BROOKFIELD

-- *A Long Stretch* --

The history of Brookfield insulator manufacture started in the early 1860's. James M. Brookfield combined his thirty years of glass-manufacturing experience with a brewer, Martin Kalbfleisch, who desperately needed a reliable supply of good-quality bottles. Having purchased a glass factory in 1864 known as the "Bushwick Glass Works," Mr. Kalbfleisch hired Mr. Brookfield to operate it. Brookfield later purchased the company in 1869.

JAMES BROOKFIELD
1813-1892

James Brookfield - Founder of the original glass business at Honesdale, Pennsylvania. Plant destroyed by flood in 1860. Obtained a patent on a furnace for burning hard coal and was the first to use anthracite in glass-manufacturing. Started the Bushwick Glass Works in Brooklyn, New York, and obtained Patent No. 103,555 dated May 31, 1870, for his invention of a screw machine to make glass insulators. He also helped his son William Brookfield establish the Brookfield Glass Company. He retired in 1880.

At that time, threadless insulators were used to insulate the telegraph wires, but the various methods used to secure the threadless insulator to the smooth pin proved ineffective. A carpenter by the name of Louis A. Cauvet patented the idea of a threaded pinhole in the insulator which matched a threaded pin, thus better securing the insulator to the pin. Patent No. 48,906 covering his method was granted to Cauvet on July 25, 1865. (Figure 1.)

Mr. Cauvet brought a threaded metal pin to the Brookfield office to explain his invention, but James and William Brookfield were out to lunch, leaving the chief clerk in charge. He dismissed Mr. Cauvet as having a foolish idea. When James and William returned, they could see the advantage of Mr. Cauvet's patent and they ordered him found. After a couple of weeks of unsuccessfully trying to sell his idea to other glass factories in New York, Mr. Cauvet was finally located by the Brookfields, and they promptly acquired the rights to his patent. Cauvet's patent revolutionized the glass insulator. The threaded Brookfield glass insulator quickly became the standard for telegraph lines throughout the country.

James Brookfield's son William apparently had the responsibility of the insulator business. The early insulators were marked on one side of the crown with "W. BROOKFIELD" and a few styles were similarly marked with "WM. BROOKFIELD." James M. Brookfield retired in 1880 and William continued operating the business until his death in 1903. The name "Bushwick Glass Works" may have been used for some time. The name "Brookfield Glass Co." was incorporated in 1898 and

WILLIAM BROOKFIELD
1844-1903

William Brookfield - Founder of the Brookfield Glass Company in Brooklyn, New York. Inventor of a new and better way of making telegraph insulators by Patent No. 113,393 dated April 4, 1871. A director of a New York bank and several insurance companies. A commissioner of public works in the city of New York and a presidential elector in 1892.

William's son Henry M. Brookfield was then named vice president.

