Ephraim L. Dunlap – Inventor of American’s last flat-spring fish hook.

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On 1 June 1875, Ephraim L. Dunlap received U.S. Patent No. 163,980 for a spring hook (Fig. 1). This was apparently the first patent issued for a piece of terminal fishing tackle invented in Maine (Figs. 2 & 3), and is among the earliest of the spring hooks receiving a U.S. patent. William Blauser and Timothy Mierzwa, in their book *Spring-Loaded Fish Hooks, Trap & Lures* (2006) (Ref. 1), characterized this device as “a very desirable fish trap” for collectors to find. In *Patented Hooks, Harnesses & Bait Holders* (2008), Jeff Kieny considers the Dunlap Spring Hook “rare” and noted that it “is the last flat-spring powered spring hook patented in the U.S.” (Ref 2, p. 16).

The basic idea behind a patent was to protect new ideas from being made and sold without the inventor’s permission to stimulate commerce by helping inventors to benefit from their ideas. With the industrialization of America progressing at full steam during the second half of the 19th century, many members of the general public saw patents as a road to riches. Inventions being patented by U.S. Patent Office included all sort of useful (and not so useful) items, including all sort of fishing tackle such as rods, reels, nets, lures, hooks, hook harnesses, spinners and so on.

Fig. 2a: The Dunlap Spring Hook, at its two most distant points is about 3 1/2 inches long. The photograph shows the round heads of the brass pins that hold the two jaws together.

Fig. 2b: This photograph shows the underside of the device. Dunlap’s device is powered by a tempered, steel flat-spring, whereas American spring hooks patented after Dunlap used coiled springs.

Fig. 3: A close-up of the patent date stamped on the Dunlap Spring Hook’s upper side. The stamping reads: “PAT JUNE 1 75”, the date that E.L. Dunlap received US patent no. 163,980.

(from the author’s collection)
To help prepare and file the necessary papers, patent attorneys advertised their services widely, including angling journals (Fig. 4). Even in states where lure making remained a cottage industry — that is where lure making never developed into factory-scale manufacturing — patents for fishing lures were coveted. In Maine, for example, lure making was a small-scale, cottage industry and yet I still located six patents issued before 1930 for terminal fishing tackle: one patent each for a hook harness and a spinner, two patents for lures, and two for spring hooks (i.e., Dunlap’s and “The Old Glory”).

As shown by the above advertisement, patent attorneys advertised in sporting journals during the late 1800s and early 1900s.

Two decades later after Dunlap’s 1875 patent, on 24 December 1895, Henry O. Stanley and L. Dana Chapman received a patent for a lure, the “artificial minnow.” Chapman, a tackle salesperson from Massachusetts, drop off the subsequent patent issued in November of the next year. From late 1896 until the around 1910, Henry O. Stanley & Son of Dixfield, Maine made and sold the Stanley Aluminum Smelt. (Ref. 3). Another Maine spring hook that was patented occurred on 30 May 1899 when Jacob Cartier of Biddaford was awarded a U.S. patented for his combination fish and animal trap, the “Old Glory Sure Catch” (This device is also stamped with an earlier patent date of 7 Sept, 1897, but this device is noticeably different than the “Old Glory.”). While invented in Maine, the “The Old Glory” went on to be made by Cartier & Pelletier in Salem, Massachusetts. (Ref. 2, p. 48). The Stanley Aluminum Smelt was among the first, if not the first, patented U.S. lure to be made of aluminum. It was not, however, Maine’s only patented aluminum fishing lure. The Murray Aluminum Minnow, invented by William Murray of Auburn, Maine, was patented on 10 June 1908. William, and later his two sons, made and sold this lure for at least three decades. (Ref. 5). On 2 August 1921, Herbert L. Johnson of Yarmouth received a patented for a specialized hook. Johnson assigned the patent to George L. Lowell of Freeport, Maine. (Ref. 6). Lowell, a jeweler and optician, made and sold this hook as the Kismet Casting Hook. The last pre-1930 lure from Maine to be patented, was the Lucerne Lure, invented by Franklin W. Hobbs of Bangor, Maine, on 22 April 1926. (Ref. 4).

