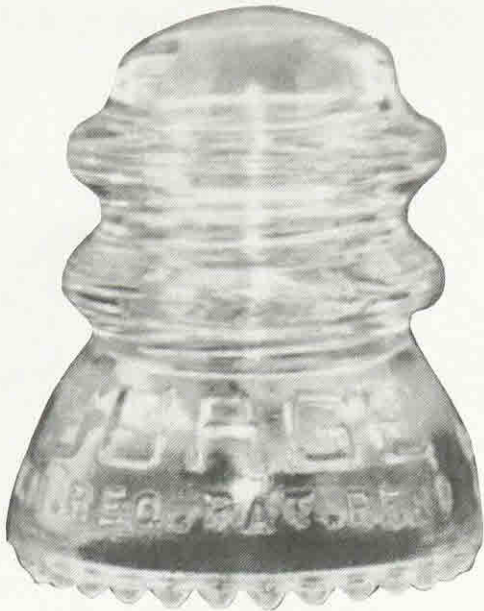


**CONSOLIDATED DESIGN  
PICTORIAL REFERENCE FOR  
THREADED PINTYPE  
GLASS INSULATORS**



**CD 100**

**CD 100**

**SURGE**

(F-Skirt) SURGE/REG.U.S.PAT.OFF. (R-Skirt) BABSON BROS.CO./CHICAGO U.S.A. RDP  
Clear, Straw

(F-Skirt) SURGE/T.M.REG.PAT.PEND. (R-Skirt) BABSON BROS.CO./CHICAGO U.S.A. RDP  
Clear

(F-Skirt) SURGE/T.M.REQ.PAT.PEND {Note Spelling}  
(R-Skirt) BABSON BROS.CO./CHICAGO U.S.A. {Note Spelling} RDP  
Clear

(F-Skirt) SURGE/T.M.REQ.PAT.PEND. {Note Spelling}  
(R-Skirt) BABSON BROS.CO./CHICAGO U.S.A. RDP  
Clear



**CD 100.2**

**CD 100.2**

**SURGE**

(F-Skirt) SURGE (R-Skirt) BABSON BROS.CO. RDP  
Clear



**CD 100.5**

**CD 100.5**

**PYREX**

(F-Skirt) PYREX/REG.U.S.PAT.OFF. (R-Skirt) [1,2,3 or 4]/MADE IN U.S.A. SB  
Clear



**CD 100.6**

**CD 100.6**

**HEMINGRAY**

(F-Skirt) HEMINGRAY E.1 SB  
Off Clear





**CD 101**

**CD 101**

**BROOKFIELD**

(Dome) [Number] (F-Skirt) BROOKFIELD SB  
Aqua, Dark Aqua, Green Aqua

(Dome) [Number] (F-Skirt) BROOKFIELD SDP  
Blue Aqua, Aqua

(F-Skirt) BROOKFIELD SB  
Aqua, Light Blue, Light Green, Emerald Green, Yellow  
Green, Dark Aqua

(F-Skirt) BROOKFIELD SDP  
Aqua, Yellow Green

(F-Skirt) BROOKFIELD (R-Skirt) NO.9 SDP  
Aqua

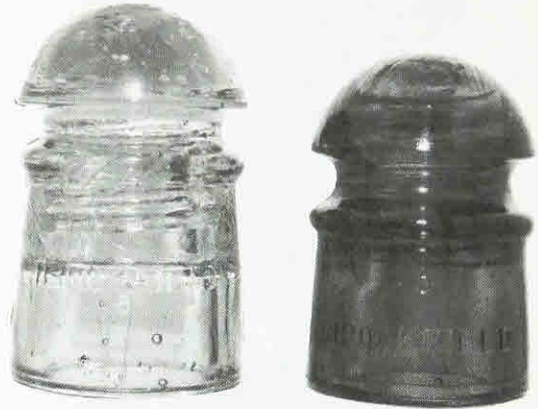
(F-Skirt) BROOKFIELD (R-Skirt) NO.9 {Slug Emboss-  
ing} SB  
Light Blue

(F-Skirt) BROOKFIELD/[Number] SB  
Olive Green, Olive Amber, Yellow Olive

(F-Skirt) BROOKFIELD/[Number] (R-Skirt) NO.9 SB  
Green, Aqua, Lime Green, Light Blue, Yellow Green,  
Dark Aqua

(F-Skirt) BROOKFIELD/[Number] (R-Skirt) NO.9 SDP  
Aqua, Blue Aqua

(F-Skirt) BROOKFIELD/[Number] (R-Skirt) NO.9 {Slug  
Embossing} SB  
Green



**CD 101 Variations**

*This comparison picture shows the wide  
range of heights available in CD 101.*



**CD 102**

**CD 102**

**B**

(F-Skirt) B SB  
Aqua, Light Aqua, Green, Light Green

**B.G.M.**

(Dome) [Letter] (F-Skirt) B.G.M.CO. SB  
Light Purple, Purple, Clear

(F-Skirt) B.G.M.CO. SB  
Light Purple, Purple

**B.T.C.**

(F-Skirt) B.T.C./CANADA SB  
Purple

(F-Skirt) B.T.C./CANADA/['MONTREAL' Blotted out] SB  
Clear, Smoke, Purple, Lavendar, Purple Tint, Blue Gray, Light Green, Ice Blue

(F-Skirt) B.T.C./MCANADAL SB  
Light Aqua, Royal Purple, Light Purple, Steel Blue

(F-Skirt) B.T.C./MONTREAL SB  
Royal Purple, Ice Blue, Aqua, Light Blue, Light Green

(F-Skirt) B.T.CO.OF CAN. SB  
Light Green, Green Aqua, Blue, Aqua

(F-Skirt) B.T.CO.OF CAN./[Diamond] (R-Skirt) [Diamond] SB  
Royal Purple, Teal Blue, Aqua, Ice Blue, Light Green, Purple

(F-Skirt) ['B.T.C.' Blotted out]/MONTREAL SB  
Purple, Aqua

(F-Skirt) ['B.T.CO. OF CAN.' Blotted out]/['Diamond' Blotted out] (R-Skirt) ['B.T.CO. OF CAN.' Blotted out]/['Diamond' Blotted out] SB  
Dark Olive Green

(F-Skirt) ['B.T.CO. OF CAN.' Blotted out]/[Diamond] (R-Skirt) [Diamond] SB  
Ice Blue, Aqua, Light Green, Light Blue, Dark Olive Green