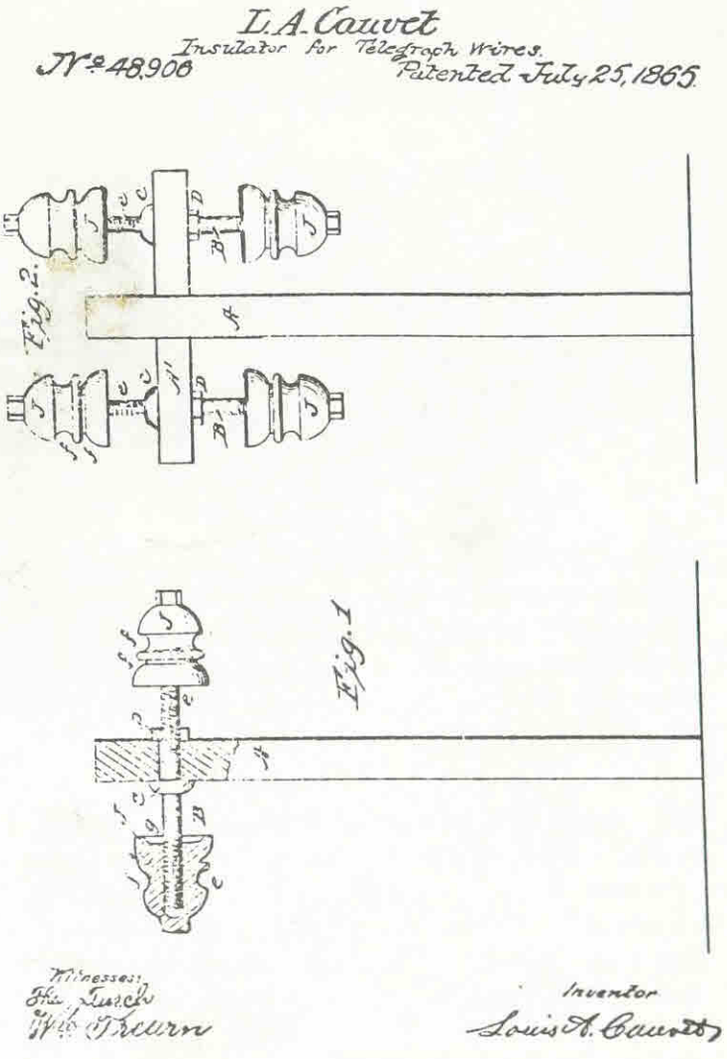
Henry was very active in the insulator factory. He was granted patents for automatic insulator presses in 1900, and semi-automatic presses were installed at the new plant recently constructed at Old Bridge, New Jersey. (Figure 2.) When William died in 1903, Henry became president. During World War I, substantial production was lost due to the difficulty in procuring coal. Another major setback was the loss of a large shipment of insulators destined for the allies when saboteurs set fire to the packing and loading area. An entire trainload of insulators with all the freight cars was destroyed. The furnaces were blown out in the spring of 1921, and it is not known if they were restarted. Insulators were sold from stock on hand until almost the time the company went out of business in 1922.

HENRY MORGAN BROOKFIELD
1871-1960

Henry Morgan Brookfield - President of the Brookfield Glass Company until it closed in 1922. Inventions to his credit include Patent No. 596,651 and Patent No. 596,652 for a new press to make two or more insulators (or other glass objects) at a time, issued to him January 4, 1898 , and Patent No. 646,948 and Patent No. 646,949 for his invention of a revolving press which enabled insulators to be made continuously , issued to him on April 10, 1900 , as well as Patent No. 835,235 and Patent No. 835,236 issued November 6, 1906 ,which made additional improvements on glass presses.

WILLIAM L. BROOKFIELD

William L. Brookfield, the oldest son of Henry Brookfield. He is a graduate of St. Paul's School and Harvard, served on General Omar Bradley's staff in WW II, a lt. col. under Gen. Patton, and retired as an officer of the New Jersey Zinc Co. in 1968. As a youth, he spent much of his spare time with his father at the glass factory at Old Bridge, N.J., where he observed all the various operations.



(Figure 1.) Louis A. Cauvet patent of July 25, 1865, which provided for a method of molding an internal screw-threading of the glass pinhole which would correspond to the threading of a pin.

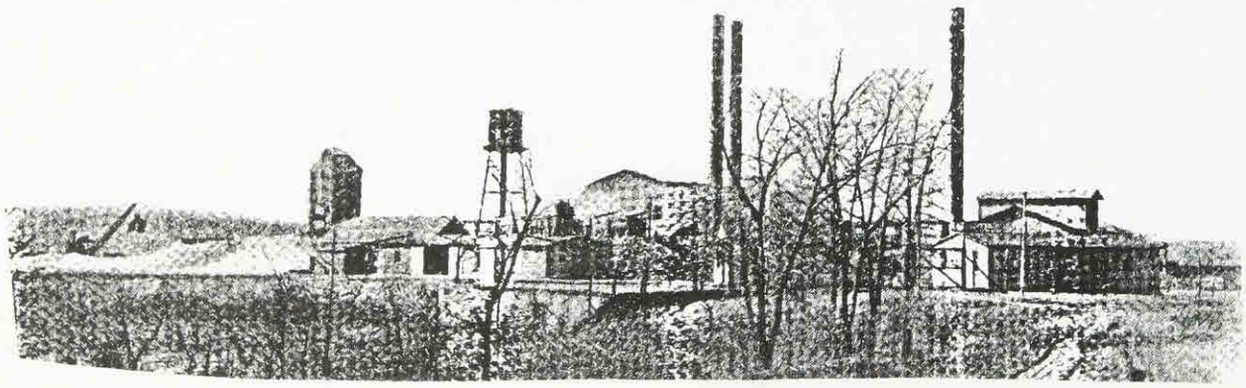
Over the years the company had various addresses in New York City, the following of which appeared on Brookfield insulators, and which can be used to help date production:

