

Chapter 9

FLY TACKLE

As in all fields of technology, changes and improvements in the fishing-tackle field have come more rapidly in the past forty years than during the previous four hundred. Many important steps have taken place within the time and memory of most of us. There have been several changes not only in improved rod design but in materials: the impregnation of bamboo (a process which makes this ideal rod material even more resilient and durable and which eliminates the necessity of varnish), the various steel rods, and, of course, the modern silicon or "glass" rod. And perhaps the most significant developments for the fly fisherman have been in lines: various tapers for various types of fishing, more durable finishes, and, notably, different densities of lines which assure that they will either float or sink as desired. And there has been nylon, of course, which has replaced silk in the weaving of lines and which, along with similar monofilaments, has replaced natural gut as leader material.

The Rod

The finest rod material ever discovered or concocted—the one which is the most responsive and which does the most work for its weight—has been Tonkin cane, a particular variety of bamboo. Bamboo is nature's silicon, or glass. The outer surface of many species of bamboo can be formed into a durable cutting edge, it is so hard. Tonkin cane is the one species out of more than two hundred which proved to be the best for the making of split-bamboo rods, but the design of the rod is every bit as important as the material. America has led the world in this field for many years, reaching a peak in my opinion with such master craftsmen as Wes Jordan of the

Orvis Company of Manchester, Vermont, and Lew Stoner and Doug Merrick of the Winston Company of San Francisco, California. But a candle burns brightest before it expires, and our rod-building talents have not been successfully translated to glass as yet. Anyone fortunate enough to possess a good bamboo rod—such as one made by Thomas, Leonard, Paine, Phillipson, Orvis, or Winston—should treasure it. These rods are capable of giving a lifetime's service.

Glass is man's imitation of bamboo. It is constructed in much the same fashion, about as close as a manufactured product can come to the fine tubular silicon cells which run the length of bamboo. The idea is right. All we need is perfection of the idea. Today we have glass rods which range from poor to good, and the latter are considerably better than the poor bamboo rods (with their imperfections) which they have replaced. As yet there are no excellent glass rods; but, if we fishermen continue to insist on something better as we always have in the past, we will get it. There is no reason why it cannot be accomplished. No manufactured silicon as yet has quite the smooth power of Tonkin cane, but certainly it can have with enough research. Perhaps the incentive has been lacking to date. So far most builders of glass rods seem to feel that they have only one thing to offer: a low price.

The Conolon rod made in California (which is no longer in existence) came up with the right idea almost as soon as glass rods appeared. To produce a glass rod which was light in weight yet not wishy-washy, he conceived of making it larger in diameter and hollow. His early rods were hardly things of beauty—they were as thick through the butt as a man's little finger—but they did the job. They delivered the power which was entirely lacking in other glass rods.



Three steps in rod making. (A) The specially designed milling machine mills segments as light as 3/100 of an ounce. (B) Six milled segments are immersed in Bakelite cement,



and then cross wrapped under tension to form a hexagonal section in which the seams are visible. (C) Oven heat is used to "set" the cement. After cleaning, the sections are

The idea in a fly rod is that the action work progressively down from the tip to the butt. No part of it is idle in action. The tip takes most of a light strain with a lesser degree of play gradually down the rod; then, when full pressure is applied during a cast, the entire rod right down to the grip goes to work. If the rod is too stiff in the lower half, then the tip is overworked and the action is too fast; if it is too limber toward the butt, the tip doesn't do any work and the action is too slow. This latter was the main fault with many glass fly rods. They were soft in the middle or butt, heavy in the tip, with the result that they had slow reflexes. They had action like the lazy tail-wag of an old hound dog. The hollow construction overcomes this weakness in glass to a large degree. Now, after too many years, others have come around to the original Conolon idea. No glass as yet has the response of bamboo, but the design is slowly improving. It has a tendency to vibrate after its work is done, but when such men as Doug Merrick and Wes

Jordan put their minds to it and design their own rods rather than put together glass rods out of ready-made blanks, there is no reason why we won't have fine rods made of this material. One custom rod maker, a craftsman named Russ Peak, in Pasadena, California, has already made the breakthrough, constructing his individual blanks for specific rods in the old Conolon plant.

