

## BEGINNER'S CORNER

by Larry R. Antonuk

# Do Your Flies Measure Up?

*Use these simple techniques to tie more consistent flies—faster!*

Many years ago, I had the good fortune to find myself living within driving distance of Hunter's Angling, a small fly shop that was located in New Boston, New Hampshire. Hunter's was housed in an old mill building that hung out over the Piscataquog River. It wasn't a big shop, but every square foot

was jammed with something cool: vintage oak cabinets filled with plump bundles of marabou, plastic tubs brimming with bucktails, and glass display cases chock-

full with must-have tying tools. But the best part of Hunter's wasn't the store—it was the classes.

For many years, Hunter's held week-

end fly-tying seminars. Each two-day class began on Saturday and concluded on Sunday. It was normally just six or eight guys (men and women) sitting around the table, chatting with the instructor, and tying. Over the years just about every well-known fly tier did a seminar or two at Hunter's. I was able to study with the likes of Dick Talleur, Warren Duncan, A. K. Best, Ellis Hatch, and even *Fly Tyer* editor Dave Klausmeyer. I can honestly say that I never came away from one of those

**Increase your tying speed and make your flies look more uniform using a simple grade school compass and surplus mechanical dividers.**





events without experiencing an honest-to-gosh fly-tying epiphany.

One of the more fundamental epiphanies came during a seminar with A. K. Best. We had progressed to the dry fly portion of the class, and I noticed A.K. measuring every hackle he used on his homemade hackle gauge; it looked like a bent-up piece of an old soup can.

"Say," I said, "do you really measure every single hackle you use?"

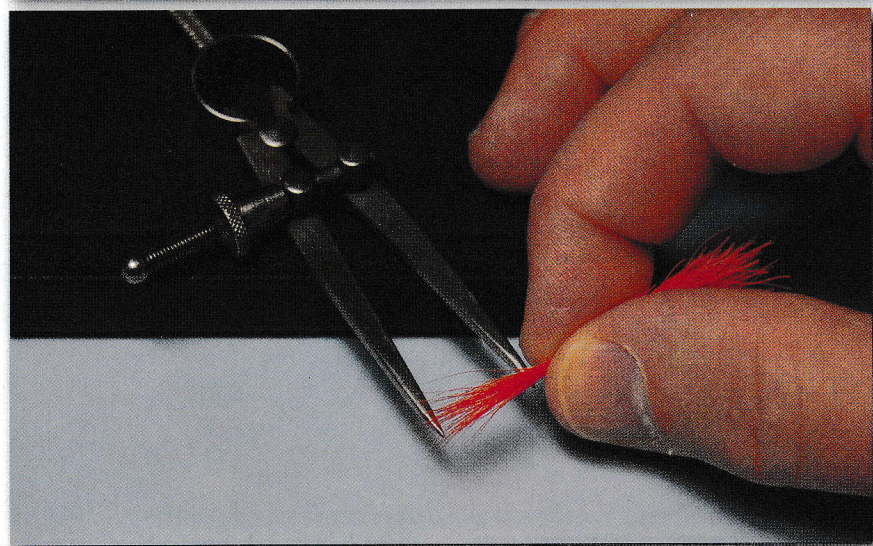
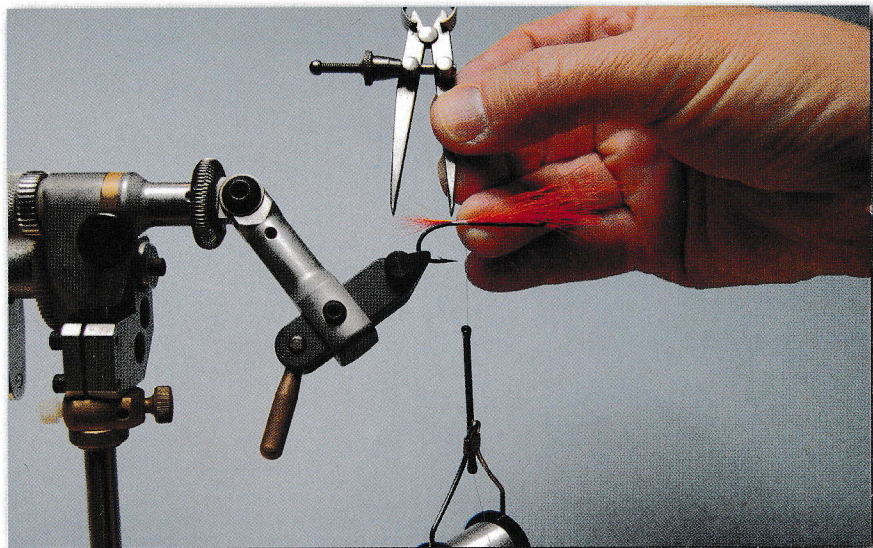
A.K. turned around in his chair and gave me a look that made it clear he knew he was dealing with an idiot. "Well, how else would I know if a feather is the right size for a size fourteen hook?"

