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The History of Spinning

The spinning reel has been around for a long time and has a history in the United States dating back to the 1870s. They were fixed spool reels just as those in use today. But spinning never really caught on until the invention of two things. The line pickup device and cheap nylon lines.

The Mitchell spinning reel was manufactured in France and was one of the first to take advantage of monofilament lines. The modern spinning concept was developed in Europe before it was introduced here in the late 1940s.

Spinning was developed to bridge the gap between fly fishing and casting rods. Lures originally developed for spinning were primarily small spinners and spoons, too heavy to be cast on a fly rod and too light to be cast on a casting rod.

About the same time spinning was introduced to America fiberglass rods took over, for the most part. A prominent outdoor writer in 1953 summed up how a spinning rod should be made. "A spinning rod should be between six and seven-and-a-half feet long, very light and whippy..."

While fiberglass rods took over from bamboo in the late 1940s, many bamboo companies also produced spinning rods into the 1950s. I've studied as many of these old tapers as I could find. What I've discovered is that many of these tapers will not produce a satisfactory spinning rod for today's fisherman. It is because of that "very light and whippy" concept.

How Jig Fishing Changed Rod Design

The popularity of jig fishing in the late 1960s and 1970s changed spinning rod design drastically. A limp, whippy rod would not set the hook effectively into the jaws of fish such as bass and walleye. While the tiny lures designed for early spinning sported tiny treble hooks, most of the time fish set the hook themselves. Not so with jigs. The fisherman has to set the hook and that requires a stiff rod with backbone.

Facts about Graphite and Glass Tapers

Years ago I heard that a good spinning rod could be made by measuring a good graphite rod and using that taper. I measured one of my rods and put the taper into hex rod and studied the results. The tip looked OK, but I felt the butt would be too heavy. So, I reduced it by 10 percent, smoothed out a couple of stations and made the rod. It turned out pretty good. What I noticed on that graphite rod was that it was a straight taper with a little more power in the tip.

I proceeded to measure and plot out several other of my graphite rods, including some old fiberglass rods that had been specially designed for jig fishing. Same thing, all had virtually straight tapers. There were some discrepancies on most of those rods, but the aberrations were so slight I chalked them up to manufacturing processes. The graphites increased the tapers of first 10 inches of the tip, but the fiberglass did not.

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So, to design a good spinning rod taper, simply make a straight taper with, like the graphite, a little more strength in the first 10 inches. I think it is fairly well-known that most good bamboo spinning rod tapers are straight, unlike bamboo fly rods. Really, all my efforts at measuring graphite rods simply reinforced what I already thought I knew.

Be Careful of the Old Tapers

Over the years I've made several bamboo spinning and casting rods simply because that's how we mostly fish in the upper Midwest. Most, but not all, were made from published tapers taken off old rods. I've learned that the casting rods were well designed for the most part and adapt well to today's fishing. Some of the spinning rods were disasters.

When I began the second step of my bamboo rod making journey in 1998, the first rod I made was a spinning rod. I thought it would be good practice. It was. But the rod was a disaster. I don't remember where I got the taper, but it was a noodle. I found it hard to throw away a rod I had worked so hard on, but it ended up in the trash.

Two Rods, Two Designs

I've brought two spinning rods I made recently. Both are 6' 2" straight tapers but both are different. Rod number one with the gold windings is a moderately fast action. It performs best with a casting weight of about 1/4 ounce. Rod number two with the maroon windings is a medium action rod with plenty of power.

The first 10 inches of the tip seems to determine the speed of the rod. Smaller diameters are faster. However, I would not design a tip smaller than .080. If you want a rod with some action in the tip, keep the tip measurement somewhere between .080 and .085. The tip on Rod Number One is .080. For rods with more of a medium action, go with .090 to .095. Rod Number Two has a .090 diameter tip.

