

# Henry W. Putnam and the Lightning Fastener

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The history of Henry W. Putnam is as fascinating as it is convoluted. An inveterate inventor, he entered into the bottle stopper realm early (1859) and continued to be involved until his retirement in 1898. The intricate web between Putnam and two other inventors – Charles de Quillfeldt and Karl Hutter – is still not entirely untangled. Putnam and Hutter both marketed the Lightning fasteners and each used the same trade mark – registered in Hutter’s name. The patents from all three men continued to evolve into the late 1890s. Putnam had two factories (for stoppers and other inventions) and a major sales office in New York. He never made glass, although he sold bottles and jars along with his stoppers. Sales continued into the early 1920s.

## History

### Henry W. Putnam, New York (ca. 1864-1920s)<sup>1</sup>

Born on September 1, 1825, at Essex, New York, Henry William Putnam was not involved with bottles or jars for many years. He traveled to California in the 1840s and sold drinking water to gold miners. Returning, he was involved in various businesses until he seriously entered the glass container field with his 1859 patent for a wire arrangement that held a cork in place after it had been forced into the mouth of a bottle (see the patent section below for more information on each of these patents). The device was simple and efficient – and could be reused (Figure 1). He received a reissue for the same fastener in 1864. One obituary suggested that his idea arrived because of the string-tied corks on the bottles he sold in California (Roller 1983:437; 2011:644; *Semi-Weekly Times* [Troy, New York] 2/2/1915).

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<sup>1</sup> As noted in the introduction to this Encyclopedia, we elected to present these glass houses according to the names they actually used. In this case, the sales office was called by the owner’s name – Henry W. Putnam – while each factory was identified as the Putnam Mfg. Co. Since *all* of the stoppers were sold under the style of Henry W. Putnam, we have placed this study in the “H” section.

The sources are unclear about when Putnam began sale and/or production of the wire cork fastener. One obituary (*Semi-Weekly Times* 2/2/1915) reported that Putnam’s “business ventures in Cleveland, Ohio, and other places were very successful before coming to Bennington in 1864. Here he began the manufacture of bottle fasteners.” This suggests that fastener production (and, thereby, sales) did not commence until 1864. Putnam was apparently already producing his other inventions (e.g., a washing machine wringer and double-pointed carpet tacks) at Cleveland.



Figure 1 – Cork wire (Lindsey 2016)

The New York sales office – the only location noted in ads that we can find – was at 18 Platt St. in 1864 and 1865. However, a January 1, 1878, brochure gave Putnam’s address as 108 Chambers St., New York, and he used this address in his ads for bottle and jar stoppers until at least 1921 (Paul & Parmalee 1973:18; Roller 1983:437; 2011:644; Seeger & Gurnsey Co. 1890). Only the office address appeared in ads for the stoppers and Lightning jars – never the factory locations at Cleveland, Ohio, and Bennington, Vermont (see below).

The next sequence of events is a bit odd and not fully explained by any source. As noted above, Charles de Quillfeldt received a patent for what would come to be called the Lightning Stopper on January 5, 1875. He patented an improvement in 1876, then had the first patent reissued on June 5, 1877, after applying for the reissue on April 24 of that year. Interestingly, the 1875 (and 1877) drawings clearly depicted a champagne bottle. At different times, de Quillfeldt assigned patents to Karl Hutter or Putnam, although he did not assign most of his patents to anyone. Hutter and Putnam both used the Lightning trademark and sold similar patented closures. Possibly some future researcher will discover a currently unknown document that will make the relationship clear.

On March 30, 1877, Henry Putnam applied for a patent for an “Improvement in Bottle-Stoppers and Bottle Fasteners” and received Patent No. 207,982 on September 10, 1878. The timing is very interesting. Putnam applied for his patent in March 1877, before de Quillfeldt had applied for the reissue. Even though de Quillfeldt received his reissue in June 1877, the patent office still felt that Putnam’s invention was sufficiently different to receive a patent number.

Putnam's patent drawing clearly showed a beer bottle. Creswick (1987:101) described the difference between the two patents:

De Quillfeldt's . . . patent called for the ends of the lever wire to be hooked into loops in the neck tiewire, which was the style on the earliest of the Lightning jars. . . [Putnam's] patent called for metal pieces to serve as fulcrums for the lever wire instead of the loops, and is the style on all of the Lightning jars [that she] listed [Figure 2].

Both Roller (1983:437; 2011:644) and von Mechow (2016) noted that the de Quillfeldt reissue was assigned to Karl Hutter – a fact clearly stated in the reissued patent. However, both also claimed that – in the words of Roller (1983:437; 2011:644) – “by 1878, Henry Putnam had acquired an interest in the de Quillfeldt bottle stopper patent and was advertising that the ‘LIGHTNING’ bottle stopper was manufactured only by him.” Hutter registered the term “Lightning” for the fastener on February 12, 1878. However, Putnam made the Lightning fastener a success, selling variations of both the de Quillfeldt stopper and his own adaptation of the Lightning for jars (Graci 2003:16-18, 20-21; Roller 1983:437).