(F-Skirt) ['B.T.CO.OF CAN.' Blotted out]/[Diamond] (R-Skirt) ['B.T.CO.OF CAN.' Blotted out]/[Diamond] SB  
Light Aqua, Lavendar, Olive Blackglass, Light Blue, Green Blackglass

**BROOKFIELD**

(Dome) [Letter or Number] (F-Crown) (Arc)W. BROOKFIELD/(Arc)NEW YORK SB  
Aqua, Purple, Light Blue, Light Aqua

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD SB  
Aqua, Green, Yellow Green, Light Green, Emerald Green, Dark Aqua, Green Aqua, Olive Green

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD SDP  
Green, Aqua, Yellow Green, Olive Blackglass, Blue, Dark Amber, Dark Aqua, Dark Green

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD (R-Skirt) BROOKFIELD SB  
Aqua, Light Aqua, Green

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SB  
Light Aqua, Dark Aqua, Light Purple, Yellow Green, Ice Green, Aqua, Green, Light Blue, Inky Blue

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SDP  
Aqua, Yellow Green, Green, Green Aqua

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD (R-Skirt) NEW YORK/['B.G.M.Co.' Blotted out] SB  
Aqua, Light Aqua

(Dome) [Letter or Number] (F-Skirt) RROOKFIELD {Note Spelling} (R-Skirt) NEW YORK SDP  
Aqua

(Dome) [Letter or Number] (F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK SB  
Aqua, Light Blue, Purple, Ice Aqua, Light Green, Light Aqua, Ice Blue

(F-Crown) (Arc)W. BPOOKFIELD/NEW YOPK {Note Spelling} {MLOD} SB  
Aqua

(F-Crown) (Arc)W. BROOFIELD/45 CLIFF ST./N.Y. {Note Spelling} (R-Crown) [Number] {MLOD} SB  
Light Aqua

(F-Crown) (Arc)W. BROOFIELD/45 CLIFF ST./N.Y. {Note Spelling} {MLOD} SB  
Light Aqua

(F-Crown) (Arc)W. BROOKFIELD/(Arc)45 CLIFF ST. (R-Crown) [Number] {MLOD} SB  
Light Blue

(F-Crown) (Arc)W. BROOKFIELD/(Arc)45 CLIFF ST./N.Y. (R-Crown) [Number] {MLOD} SB  
Light Aqua, Light Green, Yellow Green

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. (R-Crown) [Letter or Number] {MLOD} SB  
Light Blue, Light Aqua, Green Aqua, Snowy Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. {'N' is backwards} (R-Crown) [Number] {MLOD} SB  
Light Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. {'N' is backwards} {MLOD} SB  
Green, Light Aqua



(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
{MLOD} SB  
Aqua, Ice Blue

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK (R-  
Crown) [Letter or Number] {MLOD} SB  
Light Aqua, Green, Light Yellow Green

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK  
{MLOD} SB  
Aqua, Olive Green, Light Aqua

(F-Crown) (Arc)W<sup>M</sup> BROOKFIELD/NEW YORK (R-  
Crown) [Letter or Number] {MLOD} SB  
Light Aqua

(F-Crown) W. BROOKFIELD/NEW YORK {MLOD}  
SB  
Light Aqua, Aqua

(F-Skirt) BROOKFIELD {Note spelling} (R-Skirt) NEW  
YORK SB  
Light Blue

(F-Skirt) BROOKFIELD SB  
Aqua, Yellow Green, Emerald Green, Dark Green

(F-Skirt) BROOKFIELD SDP  
Aqua, Green, Yellow Green, Olive, Emerald Green,  
Amber

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK  
{MLOD} SB  
Light Purple, Green, Aqua, Clear

(F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK SB  
Light Blue, Light Aqua, Light Green, Aqua

### **C.G.I.**

(F-Skirt) C.G.I.CO. SB  
Smoke, Aqua, Light Purple, Sage Green, Light Green,  
Straw, Yellow, Rose, Citron, Light Plum

### **CALIFORNIA**

(F-Skirt) CALIFORNIA SB  
Blue, Aqua

### **DIAMOND**

(Dome) [Number] (F-Skirt) [Diamond] SB  
Light Purple

(F-Skirt) [1/3 Diamond] SB  
Olive Green, Dark Amber, Dark Green

(F-Skirt) [Diamond] SB  
Straw, Aqua, Sage Green, Lime Green, Emerald Green,  
Brown Amber, Sky Blue, Purple, Teal Blue, Midnight  
Blue, Olive Blackglass, Light Green, Yellow Green,  
Violet Purple, Yellow Tint, Yellow Honey Amber, Blue  
Gray, Olive Green, Root Beer Amber, Mustard Yellow,  
Light Purple, 7-up Green, Light Steel Blue, Off Clear,  
Turquoise Blue

(F-Skirt) [Diamond] (R-Skirt) ['Diamond' Blotted out]  
SB  
Root Beer Amber

(F-Skirt) [Diamond] (R-Skirt) [1/3 Diamond] SB  
Olive Green, Olive Amber, Cornflower Blue

(F-Skirt) [Diamond] (R-Skirt) [1/3 Diamond]/[Number]  
SB  
Root Beer Amber

(F-Skirt) [Diamond] (R-Skirt) [1/3 Diamond]/[Number]  
{Drip Points are very small} SDP  
Olive Blackglass

(F-Skirt) [Diamond] (R-Skirt) [Backwards Number] SB  
Light Purple, Purple, Root Beer Amber, Midnight Blue

(F-Skirt) [Diamond] (R-Skirt) [Backwards Number]  
{Drip Points are very small} SDP  
Olive Blackglass, Root Beer Amber

(F-Skirt) [Diamond] (R-Skirt) [Diamond] SB  
Gray Blue, Royal Purple, Light Purple, Milky Gray,  
Aqua, Clear, Teal Blue, Amber Blackglass, Ice Blue,  
Emerald Green, Light Green, Brown Amber, Light Aqua,  
Steel Blue

(F-Skirt) [Diamond] (R-Skirt) [Number] SB  
Yellow Green, Amber Blackglass, Gray, Purple, Blue,  
Light Purple, Light Green, Teal Green

(F-Skirt) [Diamond] (R-Skirt) [Small number just under  
wire groove] SB  
Purple, Olive Blackglass

(F-Skirt) [Diamond] {Drip Points are very small} SDP  
Brown Amber, Olive Amber

(F-Skirt) [Diamond] {Solid Raised Diamond} SB  
Light Aqua, Light Green

(F-Skirt) [Vertical Bar]/[Diamond] (R-Skirt) [Vertical  
Bar]/['Diamond' Blotted out] SB  
Gray Blue, Blue, Light Aqua, Dark Olive, Dark Purple,  
Emerald Green, Ink Blue, Midnight Blue