Having said that about tips, it really the slope of the rod that determines the action, just as in fly rods. I first ran across the words "slope" and "rise" in Ray Gould's book "Constructing Cane Rods." His formula was to measure the rod at the 10-inch station and again at the 60-inch station, subtract the 10-inch diameter from the 60-inch diameter and that gives you the "rise" of the rod. His formula to determine the action of the rod is to multiply that number by 2 and then experience will show what the action of the rod might be. The numbers he provided were: .260/100-inches slow action; .280 medium to fast action and .300 very fast action. Those numbers do not work for spinning rods.

Judging from the few spinning rods I have on hand, I'd say rods in the high .400s would be medium fast or fast action, rods in the .300 to low .400s would be medium action and rods in the low to mid .200s would be slow, using Gould's formula. To determine how much each station increases you must divide that number by 10. In the case of my Rod Number One, the rise is .024, meaning that each station increases .024 from 10 inches through 60 inches. Rod Number Two rises .021 on each station.

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Designing a Spinning Rod Taper

For bamboo rods I prefer a length of around 6 feet, let's say 5' 10" to 6'4". For a medium/fast taper I would target a tip measurement between .080 and .085. For the butt section I would target .345 to .355 . The rise should be in the vicinity of .022 to .024.

Rods in this category should perform best with lures of 1/4 ounce, although they will be capable of handling baits in the 1/8- to 3/8-ounce range. For a slightly heavier rod I would design the tip measurement from .088 to .092. The rise should be in the vicinity of .016 to .022.

Rod Number One (Gold Windings) Rise is .236 divided by 10 equals .0236

Gould's formula: .472

0	.080
5	.090
10	.106
15	.125
20	.148
25	.168
30	.188
35	.212
40	.242
45	.263
50	.292
55	.315
60	.342
65	.355
70	.355
76	.355

Rod Number Two (Maroon Windings) Rise is .205 divided by 10 is .0205

Gould's formula: .410

0	.090
5	.102
10	.116
15	.136
20	.156
25	.176
30	.196
35	.216
40	.241
45	.261
50	.281
55	.301
60	.321
65	.341
70	.341
76	.341

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Paul Young's 6-foot, 4-inch rod does not subscribe to the straight taper theory. Probably not surprisingly. He increased the thickness through the ferrules, has a "hinge" of a few thousandths over straight taper at 15 inches and a decline under the straight taper at the 45 inch mark through the butt. This would give the rod a slight "parabolic" action. I have fished this rod a lot, casting jigs from 1/8 to 1/4 ounce for walleyes and like it a lot.

Here's the taper:

Average rise per station from 10 to 60 is .015

Gould's rise: .292

0 .089

5 .101

10 .122

15 .148

20 .158

25 .170

30 .194

35 .224

40 .226

45 .238

50 .250

55 .257

60 .268

65 .285

70 .285

76 .285

Putting Together the Rod

While I have used nickel silver ferrules on several of my spinning and casting rods, I don't see a real advantage in using them. They add weight, which is bad, and they are expensive. I have used nickel plated ferrules and chrome plated ferrules as well. These are lighter and much less expensive. Downside is they are not pretty and they are step down so that has to be taken into account when you are planing the tip. On plated ferrules I always cover them with thread wraps which I think improves the appearance.

I have used both 50 weight and 30 weight silk and have settled on 30 weight as my favorite. Rods 1 and 2 both are wrapped with 30 weight Tire silk, Rod 1, yellow gold, number 145. Rod 2 maroon number 10. Wrappings on Rod 1 were simply varnished and shows how heavy thread is prone to showing the "shimmers." Rod 2 was color preserved with four coats of Sally Hansen's Hard As Nails diluted with 50 percent Acetone.

I have settled on using Berkley SS304 single foot guides on my spinning rods. They are light (important), inexpensive and good looking. I have only found them available at Jann's Netcraft. Keep in mind that the largest guide on the butt section must be bent down to fit in the dip tank. I haven't had one break yet, but...

The grips are 10-inch cork also purchased from Netcraft.