"Well, uh, err ..." (The obvious answer, "Because you're a fly-tying god," just didn't seem appropriate.) I stammered for a second or two, and then A.K., being a consummate educator, turned this into a learning opportunity.

"As a matter of fact, I do measure each and every hackle. Only I almost never do it when I'm tying. Whenever I get a new neck, I sit in front of the TV, pull off the hackles, measure them, and pop them into a set of labeled drawers. I use one drawer per size and color. This way, when I need to tie up a few dozen of one type of fly, I can just pull out the size and color I need, and set it by the vise. It goes much faster."

I blinked a few times, said thanks, and A.K. went back to his feathers. Son of a gun: A. K. Best measures every hackle he uses, on each of the thousands of flies he ties every year. Isn't that something?

Up to that point, I was quite sure that fly tying was like art: You either had it, or you didn't. You could either tie a well-proportioned fly, or you couldn't. There was no middle ground. Suddenly, I had other options. If A. K. Best took the time to measure all his hackles, I could do the same; I mean, if this step didn't create an excessive burden to a guy who ties thousands of flies a year, it wouldn't bog me down when I needed only a dozen Blue-Winged Olives for next Saturday. If I could measure hackles, maybe I could measure wings. And if I could do that, I thought, I bet there's a way to make my tails more consistent.



A.K.'s brief discussion of hackle measurement changed my fly tying forever.

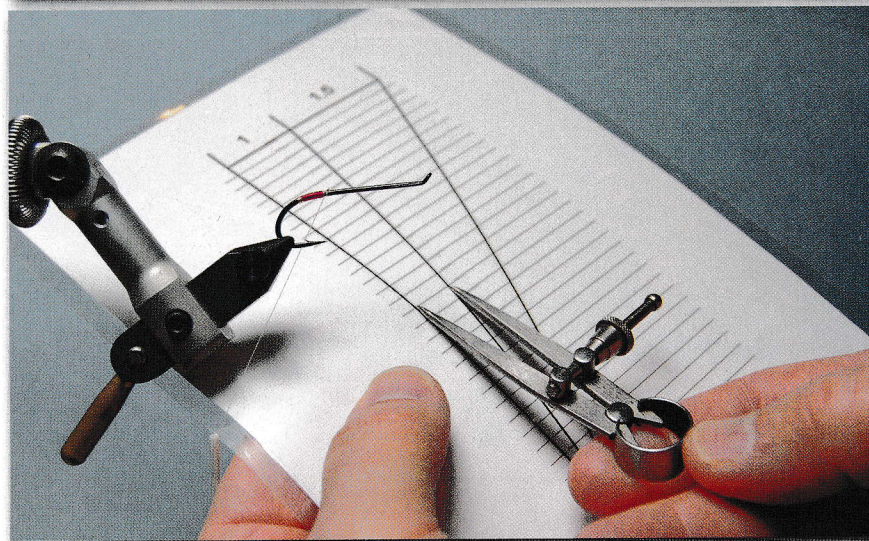
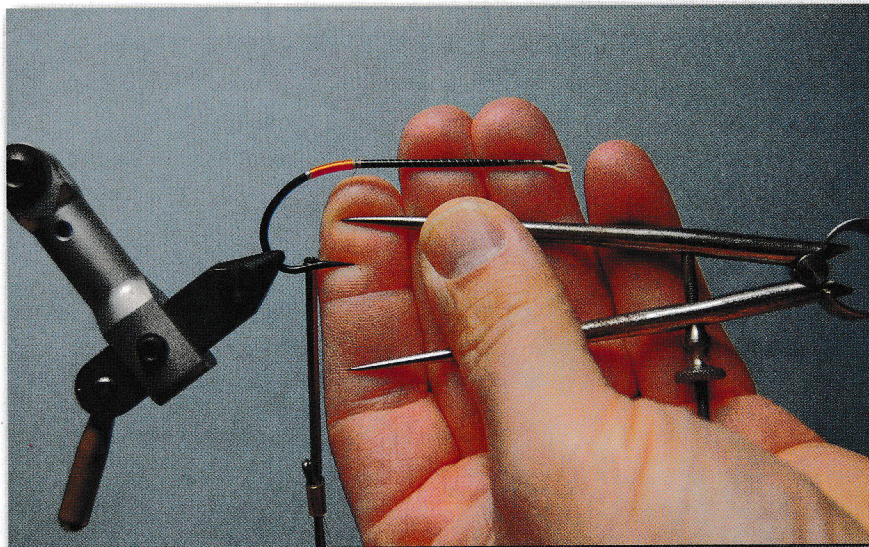
### Is Measuring Faster?

