



*The first CREB style  
featuring an 1870 patent date.*

## Brookfield Beehives

A study of  
Brookfield CD 145's  
including  
**CR**own **E**mbossed  
**B**rookfields

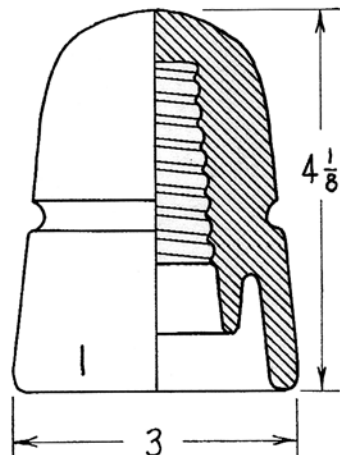
By Woody Woodward  
Illustrations by Elton Gish

### Number 1: The Beginning of "CREBS"

The earliest double petticoat telegraph insulators produced by Brookfield (CD #145), bear the address 45 Cliff Street, which indicates 1881 or 1882 as the earliest possible date. This first production of Brookfield CD #145 became popular and was widely used, indicated by the fact that even now they may be found anywhere.

There are several details peculiar to this particular insulators. One is the fact that it is especially susceptible to a horizontal crack around the skirt at a level with the top of the cavity between skirts. Because of the location these cracks are easy to miss with casual inspection.

There are two features in the design that appear to be influenced by British styles such as Varley's No. 8. One is the very narrow cavity between skirts. Second is the wire groove, designed to exactly fit No. 8 iron wire, the wire groove having sharp edges that were often chipped during making the tie.



W. BROOKFIELD  
45 CLIFF ST.  
N.Y.

2  
PAT.  
JAN. 25<sup>TH</sup> 1870

These first insulators are usually of a light aqua color and do not appear to have been made with great quantities of cullet.

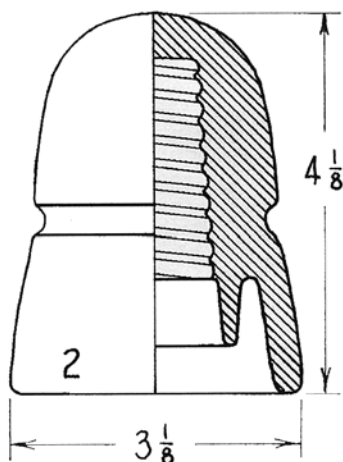
Although the 1870 patent on the insulator refers to an insulator pressing method issued to Homer Brooke, the insulator itself is an exact production of design patent #14,674, issued to Samuel Oakman dated February 12, 1884.

We have a copy of a letter from Hemingray's attorney Arthur Stem dated December 7, 1888, courtesy Glenn Drummond and reprinted in H.G. BeaHyve's book, "*Hemingray Insulators*". In this letter, Stem tells Hemingray that neither the Oakman design patent nor the November 13, 1883 date (the double petticoat patent providing for a paraffine recess, referred to on later Brookfields) would present a problem. He refers to the description of "paraboloid" as the form in the design patent, and assures Hemingray that their insulator (the H.G. Co./PETTICOAT 145's of that era) would not match that description. But Brookfield certainly made them!

This first group of "CREBS" carries shop numbers 1, 2, 3 and 4 on the opposite half mold crown.



*While aqua was by far  
the predominant color,  
a small number  
of Type One  
examples are known  
in yellow green,  
sapphire blue,  
and  
purple shades.*



## Number 2: The Golden Age of CREBS

Following the first production of CD #145, we enter a long period in which millions of insulators were made, very little different from the earliest ones in group #1. The space between the inner and outer skirt is generally a bit wider, resulting in a slightly greater base diameter. This change may have helped to relieve the stress which caused the horizontal cracking in the earlier models. However, these measurements are generalities since the molds were not so exact in that era.

The other difference is the wire groove, usually a bit more space for tying and avoiding the sharp edges, resulting in less chipping.

