

An American Original: The First Patented Spinning Reel

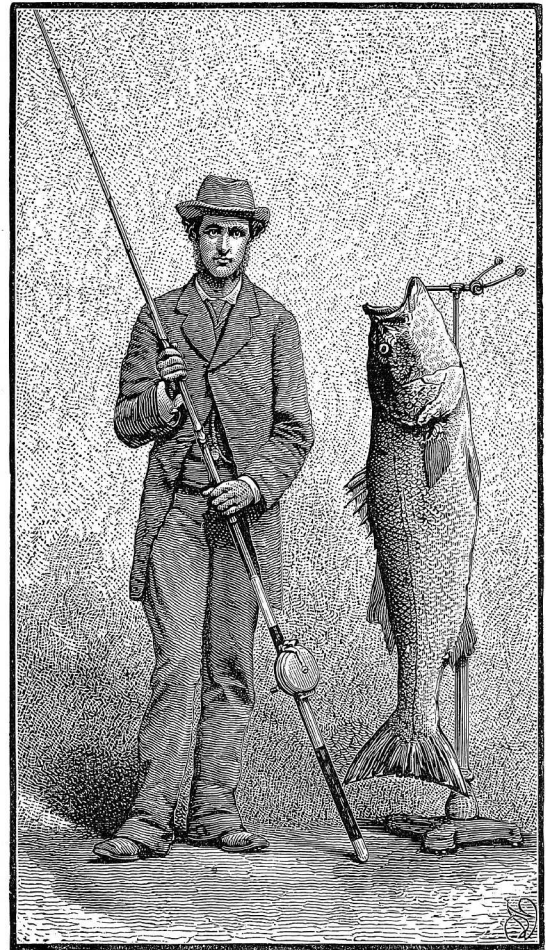
Steven K. Vernon and Vernon H. Kirby, Jr.

Tossing a line, cord, or rope from the end of some kind of cylindrical line holder is probably an ancient idea. The major advantage of the method is that there is no need for the line holder, or spool, to rotate as the line is cast, and, as a result, backlashing is eliminated. European fishermen were taking advantage of the technique at least as early as the seventeenth century.¹

The origins of modern spinning reels are rooted in the textile industry, which also provided much of the terminology used for various aspects of the reels and spin-casting. Robert Kershaw, of Norristown, Pa., described the advantages of feeding line axially from a spool in his 1867 patent for a machine that processed yarn.² The principle would be applied within a few years to machines used to handle fishing lines.

The earliest patent that specifically described casting from a fixed-spool reel was granted to Thomas Winans and Thomas D. Whistler, of Baltimore, Md., on March 23, 1875. The rod-and-reel combination was designed to prevent line overrun without the use of a friction brake. A single-action, side-mounted reel was mounted on one side of the rod, and its crankshaft extended through the rod to the other side, where the crank was attached. The inventors felt that this construction would provide a lighter, better-balanced arrangement than would a separate rod and reel.

The engraving shown here is the only known illustration of the Winans and Whistler reel, and perhaps the only record of its existence, aside from the patent records themselves. It was included in an article by Francis Endicott entitled "Striped Bass," published in the March, 1881, issue of *Scribner's Monthly* (New York: Scribner & Co.). The article was reprinted in *Sport with Gun and Rod in*



Engraving of a stoic angler with a 68 ¼-lb. striper caught with the Winans and Whistler reel. The image illustrated both published versions of Endicott's article.

American Woods and Waters, edited by Alfred M. Mayer (New York: The Century Co., 1883). The original caption is a terse "68¼ LBS., SIR!"