Figure 2 – Metal fulcrum (North American Glass)

These statements may not be quite correct. A 1901 Putnam ad illustrated the “Lightning” stopper but listed the Putnam 1878 patent (see a discussion of the ad below). Although it is possible that Putnam sold stoppers made to the de Quillfeldt patent earlier, this suggests that he only dealt in Lightning stoppers made to his own patent.

Since Hutter had registered the term “Lightning” – and Putnam advertised the same name – there must have been some form of agreement between the two. Both made the stoppers and generally marketed them in the same region. Although the original paperwork appears to have been lost, it would make very interesting reading (also see the section on Karl Hutter in the K chapter).

Hutter, Putnam, and de Quillfeldt continued to design improvements to the Lightning fastener – most with little apparent public appeal – although Putnam had some success with his February 10, 1880 patent (No. 224,304). Called the Putnam Magic Stopper, this was an improvement on the Lightning. Von Mechow (2016) described the process:

The stopper consisted of a removable metal stopper with a rubber covering that was forced into the mouth of the bottle using the typical wire bail. The stopper was to be used in conjunction with a bottling machine that forced the detached stopper into the mouth of the bottle after it was filled with the beverage. The stopper was then secured by snapping the bail in place. This stopper met with some level of success, but was hampered by the need to invest in a bottling machine in addition to a supply of stoppers.

Two years later, Putnam made a major breakthrough, when he received Patent No. 258,857 on April 25, 1882. This was an adaptation of the Lightning closure to wide-mouth jars. The lid was the most successful challenge to the Mason jar's screw cap, and it was a commercial success well into the 20<sup>th</sup> century. Although Roller (1983:438; 2011:645) claimed that Putnam's Lightning jar patent expired in 1889, that would only have been seven years after the patent was issued. Patents remained in force for 14 years, so the expiration date would be 1896.

Karl Hutter also made a major discovery, when he came up with an idea for a porcelain stopper and received Patent No. 491,113 on February 7, 1893. The change was simple. A rubber washer on the bottom of a rounded-conical porcelain plug was held in place by the tried-and-true wire-bale arrangement that supported the Lightning stopper (Figure 3). The closure became known as the Hutter stopper and was so efficient that it remains use on some beer bottles today. Both Hutter and de Quillfeldt patented improvements in 1897. Interestingly, Putnam's 1878 idea of anchoring the swing wire in indentations in the finish has finally been implemented in very late 20<sup>th</sup> and early 21<sup>st</sup> century bottles (Figure 4).

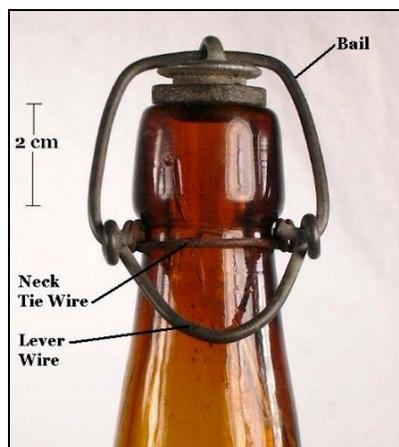


Figure 3 – Hutter stopper (Lindsey 2016)

Although de Quillfeldt only assigned one patent to Hutter, both Hutter and Purnam sold the Hutter stopper. In fact, Putnam's 1901 ad (Paul & Parmalee 1973:18) illustrated and gave the patent dates for five different stoppers and his wire for corks – Figure 5 & Table 1. Oddly, the ad gave the date for the Magic Stopper under the Lightning Soda Bottle Stopper drawing but did not include a date under the Magic Stopper. By that point, of course, only the 1893 Hutter patent remained in force.



Figure 4 – Modern stopper (Lindsey 2016)

## THE "LIGHTNING" BOTTLE STOPPER.

**The Lightning Soda Bottle Stopper.**  
FOR UNWATERED BEVERAGES.



Pat'd Sept. 10, 1878.

Trade-Mark  
"LIGHTNING."

Registered Feb. 12, 1878.

**The Lightning Soda Bottle Stopper.**  
FOR UNWATERED BEVERAGES.



Pat'd Feb. 10, 1880.

Putnam Cork Fastener.

**HENRY W. PUTNAM.**

Hutter Porcelain-Top Stopper.  
PAT'D FEB. 7, 1883.



**Attachment for Filling with Inside Stoppers.**



Patented September 5, 1882.

**Hutchinson Bottle Stopper.**



**CLOSED.**  
Patented April 8, 1879.  
Re-issued June 17, 1879.

**The Magic Bottle Stopper.**  
FOR UNWATERED BEVERAGES.



Patented Oct. 25, 1861. Re-issued June 28, 1870.

