic.



A Type 2, or L-lock. Material attached to the shank as before. After two hard wraps forward (4 wraps total), the waste end is lifted and another two hard wraps are made around the shank only, tight up against the material. Notice how this both lifts the material for trimming and eliminates the elastic loosening. The additional wraps are for tie-off.



Type 3, or kink-lock, begins as a Type 2 and then, before clipping the waste end, a Type 1 is added.

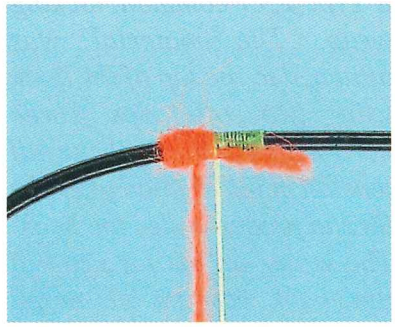


Type 4 or fold-over lock for materials like wire, monofilament, or flat tinsel. Type 1 forward, fold-over waste end, Type 1 rearward.

Unwrapping

When working hard to make a neat fly, extra thread wraps may build unwanted bulk. In situations where three or four materials will be attached at the same point, it's sometimes possible to unwrap a couple of locking wraps from the lower layers before attaching the next material. In the photos, material for the tag of a salmon fly has been attached and locked. The material is wound rearwards and then forwards to the tie-in point. Before locking this in, unwind the original locking wraps. With care one can even unwind the original tie-in wrap. This is an excellent technique for eliminating lumps in tinsel bodies.

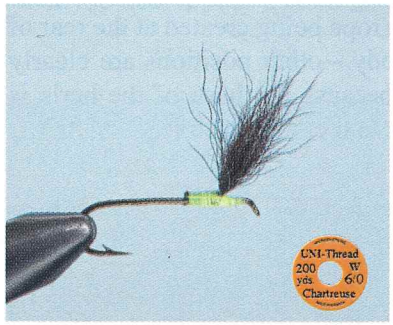
The yarn has been tied in and locked.



Two of the three original tie-in wraps have been unwound in preparation for tying-in the last turn of material.

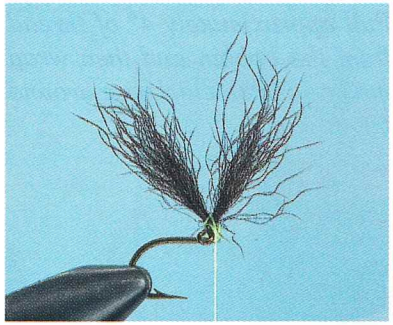
Figure-8 Wraps

A variety of materials require dividing on the hook shank, or like dumbbell eyes, must be tied perpendicular to, and on top or underneath, the hook shank. Part of this process demands figure-8 thread wraps. To use these to divide a wing for example, follow the photo sequence. After the first photo showing the undivided wing, the shank was bent 90 degrees to facilitate photography.



A single hair wing has been tied-in on top of the shank and pulled upright (posted). The thread was cut to facilitate bending the hook for photos.

Hook bent and thread reattached in front of wing. The first dividing pass has been made from front left to rear right.

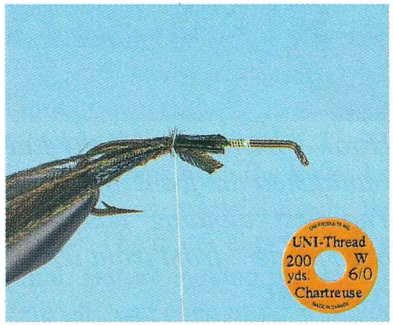


Thread has been passed under the shank and then brought forward from rear left to front right.

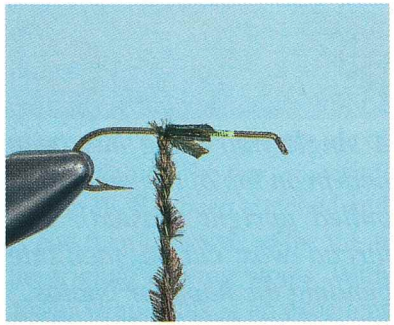
The preceding sequence has been repeated several times; as well, several turns have been taken around the base of each wing to corral mavericks.

Thread as Reinforcement

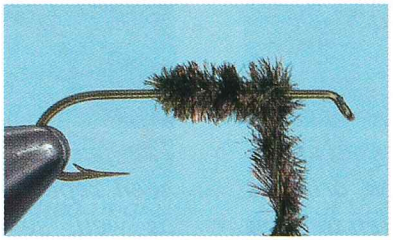
Thread can reinforce a variety of weak materials to produce tough bodies. The result can look like a rope or a chenille depending upon the methods used. Some multi-step methods will appear in the section on dubbing, however, a simple and frequently used example is a peacock herl rope. Peacock herl is notoriously weak, so making individual herls into a reinforced rope structure significantly improves its durability. Other similar materials, for example pheasant tail herls, can be treated identically. The photo sequence has the rope being created at the rear of the hook and wrapped forward as a body—other positions are clearly possible. I tie-in the herls by the tip because the base of the herls is generally mostly stem and thus, at least to me, unattractive.



Roughly even the tips of 4 herls; clip back about a half inch to remove the weakest portion of the herl. Tie in the bunch by the tips.



Pull approximately 4" of thread from the bobbin and then wrap the herl bunch clockwise around the thread.