Obviously the first thing to look for in a glass fly rod is hollow-built construction. The next quality is the same in all fly rods, glass or bamboo. It is known as "backbone." Snap a rod down sharply from the vertical to the horizontal and just as sharply stop the motion of your hand, then watch the tip. If the tip continues to vibrate or flop around, the rod doesn't have it. It should snap back almost immediately to a straight, true line. One of the most powerful rods I ever had in my hands was constructed of tubular steel. It was a pleasure to put your shoulder behind it, lay into it, and feel it haul on the backcast, but it would continue to whip after the cast was



impregnated with another Bakelite resin and again oven-cured, to become completely Permanized and ready for assembly. PHOTOS COURTESY CHARLES F. ORVIS CO.

delivered, hampering the flow of line through the guides and sending it out in waves. British manufacturers have attempted to make split-bamboo rods with a steel core, and they also have attempted to reinforce bamboo with outside strips or windings of steel. All such attempts were failures. The steel fought this inherent quality in fine bamboo to snap back into place without a lot of preliminary feeling about.

It is easy to spot a man who knows rods, just as it is evident the moment a man picks up a shotgun whether he does his hunting in the parlor or in the field. In selecting a rod, mount it and flex it down sharply, as indicated above, and feel the resilience with which it comes back to position. And don't be afraid to put the power to it. A rod is supposed to do the work of casting, so find out first if it has the stuff to do that work.

And a rod should be chosen for the particular work you have in mind for it. For eastern stream fly fishing, there is no need for a rod bigger than 8½ feet in length and 4½ ounces in weight—if

the rod is of good quality. Casts of over sixty feet are not necessary and the fish encountered can be mastered with such equipment.

An 8-foot rod is big enough for stream dry-fly fishing almost anywhere except, of course, for steelhead or salmon. The dry-fly fisherman casts almost continuously. He is fishing upstream, and between floats he makes false casts to shake the moisture from the fly. Fishing all day in this manner can become more work than pleasure if the rod is the least bit too heavy or cumbersome. If he has a good rod and line working for him, on the other hand, he can cast from daylight until dark with less effort than driving a handful of tenpenny nails.

A rod for wet-fly, bucktail and spinner fishing in the Rocky Mountain rivers should be heavier and have slightly softer action. A good hollow glass rod is ideal here. Generally speaking, it should be 8½ or 9 feet long and weigh 5 or 6 ounces.

In steelhead fishing, the distance of the cast must be considered, and many fishermen like a 9½-foot rod in the 6- to 8-ounce class. It must have punch. My own favorite rod for such fishing is 9 feet long and it weighs 5¾ ounces. It is strong enough to lay out a lot of line, and with a little finesse and a lot of backing it is big enough to turn any fish. However, I believe it is a rather exceptional rod for its size.

In lake fishing, especially if it is done from the shore, the length of the cast is the prime consideration in the size of the rod. It sometimes takes a lot of line to reach a feeding fish, and therefore a rod of steelhead size may be in order. However, this calls for a certain precaution in handling of the fish. In calm lake waters a very fine leader is often necessary, and a heavy rod will part a light leader easily. It is good practice to keep the tackle well matched and to use a light rod with a light leader.

American rod makers have led the field for many years, certainly ever since Leonard started selling split-bamboo rods in 1870. The leading companies have had years of experience behind them and the men who have devoted their lives to the business know far more about rods than any of us who are acquainted with only those few that we have used. Therefore, in ordering a rod from one of these leading companies, if you tell them the size you have in mind and the

action desired, you can be pretty certain of getting what you are looking for. And the maker's recommendation for the proper size line to match the rod will get the most out of it.