55 Fulton Street	**1868 to 1882**
45 Cliff Street	**1882 to 1890**
83 Fulton Street	**1890 to 1897**

The addresses with various patent dates usually appeared on the sides of the insulator crown. Other markings which are helpful in dating specimens are those that just appear on the skirt. From about 1890 to 1897, one half-mold was marked "W. BROOKFIELD" with "NEW YORK" on the opposite half-mold. After the company was incorporated in 1898, the "W." was dropped when new molds were made to either replace those too worn to be used or for new styles. After William's death in 1903, the "W." was dropped from all markings. Specimens with just the marking "BROOKFIELD" were made from about 1903 to 1921. Also, specimens made during this period may be found marked simply with the letter "B" on the skirt, or in some cases, with the letter "B" on each half-mold.

More than 100 styles of Brookfield insulators have been located. Some of the later production styles had sharp drip points, but these specimens are uncommon. The later production also used a large amount of cullet glass which led to great color variation from yellowish greens to amber. True amber Brookfield insulators are rare, since most of the ambers tend to have a greenish hue.

Fred Locke began jobbing insulators in 1894, contracting with Brookfield to make all of his glass insulators. (See The Locke Insulator Manufacturing Co. chapter) Locke continued to have Brookfield make their glass insulators until about World War I.

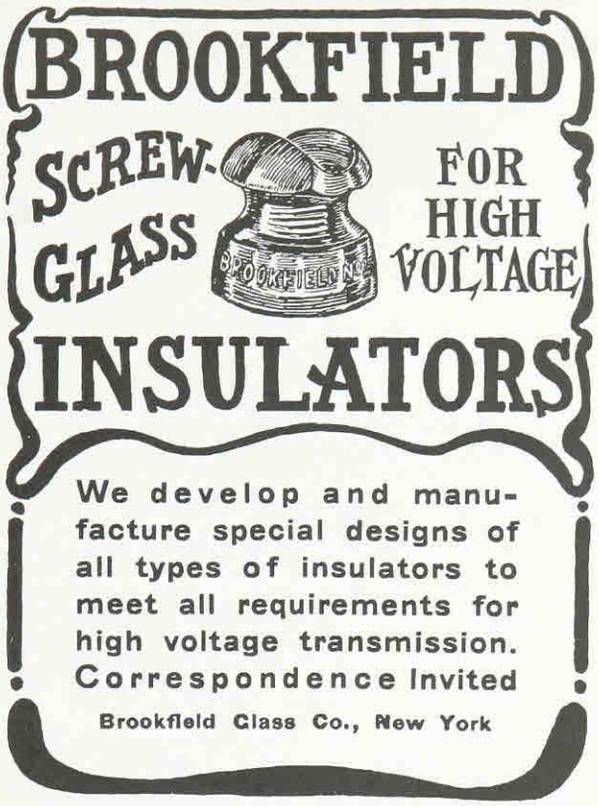


(Figure 2.) The offices of the Brookfield Glass Company were moved to 220 Broadway, New York City, in 1897. At about the same time, a modern glass-manufacturing plant was constructed at Old Bridge, New Jersey. Dumps used by this plant are still being excavated by collectors. In 1989, two Brookfield-manufactured insulators were dug which had not previously been found. They are CD 184 (a new product not previously known), and CD 338 (a product which had been pictured in a 1912 catalog). The photo of Brookfield Glass Company Insulator Works, Old Bridge, New Jersey, is from the 1912 Brookfield Catalog No. 51.