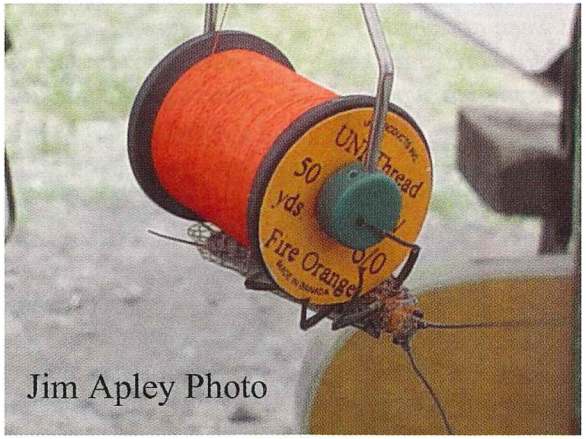


Wrap the rope forward until the fly is complete or the herls become ratty.

Even easier, if that's possible, is the seldom-seen hackle rope. I use these to create tough, all-hackle, palmer-style bodies from poor-quality hackles. Dress the hackle to get the fibers standing out from the stem. Tie it in by the tip. Don't wrap the hackle around the thread. Merely hold the thread and hackle stem together at the base and begin winding forward. When satisfied, tie off. This produces a surprisingly tough and attractive body, and, if one wishes, a simple one-feather fly. Two feathers can be wound together in this way to yield some interesting effects. Finally, a neat rope is a combination of peacock herl and hackle.

Three peacock herls and a hackle are attached to the hook shank.

Holding all four items along the thread and then wrapping forward yields a tough and interesting body.



Even the bugs choose UNI-Thread.

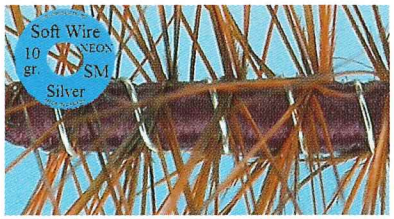
Ribs and Hackles

A well-chosen thread rib can both significantly strengthen and enhance the look of a fly. UNI Soft-Wire is an obvious example but polyester threads work superbly and offer a broad colour range.

Hackles are particularly vulnerable to piscine-dentures and benefit from some protective measures. Wire or tinsel ribbing is a common solution for body hackles, however, if the "flash" isn't needed, a strong thread is equally efficient. Counter-wind the ribbing material through the hackle for maximum effectiveness. Tinsel isn't applicable in the case of collar hackles, so reinforce with the tying thread. As shown below, wind the hackle forward, secure the tip with one wind and then work the thread rearward, then forward, through the barbs before tying off and cutting the hackle tip. Many believe this will mash down the hackle, but it won't if you wiggle the thread while working it rearward and forward.

A hackle has been attached, the thread moved forward, and then the hackle wrapped forward to the thread.

The thread has been wrapped rearward and forward again through the hackle. As can be seen, no barbs are mashed.

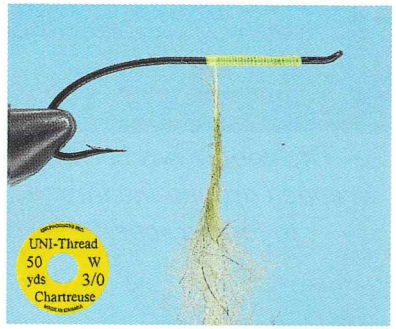


Close-up of UNI Soft Wire rib counter-wrapped through a palmered body hackle.

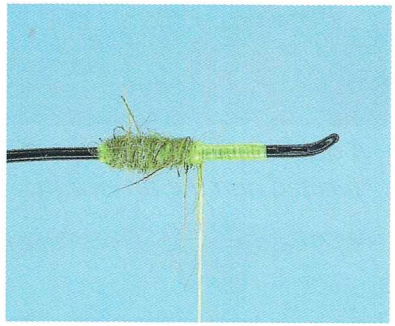
Dubbing

The word itself causes difficulties for novices because it is both noun and verb. As a noun it refers to a material, animal (usually fur or underfur) or artificial, alone or mixed. When used as a verb, dubbing is the process of getting a material to adhere to a thread so it can be wound around the hook shank. In what follows we will only deal with the verb.

A straightforward method of dubbing, called direct dubbing, is to place a small amount of material against the thread, then roll it around the thread. Roll counterclockwise (looking down on top of the hook) to take advantage of the natural winding twists in keeping the dubbing tight. Rolling clockwise yields a loosely dubbed body, which, when brushed out, produces a "fluffy" effect. Continue until enough thread has been "dubbed" to cover the desired shank length. An option is to dub one bunch and then wind that portion; slower, but offering more control.



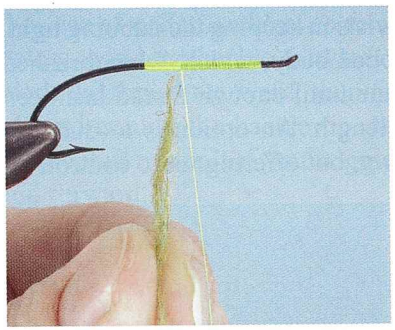
Dubbing material placed against thread and rolled counterclockwise.



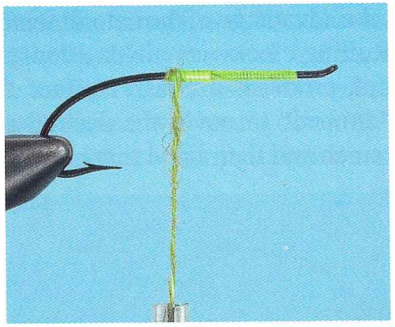
"Direct dubbed" thread wound forward.