But it is also a pleasure to visit a shop and feel a number of rods to find the one whose action is most pleasing. In looking for a rod with snap and life to it, don't mistake mere stiffness for backbone. A stiff rod will require a heavy line to bring out the action, and a heavy line strikes the water roughly and is difficult to keep afloat.

In picking out a rod, notice little things like the fittings. The snake guides should be large enough to take a fly line comfortably. Also, the best ferrules are plain suction ones. Bayonet ferrules and other fancy-looking ones are too heavy for what benefit they may afford. Also, the ferrule should be serrated at the end where it is whipped to the rod so that it has a certain amount of give and flexibility at this important point. Rods break most often where they enter the ferrule.

The rod is certainly the most important item in the trout fisherman's equipment. If a man intends to get the most out of fly fishing, it is worth his money and time to get a good rod. This goes for a beginner as well as an experienced fisherman. Good tools are good teachers. With the right rod a man will learn good casting habits from the start, whereas a poor rod will teach him bad habits which will be difficult to unlearn. And with reasonable care a good one will last a lifetime. My favorite, a little $3\frac{3}{4}$ ounce job, has landed thousands of trout in the past twenty years. As near as I can tell, it is as good as the day it was bought, and I don't think a bit more of it than I do of my left arm.

Rod Care

A rod requires little more than common-sense care. There is just one important rule: when the fishing is finished, even if just for the time being, dismantle the rod, wipe off any excess moisture, then place the sections in their cloth bag and the bag in a rigid container. As long as a rod is in its aluminum or hard-fiber case, no harm can come to it. More rods are broken or harmed by careless handling in automobiles and away from the stream in general than during actual fishing.

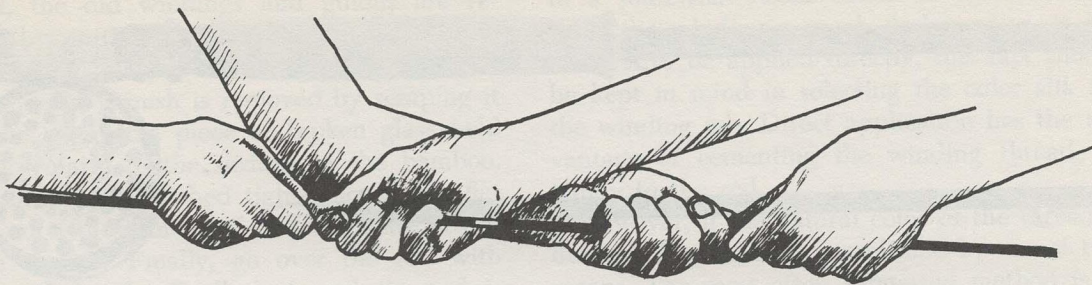
For instance, it is easy to harm a rod during the simple process of dismantling it. The sections should be dismantled by a direct pull, never a twist. A rod is built to stand a lot of bending, but a twist could easily separate the glued-together strips of bamboo or separate glass from its ferrule. An obstinate joint which insists on sticking can best be taken apart by two people who alternate their hands, as shown in the accompanying illustration. This insures a direct pull, and it is surprising how easily a tough one will come apart under such treatment. If you are alone, such a joint will sometimes respond to the treatment shown in the next illustration. The rod is held behind the knees and is gripped firmly by the hands, which are placed snugly against the outside of the knees, then the legs spread apart to separate the joint. This will insure a fairly direct pull, which is important. Another method is to grip the rod firmly with both hands on either side of the obstinate joint, place the ends of the thumbs firmly together and push apart with the thumbs.

Of course the wise thing is to avoid a sticky joint in the first place. This is easily accomplished by applying a bit of light grease or graphite to the male ferrule. The handiest and best lubricant is applied by rubbing the male ferrule alongside the nose or in the hair before setting the rod up. Never use oil. Oil will form a suction which will only make matters worse.

In addition to following these precautions, the things to watch for in a well-used rod are chipped varnish, worn windings, worn snake guides, and loose ferrules.