**PRICE LIST.**

"Lightning" Bottle Stoppers .....	Per Gross, \$1.25	Bottling Benches for Cork Fasteners.....	Each, \$48.00
Lightning Soda Bottle Stoppers.....	1.00	Corating Cylinder (extra for same).....	" 10.00
Magic Bottle Stoppers.....	4.25	Rubber Packing for same, each, 25c.....	Per Doz. 2.40
Roberts' Patent Cylinder for filling with same.....	Each, 12.00	Putnam Syrup Gauge.....	Each 26.00
Hutchinson Bottle Stoppers.....	Per Gross, 1.50	Couplings (to connect water hose with gauge), fitted ready for use.....	" 1.50
Extra Rubbers for Lee and Hutchinson Stoppers.....	0.45	Rubber Tubing for Bottling Beer (12 feet lengths).....	Per Foot 1.00
Attachments for filling with inside Stoppers (see cut).....	Each, 10.00	5-Ply Rubber Water Hose.....	Per Foot 0.30
Extra Spring Hooks for same.....	0.50	Rubber Hose for conducting Syrup from can to gauge.....	Per Gross, 0.30
Bottling Benches for filling with inside Stoppers.....	40.00	Extra Neck Wires for "Lightning" and Phoenix Stoppers.....	Per Gross, 1.75
Gauges for measuring throats of bottles for inside Stoppers.....	0.50	Hutter Porcelain-Top Stoppers, plain.....	Per Gross, 2.25
Putnam Cork Fasteners.....	Per Gross, 0.30	Syrup Gauges Re-packed and Repaired—Charges Moderate.	
Extra Neck Wires for Cork Fasteners.....	0.12		

ALL ORDERS WILL RECEIVE PROMPT ATTENTION.

Address **HENRY W. PUTNAM,** 108 CHAMBERS ST  
NEW YORK.

Figure 5 – Putnam 1901 ad (Paul & Parmalee 1973:18)

**Table 1 – Stoppers Advertised by Putnam in 1901 (after Paul & Parmalee 1996:18)**

Stopper	Patent	Date	Inventor
Cork Fastener	23,263	March 15, 1859*	Henry W. Putnam
Lightning Bottle Stopper	207,982	September 10, 1878	Henry W. Putnam
Lightning Soda Bottle Stopper	224,304	February 10, 1880	Henry W. Putnam
Hutter Porcelain-Top Stopper	491,113	February 7, 1893	Karl Hutter
Hutchinson Bottle Stopper	213, 992	April 8, 1879**	Charles Hutchinson
Magic Bottle Stopper	224,304	February 10, 1880*	Henry W. Putnam

\* This date was not on the 1901 ad.

\*\* Reissued on April 28, 1879, Reissue No. 8,755.

Tired of Eastern winters, the senior Putnam retired to San Diego, California, in 1898, leaving his son, Henry W. Putnam, Jr., to run the business. The son registered the “LIGHTNING” trademark on February 8, 1927, claiming a first use on April 25, 1882 (which makes one wonder what happened to Hutter’s 1878 registration). Yet another Henry W. Putnam (possibly III?) renewed the patent again on February 8, 1947, a decade after the death of Henry, Jr., in 1937. The senior Putnam died on January 29, 1915, at San Diego (Roller 1983:437; 2011:645).

**Putnam Manufacturing Co., Cleveland, Ohio (1860s-ca. 1872)**

**Putnam Manufacturing Co., Bennington, Vermont (1865-1920s)**

As noted above, Putnam had two factories, one at Cleveland, Ohio, the other at Bennington, Vermont. The Cleveland factory was the older of the two and probably made washer wringers and other Putnam products prior to 1864 – although 1864 is the first year we can find for ads and listings. Putnam placed literally dozens of ads in magazines, journals, and newspapers in Ohio, New York, Pennsylvania, and the surrounding states in 1864 and 1865 – then all ads abruptly ceased (at least in our newspaper database). These all noted that the office was located at 18 Platt St., New York.

Roller (1996) presented a January 22, 1866, billhead from the Cleveland plant that listed both factories as well as offices at Bennington and New York. The product list on the billhead included “Putnam’s Patent Clothes Wringers, Ironing Mangles, Cork Fasteners, Sirup Gauges, Cork Screws, &c.” – although it did not state which factories made each product. This was the last item we have discovered for the Cleveland plant. We have found no other listings for the Cleveland factory after 1865 (Troy city directory), but the *Defiance Democrat* (Defiance, Ohio) produced a spate of ads for the Putnam wringer from April 27 to June 15, 1872, giving an address of 65 Bank St., Cleveland. This may have been a local sales outlet – or the last ad for the factory.

The Bennington plant apparently produced the wire fasteners and later stoppers, beginning in 1865 (e.g., *Presbyterian Historical Almanac* 1865:44), and Putnam’s “business was so highly remunerative that \$1,000 a day profit was assured him for years” (*Semi-Weekly Times* 2/2/1915). The Bennington plant provided an entry in the Buffalo Mechanics Institute show of 1869 (Buffalo Mechanics Institute 1869:93), but that is the last entry we can find in our resources. However, the obituaries hinted that the Bennington plant remained open at Putnam’s death in 1915 – so it probably continued production into the early 1920s.

## **Patents**

Putnam, Hutter, de Quillfeldt, and their employees received a total of 21 swing-stopper or wire patents between 1859 and 1897. Many of these were never used to make bottles, so we have only included the most relevant ones. Putnam also invented soda bottle filling apparatuses, while ed Quillfeldt patented siphon bottles and tops, tools to make threaded finishes, and built-in forks for pickle jars. Both men also made several patents that were not bottle related. For more discussion of all these patents, see Lindsey 2016.