Ephraim L. Dunlap was born in 1831 on a farm in central Maine (Ref. 7). His parents were Ephraim Dunlap and Mary Ann Lord. Ephraim Sr. was from Embden and Mary Ann Lord was from Belfast, a fishing village located in Maine’s central coast. The Dunlap farm was located on a small hill near the northeast corner of Embden Lake (Fig. 5). The prime soils for farming in this part of Maine were located some 4 miles to the east, in the Kennebec River Valley. But by the early 1800s this land had already been settled so Ephraim Sr. settled on rockier, more marginal soils for farming. Here, on Lot No. 87 with was surveyed in the late 1700s, he cleared the forest from the high ground which, in addition to having deeper soils than the lowlands, would be the frost free earlier in the spring.

In 1850, Ephraim Jr. was 19 years old, living with his parents and three brothers and two sisters. The Dunlap family raised sheep, beef, milk cows, chickens, and grew a variety of crops to sustain both their livestock and themselves. When approximately 27 years old, Ephraim and Mary, with at least one child, left Embden.
The farms immediately east of Embden Lake were failing, and land ownership was reverting to the merchants and store keepers who had provided credit to the farmers. In 1860, Ephraim Sr. was the only Dunlap left on Lot 87 and by the early 1880s another family occupied the land (Fig 5).

Fig. 5: Map of Embden Pond (3 1/2 mi. long) and surrounding land parcels showing the location of Lot 87 (see arrow), site of the Dunlap’s family farm in north-central Maine. (Atlas of Somerset County, Maine; Geo. N. Colby & Co., 1883)

Ephraim Jr. and his family struck out on their own to farm in Eustis Plantation (= an unorganized township with too few people to incorporate and form a local government), some 50 miles by road to the northwest of Embden (Fig. 6). Here, in a forested wilderness with an even shorter growing season than Embden, Ephraim and his family struggled to survive. Within five or so years after moving to his wilderness farm, with the Civil War ranging, Ephraim signed up for the draft as required by law. In 1863, Ephraim was one of 53 men from the Eustis-Dead River-Flagstaff area (Fig. 6) of northwestern Maine ordered to report for duty. With a young family living in the wilderness to support, Dunlap was among the 14 who paid the fee. Apparently, avoiding active service via a commutation fee carried little social stigma as approximately 87,000 draftees from the North paid the fee and thus avoided the Civil War despite being young and healthy.

Ephraim and Margaret had three sons in 1870 and had endured multiple winters in Eustis. Clearly, the Dunlapps had demonstrated that they could grow and find enough food to survive the harsh winters of western Maine. In February 1871, Eustis Plantation became simply Eustis, an incorporated town with its own local government. At this time, Eustis had 342 citizens (In 2011, the town’s population was still only 818). It must have been in the early to mid-1870s that Ephraim was working on his spring hook. For the early settlers, fishing was a matter of survival, not sport. Fishing, if it could be done efficiently, was a way to supplement their diet with local, inexpensive protein.

While I have been unable to locate documents specifically describing how spring hooks were used by Maine settlers, one can imagine that the basic problem that Dunlap had to solve: With an abundance of 6 to 12-inch brook trout in the area, how do I catch enough of these fish to provide food for the family without taking away too much time from farming? After all, the growing season is short and every hour was precious. The spring hook provided a solution in that a number of these hooks could be hung from branches overhanging streams, suspended from floats anchored in still waters, or fished through the ice in winter. One could set the fish trap-line in the morning, do farm chores in the day,
and return just before dark to check the hooks. If you could not get around to checking your fish traps until the next morning, no problem because the cool water would keep the catch fresh.