### CD 102 Variations

(Left to right) S.F.; HEMINGRAY/Nº14; DIAMOND; No Name - large pony, Pennycuick style

(F-Skirt) [Vertical Bar]/[Diamond] (R-Skirt) [Vertical Bar]/[Diamond] SB  
Light Aqua, Ice Blue, Royal Purple, Milky Ice Blue, Lavendar, Olive Blackglass, Off Clear, Green, Teal Green, Jade Blue Milk, Midnight Blue, Teal Blue, Light Steel Blue

(F-Skirt) [Vertical Bar]/[Diamond] (R-Skirt) [Vertical Bar]/[Diamond] SDP  
Light Aqua

#### HAWLEY

(F-Skirt) ['HICo' Entwined Initials]/HAWLEY, PA. U.S.A. SB  
Light Blue, Light Aqua, Jade Blue, Ice Green, Jade Green

(F-Skirt) ['HICo' Entwined Initials]/HAWLEY, PA. U.S.A. (R-Skirt) ['STERLING' Blotted out] SB  
Aqua

(F-Skirt) ['HICo' Entwined Initials]/HAWLEY, PA. U.S.A. (R-Skirt) ['STERLING' Blotted out]/['Pound Sign' Blotted out] SB  
Aqua

(F-Skirt) ['HICo' Entwined Initials]/HAWLEY, PA. U.S.A./['Pound Sign' Blotted out] (R-Skirt) ['Pound Sign' Blotted out] SB  
Aqua, Light Aqua, Ice Green, Blue Aqua

(F-Skirt) ['HICo' Entwined Initials]/HAWLEY, PA. U.S.A./['STERLING' Blotted out] SB  
Aqua

(F-Skirt) ['HICo' Entwined Initials]/HAWLEY, PA./ U.S.A. (R-Skirt) [Number] SB  
Aqua

#### HEMINGRAY

(F-Skirt) HEMINGRAY/Nº 14 SB  
Aqua, Blue Aqua

#### MONTREAL

(F-Skirt) MONTREAL SB  
Ice Blue, Aqua

(F-Skirt) MONTREAL {Drip Points are tipped in} SDP  
Light Blue

#### N.E.G.M.

(F-Skirt) N.E.G.M.CO. SB  
Green Aqua, Dark Aqua, Green, Yellow Green, Blue

#### N.W.&B.I.T

(F-Skirt) N.W.& B.I.T.CO. SB  
Purple, Light Green, Smoke, Clear, Light Aqua

(F-Skirt) N.W.& B.I.T.CO. (R-Skirt) [Comma]/[Blotted out Embossing] SB  
Light Purple, Clear

#### NO NAME

(F-Crown) PAT.JAN. 14 1879 {MLOD} SB  
Aqua

(F-Crown) PAT/JAN 25<sup>TH</sup> 1870 (R-Crown) FEB 22<sup>ND</sup> 1870/MCH 20<sup>TH</sup> 1877 {MLOD} SB  
Light Aqua, Lime Green, Yellow Green, Green, Purple

(F-Crown) PAT/JAN 25<sup>TH</sup> 1870 (R-Crown) [Number]/ FEB 22<sup>ND</sup> 1870/MCH 20<sup>TH</sup> 1877 {MLOD} SB  
Yellow Green

(F-Crown) PAT/JAN 25<sup>TH</sup> 1870/JAN 14<sup>TH</sup> 1879 (R-Crown) [Letter or Number] {MLOD} SB  
Aqua, Light Aqua, Purple

(F-Crown) [Christian Cross] (R-Crown) [Blotted out Embossing] {MLOD} SB  
Aqua

(F-Crown) [Christian Cross]/PAT/JAN 25<sup>TH</sup> 1870/JAN 14<sup>TH</sup> 1879 SB  
Light Purple, Aqua



(F-Crown) [Number]/PAT/JAN. 25<sup>TH</sup> 1870 (R-Crown)  
FEB. 22<sup>ND</sup> 1870/MCH 20<sup>TH</sup> 1877 {MLOD} SB  
Light Aqua

(F-Skirt) [Comma] SB  
Aqua, Light Purple

(F-Skirt) [Pound Sign] (R-Skirt) [Pound Sign] SB  
Aqua, Light Aqua

(F-Skirt) [Pound Sign]/[Blotted out embossing in a 1/2"  
circle] (R-Skirt) [Pound Sign] SB  
Blue Aqua

[No Embossing] {Large pony; Pennycuick Style} SB  
Aqua, Snowy Aqua, Light Blue Aqua, Green, Light  
Green Aqua

#### **NO NAME-CANADA**

(Dome) [Backwards Number] SB  
Royal Purple, Light Purple

(F-Skirt) [Vertical Bar] SB  
Lavendar, Olive Blackglass

(F-Skirt) [Vertical Bar] (R-Skirt) [Vertical Bar] SB  
Light Aqua, Teal Blue, Blue, Royal Purple, Smoky Blue,  
Sage, Olive Blackglass, Lavendar, Light Purple, Purple

(F-Skirt) [Vertical Bar] (R-Skirt) [Vertical Bar]  
{Threaded to Base} SB  
Light Green

(F-Skirt) [Vertical Bar] {Bar is short and heavy} SB  
Ice Aqua

[No Embossing] SB  
Green, Lavendar, Aqua, Blue, Steel Blue, Blue Aqua,  
Light Sage, Off Clear, Purple

[No Embossing] SDP  
Aqua

[No Embossing] {Drip Points tipped in, threaded to base}  
SDP  
Light Blue

[No Embossing] RB  
Light Blue, Green Aqua

[No Embossing] {MLOD} SB  
Clear, Aqua, Light Green, Straw, Light Purple, Gray Blue

[No Embossing] {Threaded to base} {MLOD} SB  
Light Aqua, Aqua, Lime Green

#### **PAT'D**

(Base) PAT'D {MLOD}  
Lime Green

(Dome) [Number in a circle] (Base) PAT'D SB  
Aqua, Light Aqua

#### **S.F.**

(Dome) [Letter or Number] (F-Skirt) S.F. SB  
Aqua, Green, Yellow Green

(F-Skirt) S.F. SB  
Aqua, Yellow Green, Blue, Green, Lime Green

#### **SO.MASS**

(F-Skirt) SO.MASS TEL.CO. SB  
Aqua, Clear

#### **STAR**

(Dome) [Number] (F-Skirt) [Star] SB  
Aqua, Light Blue, Dark Blue, Light Green, Gray