### **Henry W. Putnam**

Putnam received three stopper patents that became important as well as one other that enjoyed limited success.

### March 15, 1859

On March 15, 1859, Putnam received Patent No. 23,263 for “Improvements in Bottle-Stopper Fastenings” (Figure 6). This marked the beginning of swing stoppers, as the device held corks in place by a thick wire attached to the neck just below the “blob” finish by a thinner wrapped wire. The thick wire swung up to hold the cork in and back out of the way for opening and pouring. The patent was reissued on January 19, 1864. Von Mechow (2016) called it “the standard used on corked beer bottles during the 1860s and 1870s.”

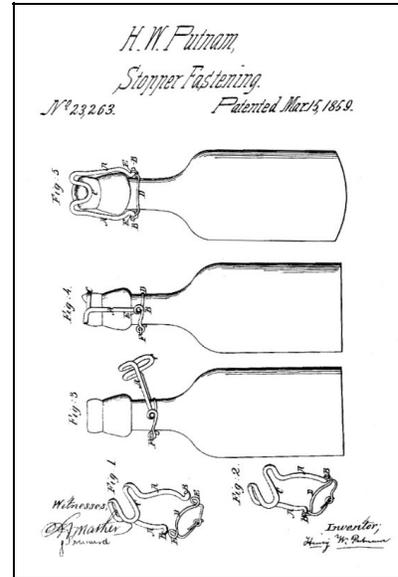


Figure 6 – Putnam 1859 patent

### September 10, 1878

Putnam applied for this patent on March 30, 1877, and received Patent No. 207,982 for an “Improvement in Bottle-Stoppers and Bottle Fasteners” on September 10, 1878 (Figure 7). The patent actually called for the swing wire to be anchored in “socket-fulcrums . . . formed in lugs molded upon the bottle-neck.” In reality, the stopper used “metal pieces to serve as fulcrums for the lever wire instead of the loops” (Creswick 1987:101). These metal fulcrums were wired to the neck of the bottle just below the finish (see Figure 2). Putnam advertised this patent as the basis for his Lightning fastener (see Figure 5).

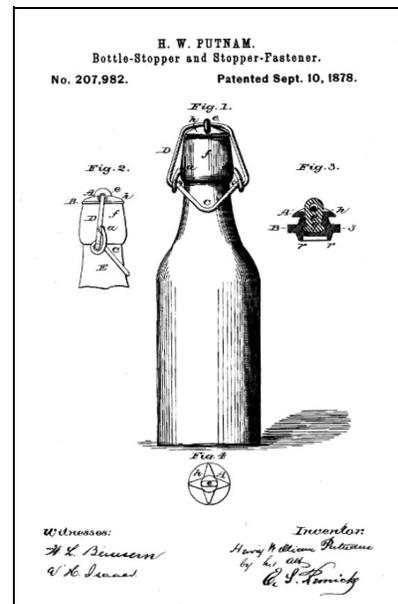


Figure 7 – Putnam 1878 patent

### February 10, 1880

The February 10, 1880, “Bottle Stopper and Fastener” patent only enjoyed limited success. Putnam applied for the patent (No. 224,304) on December 29, 1879 (Figure 8). While the stopper was efficient, it required specific machinery for filling the bottle and installing the stopper into the bottles. Because of this extra expense, many bottlers were unwilling to adopt the stopper.

**April 25, 1882**

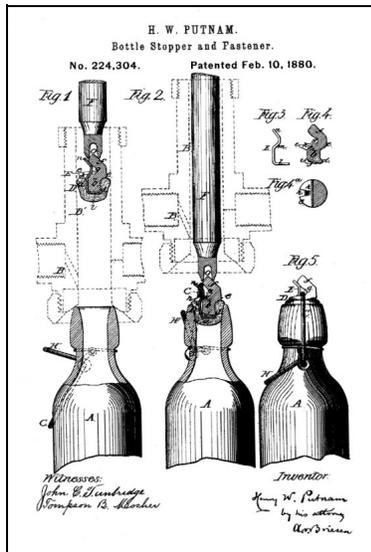


Figure 8 – Putnam 1880 patent

This was another major breakthrough. On February 10, 1882, Putnam applied for a patent for a “Stopper for Jars &c.” He received Patent No. 256,857 on April 25, 1882 (Figure 9). The invention used the basic design of his 1878 patent and the earlier de Quillfeldt patent (see below) but adapted the Lightning finish to wide-mouth containers. As noted above, this was the only meaningful long-term competitor with the Mason screw lid.



Figure 9 – Putnam 1882 patent

## Charles de Quillfeldt

Although de Quillfeldt was a prolific inventor, including at least 14 bottle-related items, his initial invention was the only one relevant to this study.

**January 5, 1875**

Charles de Quillfeldt applied for a patent for “Improvements in Bottle-Stoppers” on November 30, 1874, and received Patent No. 158,406 on January 5, 1875 (Figure 10). This was the original swing stopper that plugged the mouth of the bottle with a rubber device (that he called an “elastic stopper”). The patent office awarded de Quillfeldt Reissue No. 7,722 for the same patent on June 5, 1877.