A broken or worn winding which holds a guide in place will eventually have to be replaced, but as a streamside expediency a touch of varnish, or, quicker, any collodion such as nail polish will hold the thread in place temporarily. If the guide has actually been knocked loose, whip it on again with a bit of nylon leader. Such nylon wrappings go well with a glass rod throughout, by the way, and are less trouble than the thread windings discussed later.

Nothing will shorten the life of a good fly line as quickly as a worn snake guide. The knifelike edge of a badly worn guide will literally peel the finish right off a line. The first guide on the butt section and the tip-top guide receive the most wear and should be made of agate or a very hard steel alloy. These will not have to be



Taking apart a joint.

replaced unless the agate becomes cracked, then they can play havoc with a line. Replace worn or broken guides before they can do their damaging work.

The slight give of a loose ferrule is an annoying thing when casting, and it is hard on the rod. Sometimes the mere heating of the ferrule with a match is sufficient to soften the ferrule cement inside and give it the opportunity to reset as it hardens. However, every fisherman should carry a bit of ferrule cement in his tackle box. Then a very loose ferrule can be removed, a bit of cement melted on the butt of the rod section and the ferrule replaced.

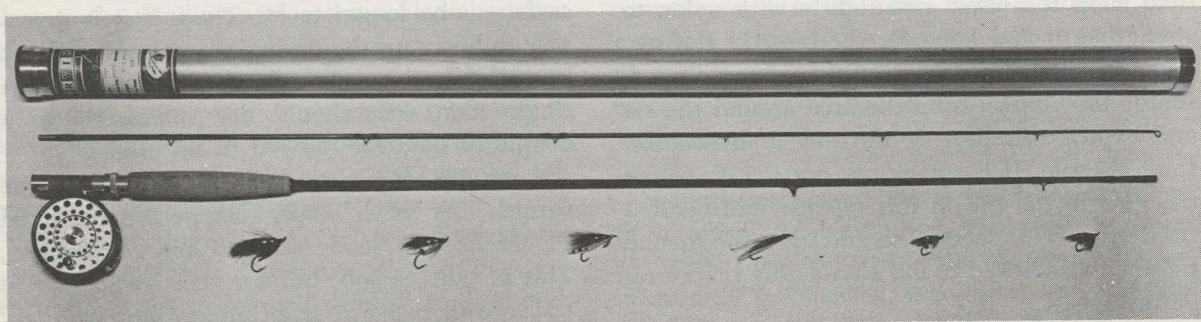
Broken Rod: Ferrule cement and a box of matches can effect numerous streamside repairs. For instance, when a rod breaks, it does so most often where it is seated into the ferrule. Unless the rod was originally fastened into the ferrule by means of a small metal pin, the broken stub is removed simply by heating the ferrule to soften the cement. A pair of pliers will overcome any stubbornness. Cut off the frayed and split end of the rod and fit it into the ferrule. If

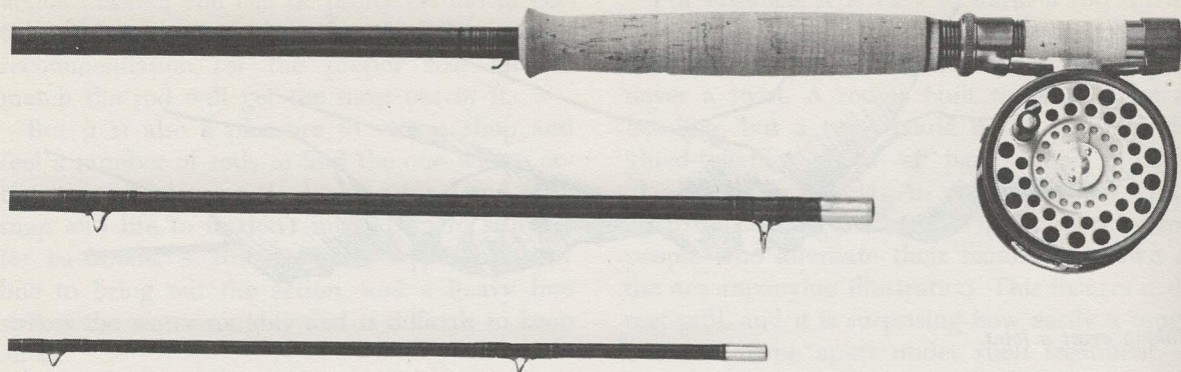
the break has occurred below the joint, at the female ferrule, it may be necessary to shape the rod slightly to refit it into the ferrule. If so, shave away the least possible amount, for to cut sharply or excessively into the rod is to invite another break at the same point. If the break is above the joint at the male ferrule, the rod may fit too loosely. In this case, a single layer of thread whipped around the butt of the section will make a snug fit.