Over the years, I've added a variety of measuring steps to my fly-tying techniques. Since I tie mostly classic flies, I was doing this simply to be more consistent. When I switched back to tying conventional fishing flies, however, I started using these same techniques. At that point, I noticed something funny: When I used methods that ensured all my wing cases started at the same point, or all my tails were the same length, or all my wings were uniform, I found that I was tying *faster*. This was a bit of a puzzle until I started observing the students in my own fly-tying classes. As I watched them measure and mount the various parts of their flies, the answer became

**(Top)** Measure the tail of your first fly using dividers. Use this measurement when tying the tails on all the rest of your flies. **(Bottom)** The author is getting ready to tie the tail on the next fly. He can quickly measure the length of the tail before placing the material on the hook.



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**(Top)** Many pattern recipes call for some materials to be  $1\frac{1}{2}$  times the width of the hook gap. Here the author places the top tip of the dividers in the middle of the gap, and then opens the tool until the distance between the bottom tip and hook point is equal to the width of the hook gap. The final distance between the tips equals  $1\frac{1}{2}$  times the width of the gap. **(Bottom)** The author has created a couple of graphical tools for easily and consistently measuring important distances. Such devices take the guesswork out of tying and will actually increase your speed.

clear: It had to do with subjective versus objective measurements.

Without getting too technical, an objective measurement doesn't rely on opinion. For instance,  $2\frac{1}{2}$  inches is an objective measurement; if you ask 10 different people to cut  $2\frac{1}{2}$  inches of tinsel, most will cut pieces about the same length.

A subjective measurement, on the other hand, has more to do with how a tier *perceives* a measurement. For example, you might want the length of the tail on your fly to be  $1\frac{1}{2}$  times the length of the hook shank. This should be easy to determine, but it really isn't. For starters, you need to remember that there's a difference between the *hook* length and the *hook shank* length. You have to visually mark the spot where the hook eye begins, and then visually decide where the bend begins; this is the length of the

shank. Next, you have to estimate what  $1\frac{1}{2}$  times that distance is, hold the tail material up to that imaginary distance, and tie it on. All of this is somewhat subjective. This isn't a big deal if you're making only a couple of flies, but it's not terribly consistent and can add a bit of time to each step.

Estimating measurements becomes a problem if you're tying a lot of flies or if you are a beginner. If you're making two dozen flies, adding 30 seconds per fly translates into an addition 12 minutes at the vise. Stop wasting that time, and you'll get enough additional time to tie an extra fly. It's a simple solution: Eliminate the steps that give you an opportunity to waffle, and you will tie more consistent flies, faster!

### Making Comparisons

Based on the above example, the solution to our problem is straightforward. First, we need to find ways to make measurements without any second thoughts. Then, we need to apply this same measurements to the next fly, time and time again. How do we accomplish this?

As fly tiers, we are all familiar with relative measurements. The classic case is the way we size hackle. We could say that the fibers on a fly are 7 millimeters long. This would be easy to reproduce, but when we move up to a larger hook, we have to scale that measurement up accordingly. Rather than do the math, we size our hackles proportionally by making them  $1\frac{1}{2}$  times the width of the hook gap. This means the relative proportion of a size 18 fly will be the same as a size 10 fly. This is a good thing, but as we said, the part about getting to  $1\frac{1}{2}$  times the width of the hook gap can be a bit tricky. The easiest way to do this is to transfer measurements the same way craftsmen do: machinists, carpenters, wood turners, and the like.

First, we need to buy a new tool. (This is never a problem for a fly tier, right?) You are probably familiar with a simple drawing compass from grade school; we used it for making circles. If you have one of these, great; if you don't, you might want to pick one up. In addition, get your



hands on some basic machinist dividers. This is simply a compass with two sets of points, and is normally used for transferring a measurement from one mechanical part to another. That's exactly what we'll do with it. A compass is available at most office supply stores, and you can often pick up machinist dividers at yard sales or flea markets.