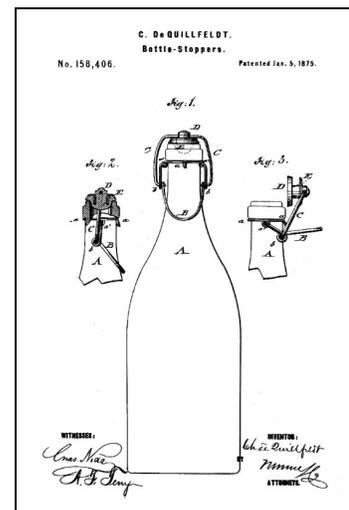


Figure 10 – De Quillfeldt 1875 patent

## Karl Hutter

Over a four-year period (1893-1897), Karl Hutter received three patents for improvements on the Lightning stopper. These would completely transform the original Lightning.

**February 7, 1893; June 16, 1896; April 13, 1897**

On April 6, 1892, Hutter applied for the first “Bottle-Stopper” patent in this series and received Patent No. 491,113 on February 7, 1893. Although he never specified porcelain as the medium for the plug, subsequent stoppers were consistently made of that material. He called for a conical or “tapering plug with a substantially triangular or heart-shaped slot” – although his drawing showed more of a triangular opening. He applied for the second patent (No. 562,225) on February 18, 1896, and received it on June 16 of that year. The final patent, applied for January 13, 1896 and received on April 13, 1897 (No. 580,456A), illustrated the stopper in its final format – as it shows up on actual bottles (Figure 11).

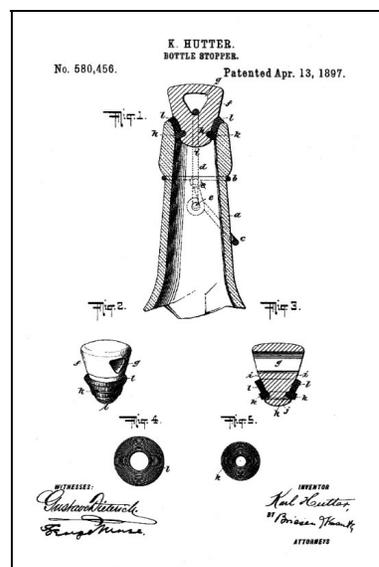


Figure 11 – Hutter 1897 patent

## Containers and Marks

Although Putnam was a manufacturer of the stoppers, he did not produce any glass items. However, he was a jobber in fruit jars and bottles for soda and beer. Although we have not discovered when Putnam included beer and soda bottles in his inventory, it was likely early in the game – probably in the 1870s. Although some breweries used bottles much earlier, bottled beer did not become popular until 1873-1876, so Putnam’s bottle sales may date to that period. His jar sales probably began soon after he obtained his patent for the jar adaptation in 1882. See the section on LIGHTNING below for some speculation about manufacturers.

## H.W.P.

Putnam had his initials embossed on the bases of beer and Hutchinson bottles as well as fruit jars.

## Bottles (1860s-ca. 1910)

Although Putnam sold Hutchinson soda bottles and champagne beer bottles, he only used the “H.W.P.” basemark on the Hutchinson containers – although, some Hutchinson bottles instead had “PUTNAM” basemarks. Von Mechow (2016) detailed 82 beer and Hutchinson bottles with either “H.W.P.” or “PUTNAM” basemarks. Although von Mechow noted bottles from as far away as Arizona, Texas, and Florida, the vast majority were clustered in eastern Pennsylvania and the immediately surrounding states (Delaware, New Jersey, and New York). Hutchbook (Fowler 2016) listed 129 Hutchinson bottles with either of the basemarks. The numbers were skewed toward the “H.W.P.” logos, with 70 (54.3%) and only 59 (45.7%) marked with “PUTNAM.”

Although collectors reported both “HWP” and “H.W.P.” – all photos of the mark that we have seen had punctuation (Figures 12 & 13). It is possible that some reported without periods had them filled in with “dope” (built up lubricant), although most were probably misreported. The initials were embossed horizontally across the base in most examples we have seen with a one- or two-digit number below. In



Figure 13 – HWP Hutchinson base (Fowler 2016)



Figure 12 – HWP Hutchinson bottle (Fowler 2016)

some cases, the initials were in the upper hemisphere of the base, with numbers centered in the lower hemisphere. The numbers were probably mold numbers, used for quality control purposes; they were *not* date codes. With current methods, it is impossible to determine which logo (H.W.P. or PUTNAM) was used first – or if they were used concurrently. Fisher & Weinhardt (2011) noted the “H.W.P.” mark on a single Long Island soda bottle – used during the ca. 1891-1906 period – our only actual reported dating for the “H.W.P.” logo.