There are four distinct embossing arrangements on these groups (*shown on the next page*). The two patent dates in three of the four arrangements are Nov. 13, 1883 and Feb. 12, 1884. One group bears the address of 83 Fulton Street, while two of the others: 45 Cliff Street. The fourth one does not show a street address. The third one does not show patent dates, having a blank opposite half-mold. In the first group, an occasional one bears the letter ER on the skirt. These were made for the Erie Railway.

It is quite impossible to determine exactly when all of these were made. But the office move to 83 Fulton Street occurred in 1890, so those so marked would be after that date.

There are many shop numbers on these CREBS, ranging from 00 to 23, as well as A and B on some of the group that do not show a street address. Since we are dealing with two-piece molds, the shop numbers may appear on either side of the crown. No matter how long one looks, there are always new variations to be found. However, color isn't a big factor. The majority of the 1880 - 1890s production ranges from light to medium aqua.

The four embossing arrangements on  
Number 2 Golden Age CREBS



W. BROOKFIELD  
45 CLIFF ST  
N.Y.

7  
PATD NOV 13<sup>TH</sup> 1883  
FEB 12<sup>TH</sup> 1884



W. BROOKFIELD  
83. FULTON. ST  
N.Y.

10  
PATD NOV. 13<sup>TH</sup> 1883  
FEB. 12<sup>TH</sup> 1884



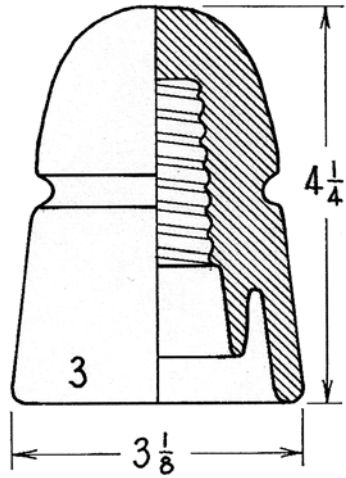
1A  
W. BROOKFIELD  
45 CLIFF ST  
N.Y.

Blank



W. BROOKFIELD  
NEW YORK

A  
PAT. NOV 13<sup>TH</sup> 1883  
" FEB. 12<sup>TH</sup> 1884



### Number 3: The Western Union Standard "B"

This represents major change in several aspects. Although the insulator itself varies only slightly from the CREBS, it represents a major change in that the molds provided three major parts instead of two halves.

Thus, engraving may be on top of the crown instead of the sides of the crown. The top is the location of the shop numbers. Another major change is the use of great quantities of cullet, mainly green and brown beverage bottles. Thus insulators that had been primarily of light aqua during the CREBS era are mostly very dark. These changes may have coincided with the move from Brooklyn to Old Bridge. William L. Brookfield, in speaking of his father, Henry Morgan Brookfield, president of Brookfield Glass Company, states in a letter dated November 2, 1963: "About this time my father started to melt up old broken glass and throw it in the mix. He used to pay Italians a dollar a day to go out and pick up broken glass. They would start out with their sandwich and a large bag each day, and come back the next day with a bag full of old bottles."

He also states, "When I was a child I remember visiting the plant and seeing a pile of glass about two or three stories high and covering a large area. Father had a large steam crane on a RR track going right into the pile and I sometimes rode in the cab while the motorman operated it".

Thus we have a picture of the origins of those old, very dark B insulators still so common today. Shop numbers are 1 to 18 inclusive (except 9), 00, X0, and X1. A very few of these pieces were made for Canada. They are lettered B on one half-mold and G.T.P. (Grand Trunk Pacific) opposite, with shop number 2 on the crown (see top left picture on the next page).