We have not yet identified the impassive angler in the engraving, which, admittedly, could have been based on a photograph taken years before the publication. But it is likely it shows a catch made shortly before the article was written. By that time, Thomas Winans was dead, and Thomas Whistler

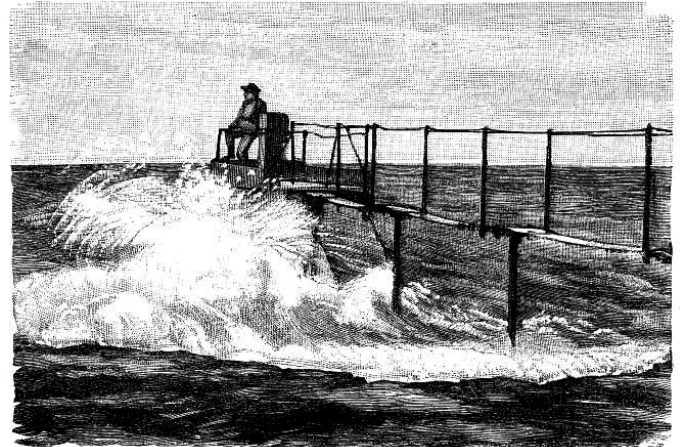
was in his early twenties. We have been assured by Dr. Margaret F. MacDonald, Professor of Art History, that the angler does not resemble any of the photographs of Whistler held by the University of Glasgow, including several taken around 1880. Our latest hypothesis is that the angler is Endicott himself, a lithographer by trade who, like the two inventors, was an avid striper fisherman. It is obvious from the picture that the combo was large enough for saltwater fishing and probably had been designed with striper fishing in mind.

The inventors represented two of Baltimore's more celebrated families. In 1830, ten-year-old Thomas deKay Winans moved with his father, Ross Winans, a well-known inventor and manufacturer of locomotives, from New Jersey to Baltimore, where he was trained as a machinist. In 1842, his father's friend, George Washington Whistler, was hired by Tsar Nicholas I to consult on the construction of a railroad connecting St. Petersburg and Moscow. The same Russian engineers who recommended Whistler also arranged for the newly organized partnership of Harrison, [Thomas] Winans & Eastwick to provide the rolling stock for the new system. A second partnership, which included both Thomas and his brother, William L. Winans, contracted to provide maintenance of the rolling stock.³ Winans spent about eleven years in Russia, and his facilities in Alexandrofsky produced 162 locomotives, 72 passenger cars, and 2580 freight cars. He married in Russia and returned to Baltimore as one of the wealthiest men in the country.^{4,5,6}

Somewhat reclusive, Winans was also an avid reader and highly inventive. Among his many innovations, some co-patented with his father and his brother, were an iron-hulled steamship, several steamship propellers, various improvements for steam engines, a carriage-wheel tire notcher, several pneumatic pipe organs, and a brick pavement. Somehow, he even found the time to invent a spinning reel.

Winans completed the construction of a "villa" in Newport, Rhode Island, around 1876. An invalid at the time, he had two iron piers built there especially for striped bass-fishing, from which he and Whistler caught almost one-and-a-half tons of bass in one

three-month period. On one September day, they hauled in two-hundred five pounds of rockfish, while daughter Celeste Winans caught four fish of her own.⁷ The piers were considered the best location in New England for striped-bass fishing.⁸ Winans also built an ocean-powered version of one of his pipe organs there.

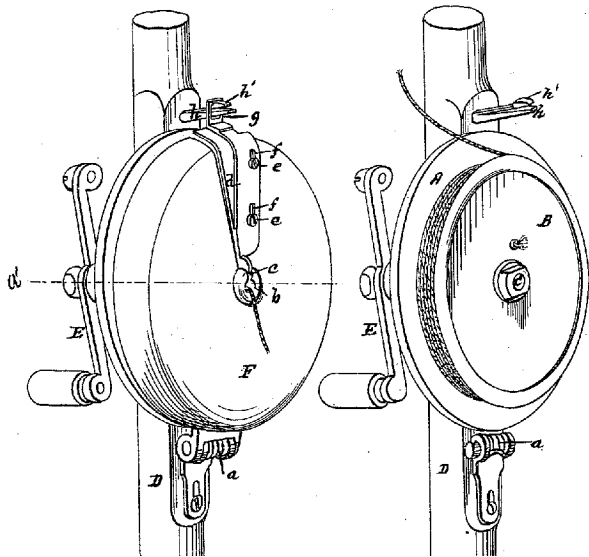


One of the fishing piers built by Winans at his "villa" in Newport, R.I. The engraving illustrated another article, by A. Foster Higgins, entitled "Striped Bass Fishing" and published in Scribner's Magazine, Vol. V, 1889, pp. 674-683. By the time the article was written, the pier was owned by a "Mr. Davis."