## Fruit Jars



Figure 14 – HWP base (North American Glass)

Roller (1983:160) described an otherwise unmarked fruit jar with an “old style neck, full-wire bail” and “H.W.P.” on the base (Figures 14 & 15). Although he noted that the initials indicated Henry W. Putnam, he was unsure who made the jar. Creswick (1987:102) illustrated “H.W.P. / 265” embossed



Figure 15 – HWP jar (North American Glass)

horizontally across the base of a Lightning-style jar (Figure 16).

Roller (2011:517-518) discussed all the variations together, including those with HWP basemarks. All three sources also included the initials on the bases of jars embossed “TRADE MARK / LIGHTNING” on the side

### HWP monogram (ca. 1860s-1870s)

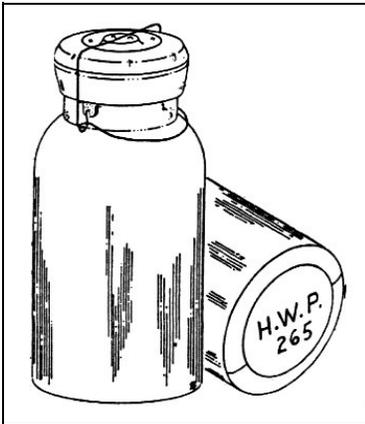


Figure 16 – HPW jar (Creswick 1987a:102)

Unlike the initials, Putnam only had the monogram placed on fruit jars. Roller (1983:359) reported the monogram on the reverse of fruit jars embossed “TRADE MARK / LIGHTNING” on the sides. He also suggested that the monogram was found on the bases of some jars, but we



Figure 17 – HPW monogram (Creswick 1987a:102)

have found no examples. Since he did *not* list the very common “HWP” initials on jar bases, he almost certainly meant the initials as basemarks instead of the monograms. Creswick (1987:102) illustrated the HWP monogram embossed on the reverse body of a jar that had “TRADE MARK / LIGHTNING” embossed on the front (Figure 17). As shown in North

American Glass photos, there were at least two variations of the monogram – with a wide or narrow “W” (Figure 18). Roller (2011:517) also noted the monogrammed variation. Some of these jars also had “PUTNAM” embossed on their bases.

### **LIGHTNING** (1860s-1910 or later)

The “LIGHTNING” trademark only appeared on jars – never on bottles. Toulouse (1969:184-185) discussed three variations of the Lightning jars. The simplest was embossed “LIGHTNING” on the side of the jar and “PUTNAM” on the base. Another had



Figure 18 – HPW monogram (North American Glass)



Figure 19 – Lightning variations (North American Glass)

“TRADE MARK” in a slight arch above “LIGHTNING.” The final one was embossed “REGISTERED” above “LIGHTNING” and “U.S. PATENT OFFICE” below it. He dated all variations ca. 1882-1900. Toulouse (1969:250-251) claimed that the earliest maker of the jars was probably the Lyndeborough Glass Co. ca. 1882-1890 (Figures 19).

Roller (1983:359-360) discussed 11 variations of the “TRADE MARK LIGHTNING” jars that fall roughly into three main classifications: 1) “TRADE MARK LIGHTNING” on sides; 2) basemarks only (Figure 20); 3) “TRADE MARK LIGHTNING U.S. PATENT OFFICE.” Most of these jars used one of five lids, although the wide-mouth variations used (or course) a wider closure. The side embossing is found in conjunction with “PUTNAM” or “H.W.P.” basemarks and/or the HWP monogram on the reverse.

Frank Smalley told Dick Roller (1983:437; 2011:645) that he recalled that the first Lightning jars were made by Lyndeborough – lending more credence to the story. Certainly, a variety of glass houses produced the jars for Putnam. Creswick (1987:101-103) ascribed the manufacture of the LIGHTNING jars to eight different companies including Lyndeborough and illustrated several variations of the jars (Figure 21). She added variations that were not in Roller (1883). Virtually all of these jars had mold numbers as described in the sections on “H.W.P.” and the initials.

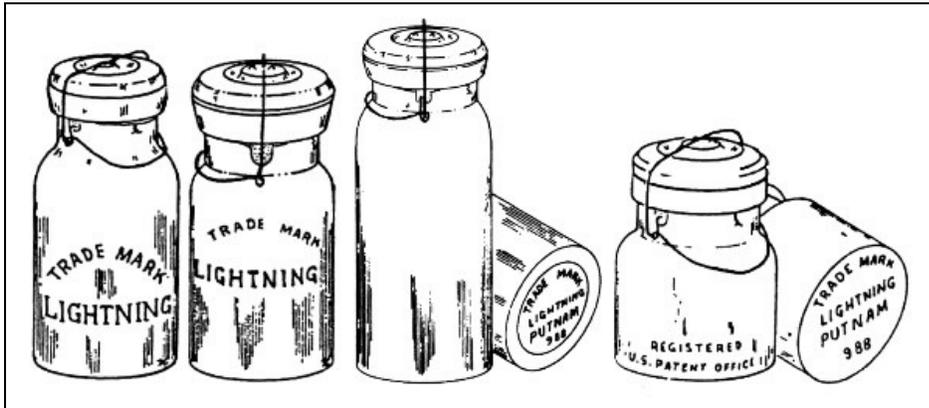


Figure 21 – Lightning jars (Creswick (1987a:101-103))

Roller (2011:516-517) discussed numerous variations of the Lightning jars, including variations in the basemarks. For example, some jars had Lightning/Putnam basemarks plus “REGISTERED / U.S. PATENT OFFICE” on the heel (Figure 22), and one even had “No. 1” inserted between “TRADE MARK” and “LIGHTNING” (Figure 23). See the Discussion and Conclusions section for an attempt to date and make sense of all the variations. *Crockery & Glass Journal* (1921:74) still ran ads for Putnam’s Lightning jars as late as 1921 (Figure 24).