### Getting Started

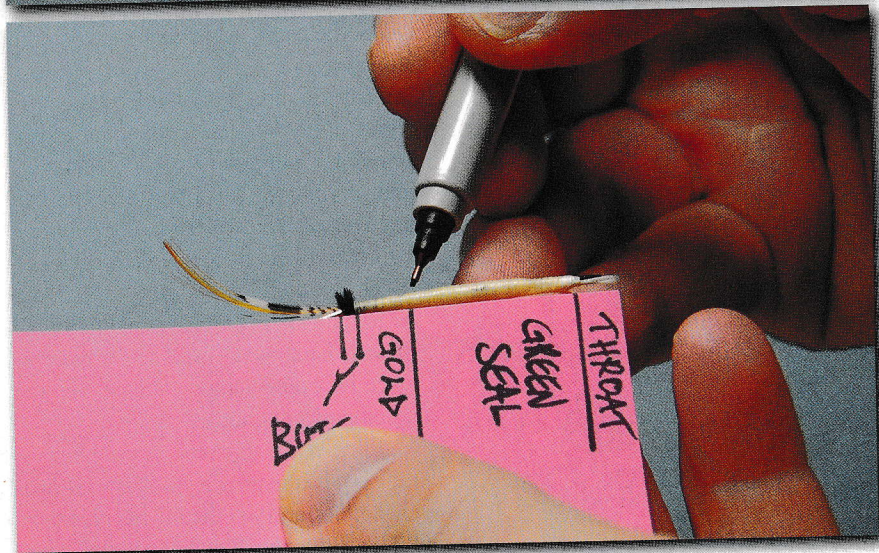
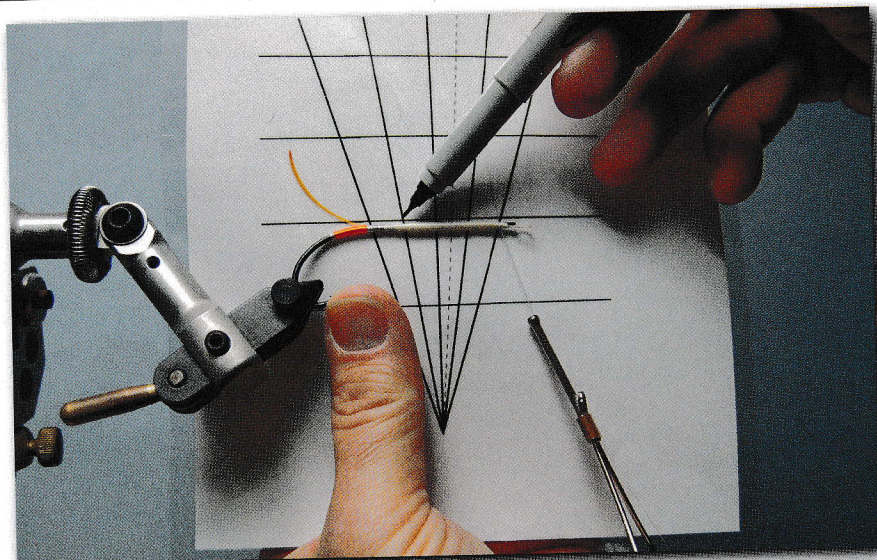
Suppose I want to measure the length of the tail on a dry fly—let's say a Bomber—and I want it to be  $1\frac{1}{2}$  times the width of the hook gap. I can stack a bunch of bucktail to even the tips, hold it up against the hook gap, and estimate the length. Now I tie on the tail of the fly. Next, to achieve consistency, I transfer that measurement to a pair of dividers. (I like the kind with the adjustment screw so they don't change position.)

For the tail on the next fly, I don't look at the hook at all; I simply hold the tail up to the dividers, pinch it in the right place, and place it on the hook. The lengths of the tails come out identical, fly after fly, and if I find I don't like the length, I just adjust the dividers.

After using this method for a while, I gave up mounting the tail in the first step. Now, I just take the measurement off the hook itself using the dividers.

As another example, when I tie a classic-style fly, the tail section—usually a golden pheasant crest feather—is  $1\frac{1}{2}$  the width of the hook gap. This sets the proportions for the length of the wing and the throat, and ties the whole fly together. I originally took this measurement off the hook as well, but found that I was still guessing at the exact dimension. One way to avoid this uncertainty is with a simple method to make a better estimate of the measurement.