Acclaimed for his philanthropy, Winans died in 1878, only a year after his father's death, leaving an estate estimated by one source at \$9,000,000.⁹

Thomas Winans' sister, Julia, married George William Whistler, the son of Ross Winans' friend and partner. Their son, Thomas Delano Whistler, was born in Russia in 1857.¹⁰ He came to the U.S. in 1871 and, like his uncle, Thomas Winans, underwent training as a machinist in Baltimore and worked in railroad shops in Massachusetts. He was only eighteen when the inventors applied for their first reel patent, and he would afterwards attend Rensselaer Polytechnic Institute in Troy, N.Y., graduating in 1881 with a degree in Civil Engineering.¹¹ During the next few years, he designed and built coal-car elevators for the Manhattan Gas Co., repaired New York City's Third Avenue swing-span bridge over the Harlem River, and worked briefly for the New York Aqueduct Commission in Tarrytown. Much of the remainder of Whistler's career was spent as a consulting engineer

with Brown, Shipley & Co., London.¹² Between 1890 and 1919, he made at least six round trips to England. While in London, he patented an anti-friction roller line guide and a fly rod with an unusually flexible butt. Whistler died in 1921.



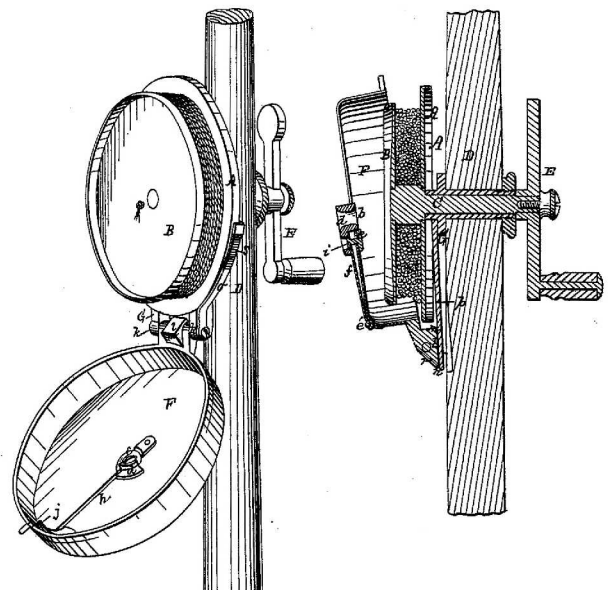
Two views of the first spinning reel, invented by Winans and Whistler. (Left) The cover is closed, and the reel is ready for casting. The line would flow out through the central guide and up toward the end of the rod. (Right) Though not shown here, the cover would be swung open so that the line could be retrieved.

The narrow spool of the Winans and Whistler reel was made with two discs, and the disc closer to the rod had a slightly larger diameter than that of the outer disc, whose rim was rounded so that the line could flow easily over it. The inventors pointed out that the use of a narrow spool eliminated the need to use the fingers to distribute the line evenly as it was retrieved. Covering the spool was a hinged cover, with a small line guide in its center and a wedge-shaped radial slot. A spring on the hinge normally raised the cover from the spool. Covering the slot and attached to the cover was a wedge-shaped “slide,” which closed the slot when it was pressed down. The slide’s outer end extended beyond the rim of the cover and had a “loop” that slid over a short spring-arm projecting up from the rod.

For casting, the angler looped the line through the slot to the cover’s central line guide and closed the cover, pressing on the slide with his thumb to close the slot. When the line was cast, it flowed out of the

guide and “there [was] absolutely no danger of the entanglement, or knotting, or winding up of the line.” After the cast, the angler removed his thumb from the cover, allowing it to swing away from the spool and leaving the line to be retrieved without obstruction. He could use the rim of the outer spool disc as a thumb-brake.