Another way is to take a lump of dubbing material, tease it into a generally elongated shape, then, by rolling it in the palm of your hand, turn this into a "noodle." Attach the tip of the noodle to the middle of the shank with the thread, wrap backwards over the noodle until the rear body position is reached, then, holding it against the thread (long-fiber dubbing material) or inserting it into a dubbing loop as described on page 34 (best for short-fiber dubbing material), wind the thread and noodle forward together. Or, after attaching the noodle to the shank, twist it around the thread before winding the result forward. Finally, with long-fiber dubbing, one can skip most of the "noodle" formation by simply teasing out a "tip" of dubbing and leaving the rest as a "ball." After the tip has

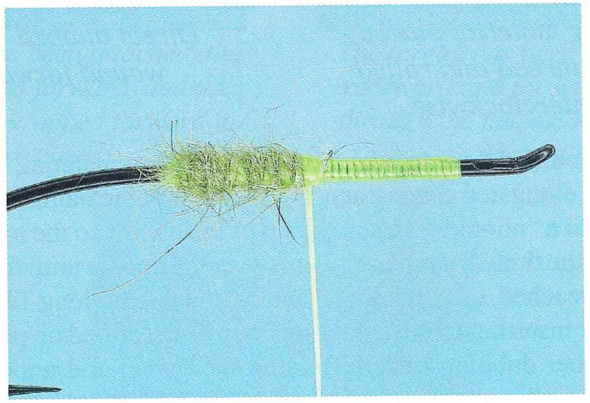
been tied in as described above, the ball and thread can be wrapped forward, the thread gradually pulling out material from the ball. While this technique works, it's usually better to create a rope by rotating the ball around the thread, gradually working away from the shank and feeding material from the ball to make the rope. All of the preceding result in more or less segmented bodies.



A dubbing noodle has been formed and the tip tied in.



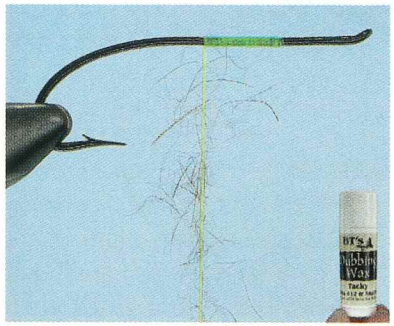
The noodle has been wrapped around the thread to form a rope.



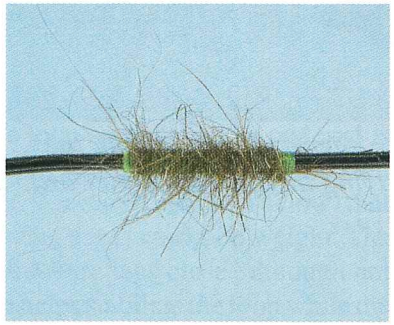
Roped noodle wound forward.

Before moving on, it's useful to address the subject of "dubbing wax." Note that this isn't the wax that UNI Products infuses into its waxed threads, the purpose of which has already been explained. This is a sticky wax, generally sold in lipstick-like containers and rubbed on the thread, intended to make dubbing easier. Some of my expert friends argue that dubbing wax is never needed; true, but that implies the use of various dubbing techniques. Without wax, direct dubbing of some materials turns a pastime into a chore—they have no cling in them.

Another use of dubbing wax is to facilitate touch-dubbing. Here, a loose clump of finely chopped dubbing is brought in contact with a wax-coated thread. Small amounts of dubbing material cling to the thread. To ensure the entire thread is coated, rotate the thread while brushing the clump downward. This is convenient for making thinly dubbed bodies on small flies. If the touch-dubbed thread is too "bushy" for the size of the pattern, the dubbing can be tightened by rolling as in the direct-dubbing method. The long guard hairs visible in the second photo could be stroked out on a very small fly.



Thread coated with wax shown in the insert and touched with dubbing.

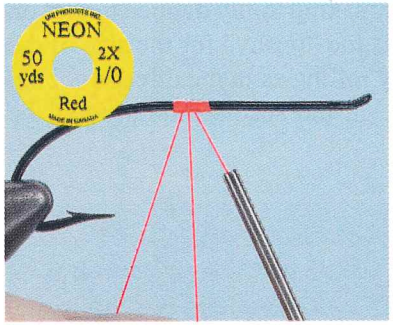


Touch-dubbed thread wound forward (thread tied-off).

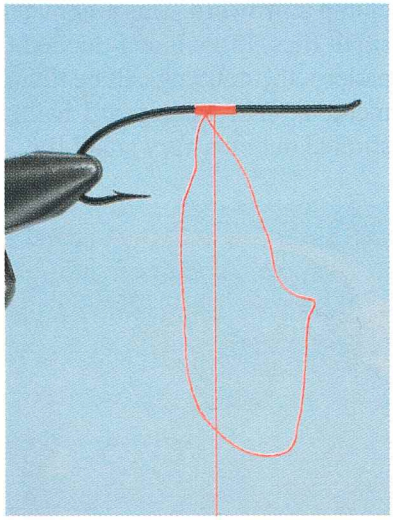
A multi-step method is needed for materials that won't easily adhere to even waxed thread or "noodle" comfortably. It's called a dubbing loop, and the process generally requires a tool of some kind. The technique is often used with less difficult materials to toughen the body considerably. Before forming a loop ensure all winding-induced twist is removed to prevent the loop from twisting on itself, i.e., furling.

For toughening, form a loop of thread and "dub" one side of the loop in any of the above ways. Or, dub the thread first and then form the

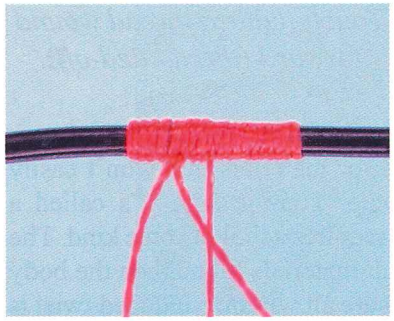
loop. Insert a tool into the bottom of the loop and begin twisting. One type of tool for this use is a dubbing hook—think of a dental pick with an end like a cup hook to visualize one of several commercial varieties. The tool I use—partially shown in the second photo on the next page—is an easily-available electronic test clip. When the "dubbing rope" reaches the desired tightness, wind forward using the tool. Secure the forward end of the rope and then remove the tool. Twisting is hard on the thread, so if a tight twist is desired it's best to up-size the thread. This is an example of a situation where two sizes of thread are an advantage—one can use a fine thread as the main thread and a heavier one to form the loop.