(Dome) [Number] (F-Skirt) [Star] SDP  
Aqua, Dark Blue

(Dome) [Number] (F-Skirt) [Star]/['S.F.' Blotted out]  
SB  
Green, Light Aqua, Aqua

(Dome) [Number] (F-Skirt) [Star]/['S.F.' Blotted out]  
SDP  
Aqua, Green

(F-Skirt) [Star] SB  
Aqua, Dark Blue, Light Green, Yellow Green, Dark  
Green, Light Blue, Green, Light Aqua, Olive Green,  
Olive Amber

(F-Skirt) [Star] SDP  
Light Green, Aqua, Light Blue

(F-Skirt) [Star] (R-Skirt) [Small Star] SB  
Aqua, Light Green, Light Blue, Yellow Green, Blue  
Aqua, Lime Green

(F-Skirt) [Star] (R-Skirt) [Star] SB  
Aqua, Light Green, Yellow Green, Light Blue, Green,  
Lime Green

(F-Skirt) [Star] (R-Skirt) [Star] WDP  
Light Aqua

(F-Skirt) [Star] (R-Skirt) [Vertical Bar] SB  
Aqua, Blue

(F-Skirt) [Star]/['S.F.' Blotted out] SB  
Aqua

(F-Skirt) [Star]/['S.F.' Blotted out] SDP  
Green Aqua

**STERLING**

(F-Skirt) STERLING (R-Skirt) [Pound Sign] SB  
Aqua, Blue, Light Aqua

**WESTINGHOUSE**

(F-Skirt) WESTINGHOUSE/NO.3 SB  
Aqua, Electric Blue, Light Green, Off Clear, Peacock  
Blue



**CD 102.4**

**NEW ENGLAND TEL**  
(Base) N.E.TEL.& TEL.Co.  
Aqua, Green

**CD 102.4**



**CD 102.3**

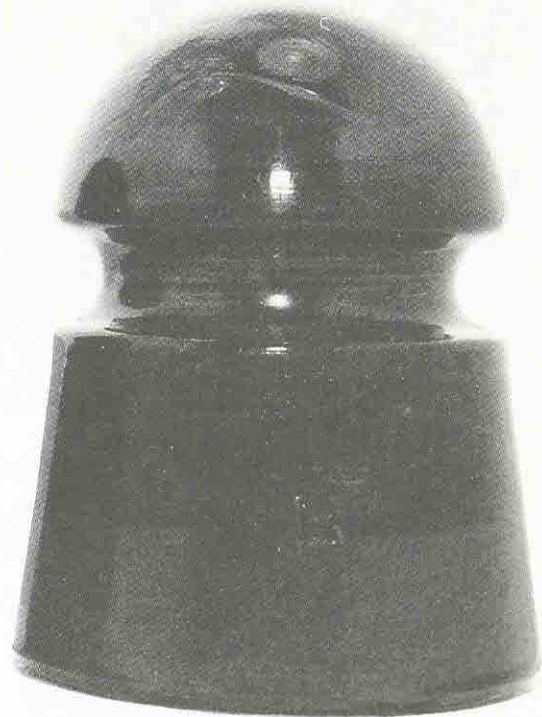
**CD 102.3**

**K.C.G.W.**

(F-Skirt) [Glass Dot] ['KCGW' Blotted out] (R-Skirt)  
[Glass Dot] SB  
Dark Aqua

(F-Skirt) [Glass Dot]/['KCGW' Blotted out] (R-Skirt)  
[Glass Dot]/[Number] SB  
Light Green, Dark Aqua

(F-Skirt) [Vertical Bar]/['KCGW' Blotted out] (R-Skirt)  
[Vertical Bar] SB  
Light Green, Aqua, Ice Blue



**CD 103**

**CD 103**

**B**

(F-Skirt) B SB  
Aqua, Dark Green, Green, Dark Yellow Green, Dark  
Aqua

**GAYNER**

(F-Skirt) GAYNER (R-Skirt) NO.6/[Number] SB  
Aqua





CD 103.4

CD 103.4

**NO NAME - MEXICO**  
[No Embossing] SB  
Emerald Green, Dark Green



CD 104

CD 104

**BROOKFIELD**

(Dome) [Number] (F-Skirt) (Arc)BROOKFIELD/NEW YORK SB

Aqua, Dark Aqua

(F-Skirt) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. SB

Aqua

(F-Skirt) (Arc)W. BROOKFIELD/83 FULTON ST./N.Y. SB

Aqua, Light Green, Light Aqua

(F-Skirt) (Arc)W<sup>M</sup> BROOKFIELD/NEW YORK {Note Spelling} {MLOD} SB

Lime Green

(F-Skirt) (Arc)W<sup>M</sup> BROOKFIELD/NEW YORK SB

Aqua

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SB

Aqua

**NATIONAL**

(Base) NATIONAL INSULATOR CO./PAT.JAN.1. & OCT.7. 1884

Light Aqua, Lime Green, Aqua

**NEW ENGLAND TEL**

(Dome) [Number] (F-Skirt) (Arc)NEW ENG. TEL & TEL/C.O {Note placement of periods in the center of the embossing} SB

Aqua

(Dome) [Number] (F-Skirt) (Arc)NEW ENG.TEL & TEL./CO. SB

Aqua, Ice Blue, Purple, Green, Olive Green, Lime Green, Yellow Green

(F-Skirt) (Arc)NEW ENG.TEL & TEL./CO. SB

Aqua, Light Green

(F-Skirt) (Arc)NEW ENG.TEL & TEL./CO. (R-Crown) [Number] {MLOD} SB

Aqua

(F-Skirt) (Arc)NEW ENG.TEL & TEL./CO. (R-Skirt) ['(Arc)NEW ENG.TEL & TEL./CO.' Blotted out] SB

Light Aqua

(F-Skirt) (Arc)NEW ENG.TEL & TEL./CO. (R-Skirt)

[Blotted out embossing in an oval slug] SB

Blue



**CD 104 Variations**

*(Left to right) No Name - Pennycuick style;  
 No Name - blotted out embossing;  
 No Name - PATENT/DEC. 19-1871*

(F-Skirt) (Arc)NEW ENG.TEL & TEL./CO. (R-Skirt)  
 [Oval Slug] (Base) NATIONAL INSULATOR CO./  
 PAT.JAN 1.& OCT.7.1884  
 Light Blue Aqua, Light Green

(F-Skirt) (Arc)NEW ENG.TEL & TEL./CO. {'N's are  
 backwards} SB  
 Aqua, Ice Blue