As we can imagine how the spring hooks were used, we can also speculate a little about how they were made. Farmers of Dunlap's time would have been familiar with a variety of steel tools, especially those used for shaping metal and sharpening edges. Many farmers from the 1800s knew the basics of metal working, and if specialized knowledge or equipment was needed to solve more technical problems, such as how to properly temper steel, there would always be a local blacksmith who could help. Interestingly, the spring hook was not the only metal tool Dunlap invented and patented. On 23 July 1889 E. L. Dunlap received a patent for an animal trap (U.S. Patent No. 407,646). This device was an extra heavy duty version of his spring hook and according to the patent application had a "spring-jaw which descends upon the head of the animal ... when it attempts to take the bait." (Fig. 7). About a decade later, on 22 June 1897, Dunlap received yet another patent. His third patent was for a plough that was designed to function both as a seed planter and fertilizer distributor (U.S. Patent No. 585,088). Both of these devices were patented while Dunlap was a resident of Kingfield, a small town located approximately 30 miles southeast of Eustis (Fig. 6).

Fig. 7: Close-ups of the drawings that accompanied E.L. Dunlap’s 1875 application for a spring hook (top; Fig. 2 = unset; Fig. 1 = set) compared to the drawings that accompanied Dunlap’s 1889 patent application for an animal trap (bottom; Fig. 1 = unset; Fig. 2 = set). (US patent office)

Dunlap's wife, Margaret, died three approximately 3 months before Ephraim received his spring hook patent. The couple's first child, George W., died the next year, in 1876 when only 17 years old. Either around the time of these tragedies, or shortly after (i.e., ~1880), Dunlap left Eustis' wilderness and moved 24 1/2 miles southeast to the small village of Kingfield. Exactly how long he lived in Kingfield is unknown, but in 1910 (probably earlier), he left Kingfield moved in with John W. Dunlap, a son. John, his wife, and three children were living in New Portland, Maine, a small town only 6 1/2 miles south of Kingfield (Fig. 6).

On 17 February 1914, at 83 years of age, the inventive farmer died of "chronic Bright's Disease" (= kidney failure). Along with his wife Margaret, and first son George, Ephraim is buried in Sunset Cemetery, North Anson, Maine. Moving a half dozen or so times during his lifetime, Ephraim now rests approximately 7 miles south of hill-top farm where he was born.

In the 19th through early 20th century, Americans held a widespread belief that a patent provided a good chance of becoming wealthy, and perhaps even famous. With the industrialization of America in full bloom, manufacturers of all sizes were hunger for new ideas that could be turned into products and sold for profit. This fever for new ideas, sellable products, and a chance for wealth even permeated the fishing lure business. When 79 years old and living with his son John, Ephraim was apparently financially independent. The 1910 U.S. Census records, under "Occupation," states that Ephraim L. Dunlap had his "own income." Perhaps, just perhaps, Dunlap had beaten the odds and one or more of his inventions had been modestly successful. But whether or not Dunlap’s spring hook was a financial success, the next time you handle a Dunlap spring hook, or any early piece of patented fishing tackle with an identified maker, take a minute and think about what this object may have represented to its inventor. This invention is more than metal as it represents the creativity, hopes, and dreams of a human who once walked this earth.

My sincere thanks to Ron Goddard for getting me interested in Maine’s early fishing lures in general, and spring hooks in particular. Ellen Conant Krohn reviewed an early draft of this article.
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The First Publication Devoted Exclusively To Tackle Collecting and Angling History
Editor's Note: Due to space limitations in the June 2016 issue, these references were not included in the Ephram L. Dunlap article by Bill Krohn.

References


(7) Walker, Ernest George. 1929. *Emden Town of Yore: Olden Times and Families There and In Adjacent Towns*. Independent-Reporter Co., Skowhegan, Maine. [For a history about Ephraim Sr. and his immediate family, see pages 500-502, and 702. Page 13 shows the location of Lot 87, site of the family’s farm.]