Step 1: Form a loop, the tying thread moves forward.

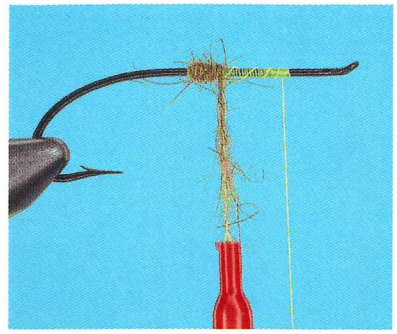


Step 2: The loop is secured by passing the tying thread back over and then behind both legs of the loop. Next the thread is brought up in front of the shank and then three or four wraps forward.



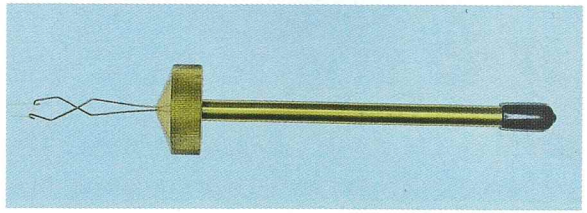
Step 3: Close-up view of loop tie-off area.

One leg of a loop has been dubbed; the main thread has been moved forward to clear.

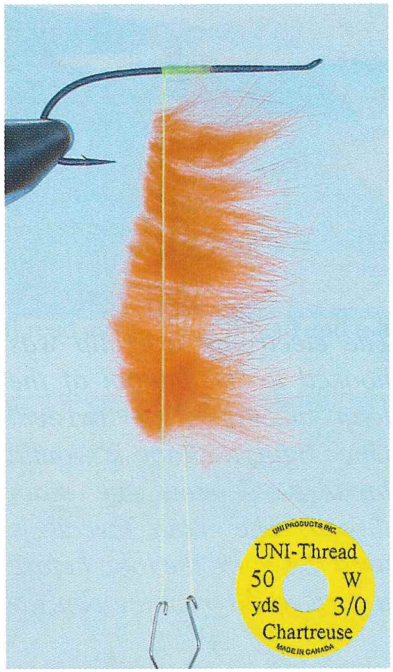


The electronic test clip was hooked to the bottom of the loop and the loop twisted. Once tight, the loop is wound forward to meet the main thread. The main thread is used to secure the loop before it is released from the clip.

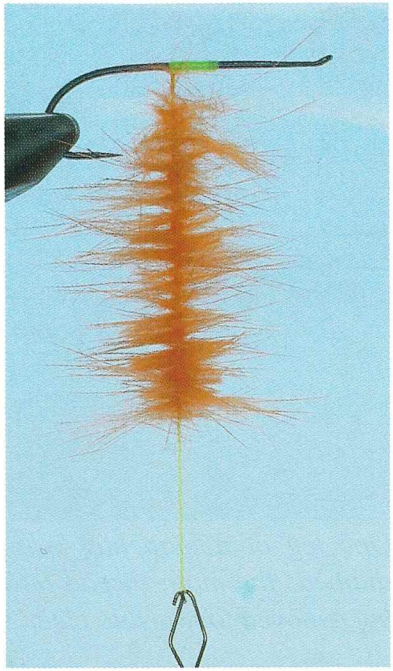
For the tough stuff, it's best to have a tool (usually called a dubbing twister or whorl) that holds the loop open while the material is being inserted and then can close the loop before twisting. At this point pictures become much better than words. The twister (shown below) that I'm using to make a hair chenille (following page) works on weight. The handle is heavy, so when it's released the wire legs close, although not completely, and the weight of the handle helps stabilize the loop while the ball-bearing mounted knurled knob spins the wire legs. Because it's a little awkward to wind with this tool on a standard vise—a true rotary vise makes life simple—I grab the end of the loop with hackle pliers and cut the thread at the twister.



Dubbing whorl - photo rotated 90 deg to fit.



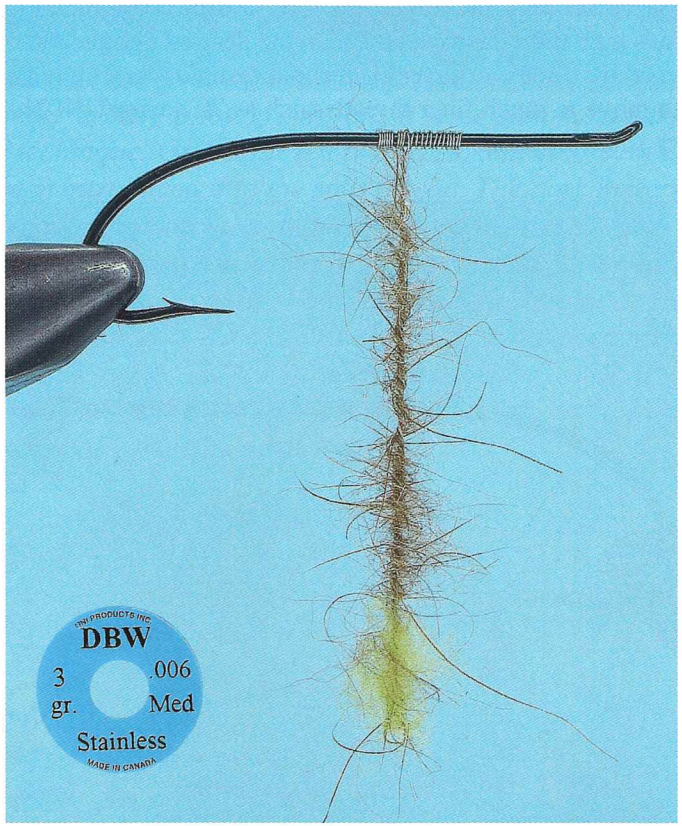
Dubbing loop formed, dubbing whorl legs inserted, and a trimmed fur strip inserted in loop.