Whitten (2016) warned that:

there are also reproduction “Lightning” style jars with the marking “PUTNAM 227” on the base. These are relatively modern, made of amber glass, and were evidently made in Asia, likely dating from sometime in the 1960s-1980s period.



Figure 20 – Lightning basemark (North American Glass)

(Assuming these were made from an old Lightning jar mold sold to a company in Asia, there exists the possibility that authentic Lightning jars with the number 227 do exist and may be found occasionally.)

We would like to add that the bottles could just as easily have been made using an original container as a model to make a new mold.



Figure 22 – Registered – heel (North American Glass)



Figure 23 – No. 1 (North American Glass)



Figure 24 – 1921 Lightning ad *Glass Journal* (1921:74)

## **PUTNAM** (late 1870s-1900 and later)

As noted above, Charles de Quillfeldt received a patent on January 5, 1875, for the original “Lightning” fastener and assigned the patent to Karl Hutter on June 5, 1877. At some point during that period, Putnam acquired an interest in the Lightning stopper, and both Hutter and Putnam began selling them and using the term “TRADE MARK / LIGHTNING.” Since

neither man was a glass manufacturer, others made all of their bottles and jars. Putnam adapted the Lightning closure to fruit jars in 1882.

### Bottles



Figure 25 – Putnam Hutch base (Fowler 2016)

As noted above, both von Mechow (2016) and Fowler (2016) listed Hutchinson bottles with “PUTNAM” basemarks, and von Mechow also included beer bottles with the same basal logo (Figures 25 & 26). Based on current data, we cannot determine whether Putnam’s initial mark was his last name or his initials. As with the “H.W.P.” logo discussed above, the name was generally

embossed across the center of the base with a one- or two-digit number below it. In at least one case, however, the name was in the lower hemisphere of the base, with a number above. Creswick (1987:180) noted a variation with only “PUTNAM” on the base as well as several variations with the word “LIGHTNING” on the front or base and “PUTNAM” in either location.



Figure 26 – Hutch bottle (Fowler 2016)

### Fruit Jars

Toulouse (1969:184; 250-251) noted a fruit jar embossed “PUTNAM” on the base with nothing embossed on the side as well as the Putnam name on the base of a jar with “LIGHTNING” on the side. Photos and drawings of the jars show that the name on the base was always accompanied by a one- to three-digit number, usually below the name (Figure 27).

Roller (1983:297) listed a variation with an old-Lightning-style closure and “PUTNAM” on the base. He also listed one with “PUTNAM \* TRADE MARK LIGHTNING” on the front. Presumably, the asterisk indicates a star. Roller (1983:359) noted that the jars with only “PUTNAM” basal embossing were probably product (packer) jars, although those with side

embossing were likely fruit jars (Figure 28). Another variation included “PUTNAM” on the body above “TRADE MARK” and “LIGHTNING.” Henry W. Putnam trade marked the word “LIGHTNING” on February 8, 1927, claiming a first use on April 25, 1882. A variation had Putnam’s initials, HWP, in monogram form on the base (see Other H section). Creswick (1987:101-103, 180) illustrated several variations of the mark, all on bottle bases (Figure 29) and noted one with “PUTNAM” on the front of a Lightning jar. Roller (2011:517-518) also discussed numerous variations of the Putnam name.



Figure 27 –  
Lightning/Putnam (North  
American Glass)



Figure 28 – Product jar  
(North American Glass)

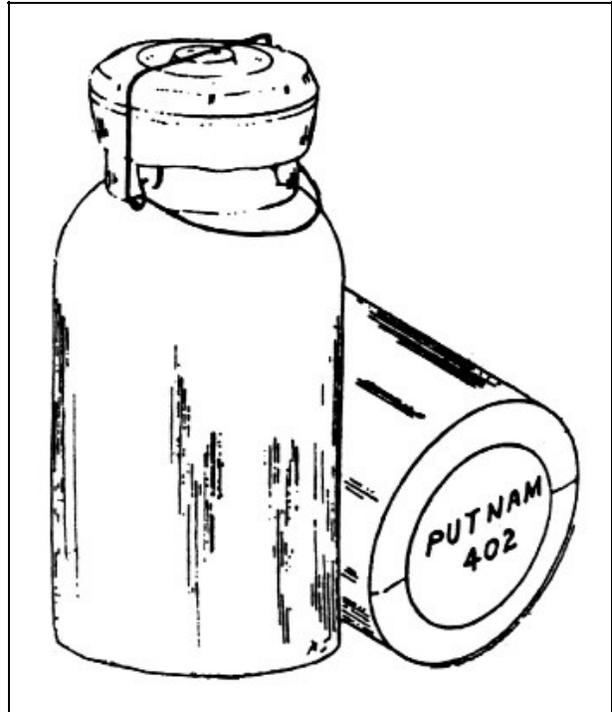


Figure 29 – Putnam jars (Creswick 1987a:101-103, 180)