**NO NAME**

(F-Skirt) [Blotted out Embossing - 6 Blots] SB  
 Aqua

[No Embossing] SB  
 Aqua, Light Milky Aqua, Light Blue, Teal Blue, Dark  
 Aqua

[No Embossing] {Pennycuick Style} CD  
 Light Aqua, Aqua

[No Embossing] {Pennycuick style} SB  
 Light Aqua, Dark Aqua, Dark Yellow Green, Aqua, Blue  
 Aqua, Dark Green

**NO NAME-DEC PAT**

(F-Crown) PATENT/DEC. 19-1871 (R-Crown) 4 SB  
 Light Aqua, Off Clear, Aqua, Light Purple, Green Aqua

**STANDARD GLASS**

(Base) THE STANDARD GLASS INSULATOR CO./  
 BOSTON MASS.  
 Light Aqua

**STAR**

(F-Skirt) [Star] SB  
 Light Aqua, Blue



**CD 105**

**CD 105**

**AMERICAN**

(Base) AM INS CO./PAT SEP 13 1881  
 Light Aqua, Blue Aqua, Aqua, Light Blue Aqua

(Base) AM.INS.CO. PAT.SEPT. 13. 81  
 Light Green Aqua, Light Green, Green Aqua

(Base) AM.INS.CO./PAT.SEP.13 1881 {Lines and Dots  
 over Dome}  
 Aqua, Light Aqua, Green

(Base) AM.INS.CO./PAT.SEP.13 1881 {Lines over  
 Dome}  
 Aqua, Light Aqua, Blue Aqua

**NO NAME**

[No Embossing] SB  
 Aqua, Ice Blue, Blue Aqua





**CD 106**

**CD 106**

**AM.TEL.& TEL.**

(F-Skirt) AM.TEL.& TEL.CO. SDP  
Aqua

**AYALA**

(F-Skirt) R.AYALA.L {Embossed in a concave rectangle} RDP  
Light Green

(F-Skirt) R.AYALA.L {Embossed in a concave rectangle} SDP  
Light Green, Dark Honey Amber

**BIRMINGHAM**

(F-Skirt) BIRMINGHAM (R-Skirt) NO.10 SDP  
Straw

(F-Skirt) BIRMINGHAM (R-Skirt) [Number]/NO.10 SDP  
Straw

**CIA COMERCIAL**

(F-Skirt) *Cia Comercial/Ericsson, S.A* RDP  
Off Clear, Light Green, Ice Green

(F-Skirt) *Cia Comercial/Ericsson, S.A.* SDP  
Aqua, Light Aqua, Light Green, Green, Celery Green,  
Dark Cornflower Blue

(F-Skirt) *Cia Comercial/Ericsson, S.A.* (R-Skirt) [Blotted out Embossing] SDP  
Light Green, Dark Cornflower Blue

**CID COMMERCIAL**

(F-Skirt) CID COMMERCIAL GRIPPON S.H. SDP  
Aqua, Green, Amber

**DIAMOND**

(F-Skirt) [Diamond] SDP  
Pink, Peach

(F-Skirt) [Diamond] (R-Skirt) [Diamond] RDP  
Pink, Straw, Clear

(F-Skirt) [Vertical Diamond] (R-Skirt) [Vertical Diamond] SDP  
Straw, Pink

**ERICSSON**

(F-Skirt) ERICSSON RDP  
Clear

(F-Skirt) ERICSSON (R-Skirt) TELEFONOS RDP  
Blue, Cornflower Blue

(F-Skirt) ERICSSON (R-Skirt) TELEFONOS SDP  
Aqua, Root Beer Amber

(F-Skirt) ERICSSON (R-Skirt) ['M' and 'V' in a circle] RDP  
Pink Tint

(F-Skirt) ERICSSON (R-Skirt) ['M' and 'V' in a circle] SDP  
Light Pink, Clear

**GAYNER**

(F-Skirt) GAYNER (R-Skirt) NO.90 SDP  
Aqua, Green

(F-Skirt) GAYNER (R-Skirt) NO.90/[Number] SB  
Aqua

(F-Skirt) GAYNER (R-Skirt) NO.90/[Number] SDP  
Light Aqua

(F-Skirt) GAYNER (R-Skirt) NO.91/[Number] {Note 'NO.91'} SDP  
Aqua

**GOOD**

(F-Skirt) GOOD SB  
Aqua, Light Purple

**HEMINGRAY**

(F-Skirt) HEMINGRAY/MADE IN U.S.A. {Note Spelling}

(R-Skirt) N° 9 SDP

Aqua

(F-Skirt) HEMINGRAY SB

Aqua

(F-Skirt) HEMINGRAY SDP

Aqua, Blue Aqua, Hemingray Blue, Dark Aqua

(F-Skirt) HEMINGRAY (R-Skirt) N° 9 SB

Aqua

(F-Skirt) HEMINGRAY (R-Skirt) N° 9 SDP

Aqua, Green, Yellow Green, Blue

(F-Skirt) HEMINGRAY-9 SDP

Aqua

(F-Skirt) HEMINGRAY-9 (R-Skirt) MADE IN U.S.A.

RDP

Green, 7-up Green, Half Clear/Half Aqua, Clear, Aqua, Light Apple Green, Ice Blue, Blue, Light 7-up Green, Hemingray Blue

(F-Skirt) HEMINGRAY-9 (R-Skirt) MADE IN U.S.A.

SDP

Blue Aqua, Light Hemingray Blue

(F-Skirt) HEMINGRAY-9 (R-Skirt) MADE IN U.S.A./

[Numbers] RDP

Ice Blue, Clear

(F-Skirt) HEMINGRAY-9 (R-Skirt) MADE IN U.S.A./

[Numbers and Dots] {Note Spelling} RDP

Clear

(F-Skirt) HEMINGRAY-9 {'N' is backwards} (R-Skirt)

MADE IN U.S.A. {'N' is backwards} RDP

Aqua, Light Hemingray Blue

(F-Skirt) HEMINGRAY-9 {'N' is backwards} (R-Skirt)

MADE IN U.S.A. {'N' is backwards} SDP

Aqua, Light Hemingray Blue

(F-Skirt) HEMINGRAY-9/[Number] (R-Skirt) MADE IN

U.S.A. RDP

Ice Blue

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N° 9

SDP

Aqua, Light Blue

(F-Skirt) HEMINGRAY/N° 9 (R-Skirt) PATENT/MAY 2

1893 SB

Blue, Aqua

(F-Skirt) HEMINGRAY/N° 9 (R-Skirt) PATENT/MAY 2  
1893 SDP

Blue Milk, Jade Green Milk, Milky Gray, Jade Blue  
Milk, Aqua, Lime Green, Purple, Gray Purple, Hemin-  
gray Blue, Light Blue

