

# The Blasting Cap Tins of Union Cap & Fuse Company, Cleveland, Ohio

Doug Miller

One of the great mysteries for collectors of blasting cap tins has been the identity and history of Union Cap & Fuse Company of Cleveland, Ohio. Its tins are rare and beautiful, but until now, virtually nothing has been known about this company. Not long ago, I discovered some information about the company in, of all places, the records of Congressional hearings on tariff legislation.

At least three companies<sup>1</sup> known to cap tin collectors have used the name “Union” in their company names: Union Cap & Fuse Company of Cleveland, Ohio; Union Cap and Chemical Co. of East Alton, Illinois; and Union Explosives Co. of Clarksburg, West Virginia. The tins of all three companies are uniquely attractive, very rare, and highly desirable. From my research and my correspondence with other collectors, I’ve concluded that each of these companies was distinct from the other two. Further, none was a predecessor of or successor to either of the others.

This article discusses the Union Cap & Fuse Company in detail and the last two companies briefly.

## 1. Union Cap & Fuse Company of Cleveland, Ohio

Serious collectors of blasting cap tins have wondered for some time about the company known as Union Cap & Fuse of Cleveland, Ohio. The company apparently sold blasting caps in at least three strengths, 5X, 6X, and 8X. A red tin with gold lettering may represent a fourth strength, but since the tin lacks a lid, its strength is unknown. The 5X, 100-count tin is light green with gold lettering. Photos of the 5X tin, from an eBay listing, are shown below.



The 6X, 100-count tin is a dark, forest green with the same gold lettering. Each of the square 100-count tins has crimped sides. Not long ago, I acquired a beautiful example of the square 6X tin, which is pictured below. I purchased this tin on eBay on May 28, 2018, for a little over \$400.



Jack Purson has acquired two 8X, 100-count tins on eBay since 2012. Jack's 8X tins are dark blue with gold lettering. Curiously, the first tin Jack acquired has a paper label identifying it as a 100-count Illinois tin.



The paper label is for No. 6 caps and identifies the seller as Illinois Powder Mfg. Co. of St. Louis, Missouri, suggesting that at some point, Illinois Powder Mfg. Co. acquired Union Cap &

Fuse, or at least its inventory, and made use of Union's remaining cap tins. Illinois Powder was incorporated in 1907 and operated into the 1940s. Until just a few days ago, I was under the impression that Illinois Powder never sold a No. 8 blasting cap of its own. However, on June 13, 2021, Jack Purson sent me a photo of this Illinois tin in his collection. This is the first and only Illinois No. 8 tin I've ever seen or heard about. If other examples exist, I'd love to know about them.



This is the second of Jack's Union Cap & Fuse 8X, 100-count tins. This beautiful tin is of the style normally seen on tins from Union Cap & Fuse.



A wonderful round, embossed, Union Cap & Fuse 6X, 100-count tin is also known. Note the diamond shaped trademark and the use of the word "and" instead of an ampersand on the lid.





In addition to Union Cap & Fuse's 100-count 6X tins, two 25-count 6X tins are known, one in the collection of Jack Purson and another in the collection of John Kynor, Sr. The lids of these tins are plain, but both tins have paper labels for Union Cap & Fuse. The number for a 100-count tin has been over-stamped with the number 25.



I assume that the embossed and paper label tins predate the painted tins, but I have no way of knowing this.

As soon as I received my 6X tin, I immediately began searching for information about the company. Andy Martin's book has no information about Union Cap & Fuse but does have excellent black and white illustrations of both the 5X and 6X tins and detailed descriptions and measurements of each. Andy classifies the tins as "Very Rare," by which he means only three to nine tins are known to exist. Andy's book lists dates for the company of 1910-1940.<sup>ii</sup> John Kynor's book also describes the tins, noting that the 6X tin is shorter than most No. 6 tins, but the same size at an inch and a half as the early DuPont No. 6 tins with "scrolly" type and decoration. John's book contains photographs of the light green, dark green, and red tins in his collection, but sadly, the red tin has no lid, so we can't be sure what strength of blasting cap it contained. John speculates that the red tin may be a later version of the company's earlier 6X tin, but we can't know for sure unless or until a matching lid is found.<sup>iii</sup>

John Kynor laments the fact that he was been unable to find any information about the company that used these tins. The exhaustive *History of the Explosives Industry in America* by Van Gelder and Schlatter, which was written for the Institute of Makers of Explosives and published in 1927, contains no information about the company.<sup>iv</sup> Andy Martin speculates that the company was in business from perhaps 1910-40. But if that were so, one would think that Van Gelder and Schlatter would have written a page or two about the company. It's absence from their work leads John Kynor to speculate that the company was in business only for a very short time after the *History of the Explosives Industry in America* was written.