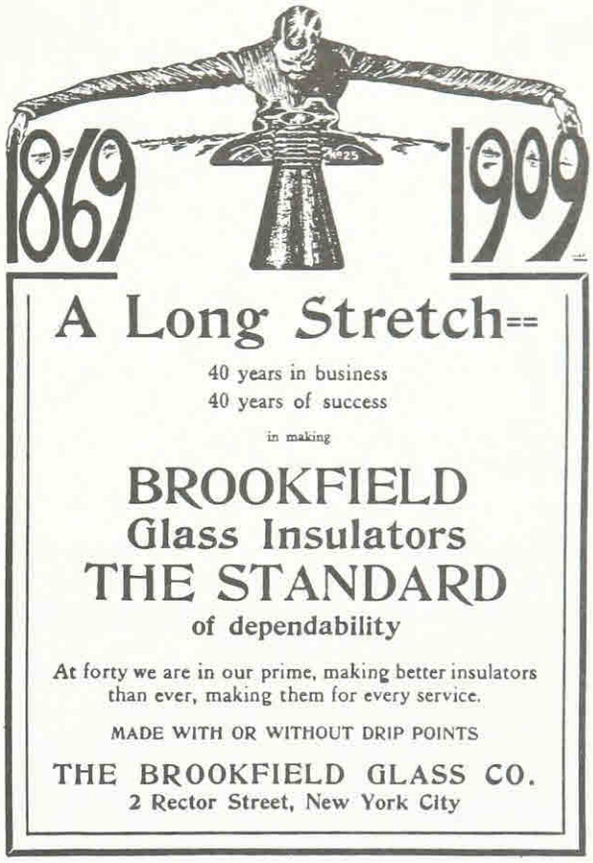
The first published history of Brookfield insulator manufacture as we know it today is entirely the result of research by Mr. N.R. (Woody) Woodward which he compiled from information received from William L. Brookfield and other sources over a thirty-year period. A more detailed history can be found in his book, ***The Glass Insulator in America, 1988 Report.*** (See Bibliography)

Permission granted by William L. Brookfield for use of family photographs and historical notes regarding the Brookfield family.

Elton Gish, author of "Brookfield--A Long Stretch", is a long-time Brookfield collector. Mr. Gish is currently a contributing editor to ***Crown Jewels of the Wire*** **magazine where he writes the bimonthly "Porcelain Insulator News" column. He has also compiled a reference book on multipart porcelain insulators as well as books on his extensive research of insulator patent information.** (See Bibliography) **Elton is currently the president of the Lone Star Insulator Club (Houston, Texas) and is a resident of Buna, Texas.**