Roller (1983:359), however, noted that the earliest advertisement he had found was ca. 1885-1886. He further stated that the Lightning jars were made by numerous companies after the patents expired in 1889. Roller (1983:438) illustrated a drawing from a 1912 Putnam brochure with a caption stating “Look for these SIGNS OF SAFETY [i.e., LIGHTNING on the



Figure 30 – 1912 brochure (Roller 1983:438)

side and PUTNAM on the base] when you buy fruit jars—they are your protection against substitutes of inferior quality” (Figure 30). Since the patent was long expired by that time, the claim was clearly an attempt to keep customers from

buying other jars with Lightning closures. Creswick (1987:101) listed 11 plants “definitely known” to have made Lightning jars.

Some of the basemarks had double stamps, where there is a ghost mark of the word “PUTNAM” or the numbers – or both (see Figure 27). As noted periodically in the Encyclopedia, these double-stamps were created when a blower placed the parison on the base of the mold before he shut the mold halves with his foot pedal, then lifted the parison before blowing. Although the process appeared as early as the 1870s on jars, it was not used on bottles until ca.1890 and not common until ca. 1895.



Figure 31 – Oneida jar (North American Glass)

A final variation of the jars was made for the Oneida Community of Putney, Vermont. Founded in 1838, Oneida was one of the early intentional communities, based on farming. These containers were very tall, thin product jars embossed with Oneida’s OC monogram on the side and “PUTNAM” on the base (Figure 31). The group sold its products – marked with the OC monogram – from 1870 to the end of community ca. 1912 (Caniff 2005:8).

## Discussion and Conclusions

It is particularly odd that we could find so little information on the actual Putnam factories. It also seems strange that Putnam would have made such an all-out push to advertise

his wringer in 1864 and 1865, then virtually cease all public advertising – at least that we can find. The dearth of ads for the stoppers and fruit jars is less surprising, since Putnam was a wholesaler. He thereby placed most of his ads in specific journals – and that may also explain the lack of ads for the wringer after 1865. As noted above, Putnam manufactured stoppers but was a jobber in glass bottles and jars.

## Dating

Champagne-style beer bottles with “HWP” or “PUTNAM” basemarks were likely made from ca. 1874 (when beer bottles became popular) to ca. 1910 (when crown caps drove almost everything else off the market. Hutchinson bottles were invented in late 1879 and ones with the Putnam marks were also used until ca. 1910.

Putnam did not create the jar adaptation until 1882, so no jars with Putnam logos were made earlier. Jar dating, however, is *much* more complex. Jars may be divided in three separate ways: 1) fruit jars and product jars; 2) jars with or without “U.S. PATENT” markings; and 3) the presence of Putnam’s initials and/or name. The first classification is easy to deal with. Jars with “LIGHTNING” side embossing were almost certainly intended as fruit jars to be reused over and over by housewives, while jars with only base embossing (including those with “REGISTERED / U.S. PATENT OFFICE” on the heel) were probably product jars to be filled and sold by wholesale packers. It is certainly possible that both types could have been used for either purpose. Housewives, for example, almost certainly reused product jars for canning purposes.

The second classification is also probably straight forward. The earlier jars were embossed “TRADE MARK / LIGHTNING.” The addition of “REGISTERED / U.S. PATENT OFFICE” was probably in response to the expiration of the patent in 1896. Even though Putnam used the Lightning trade mark right after he received the patent in 1882, the patent guaranteed Putnam the exclusive use of the closure, but, when that expired, “REGISTERED” only applied to the Lightning name. This was probably an attempt to imply protection of the jar, itself, even though the jar and closure were actually public domain by that time. Thus, the lack of “REGISTERED” would be on jars made between 1882 and 1896, with the inclusion of the registered clause from 1896 to ca. 1920. The vast majority of the jars were mouth blown, but some of the ones with the registered clause were machine made ca. 1910-1920.

The final category is more complex. The HPW monogram was probably used early and only for a relatively short time. Engraving the complex monogram on the reverse would have greatly added to the cost of the mold. It is unclear whether there is a temporal connection to the use of Putnam's initials and his name. "H.W.P." may be the older logo, but some of the jars with the HPW monogram were accompanied by a "PUTNAM" basemark. The "H.W.P." basemark was probably discontinued ca. 1898. Only a single variation of the registered clause jar had the initials on the base. "PUTNAM" was probably embossed on the jars from the mid-1880s until the firm closed in the early 1920s.

It is unclear where oddities fit. We have not seen any of the jars with Putnam embossed on the side and have no information to provide temporal clues. We do not even know for sure whether Roller's asterisk (\*) indicated a star or had some other purpose. Although we have a photo of the jar with "No. 1" on the side, we have found no evidence to help us date it.

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