On the off chance that something more might have been discovered, digitized, and catalogued since Andy Martin and John Kynor published their books, I conducted an internet search for "Union Cap and Fuse" and "Union Cap & Fuse," using an ampersand in the second search instead of the word "and." Here's what I found in, of all places, Congressional testimony on early tariff legislation. According to the Encyclopedia Britannica:

From the beginning, tariffs were an important part of economic policy in the United States, as they initially provided the bulk of government revenue and protected American manufacturing. However, as the country's economy grew, the usefulness of such taxes was questioned. While the industrialized North favored protectionist policies, those in the agrarian South criticized the levies for raising the price of imports on which farmers depended. In addition, by the late 1880s tariffs were seen by some as contributing to the growth of monopolies. Over the ensuing decades, they became a source of great debate in American politics.<sup>v</sup>

In 1913, the Ways and Means Committee of the United States House of Representatives held hearings on the extensive schedules of tariffs that were then in effect under the Payne-Aldrich Tariff Act of 1909. That act was passed in response to a call from Republican President William Howard Taft for lower tariffs. The House Ways and Means Committee sought testimony from those industries covered by the schedules of tariffs. One of these schedules, Schedule N (Sundries), Paragraph 437 (Ammunition), covered both ammunition and other explosives, including blasting caps, the tariff for which was two dollars and twenty-five cents per thousand. The Hearings took place between December 1912 and January 1913.

Among those offering written testimony regarding the tariff on blasting caps was Union Cap & Fuse of Cleveland, Ohio. The Manager of the company, Plumer Wheeler, provided the testimony. He wrote that the company had been incorporated under the laws of the State of New Jersey but gave the business address of the company as the Rockefeller Building, Cleveland, Ohio.



The Rockefeller Building in 1913<sup>vi</sup>

According to Wikipedia, the Rockefeller Building is a historic high-rise office building in downtown Cleveland. It was built between 1903 and 1905 and sits at the corner of West 6<sup>th</sup> and Superior Avenue. The building rises 17 stories above the street and is named after John D. Rockefeller, founder of Standard Oil of Ohio. In 1973, the building was put on the National Register of Historic Places. The massive building acts as an entry point into the popular Warehouse District of Cleveland. The manufacturing or shipping facilities of Union Cap & Fuse may have been located in the Warehouse District.

Wheeler urged the committee not to lower the tariff on blasting caps below \$2.25 per thousand. He argued that foreign competition was unfair to U.S. manufacturers because of the relatively cheaper cost of labor and raw materials in other countries such as England, Germany, and France. In January 1913, Wheeler wrote:

We started our company only a few months ago in the belief that there is room for one more producer to operate in competition with existing United States manufactories, and while our investigation of possibilities in the venture are not extravagant, we have faith that we can pull our company through to a level of reasonable success.<sup>vii</sup>

While Wheeler was willing to compete with other American manufacturers of blasting caps, he argued that without the tariff, Union Cap & Fuse would be at a serious competitive disadvantage as compared to producers in other countries. His testimony demonstrates that Union Cap & Fuse intended to manufacture its own blasting caps, not acquire and distribute the caps of others.

So now we have a starting date for Union Cap & Fuse of 1912 and confirmation that the company operated in Cleveland, Ohio. But significant questions remain: Was the company successful, and if so, how long did it operate? I have to believe that the company was not very successful and only stayed in business for a few years, perhaps going out of business by 1918.

Here's the evidence. First, although incorporated in 1912, the company may not have started to manufacture caps until later. Wheeler's 1913 testimony to Congress suggests that the company *intended* to manufacture its own caps from the raw materials but had not yet started to do so. Second, in 1915, a patent for an unusual package for blasting caps was granted to Plumer Wheeler. The application for the patent was filed in October 1913 and was granted on August 24, 1915. The patent, No. 1,151,076, was granted to "Plumer Wheeler of Alton, Illinois, Assignor of the Union Cap & Fuse Company of Cleveland, Ohio, a Corporation of New Jersey." For non-lawyers, the term "assignor" means that Wheeler assigned his patent to Union Cap & Fuse. The patent, while not conclusive, suggests that Union Cap & Fuse was a going concern in 1915. However, I've never seen an example of the package for which the patent was issued or any other mention of it. Instead, the company used traditional blasting cap tins, of which only a few examples exist. Third, there are two tax reports from the State of New Jersey that mention Union Cap & Fuse, one for the year 1915 and the other for the year 1917. Presumably, a report for 1916 exists, but I haven't found it. The State Board of Taxes and Assessments of the State of New Jersey prepared both reports. For some industries, New Jersey assessed a tax based upon the dollar amount of the outstanding capital stock of the companies taxed. The report for the year 1915 shows that "Union Cap and Fuse Company" had outstanding stock of \$5,000.<sup>viii</sup> The report for the year 1917 shows that "Union Cap and Fuse Co." had outstanding capital stock of \$200,000 and paid a tax to New Jersey of \$200.<sup>ix</sup> I could find no similar record for any other year. Fourth, the fact that no reference to Union Cap & Fuse or to Plumer Wheeler can be found in *History of the Explosives Industry in America* strongly suggests that the company was short-lived and relatively unimportant to the industry. If it had been, Van Gelder and Schlatter would almost certainly have written about it.