Loop spun using the whorl to create a fur chenille. In all three photos the main tying thread was cut to remove distractions.

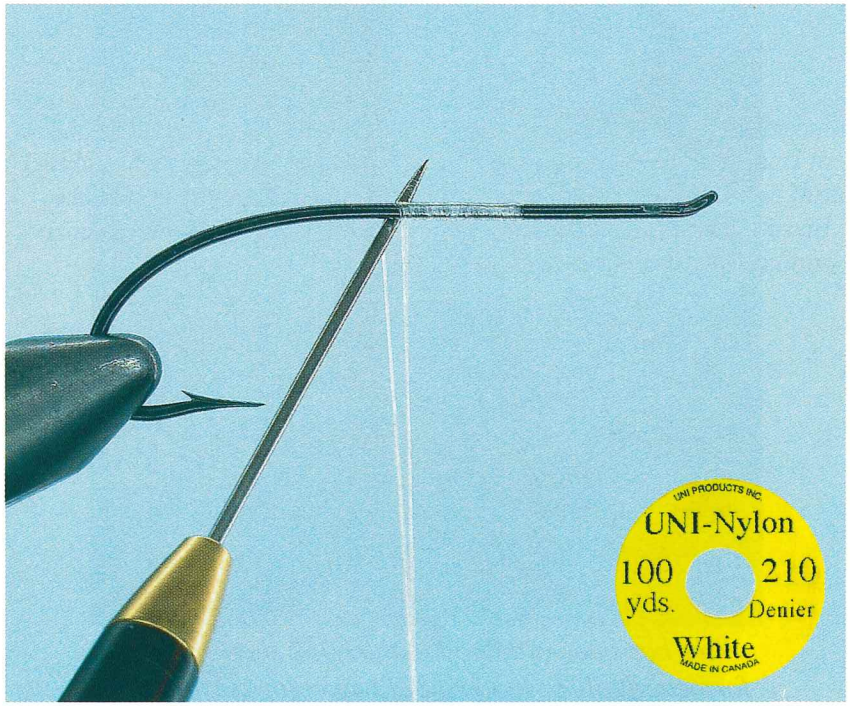
The fur chenille has been wound forward

The dubbing loop is also the basis for making dubbing brushes with either wire or thread, the latter usually commercially. For making wire brushes, UNI Products offers a wide variety of colored spooled wires as UNI Soft Wire and UNI Dubbing Brush Wire Stainless in two sizes. Stainless steel wire twists tighter without threat of breaking and is impervious to saltwater. Wire is an excellent material for brushes because it holds its twist when released, thus brushes can be pre-made and stored. Moreover, a long brush can be created and then cut into the desired lengths.

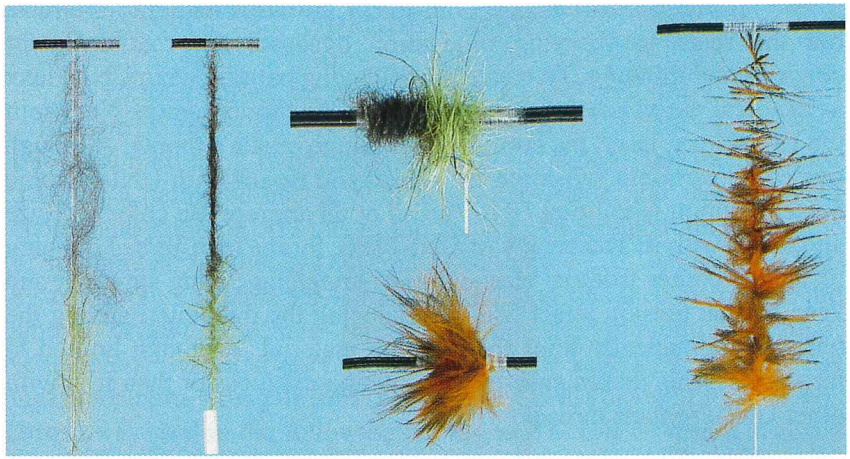


Wire has been attached to the hook shank, a loop formed, dubbing material of two colors inserted in the loop, and the loop twisted. This brush could be wound on this hook or cut off and used elsewhere.

Less well known is the thread-splitting method of dubbing which dispenses with the tool, instead using the bobbin as the twister. Here it's best to begin with a flat thread of a reasonable size such as 210 denier UNI-Nylon. After winding to the point where the body will begin, pull out a length of thread from the bobbin and allow it to untwist. This length varies greatly but if you start with about three times the length of the dubbed body you should come close—it may take some practice. With the point of your bodkin, split the thread in half and use the fingers of your left hand to keep the gap open. Now insert some dubbing in the gap, then let it close. Spin the bobbin to form a rope; how much you spin determines how tight the rope is. When the desired tightness is reached, wind the body. Once you have this technique under control, it's a simple matter to move to much finer threads such as 70 denier UNI-Nylon and thus very small fly sizes.



Thread has been attached and split.