When a good fit between rod and ferrule has been achieved, heat the tip of the cement with a match until it melts sufficiently to put a dab on the end of the rod, then heat the ferrule and slip it into place. After the ferrule is in place heat it moderately again to make sure the cement is well distributed, then hold it firmly in place for the moment required for the cement to harden. Any excess cement at the end of the ferrule can be wiped clean while it is still warm or chipped off when set.

A break in the middle of a joint is usually disastrous. The rod will likely be shattered for some distance and there won't be much left to salvage. With a clean break, however, a passable

Perfection in the art of rod building has reached the ultimate in the Orvis impregnated split-bamboo rod ("99" fly rod illustrated) and in the Winston split bamboo. The building of these rods requires the greatest care in the selection of materials, in skill, in craftsmanship, in inspection, and in pride in the completed product.





3-piece glass fly rod by Russ Peak. The split-bamboo rod had a 100-year start on glass as a rod material, so we understandably expect and get more out of fine bamboo. Glass has enormous potential. It is the rod material for the future. Russ Peak, of Pasadena, California is one of the few men to put as much care into the design and building of a glass rod as he would one of bamboo.

repair can sometimes be made. Make a diagonal cut at least $1\frac{1}{2}$ inches long at the end of each broken section. These cuts must be made even and opposite one another so that they will fit together snugly. Glue this splice with cabinet-maker's glue and wrap as tightly as possible with nylon. Then order a new rod, or at least a new section.

Removing a Set: Occasionally, generally through misuse, a rod develops a "set," which is a warp or permanent bend. A slight set may not be serious. It often can be remedied immediately by reshaping the affected part with the fingers. A bad set is something else. It is generally caused by one of two things: the fibers may be broken or badly strained; or the strips in a bamboo rod may have slipped in relation to one another. Such a rod may have a lot of service in it yet, but a set usually indicates a weak spot which may give way eventually. Also, a set doesn't add to the appearance of a rod, and most of us take pride in our tackle.

The only remedy in the first case above, where the bamboo or glass has actually been fractured, is to whip the weak area tightly with nylon to strengthen it and hope for the best. In the second case, where the sections have slipped, scrape the varnish from the area around the set and expose this part of the rod to live steam from a kettle. It is sometimes possible to soften the glue in the rod in this manner and bend it back true. The section should then be bound tightly and allowed to dry thoroughly before re-varnishing.

Rod Varnishing and Refitting: If you are fortunate enough to possess a good split-bamboo rod, take care of it. Varnish is the means of protecting bamboo and glue of the rod from the moisture with which it is always in contact. To carry out this primary purpose this protective coat must be kept intact. A well-used rod should be varnished each year or two before the start of the season. This is a simple process.

The best grade of spar varnish should be used, and it should be applied thinly. Put the bottle of varnish in steaming water for several minutes before starting the varnishing job, and in order that the varnish be as thin as possible keep it in the pan of hot water throughout the varnishing process. Do not stir or agitate the varnish as the bubbles caused will prove a nuisance. Do the varnishing in a warm, dust-free room and varnish from the top of each section down. Concentrate on keeping the coat of varnish thin and watch for drops which will accumulate at the guides or at the bottom of the sections.

