THE NATIONAL DEPRESSION GLASS ASSN., INC.

News & Views

Glass Lightning Rod Balls

By David Adams

This seems like a strange topic, but it definitely has a connection with American made glassware. I became interested in the subject when I borrowed an unusual piece of glass from Rick and Cindy Jones. It was a piece of Cambridge glass (below) in the "Azurite" color (from the early 1920s), but I had no idea what it was.

It was a ball, with holes on the top and bottom, copper metal bands attached where the holes were, and with the word "National" in raised letters molded into the ball. I was determined to find out, and so I did. Here's the story.

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Historically, if one wanted to avoid being struck by lightning, it was best to avoid going near a Church. Church steeples were usually the highest point in town, and were often hit by lightning strikes. This got Benjamin Franklin speculating about lightning (remember the kite experiment) and eventually he invented the lightning rod.

A lightning rod is also commonly called a lightning attractor or conductor. The idea is that if a lightning rod is placed high on a building, it will draw the lightning towards it instead of other structures. When mounting a lightning rod, it comes in contact with an aluminum or copper plate on the roof. A grounding cable is then run inconspicuously across the roof, down the side of the structure, and buried in the ground.

Toward the end of the 19th century and beginning of the 20th, the use of the lightning rod ball became commonplace. A number of American companies produced the balls, Cambridge Glass Company being one of them. The one in the photograph on the preceding page was made by Cambridge for the National Lightning Protection Co., a Canadian company.

With wide ranges of colors and designs available, many people began using these lightning rod balls as ornaments to decorate their lightning rods. These balls are quite collectible today. The one at right is called "Moon and Stars."

Not all of them are round -- there are a number of different shapes that the "ball" would come in. Below is an example of a different shape, and I'll refer you to just one page on the web which displays quite a few of these colorful and interesting items: www.coonrock.com/lrbinfo.htm.

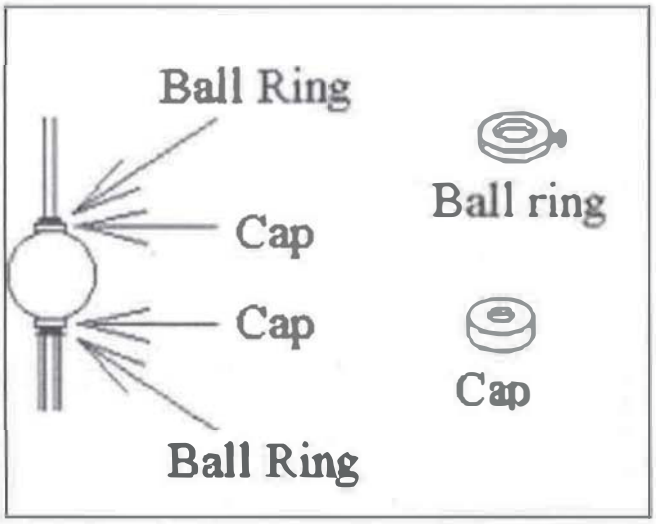
There is actually a book on the subject. The Complete Book of Lightning Rod Balls (by Michael Bruner & Rod Krupka) was originally published in 1982, and a second edition came out in 1989. Both are long out of print, and I was unable to obtain one for use in writing this article.

Did antique lightning rod balls serve any purpose besides decoration? Not really. But, by installing a lightning rod ball on your lightning rod, you could detect if the rod was actually struck. The balls on a struck lightning rod would shatter. This made it easy to determine if there was a hit, and that the system should be examined for any damage.

GLASS LIGHTNING ROD BALLS by David Adams

Components of a Lightning Rod

The diagram at right illustrates the components of an antique style lightning rod. The parts are described as follows:



Point or Tip

The most common is the pointed tip, known as a "shell" point, as in artillery shell, shown in the sketch. The second most common tip is the bayonet tip, which looks like a three-sided military style bayonet.

Rod

Two types are the most common: The most common is known as "tube" rod, as it is a 5/8" diameter copper tube. Sometimes it has a seam, and sometimes the tube is seamless. The second most common type is "Twisted", or "star rod", also known as "section rod", as it came in 10 foot "sections".

Ball

There are several dozen different glass lightning rod ball shapes, sizes and colors. Entire books have been written covering the various ball designs, colors, etc. This is intended to be just a brief overview. The most common lightning rod ball is the 4½" diameter smooth round ball. The most common colors are opaque white, and opaque light blue. The next two most common colors are transparent cobalt blue and transparent red, sometimes known as "ruby" red. The holes in the top and bottom of the ball are the same size, and the hole and the area around it are known as "collars".

Caps

Most balls (but not all) originally had copper, aluminum, or in rare cases, brass "caps" on both ends. The purpose of the caps is to protect the ball and to cover up the rough glass edges created during the ball's normal manufacturing process.