Finally, I found a few extremely interesting tidbits of information about Plumer Wheeler, the Manager of Union Cap & Fuse. Wheeler was born in 1878 in Dorchester, Massachusetts. He graduated from Harvard College in 1902, receiving a bachelor's degree in Chemistry, and a master's degree in 1904. He writes in a report to his 1902 Harvard classmates that, after receiving his master's degree, his first position was with E. I. DuPont De Nemours Powder Company. He left DuPont after six years – "to go into heavy chemicals in the United Zinc and Chemical Co., Kansas City, Kansas, and then back again to explosives — fulminate of mercury — in the Union Cap & Fuse Co., Cleveland, O[hio]. Finally, I landed with the American Cyanamid Co., New York, manufacturing acids and ammonia products." To me, this brief account hints that Wheeler's association with Union Cap & Fuse, while significant to him, was a short one.<sup>x</sup>

Two other dead ends and rabbit holes should be mentioned. A website called "Greybeard Outdoors," which covers black powder cartridge rifles, loading, shooting, and reloading, contained a list of "Old Black Powder Companies," posted by "John Boy." The list includes "Union Cap & Fuse Co. – 1910-1940." However, I have no idea where the person who posted this list got his information, but for the reasons discussed above, if he is referring to Union Cap & Fuse Co. of Cleveland, Ohio, the dates he lists are wrong. My first search for "Union Cap and

Fuse” also yielded a reference to an article in the Alton Evening Telegraph (Alton, Illinois), dated August 2, 1913, briefly describing a minor explosion at the “Union Cap and Fuse department of the Western Cartridge Company.” This cannot be the same company as Union Cap & Fuse of Cleveland, Ohio. Instead, it is Union Cap and Chemical Co., of East Alton, Illinois.<sup>xi</sup>

Let’s turn to the other two “Union” sellers of blasting caps.

## 2. Union Cap and Chemical Co. of East Alton, Illinois

Andy Martin writes: “This company was organized about 1903 by F. W. Olin. Union’s primary purpose was to make primers for the shotgun shells made by Olin’s Western Cartridge Co. However, Union Cap and Chemical Co. also made blasting caps.”<sup>xii</sup> Western Cartridge Company formed Union Cap and Chemical Co. in 1900 as a joint venture with Austin Cartridge Company of Ohio to manufacture primers for its ammunition, blasting caps, and .22 and .32 rimfire cartridges at East Alton, Illinois. Western used the Maltese Cross as an early trademark on its ammunition boxes. A wonderful example of a round, embossed Union Cap and Chemical Co. tin is pictured below.



Examples of this tin can be found in the collections of John Kynor, Sr., Graham Living, and possibly one other collector.

## 3. Union Explosives Co.

Union Explosives Co. of Clarksburg, West Virginia, resulted from the merger of an explosives distributor and an explosives manufacturer and the later acquisition of another manufacturer. In their *History of the Explosives Industry in America*, Van Gelder and Schlatter write that Union Explosives Company came into existence in 1920 through the merger of Long Powder Supply Company and Empire Powder Corporation. Long Powder was a distributor of explosives and accessories. Empire manufactured explosives at a plant near LeRoy, New York, which was enlarged after the merger. Soon after the merger, Union Explosives Company also acquired control of the plant of Pennsylvania Powder Company near Emporium, Pennsylvania.<sup>xiii</sup> It is not known which of these facilities manufactured the blasting caps that Union Explosives sold in its tins or whether Union Explosives distributed caps made by others, as seems more likely. An example of a 100-count, No. 6, Union Explosives tin from my collection is pictured below. John Kynor’s *Blasting Cap Workbook – Tins and Boxes* pictures three wonderful examples of the 100-count tin, including a red tin with white lettering. The company also sold No. 6 blasting caps in a 25-count tin.<sup>xiv</sup>