*Type 3  
made for  
GTP  
shown  
on left.*

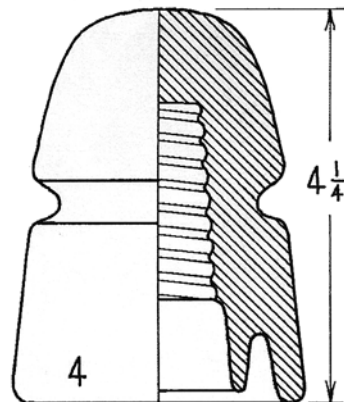


*Type 4  
with drip  
points  
shown  
on right.*

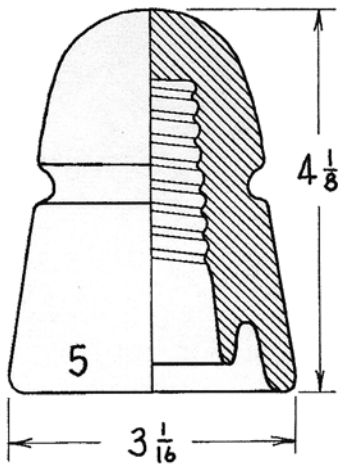
## Number 4: Deep Groove End of Line

Catalogued as No 44 (smooth base) and No 45 (drips) in 1912, these last CD 145s vary only in having a wire groove a bit deeper than the earlier B. They are embossed with a B on one half-mold and sometimes No. 44 opposite.

Below the No. 44 is a mold number, unusual on a Brookfield CD 145. These pieces have no shop number. The other deep groove pieces have shop numbers 10, X0, X1 and blank. Some of these were made with 35 drip points (above right). Those have a B just below the wire groove on one half-mold and shop numbers X0, X1 and blank. Things were not going well at Brookfield during this time, and some of these last pieces are crude and reflect the production problems of the time through poor quality.







## Number 5: The Double B

Slightly smaller than the WU standard, it has the same proportions and was probably sold to the railways at a lower cost. It has a B on each half-mold; and typically a shop LETTER on the top.

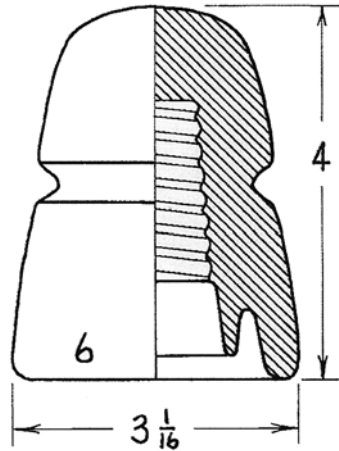
We have no clue as to the exact date of manufacture; but judging from quality they would be made after 1905.



Other than the 2 B's and the top letter, they are interesting because of the glass of which they are made. If they were made during the same time frame as the Western Union B's, they were certainly made from a different tank. None of them are very dark color, most are light aqua, or green, some light purple, smoke or gray, or nearly clear. They have shop letters A, B, D, G, O and X.

The base diameter may be either  $3 \frac{1}{16}$  or  $3 \frac{1}{4}$ ". This variation may occur within one shop letter.

*Aqua example of a Double B  
with a curtain of "milk"  
just below the wire groove.*



## Number 6: The No 43

This neat little CD 145 is listed as No. 43 in Brookfield's 1912 catalog. With an exact 4 inch height, this would be the company's economy model. They were used by railways for train dispatching and railway communications.

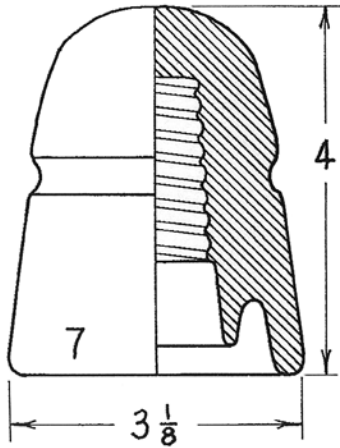
As an example, there were hundreds of them on the Southern Pacific Railroad between Houston and New Orleans, as well as other locations. They are normally of light green glass and are well made. Their wire groove is well formed and of a suitable depth to assure a good tie.

They are marked with a single B on the skirt, midway between the wire groove and base, and a shop number on top: 7, 8, 10, 11, 12 and dot. Some of the shop number 11's got through without the B on the skirt.

*Shown on this page  
are two Number 6 B's,  
the top example with much dome glass,  
and the bottom with  
a strongly readable "B".*







## Number 7: Brookfield's Worst Insulator

Why this insulator was designed and manufactured is a guess. It is not an early experimental model. As is the case with all the styles, we don't have exact dates, but it appears to be Old Bridge production. The lower part of the insulator is unnecessarily heavy, the top slender and the wire groove extremely skimpy. It is apparent that an upward strain on the line for any reason would almost certainly release the line from the insulator.