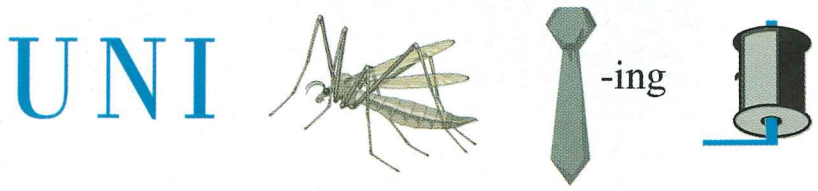


Admittedly a busy photograph, but it does summarize the split-thread technique. On the far left two types, and colors, of dubbing have been introduced into the split thread. The dark material is a fine dry-fly dubbing, the lighter has some guard-hair spikes. Moving right, the bobbin has been spun to produce a dubbing rope. After winding, the result is shown center-top. On the far right one side of the waste end of a neck hackle has been inserted in the loop, the stem cut away, and the thread twisted. The result of winding this forward is shown center-bottom; a useful soft-hackle collar from material generally thrown in the trash.

 # 16 hook dubbed split-thread style. Rear is dry-fly dubbing, front CDC feather.

It's unusual to consider UNI-Flexx, an elastic material, as thread, but the route to fly-tying innovation bypasses the roadblocks of conventional thinking. To create the following pattern, wrap UNI-Flexx to the bend, tie-in a tail, then wrap back to the thorax region. Next split the UNI-Flexx, insert the dubbing, and spin to create a thorax. Although one could certainly finish the fly's head and tie-off with UNI-Flexx, a neater solution is to tie-in UNI-Thread of an appropriate color and size and finish with it. The beauty of UNI-Flexx for the split-thread dubbing technique comes from its elasticity. By stretching during splitting, and keeping that tension intact while introducing the dubbing, relaxing the tension automatically traps the dubbing material. Although limited to larger flies, this makes split-thread dubbing even easier than it is with other UNI-Products threads.

Nymph created with UNI-Flexx; intact for the abdomen and split for dubbing the thorax.



Spinning Hair

While it's true that it's easier to spin and pack deer (or similar) hair on a bare hook, that isn't the only consideration. Deer-hair bodies spun on a bare hook twist easily. Twisting a pattern that includes, for example, a palmered hackle, will break the hackle. For that reason, I recommend spinning on a thread foundation. An excellent thread choice for spinning larger flies is UNI Flat Nylon in the 210 Denier size. With this thread one can lay a flat, smooth, foundation, and then by rotating the bobbin, create a twisted thread for the hair-spinning operation. Nonetheless, a number of commercial tiers who specialize in large bass bugs favor extra-strong threads such as UNI-Cord. For visibility 3/0 UNI-Thread was used in the following photos, and as can be seen it is also a very reasonable choice.

In the following sequence of photos, every step is important—deviate and one generally encounters problems. Although the photos are completely captioned, it won't hurt to summarize the steps here.

After laying down the foundation, choose a patch of deer body hair with hair of a length and diameter suited to the size of the fly you are tying. Deer body hair isn't hollow, but it has a soft core with multiple air pockets. At least it does in the main portion of the hair, the tips are hard and don't spin well. Make certain that when the tips are removed the hair remains long enough to produce a body large enough to be trimmed.

Next cut a batch of hair about the size of a lead pencil in diameter. If you have trouble handling this much hair, the world won't disintegrate if you cut the amount in half; it just takes longer to make a body. Grasp the clump by the tips and, using a fine comb or your fingers, clean out the underfur. You can skip this step if the fly is intended to sink. Actually, even with the underfur in the fly will float if the body is large enough, just somewhat lower than with the underfur removed. Unless you want the tips for something like a Muddler Minnow collar, change hands and clip off the tips.

Now bring the middle of the clump to the hook shank so that it is centered on the thread, and hold it so that the top of the clump is angled rearward at 45 degrees. This angle isn't critical with the first clump, but it will help draw subsequent clumps into the previous clump to make packing easier. Take one turn of thread over and around the clump; next take a second turn **precisely over the first.** Now bring the bobbin tube into position so that you can pull it toward your nose. Slowly tighten the

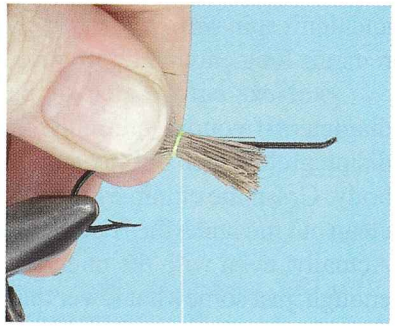
thread (pulling toward your nose), still holding the clump, until the clump wants to pull away. Now let go of the clump and continue pulling in the same direction—the clump will spin around the hook shank.

Once the clump has spun around the hook take one more turn of thread over the others and draw it tight. Now one can work the thread forward through the hair and, after taking two wraps around the shank in front of the clump, pack the hair using a commercial or homemade packer. Or, you can use my approach which is to pack the hair first, usually with my fingers, then work the thread through the clump. Continue until achieving the desired size of body. Striped bodies are easily made by switching colours of deer hair during the operation.

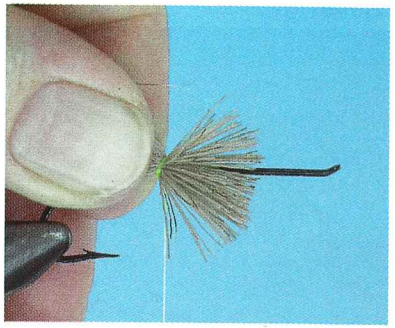
TIP 1: Damp hair is easier to handle and spin. If there is no need to remove the underfur, dampen the area of the deer hair patch you intend to use with a sponge.

TIP 2: Some patterns call for a flared deer-hair wing. To flare hair without having it spin, place a small bundle on top of the hook shank and follow steps 1 - 3. BUT, in step 3 do not release the bundle until the thread is fully drawn tight. This technique can also be used to stack several colors of deer hair anywhere on the hook shank.