Ball Rings

Ball rings are small rings with a set screw in them that mount on the lightning rod above and below the glass lightning rod ball.

Stand or Brace

The most common type is the "washer" brace or stand with three legs. These come in different sizes, with the most common sizes ranging from about 12 to 36 inches in total height. Almost all stands or "braces" were made of plain iron.

Arrows & Weather Vanes

Sometimes on one or more of the lightning rods, above the glass ball, there is an arrow or weather vane. Starting with arrows, they came in many sizes, but the 18" and 24"ones are the most common.

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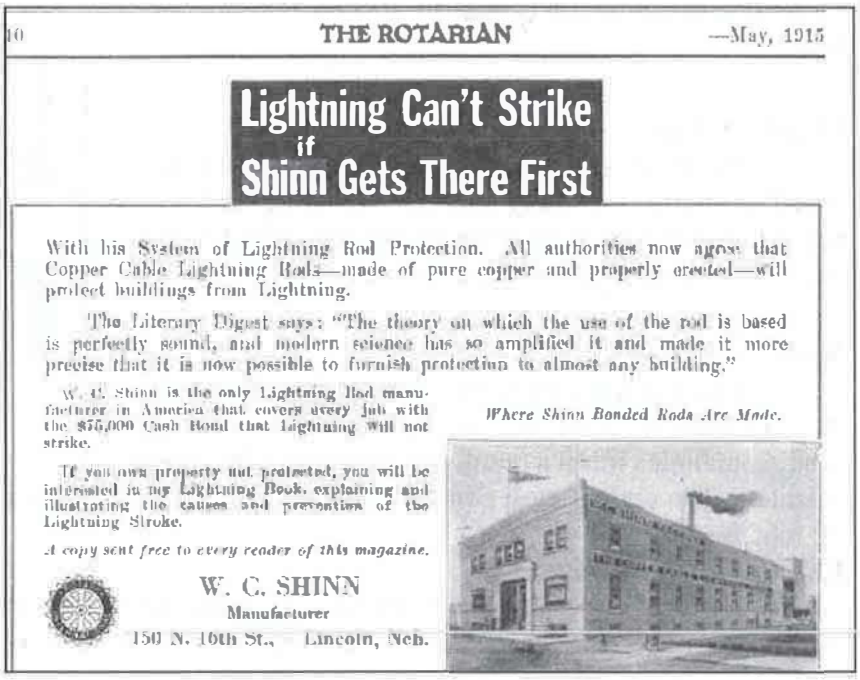
Some of the companies that manufactured (or purchased from glass companies) glass balls and other lightning rod equipment include the following, a few of which still remain in business today:

Geo. E. Thompson Lightning Co., St. Paul, MN
Reyburn, Hunter, & Foy Co., Cincinatti, OH
W. C. Shinn System, Lincoln, NE, & Chicago, IL
George R. Kress Co., Pittsburgh, PA
Security Lightning Rod Co., Burlington, WI
Julius F. Goetz Lightning Rod Co., Hartford, WI
Dodd & Struthers "D&S" DesMoines, IA
Goshen Lightning Rod Co., Goshen, IN



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Lightning Can't Strike if Shinn Gets There First

With his System of Lightning Rod Protection. All authorities now agree that Copper Cable Lightning Rods—made of pure copper and properly erected—will protect buildings from Lightning.

The Literary Digest says: "The theory on which the use of the rod is based is perfectly sound, and modern science has so amplified it and made it more precise that it is now possible to furnish protection to almost any building."

W. C. Shinn is the only Lightning Rod manufacturer in America that covers every job with the $5,000 Cash Bond that Lightning will not strike.

If you own property not protected, you will be interested in my Lightning Book, explaining and illustrating the causes and prevention of the Lightning Stroke.

A copy sent free to every reader of this magazine.

W. C. SHINN
Manufacturer
150 N. 10th St., Lincoln, Neb.

Where Shinn Bonded Rods Are Made.

NOTE: Most of the information regarding lightning rods came from the web site of New Old Products, Inc. (www.newoldproducts.com), whose owners granted the NDGA permission to use the information therein. This company sells replacement parts for antique lightning rods, including some brand new lightning balls. Visit their web site to see the new replacement balls - they're quite spectacular.

Glass Articles Desperately Needed

I am now officially out of articles and so I'm sending out this emergency appeal:

This extra section depends upon you. If you want more glass education articles, you must submit them.

The only thing glass collectors love more than buying glass, is talking about it. We'd love to have you teach us about the glass you collect.

Please send your articles to me at *editor@ndga.net*. Remember, I can't print what I don't have.

Rosemary