Markings are: a single B one-half mold; opposite half-mold a shop number 1, 2, 3 or 4, with the number repeated on the dome of the 2 and some of the 4s. The 3 has a dot on the dome and the 1 is blank.

Your writer hasn't seen a concentration of this style in one place, but rather scattered use with one here and there. It would be interesting to locate a concentration of them in one place which might possibly give us a clue as to who designed and ordered them.

*The insulator pictured at the top has shop #4 embossed on both the skirt (hard to read) and the dome. The picture on the left shows an example in blue aqua glass.*



## Number 8: Postal Standard

This typical POSTAL design is specific in having a lower wire groove compared to the Western Union standard (Numbers 3 & 4 in this report). Some of the leakage distance between the conductor and the pin is sacrificed in the interest of building a stronger line. The wire groove being located near the bottom of the pin hole provides much greater lateral strength by helping to obviate the tilting and cracking of the pin or wood cob.

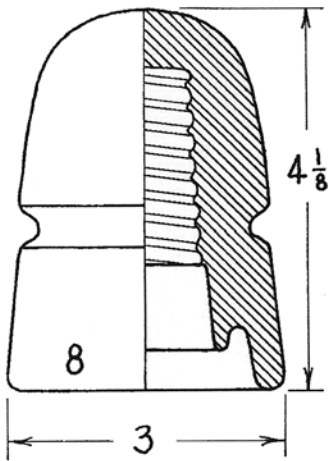
Brookfield manufactured this style with both the BROOKFIELD and POSTAL names on the skirt. Earlier ones are marked with W. BROOKFIELD one half-mold and NEW YORK opposite.

### Wide Examples

Some of the first ones are light green, with one or two dots on the crown. These have a base diameter of 3 1/4" rather than the 3 inch diameter of all the later ones. The 3 inch diameter light green ones have a blank crown.

*The wide style is shown on the upper right, and the crown of that insulator is pictured here on the right.*





The next group, embossed BROOKFIELD and NEW YORK opposite, apparently were made over a period of time. Some of them are light green, others darker. They carry shop numbers on the dome 1 through 8, and 10. It is in this group that one occasionally finds a sample with drip points. The one in our files has a shop number 8.

The latest production of this style is embossed BROOKFIELD, opposite blank. Shop markings are 00 and X0. This period also includes insulators marked only POSTAL as shown on the right. Both the BROOKFIELD and POSTAL are typically very dark green glass, late Old Bridge production.

We had an interesting experience with this insulator appearing on a line built in 1917 that was being dismantled. This line was in very remote territory so nearly all the insulators were ones placed on the line originally. For about a mile, all the insulators were POSTAL. Then they would stop altogether and the next mile would be all BROOKFIELD. Then back to POSTAL for the next stretch. It was quite apparent what happened here. In loading a freight car, if the car is to be moved during unloading, it is necessary to unload both ends of the car evenly. If one end is empty and the other fully loaded, it can cause a derailment at higher speeds. Thus, as the Postal work train unloaded material for the line, they would throw off a barrel of insulators at the proper spots, first from one end of the car then the other. Apparently at Old Bridge the car was loaded with Brookfields in one end and Postals in the other.



*Editor's Note: Brookfield beehives occasionally are found with outstanding color and character. The Number 4 style on the upper left was removed from a pole years ago by Mark Lauckner. The pin hole is significantly off center, and the dome is tweaked sideways. The Number 4 in the center is "tiger striped" with amber swirls. The Number 4 on the right features a gigantic bubble in the skirt. And the Number 4 on the lower left features outstanding green coloration. In this article, Woody noted that things weren't going well for Brookfield at this time in its history, and these examples are proof of that.*

*In the middle of the bottom row is a Number 3 Western Union style with decent amber swirls. At the lower right, we show a Number 8 Postal style in a bright yellow green.*

*Color photographs by Howard Banks.  
Insulators pictured in this article are owned by  
Mark Lauckner, Dave Rosychuck, Arnie Lowenstein,  
Dale & Carol Blakely & Howard Banks*