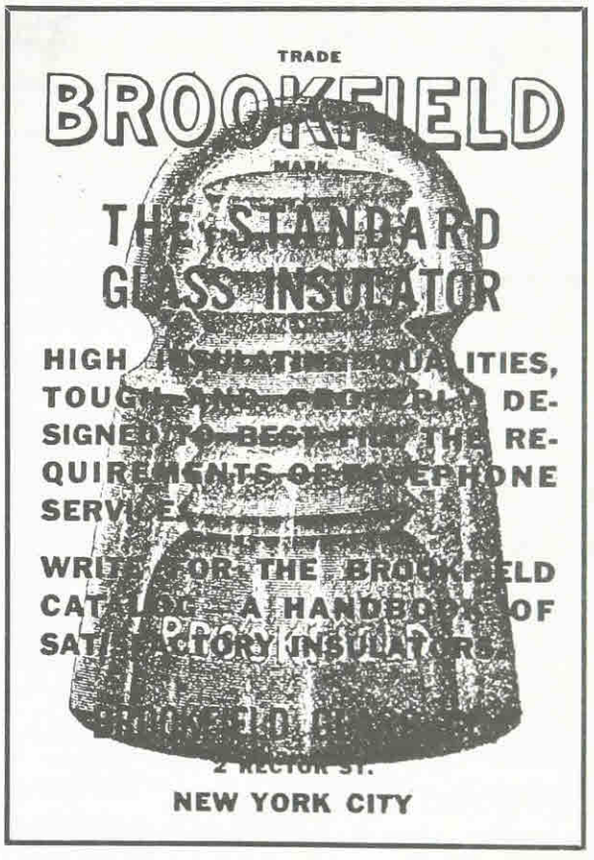


Brookfield ad from the May 23, 1903 issue of Electrical Review. The insulator pictured is a CD 275. All known specimens located to date are embossed without the name Brookfield even though the ad indicates the Brookfield embossing. (Courtesy of Elton Gish)



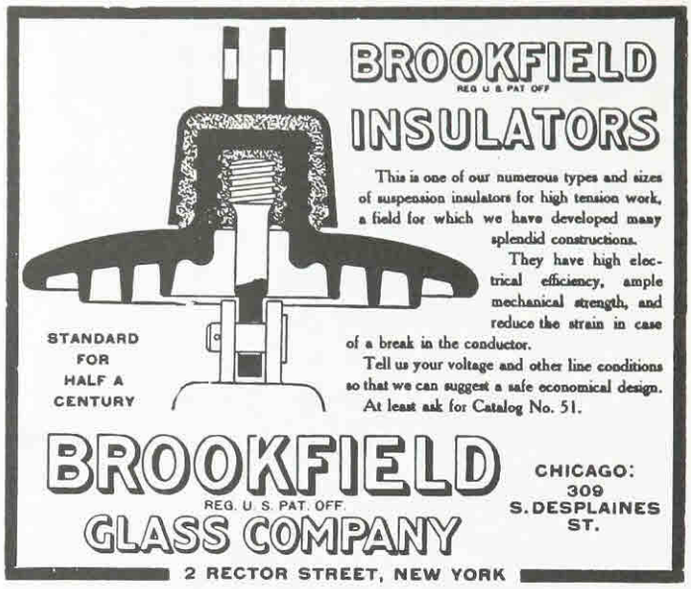
Brookfield ad from the May 27, 1909 issue of Electrical World. (Courtesy of Elton Gish)

Brookfield ad from the May 19, 1910 issue of Electrical World. (Courtesy of Steve Corfidi)

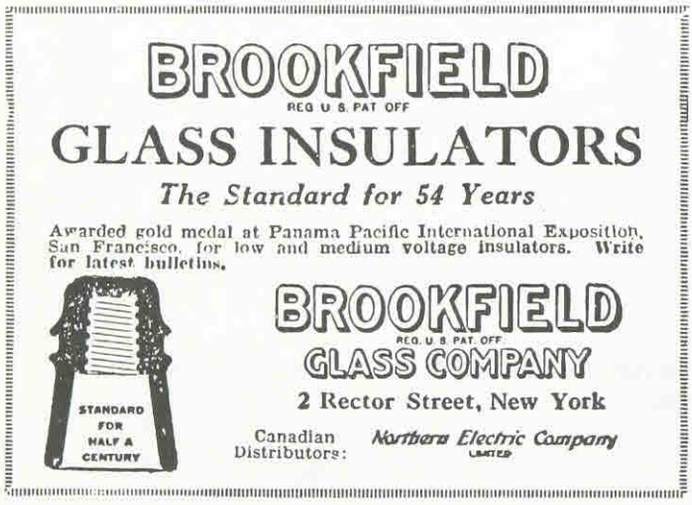


The June 29, 1912 issue of Telephony contained this Brookfield advertisement. (Courtesy of Elton Gish)