Rather than measuring from the hook shank past the hook point, estimating where  $1\frac{1}{2}$  times the gap is, I do this a bit differently. First, I place the top point of the dividers equally between the hook point and shank, and hold it in place with my finger. Then, I adjust the dividers so



that the bottom point is exactly one hook gap below the hook point. The dividers are now set to  $1\frac{1}{2}$  the width of the gap. This approach is better because it removes some uncertainty and works with equivalent distances.

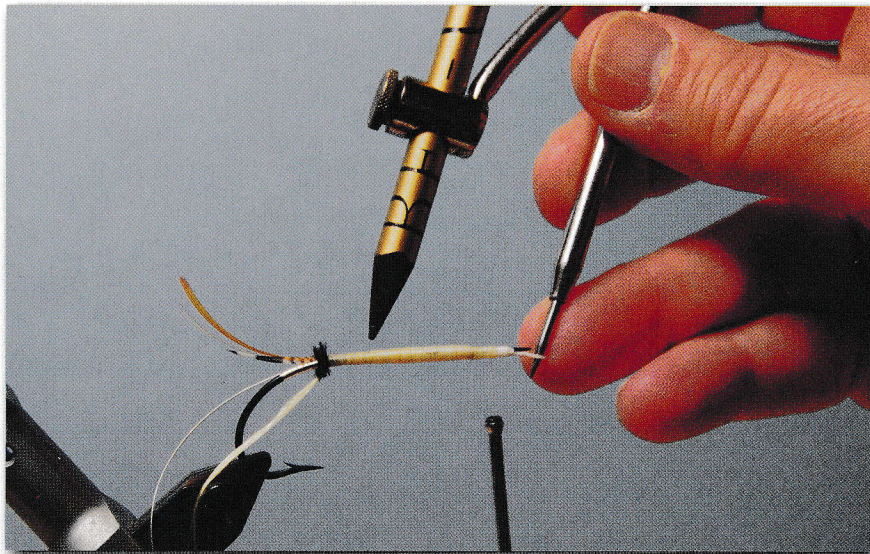
I used this method for a while, and while it's good for measurements relative to the hook gap, it doesn't work for hook length or shank measurements. At some point I recalled a simple geometric theorem, which resulted in another tool of sorts. This is just a drawing on a piece of paper, but it allows me to take any measurement off the fly, transfer it to the tool, and then adjust the dividers to the proper measurement. The tool is easy to make with nothing more than a ruler and a pencil.

Once I started using the paper-based tool (check out the accompanying photos for ideas), I quickly modified the reverse

**(Top)** Here's another of the author's simple cards for measuring the various parts of the body on a fly. He simply slides the card up or down to match the hook size. You can easily create such a card for tying many sizes and styles of patterns. **(Bottom)** This simple card is based on the idea of a woodworker's witness stick. You could spend an evening making a series of cards to measure the parts for tying all your favorite flies. Then, the next time you sit down to tie, your flies will look more uniform and you'll increase your speed.



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When transferring a measurement from a compass or dividers to the body of a fly, place one of the tips in the hook eye.

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side to help me divide body sections into the correct proportions. I use this mainly on larger salmon flies, but the same principles apply: Minimize the time spent noodling around with measurements and increase your consistency. The diagram allows you to easily divide a body into two, three, or four equal segments. (I call this the Gap-A-Matic, which is a bit tongue-in-cheek, but the name stuck. Mine is laminated, and I use it once or twice on every salmon fly I tie. See the accompanying photograph.)

I fine-tuned this process even further. Let's say you're tying a few flies with two-part bodies, and you want to be consistent. You pull out the Gap-A-Matic and come up with a halfway point for the body segments. But nothing guarantees that you'll place the card in exactly the same spot on the next fly. For this reason I switch to another tool. Remember that grade school compass we discussed earlier? I just mark the halfway point with the Gap-A-Matic on the first fly, and immediately transfer this measurement to the compass. The point of the compass fits in the hook eye so I know that this distance will be exactly the same from fly to fly. In addition, it combines the measurement and the marking in one tool, making it even quicker.