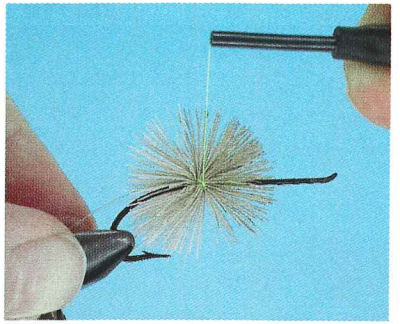
Step 1: A base has been laid; a clump of deer hair cut, cleaned, and trimmed; the clump is positioned against the shank; the first thread turn has been taken over the clump and shank. The thread is now on the far side of the shank.



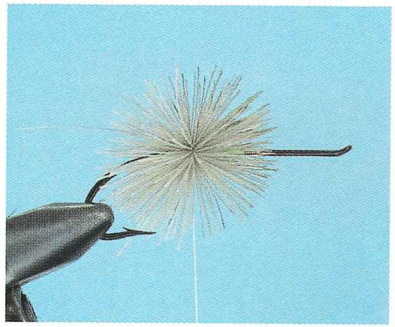
Step 2: A second turn of thread has been placed precisely over the original wrap and, once again, the thread is on the far side of the shank.



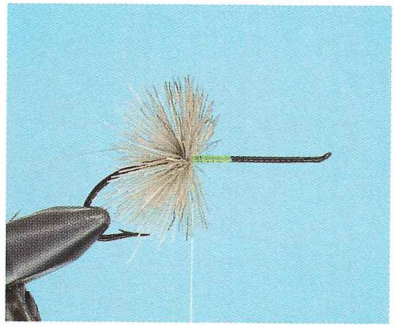
Step 3: A third turn has been started with increasing tension. The grip on the bundle is being loosened, but not released. The thread turn will stop when the thread is pointing at the tier's nose.



Step 4: The thread was pulled towards the tier's nose until the bundle began to pull away. It was then released. Here the thread is continuing to be pulled towards the tier's nose. The spinning action is clearly shown.

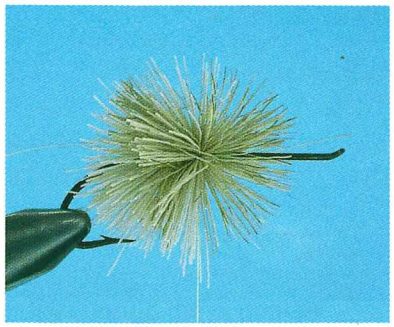


Step 5: A second thread wrap, directly over the earlier wraps, is taken to secure the spun bundle.



Step 6: The spun bundle has been compressed by simultaneously pushing from the front and rear with the thumb and forefinger of each hand. Then the thread is wrapped forward through the spun hair to prepare for the next bundle.

Step 7: A second bundle is now prepared, brought up to hook shank, and encircled by thread wraps.



Step 8: The second bundle has been spun around the shank and will now be compressed as before.

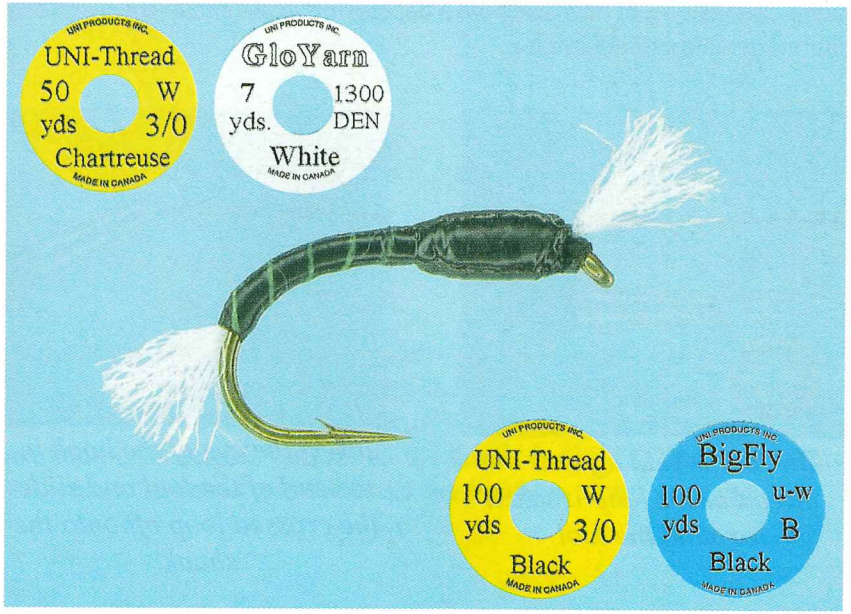
Jacques Juneau's Marie Rose - a fine example of a spun deer hair bass bug.

Almost All Thread

The New Zealand All-Blacks are many-time world rugby champions, and this nearly all-black thread fly is an equally champion trout taker. The pattern demonstrates how, with virtually only threads, one can produce "killing flies."

The Black Epoxy Buzzer begins by tying in a piece of UNI GloYarn for the dorsal and posterior "gills" and then covering the shank with black 3/0 UNI-Thread (small hook sizes call for finer thread). When the rear of the fly is reached, tie in a length of chartreuse 3/0 UNI-Thread or, if you are prepared to accept wire as tying thread as I do, fine gold wire. Wind the black thread in close turns to the start of the thorax. Follow with spirals of the chartreuse thread or gold wire, and tie off. Tie in black UNI Big Fly thread (mine is in a bobbin). Take this to the eye and back to the tying thread; if the thorax isn't robust enough for your taste, repeat. Tie off the Big Fly thread and, after flattening, take the tying thread to the eye. Tie-off the head. Give the entire fly two coats of epoxy, superglue, or my favorite, Loon Hardhead.