(F-Skirt) HEMINGRAY/N° 9 (R-Skirt) PATENT/MAY 2  
1893/[Blotted out Embossing] SDP

Jade Green Milk

(F-Skirt) HEMINGRAY/N° 9 (R-Skirt) PATENTE/MAY  
2 1893 {Note Spelling} SDP

Aqua

(F-Skirt) HEMINGRAY/N° 9 (R-Skirt) PATENTED  
SDP

Aqua

(F-Skirt) HEMINGRAY/N° 9 (R-Skirt) PATENTED/  
MAY 2 1893 SDP

Aqua

(F-Skirt) HEMINGRAY/N° 9 {'N' in Hemingray is  
backwards} (R-Skirt) PATENT/MAY 2 1893 SDP

Aqua

(F-Skirt) HEMINGRAY/N° 9/{Blotted out Embossing}  
(R-Skirt) PATENT/MAY 2 1893 SDP

Aqua, Jade Green Milk

(F-Skirt) HEMINGRAY/[Numbers and Dots] (R-Skirt)  
MADE IN U.S.A./[Numbers] RDP

Clear

**LYNCHBURG**

(F-Skirt) LYNCHBURG (R-Skirt) [Number]/NO.10/  
MADE IN/U.S.A. SDP

Aqua, Green, Yellow Green

(F-Skirt) LYNCHBURG/['L' in an oval] (R-Skirt)

NO.10/MADE IN [Number]/U.S.A. {Number may appear  
in any number of positions to the right of the other  
embossing} SDP

Light Aqua, Green, Light Green

(F-Skirt) LYNCHBURG/['L' in an oval] (R-Skirt)  
NO.10/MADE IN/U.S.A. SDP

Aqua, Dark Green, Light Green, Light Aqua

(F-Skirt) LYNCHBURG/['L' in an oval] [Number] (R-  
Skirt) NO.10/MADE IN/U.S.A. SDP

Light Aqua, Green, Yellow Green

(F-Skirt) LYNCHBURG/['L' in an oval] [Number] (R-  
Skirt) NO.10/MADE IN/[Number] U.S.A. SDP

Light Aqua



(F-Skirt) LYNCHBURG/['L' in an oval] {'G' is backwards} (R-Skirt) NO.10/MADE IN/U.S.A. {'S' is backwards} SDP  
Aqua, Green

(F-Skirt) LYNCHBURG/[Blotted out Embossing]/['L' in an oval] (R-Skirt) NO.10/[Blotted out Embossing]/MADE IN/U.S.A. SDP  
Light Aqua, Light Green

(F-Skirt) ['L' in an oval] (R-Skirt) NO.10/MADE IN/U.S.A. RDP  
Aqua

(F-Skirt) ['L' in an oval] (R-Skirt) NO.10/MADE IN/['U.S.A.' Blotted out]/['LYNCHBURG' Blotted out] RDP  
Straw

(F-Skirt) ['L' in an oval] (R-Skirt) [Number]/NO.10/MADE IN/ A. {'U.S.' Missing} RDP  
Deep Straw

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt) NO.10/MADE IN/U.S.A. SDP  
Light Blue Aqua, Aqua, Light Green

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt) No.10/[Number]/MADE IN/U.S.A. {'S' is backwards} SDP  
Green, Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt) [Number]/NO.10/MADE IN {No 'U.S.A.'} RDP  
Straw, Clear, Pink Tint

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt) [Number]/NO.10/MADE IN {No 'U.S.A.'} SDP  
Straw

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt) [Number]/NO.10/MADE IN/U.S.A. SDP  
Aqua, Green Aqua, Yellow Green

#### MAYDWELL

(F-Skirt) MAYDWELL-9 (R-Skirt) U.S.A. SDP  
Clear, Straw, Pink, Purple, Light Green, Gray, Light Purple, Steel Green, Gingerale

(F-Skirt) MAYDWELL-9 (R-Skirt) U.S.A./['MCLAUGHLIN' Blotted out] SDP  
Light Smoke, Light Green, Ice Green, Light Straw

(F-Skirt) MAYDWELL-9/['U.S.A.' Blotted out] (R-SKIRT) U.S.A./['MCLAUGHLIN-9' Blotted out] SDP  
Light Yellow Green, Light Green, Light Straw

#### MCLAUGHLIN

(F-Skirt) MCLAUGHLIN N° 9 SB  
Ice Blue, Steel Blue, Light Gray, Light Green, Light Aqua, Smoke

(F-Skirt) MCLAUGHLIN N° 9 FDP  
Light Blue, Light Green, Dark Green, Yellow Green, 7-up Green, Aqua

(F-Skirt) MCLAUGHLIN N° 9 RDP  
Gingerale, Light Blue, Light Green, Green, Aqua, Apple Green, Steel Blue

(F-Skirt) MCLAUGHLIN N° 9 SDP  
Blue Aqua, Light Green, Light Sage, Light Blue

(F-Skirt) MCLAUGHLIN N° 9 (R-Skirt) U.S.A. FDP  
Light Green, Lime Green, Emerald Green, Aqua, Gingerale, Amber Blackglass, Light Blue, Green Blackglass, Dark Green

(F-Skirt) MCLAUGHLIN N° 9 (R-Skirt) U.S.A. RDP  
Light Green, Emerald Green, Straw, Aqua, Light Green Aqua, Light Yellow Green, Ice Green, Green, Light Blue, Delft Blue

(F-Skirt) MCLAUGHLIN N° 9 (R-Skirt) U.S.A. SDP  
Light Blue, Light Green, Light Straw, Light Apple Green, Light Green Aqua

#### NO NAME

(F-Skirt) 7 (R-Skirt) 7 SB  
Aqua, Green

(F-Skirt) NO.9 SB  
Blue, Light Aqua

(F-Skirt) NO.9/[Number] SB  
Blue

(F-Skirt) NO.90/[Number] SB  
Aqua

(F-Skirt) NO.90/[Number] SDP  
Aqua

(F-Skirt) PATENT/MAY 2 1893 SDP  
Aqua

(F-Skirt) [Vertical Bar] (R-Skirt) [Vertical Bar] SB  
Green, Light Green

#### NO NAME-MEXICO

(Dome) ['M' and 'V' entwined in a triangle] (F-Skirt) ['M' and 'V' entwined in a triangle] RDP  
Light Green