### Summary and Conclusions

To summarize: The available evidence indicates that Union Cap & Fuse was incorporated in New Jersey in 1912. Its business and manufacturing operations were located in Cleveland, Ohio. Its first and probably only manager was Plumer Wheeler of Alton, Illinois, a Harvard graduate with bachelor's and master's degrees in chemistry. The company started operations no earlier than 1913 and may have begun operating later. It probably manufactured its own blasting caps. It operated at least between 1915 and 1917. It was never an economically important member of the explosives industry. It remained in business only for a short time, possibly ceasing operations by 1918. As a consequence, it never caught the attention of Van Gelder and Schlatter when they prepared their 1927 *History of the Explosives Industry in America*. In the short time it existed, however, Union Cap & Fuse used some of the rarest and most beautiful blasting cap tins that any collector could want.

### The Blasting Cap Tins of Union Cap & Fuse Company of Cleveland, Ohio

5X	Square, 100-count tin, crimped edges, painted light green with gold lettering
6X	Round, 100-count, embossed tin
	Round, 25-count tin, plain lid, paper label printed with the number 100, but over stamped with the number 25
	Square, 100-count tin, crimped edges, painted dark green with gold lettering
8X	Square, 100-count tin, crimped edges, painted dark blue with gold lettering
?	Square, 100-count tin, crimped edges, painted red with gold lettering



- 
- <sup>i</sup> Four, if you include Peerless-Union, which I do not do here.
- <sup>ii</sup> Martin, Andy. *Blasting Cap Tin Catalogue* (Tucson: Old Adit Press, 1991) 74-75.
- <sup>iii</sup> Kynor, Sr., John C. *Blasting Cap Workbook – Tins and Boxes* (Belen, New Mexico: B.B.B. Ltd., 2008), 6 and Plate 2; 81 and Plate 16A.
- <sup>iv</sup> Van Gelder, Arthur Pine and Hugo Schlatter, *History of the Explosives Industry in America* (New York: Columbia University Press (1927).
- <sup>v</sup> “Payne-Aldrich Tariff Act”. Encyclopedia Britannica. Encyclopedia Britannica Online. Encyclopedia Britannica Inc, 2018, Web. 07, <https://www.britannica.com/topic/Payne-Aldrich-Tariff-Act>, accessed June 19, 2021.
- <sup>vi</sup> Source: Newberry Library, Curt Teich Postcard Archive Digital Collections, [https://collections.carli.illinois.edu/cdm/singleitem/collection/nby\\_teich/id/3400](https://collections.carli.illinois.edu/cdm/singleitem/collection/nby_teich/id/3400), accessed June 19, 2021.
- <sup>vii</sup> “Tariff Schedules, Hearings Before the Committee on Ways and Means, House of Representatives, Vol. 5, Schedules M and N,” Doc. No. 1447, 62<sup>nd</sup> Cong., 3<sup>rd</sup> Sess., 5301 (1913).
- <sup>viii</sup> First Annual Report of the State Board of Taxes and Assessment of the State of New Jersey for the Year 1915, Division of Corporation Assessment (Trenton, N.J.: State Gazette Publishing Co., 1916), 216.
- <sup>ix</sup> Third Annual Report of the State Board of Taxes and Assessment of the State of New Jersey for the Year 1917, Division of Corporation Assessment (Somerville, N. J.: The Unionist-Gazette Association of State Printers, 1918) 511.
- <sup>x</sup> Source: <http://www.ebooksread.com/authors-eng/harvard-college-1780---class-of-1902/secretarys--report-vra/page-45-secretarys--report-vra.shtml>, accessed June 19, 2021.
- <sup>xi</sup> Martin, *Blasting Cap Tin Catalogue*, 74-75.
- <sup>xii</sup> Martin, *Blasting Cap Tin Catalogue*, 74-75. Further information about the relationship between Western Cartridge Co. and Union Cap and Chemical Co. may be found in my June 2021 article, “Early Western Blasting Cap Tins,” posted on the *Eureka Magazine* website, <https://www.eurekamagazine.net/MillTin.pdf>.
- <sup>xiii</sup> Van Gelder and Schlatter, *History of Explosives Industry in America*, 632-34.
- <sup>xiv</sup> Martin, *Blasting Cap Tin Catalogue*, 76-77; Kynor, Sr., *Blasting Cap Workbook*, 81 and Plates 27-28.