A second patent, granted March 21, 1876, was an improvement of the first. Despite their claim in the earlier description, the inventors found it necessary to add a plate to the inside of the cover to prevent the line from catching in the slot. More importantly, they redesigned the hinge spring so that it would hold the cover up slightly from the spool in its normal position but would still permit opening the cover completely. A spring brake that pressed against the spool rim and that relieved the angler’s thumb from that chore was attached to the cover hinge, and the cover’s line guide was redesigned.



Two views of the improved Winans and Whistler reel. The cover has a redesigned hinge and a small plate (j) to improve line flow. A brake (o) rubs against the spool flange.

The Winans and Whistler reel was the first example of what we call today a “closed-face spinning reel.” During the decade following World War II, various styles of side-mounted, closed-face reels were mass-produced in the U.S. by a number of manufacturers. One such reel had an uncanny

resemblance to the Winans and Whistler machine, though it was far easier to operate. The first patent on which the “Magic” reel was based was granted to Jacob M. Goldberg, of Denver, Colo., on October 16, 1951 (Pat. no. 2,571,440). Goldberg received at least three more patents for his reel, which was manufactured by the Magic Fishing Reel Co., a subsidiary of Goldberg Brothers Manufacturing Co., Denver.¹³

Notes

¹ Waterman, Charles F., *Fishing in America*, New York, N.Y.: Holt, Rinehart & Winston, Publishers, 1975, pg. 228

² Vernon, S.K., *Reel News*, Vol. XII, No. 6, November, 2002, pg. 10

³ Bishop, J. Leander, *A History of American Manufactures from 1608 to 1860*, Vol. II. Philadelphia, Pa.: Edward Young & Co., 1866, pp. 524-5

⁴ “A Millionaire Inventor,” *New York Times*, June 11, 1878. Winans died on the morning of June 10 in Baltimore.

⁵ *Biographical Cyclopedia Book: Baltimore Listings of Who's Who up to 1880*. Baltimore, Md.: National Biographical Publ. Co., 1879, pp. 364-5

⁶ Vose, George L., *A Sketch of the Life and Works of George W. Whistler, Civil Engineer*. Boston, Mass.: Lee & Shepard, 1887, pp. 25-38

⁷ Endicott, Francis, “The Striped Bass,” *American Game Fishes*, George O. Shields, editor. Chicago, Ill., & New York, N.Y.: Rand, McNally & Co., 1892, pg. 147. Winans’ wife also was named Celeste.

⁸ Reiger, George, *Profiles in Saltwater Angling*. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1973, pg. 58

⁹ Thomas Winans’ son, Ross R. Winans, also was an avid fisherman, despite suffering years of ill health. He, too, often traveled from Baltimore to Newport, where he was accompanied on his fishing expeditions by a childhood friend, an equally accomplished lady angler. He died there in 1911.

¹⁰ James A. McNeill Whistler was a step-brother of George William Whistler, and the artist painted a portrait of five-year-old Thomas Whistler about a decade before he painted his famous “Arrangement in Grey and Black No. 1: Portrait of the Artist’s Mother” (“Whistler’s Mother”), whose subject was the second wife of George William’s father. A painting bought by Thomas Winans was one of the first creations of his step-cousin to be exhibited in New York.

¹¹ Nason, Henry B., *Biographical Record of the Officers and Graduates of the Rensselaer Polytechnic Institute, 1824-1886*. Troy, N.Y.: William H. Young, 1887, pg. 519

¹² Brown, Shipley & Co. was an English branch of Brown Brothers & Co. and was initially located in Liverpool. Brown Brothers originally had been Alexander Brown & Sons, the first investment bank in the U.S., founded in Baltimore in 1800. The bank played a crucial role in the establishment of the Baltimore & Ohio Railroad. Brown, Shipley’s separation from Brown Brothers in 1918 may have provided the impetus for Whistler’s last voyage back to the U.S. in 1919.

¹³ Carbaugh, Gary, & Spurr, Dick, *Colorado Reels and Old Fishing Tackle: A Collector’s Guide*. Grand Junction, Colo.: Centennial Publications, 1994, pg. 18