(F-Skirt) ['M' and 'V' entwined in a triangle] RDP  
Light Green

[Blotted out Embossing] RDP  
Green

[Blotted out Embossing] SDP  
Blue, Sage Green, Straw

**O.V.G.**

(F-Skirt) O.V.G.CO. SB  
Light Blue, Light Green, Aqua, Green w/Amber Swirls,  
Blue, Light Blue, Light Aqua

**P.S.S.A.**

(F-Skirt) ['VB' in a chevron]/PSSA #9 SB  
Light Blue Gray, Straw

(F-Skirt) ['VB' in a chevron]/PSSA #9 RDP  
Yellow Green, Ice Blue, Light Sage Green, Light Green,  
Green, Straw

**STAR**

(F-Skirt) [Star] SB  
Aqua, Dark Green, Light Blue, Lime Green, Olive Green,  
Dark Aqua, Yellow Green, Green, Light Green, Blue  
Aqua, Light Aqua

**V.B.**

(F-Skirt) V.B. SB  
Aqua

**W.F.G.**

(F-Skirt) W.F.G.CO./DENVER, COLO. SB  
Light Aqua, Light Green, Clear, Ice Aqua

**W.G.M.**

(F-Skirt) W.G.M.Co. SB  
Royal Purple, Purple, Light Purple, Straw, Peach,  
Burgundy, Light Green



**CD 106.1**

**CD 106.1**

**DUQUESNE**

(Dome) [Number] (F-Skirt) DUQUESNE (R-Skirt)  
GLASS CO. SB  
Cornflower Blue, Blue Aqua, Light Aqua

(Dome) [Number] (F-Skirt) DUQUESNE/G.CO. (R-  
Skirt)DUQUESNE/G.CO. SB  
Aqua, Cornflower Blue

(F-Skirt) DUQUESNE./GLASS.CO. (R-Skirt)  
DUQUESNE./G.CO. SB  
Cornflower Blue

(F-Skirt) DUQUESNE (R-Skirt) GLASS CO. {No ribs  
under wire groove} SB  
Cornflower Blue





**CD 106.2**

**CD 106.2**

**P.S.S.A.**

(F-Skirt) P S S A #9 SB

Ice Blue, Off Clear, Gray, Yellow Green, Yellow, Light Aqua

(F-Skirt) ['VB' in a chevron]/P S S A #9 SB

Ice Green



**CD 106.3**

**CD 106.3**

**DUQUESNE**

(Dome) [Number] (F-Skirt) DUQUESNE. (R-Skirt) GLASS. CO. SB

Aqua, Dark Aqua, Light Blue, Cornflower Blue

(Dome) [Number] (F-Skirt) DUQUESNE./GLASS CO. (R-Skirt) DUQUESNE./G.CO. SB

Aqua, Light Green

(F-Skirt) DUQUESNE. (R-Skirt) GLASS.CO. SB

Aqua

(F-Skirt) DUQUESNE./G.CO. (R-Skirt) DUQUESNE./G.CO. SB

Aqua, Light Green, Light Blue

(F-Skirt) DUQUESNE./GLASS.CO. (R-Skirt)

DUQUESNE./G.CO. SB

Light Green, Sky Blue, Aqua

**NO NAME**

[No Embossing] SB

Aqua, Light Aqua, Cornflower Blue



**CD 106.4**

**CD 106.4**

**NO NAME-MEXICO**

[No Embossing] SDP

Light Green, Aqua, Straw



**CD 106.5**

**CD 106.5**

**TEXCOCO**

(F-Skirt) CRISOL/['TC' entwined in a triangle]/TEX-COCO (R-Skirt) N<sup>o</sup> 9 SDP  
Green, Yellow Green, Green Aqua, Dark Green



**CD 107**

**CD 107**

**ARMSTRONG**

(F-Skirt) Ⓐ Armstrong No.9 (R-Skirt) MADE IN U.S.A.  
[Numbers and Dots] SB  
Clear

(F-Skirt) *Armstron'g* No.9 (R-Skirt) MADE IN U.S.A.  
['A' in a circle] [Numbers and Dots] {Note location of  
apostrophe} SB  
Clear

(F-Skirt) *Armstrong's* No.9 (R-Skirt) MADE IN U.S.A.  
['A' in a circle] [Numbers and Dots] SB  
Clear

**CRISA**

(F-Skirt) CRISA (R-Skirt) [Logo] 9 SB  
Clear

**HEMINGRAY**

(F-Skirt) HEMINGRAY-9 (R-Skirt) MADE IN U.S.A./  
[Numbers and Dots] CB  
Clear

(F-Skirt) HEMINGRAY-9 (R-Skirt) MADE IN U.S.A./  
[Numbers and Dots] SB  
Clear



**CD 106.5 Variations**

*On the left is the flat dome style which is compared to the tall dome style on the right. Aside from the variation in dome heights, all other dimensions are the same. The tall dome style seems to be more readily available.*



**P.S.S.A.**

(F-Skirt) P S S A N° 9 SB  
Aqua, Sage Green, Light Yellow Green, Light Olive  
Green, Light Green

**WHITALL TATUM**

(F-Skirt) (Arc)WHITALL TATUM/No.9 (R-Skirt)  
(Arc)MADE IN U.S.A./[Numbers]/['A' in a circle]/  
[Number] SB  
Clear, Light Olive

(F-Skirt) WHITALL TATUM CO. No.9/[Number] (R-  
Skirt) MADE IN U.S.A./['W/T' in a triangle] SB  
Ice Aqua, Clear, Straw

(F-Skirt) WHITALL TATUM No.9/[Number] (R-Skirt)  
MADE IN U.S.A. ['W/T' in a triangle]/[Number] SB  
Clear



**CD 107.2**

**CD 107.2**

**NO NAME-MEXICO**

[No Embossing] SB  
Light Straw, Clear



**CD 108**

**CD 108**

**DIAMOND**

(F-Skirt) [Diamond] RDP  
Straw

**DOMINION**

(F-Skirt) DOMINION-9 (R-Skirt) ['D' in a diamond]/  
[Number] RDP  
Straw

(F-Skirt) DOMINION-9 (R-Skirt) [Diamond] RDP  
Straw, Light Green, Clear

(F-Skirt) DOMINION-9 (R-Skirt) [Dots]/[Diamond] SDP  
Straw

(F-Skirt) DOMINION-9 (R-Skirt) [Number] ['D' in a  
diamond]/[Number] SB  
Clear, Straw

(F-Skirt) DOMINION-9 (R-Skirt) [Number] ['D' in a  
diamond]/[Number] SDP  
Clear, Straw, Peach, Light Green

**WHITALL TATUM**

(F-Skirt) No.9/WHITALL TATUM CO. (R-Skirt) MADE  
IN U.S.A./[Number] SB  
Aqua, Light Purple, Light Straw

(R-Skirt) WHITALL TATUM CO. No.9/[Number] (R-  
Skirt) MADE IN U.S.A. ['W/T' in a triangle] SB  
Light Aqua, Peach, Straw, Pink



CD 109

CD 109

**CHICAGO**

(Base) CHICAGO INSULATING CO./PAT.OCT.16, 1883.