The rod should be kept in a dust-free, draftless location for a few hours, at least until the surface is no longer tacky. Then, if it is necessary to hurry up the drying process, the rod can be transferred out into the air and sunshine. A single, thin coat should dry sufficiently in a couple of days for the rod to be used.

A rod too often varnished or one on which the varnish has been badly chipped or cracked should be completely scraped and revarnished. This is quite a job, but for those who like to tinker with tackle it is an interesting one.

First, the old windings and guides are removed by cutting through the thread with a sharp knife or razor blade and peeling them off. Next, the old varnish is removed by scraping it with the edge of a piece of broken glass held perpendicularly to the surface of the bamboo. Fine sandpaper stretched tightly across the flat surface of a piece of wood will take care of obstinate varnish. Finally, go over the rod with steel wool, brush off all dust, and the rod is ready for wrapping. A heavy thread, such as buttonhole twist, is best for rod winding.

Scars on the sticks will show the original locations of the guides and any other windings, and these will indicate where the new ones are to be replaced.

The manner of whipping on the thread may seem a little difficult the first few times, but after several attempts it becomes quite simple. Moisten the end of the thread so that it is easier to hold in place; then, in winding from right to left, place the tip of the thread under the left thumb parallel to the rod and carry the thread around the rod with the right hand to overlap the piece held under the left thumb. Continue this process for five or six laps, giving way slightly with the left thumb to make room for each succeeding wind. A half-dozen such loops of the thread wound over itself are sufficient to anchor the end of the thread. The left thumb can now be relaxed and the winding continued as far as desired.

To finish a winding, have handy a tight loop of well-waxed thread. A half-dozen turns from the end of the winding, lay this loop parallel to the rod with the loop end in the direction in which you are winding, hold it in place with the left thumb, and carry the last six winds over it. Finally, run the end of the winding thread through the loop and pull the loop out from under the windings, carrying the end of the winding thread with it. This end can now be cut off close to the winding with a sharp blade and the job is finished.

In whipping on a guide, I have found it handy to anchor it in place temporarily by tying it down with thread or even with a bit of Scotch tape. Such temporary lashings are removed, of course, as the winding thread takes over.

The varnishing is done as described above with a couple of preliminary steps thrown in. Varnish or shellac applied directly to silk, and

to a somewhat lesser extent to nylon thread, turns the winding a much darker color. If the finish is to be applied directly, this fact should be kept in mind in selecting the color silk for the winding job. Direct application has the advantage of cementing the winding thread securely to the rod.

However, if the natural color of the thread is desired, this can be accomplished by one of two means. The most often suggested method is to apply beeswax to the winding, rubbing it in thoroughly and finally boning it until it is hard and shiny. I have never had much success with this method. Somehow some varnish leaks through the wax and discolors a part of the winding. The other method is to coat the windings with a solution of equal parts collodion and banana oil. The banana oil is used merely to dilute the collodion.

I prefer merely to apply a coat of shellac to each winding, let it dry and then varnish, even though this does turn the winding thread darker. Thread has numerous tiny hairs which will protrude through the shellac and varnish and mar the appearance of the rod. These can be singed off with a clear flame before shellacking or varnishing if great care is taken not to scorch or smudge the thread. Another method is to tamp down the tiny hairs after applying the shellac and while it is still tacky.

In varnishing, work lengthwise from top to bottom after going around each winding to make certain it is thoroughly covered. Allow a week between each coat to give the spar varnish the opportunity to dry thoroughly, and apply three coats.

The Reel

The reel is a relatively minor piece of equipment in the fly-fishing outfit. Under most circumstances it is no more than a storage bin, merely a reservoir for the line not in use. The fly reel is not employed in making a cast and rarely in retrieving one. A trout fisherman might well cover a mile of stream without once touching the reel.

Nevertheless, there are a few considerations in the selection of a fly reel. These are, in order of importance: line capacity, weight, click or other drag mechanism, take-down and, for the