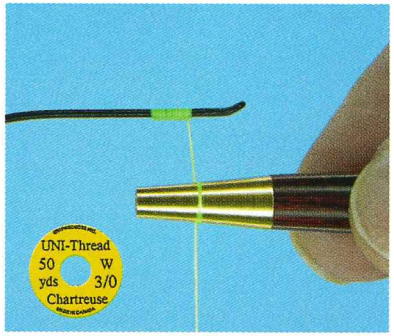
This is just one example of where threads in various sizes and colours can be combined to yield effective patterns.



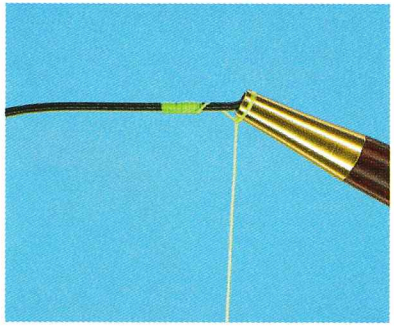
Finishing Up

At least in my view, all proficient fly tiers have mastered the manual or hand whip-finish knot. Its major advantage over other methods is that the knot can be placed anywhere on the hook shank. Unfortunately this technique, while quite mundane when shown in the flesh or on a video, is very difficult to depict in still-photos and describe in words. Neither is it reasonable to duplicate here the instructions for the several whip-finish tools. Normally I don't use a whip-finish tool, but there are exceptions. Rough skin can make a mess of a hand whip-finish when using fine flat non-bonded threads; a whip-finish tool eliminates snagged and broken filaments.

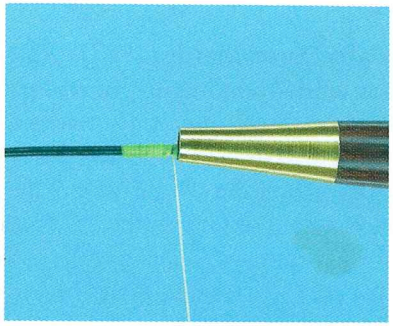
So, what can I say about finishing the fly? First, it is possible to finish off a fly with several half-hitches before applying head-cement or other protective or beautifying material. The only drawback is the modest unsightliness of the half-hitch knots vis a vis the whip finish and the necessity for head-cement—a whip-finished head needs no cement but half-hitches loosen easily. Regardless, many tiers, including the author, still cement whip-finished heads for looks or simply based on the belt and braces attitude. The photos below show single and multiple half-hitches being applied. Most bodkins have a depression at the end of the handle to facilitate making half-hitches.



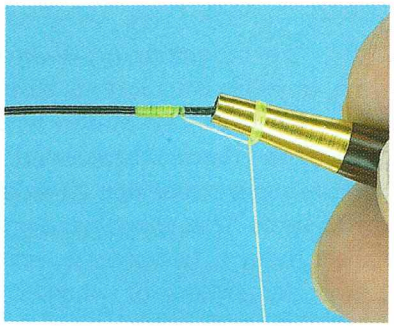
The tool is laid against the thread and a loop is taken around the tool.



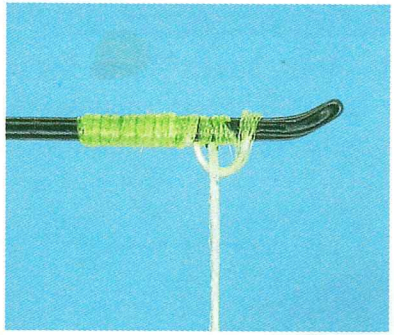
Insert the eye of the hook in the end of the tool and slide the crossed loop off onto the shank.



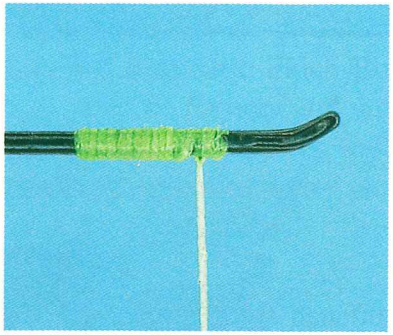
The loop has been slid from the bodkin and tightened.



Three wraps around the bodkin to form a triple half-hitch.



The wraps have been slid off the bodkin but not tightened yet.



The triple half-hitch has been tightened.

To get a smooth head, be sure to flatten the thread before the final turns. Also, if you have been using a large-diameter thread for tying the bulk of the fly, change to a finer diameter thread for creating the head. Always maintain considerable tension on the thread before the final cut as this will cause the thread to draw under the finishing wraps once cut.

Afterword

For the author, *Fly-Tying Methods* by Darrel Martin (1987) is like wine, time has enhanced its best qualities while rounding off the rough edges. On page 148 Martin writes, "Precise thread handling marks a master tyer. Precise thread work is smooth, sparse, and accurate. Dave Hughes once wrote that 'if a hook is a the backbone of a fly and the materials its flesh, then thread is the tendons that hold it together.'" Two master fly tiers, two concise, accurate, observations.

Regardless of whether one ties solely to catch fish, or for exhibition, or for both, choosing an appropriate thread and using it with skill is the secret of success. While you may never aspire to tie at the highest level, anyone with even a remote interest in fly-tying can appreciate the following masterpiece, La Verte, by World Champion, Daniel Dufour.

How to Choose & Use Fly-tying Thread aims to help beginning fly tiers understand the types and sizes of fly-tying threads and how they can best be used to tie today's incredible variety of fly patterns. UNI Products offers threads to tie everything from a 1/8"-long caenis mayfly for trout to a 12" Sea Habit Bucktail for marlin.

Paul Marriner is the author of hundreds of articles and several books about fly-tying and fly-fishing. He has more than 35 years experience at the vise and only a few less teaching new tiers.

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