I also use a variation of this technique that I have borrowed from carpenters and cabinetmakers. They often use something called a witness stick, which is simply a piece of trim stock that has a set of permanent measurements on it. They have different sticks for different purposes. They lay the stick next to the material to

be marked, and the relevant markings are transferred from the stick to the product. This eliminates the use of rulers. My fly-tying version is a lot simpler: it's an index card. I have a few different cards for making more complicated flies, and the top of the card is marked with the important body dimensions. I hold the edge of the card flush with the hook eye, and quickly mark off the dimensions. You could make a similar card for tying any type of fly.

### *Down for the Count*

Based on my successes with the above methods, I began examining other areas of fly tying. Some of this was personal, but much of it came out of our local Trout Unlimited fly-tying classes. Some of the most common questions students ask are how many wraps of ribbing, wraps of thread, or sections of feather are required to tie a fly.

Many beginning tiers think that if three wraps of thread are good for attaching a piece of material to the hook, then five wraps must be better, and seven would be great. This results in bulky flies with heads the size of softballs. In my classes, we count our wraps of thread. We tie with as much tension as we can, and use only three turns to secure any material to the hook. This is an ideal, of course, and just about all the students put down three wraps and then a couple more for good measure. If you aim for three, you'll likely get four or five, which is much better than nine bulky wraps.

Another common question is, "How many wraps of ribbing?" I like this question because the answer is always "five." This is a traditional number from the classic school of tying, but it works for most patterns. It's okay to use seven wraps if you're using a 3X-long hook, just make sure it's a conscious decision and you are being consistent from fly to fly.

When tying a lot of flies, you will also save time by counting out materials in advance. I came up with a variety of holders for hooks, beads, and finished flies. I count out the required hooks and beads ahead of time, and then place them in a small tray, or I place the finished flies in a tray that has



a known set of holders. Then, at a glance, I can tell where I am and how many more flies I need to tie. Again, this is not a huge time-saver, but it does reduce a repetitive type of wasted time.

### Measuring Up

New England is famous for its frugality, and some of my students are so cheap, they turn off their windshield wipers when driving under a bridge. Perhaps the most difficult thing for these guys is trying to decide how long to cut a piece of chenille or tinsel before tying it on the hook. It just kills them to have a three-inch-long piece of wasted chenille lying on the table when the fly is done. "How long should I make this," they always ask.

It's simple to minimize wasted chenille, ribbing, floss, and similar materials. First, start with a long piece of material; let's say it's six inches. Tie the fly, and measure the surplus; perhaps you have almost three inches of surplus, which means it took about three inches of material to tie the fly. This doesn't mean your next piece should be only three inches long; you will need a bit of material to grasp. I will add one to two inches to my base amount depending on the material and whether I want to hold the end using my fingers or hackle pliers; you'll need less material using pliers. This is just a simple way to reduce a small amount of waste and increase your efficiency at the vise.

A lot of students also ask how much dubbing they should use to tie a fly; new tiers commonly use entirely too much material and the bodies on their flies are far too fat. My stock answer is, "Figure out how much you think you need, and then use one-quarter of that." But once you learn how to dub sparsely, how far down the thread to spread the dubbing is still an issue. I often take a rough measurement along the jaw of my vise. I move the dubbed thread to the left, and note where the dubbed section meets the lever on my vise. I dub the body, and then adjust the dubbing on the thread for the next fly accordingly; I may need a little more or a little less. It usually takes two or three flies to get this right, but from that point on I



will normally have the proper amount of dubbing on the thread.

Bear in mind that these ideas work for all flies. I'm using salmon hooks in the photos, but this was just to make the photography easier. These tips work equally well on much smaller patterns.

None of these ideas are really new; most of them have been around since man started building things. They will, however, help you tie flies a bit faster and increase your consistency. Now, the next time you need a dozen Blue-Winged Olives for Saturday morning, you'll jump at the opportunity to tie them.

Larry Antonuk is an authority at tying classic streamers and salmon flies, and is an accomplished fly-tying instructor. He is also an amateur historian with a passion for collecting and identifying little-known antique patterns. Larry lives in New Hampshire.

(Top) There are many things you can do to organize and increase the efficiency of your tying. For example, count out your materials—or finished flies—using simple trays like these. (Bottom) Selecting the correct size of hackle for a pattern is one of fly-tying's greatest challenges; even some experienced tiers puzzle over this knotty problem. A hackle gauge isn't a crutch but is a very useful tool that will quickly increase your accuracy and efficiency at the vise. This gauge slips onto the stem of your vise. Simply bend a hackle around the post on the gauge to determine the length (in hook size) of the fibers.