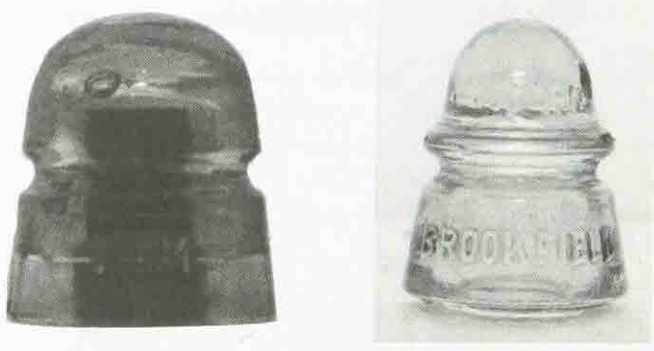
Brookfield ad from the June 1913 issue of Proceedings of the A.I.E.E. (Courtesy of Elton Gish)



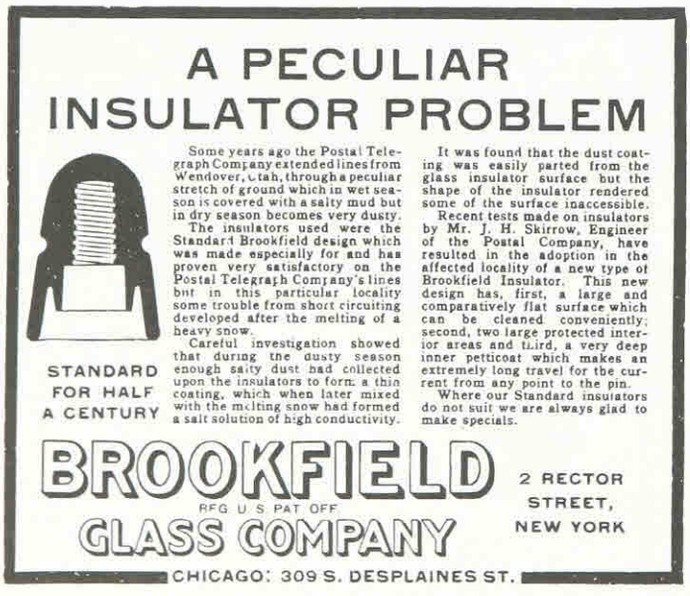
Brookfield ad from the July 1913 issue of Proceedings of the A.I.E.E. (Courtesy of Elton Gish)



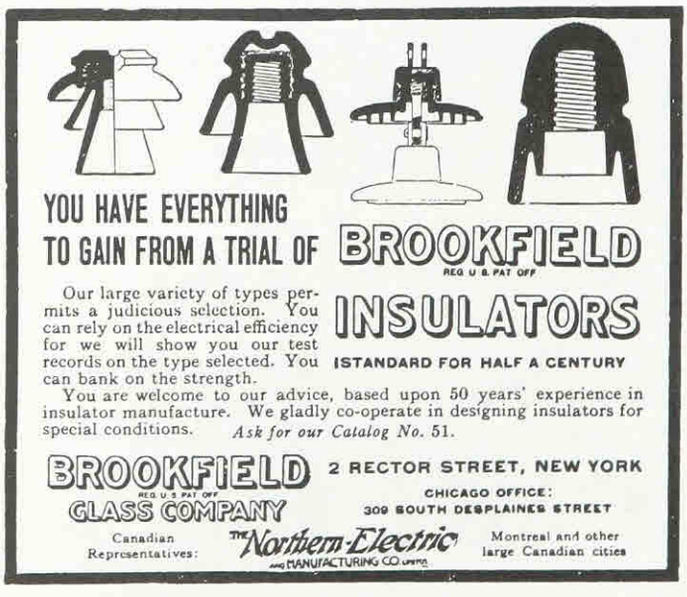
Brookfield ad circa early 1920's.
(Courtesy of Kevin Lawless)



Two miniature salesman samples from the Brookfield Glass Company. The beehive (left) and the signal (right) are light aqua in color.



Brookfield ad from September 1913 issue of Proceedings of the A.I.E.E. (Courtesy of Elton Gish)



Brookfield ad from November 1913 issue of the Proceedings of the A.I.E.E. (Courtesy of Elton Gish)