Aqua, Milky Aqua

The **Fiske and Mott** patent of October 16, 1883 covers the design of **CD 109**. (See Insulators of the Mid-West -- Chicago and Its Insulators chapter)



CD 109.5

CD 109.5

**HARLOE**

(F-Skirt) HARLOE'S PATENT/MAR 21. '99/MAR 12. '01/DEC 9. '02/P.I. SB

Aqua

(F-Skirt) HARLOE'S PATENT/MAR 21.'99/MAR 12.'01/DEC 9.'02/12PI (R-Skirt) ['HICo' Entwined Initials]/HAWLEY PA./U.S.A. SB

Light Aqua

(See Pennsylvania Manufacturers - Harloe Insulator Company for patent information)



CD 109.7

CD 109.7

**JOHNSON & WATSON**

(F-Skirt) JOHNSON & WATSON/PAT'D SB

Aqua

On May 26, 1908 **Chauncey C. Johnson** of Scranton, Pennsylvania, assigned forty-five one-hundredths of his patent design to **John A. Watson**, of Pittston, Pennsylvania. Their patent claimed "a novel form of insulator that is so mounted and arranged as to firmly grip and hold the wire in case the latter becomes broken between any two insulators, so that the wire will not pull loose and sag, so as to bring it into contact with the lower wires, and render restretching and repair difficult."



CD 109.7 appears to be similar in design to the Harloe patent insulators. Instead of having the Harloe three "fingers" design with one finger facing in one direction and positioned between two fingers facing in the opposite direction, the Johnson and Watson patent has only two "fingers". Both fingers face in the same direction with one being a little taller and pointed in shape which forces the line wire to wedge between the fingers upon installation. This was designed to keep the line wire from popping out of position. The 1908 patent covered only the exterior design of this insulator.

On September 14, 1908 application was made for Patent No. 913,212. It was granted on February 23, 1909 and provided for a molding plunger which formed longitudinal grooves within the pinhole. The threading resembles the segmented threads of many of the Boston area manufactured styles.

To date, there is only one known specimen of the **Johnson and Watson** patent.

"With the **Barclay** improved insulator the spiral groove on the outer surface is so threaded that when unscrewed from its pin the tie holding the wire is also unscrewed or removed from the insulator. The reverse operation screws the insulator on the pin, and at the same time puts the tie wire back on its original position on the insulator. The object of this insulator is to save labor and expense on renewing glass when broken or otherwise *defective and in the transfer of wire.*" So wrote the *Electrical Review and Western Electrician* on May 29, 1909. Pictured were Fig. 2 (the "Western Union" double-petticoat pattern -- **CD 147**), Fig. 3 (the pony pattern - **CD 110**), and Fig. 4 (the deep-groove, double-petticoat pattern -- **CD 150**)

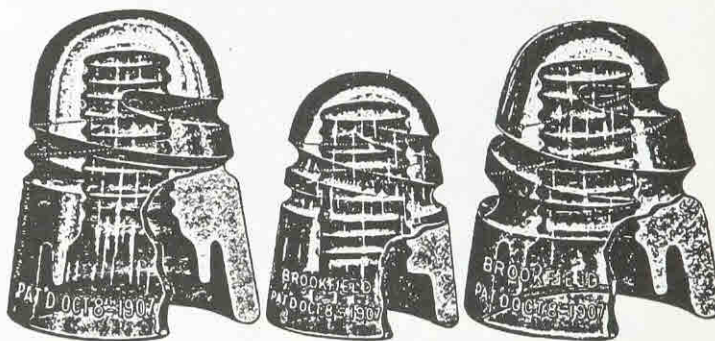


FIG. 2. FIG. 3. FIG. 4.  
BROOKFIELD GLASS INSULATORS.



Side view of CD 109.7

The segmented threading of the pinhole is clearly visible.



CD 110

CD 110

BROOKFIELD  
(F-Skirt) BROOKFIELD/PAT.OCT. 8- 1907 SB  
Aqua, Green, Yellow Green



**CD 110.5**

**CD 110.5**

**NATIONAL**

(Base) + NAT.INSUL.CO./PAT.MAY 1. DEC.25.1883.  
 JAN.1. OCT.7.1884 {Segmented threads}  
 Light Aqua

(Base) +NAT.INSUL.CO./PAT.MAY.1.DEC.25.1883  
 JAN.1 OCT.7.1884  
 Aqua, Light Green

(Base) +NAT.INSULATOR CO./  
 PAT.MAY.1.DEC.25.1883 JAN.1.OCT.7.1884.  
 Light Aqua

**NEW ENGLAND TEL**

(F-Skirt) (Arc)NEW ENG.TEL & TEL/CO (Base)  
 +NAT.INSULATOR CO./PAT.MAY.1.DEC.25.1883  
 JAN.1.OCT.7.1884.  
 Light Aqua

(F-Skirt) NEW ENG TEL./&/TEL.CO. (Base)  
 +NAT.INSUALTOR CO./PAT.MAY 1.DEC.25.1883  
 JAN.1.OCT.7.1884.  
 Light Aqua

(F-Skirt) NEW ENG TEL/&/TEL.CO. (Base)  
 +NAT.INSUL.CO./PAT.MAY 1.DEC.25.1883.  
 JAN.1.OCT.7.1884 {Segmented threads}  
 Light Aqua, Light Green



**CD 110.6**

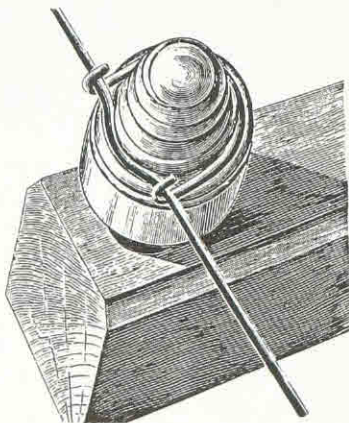
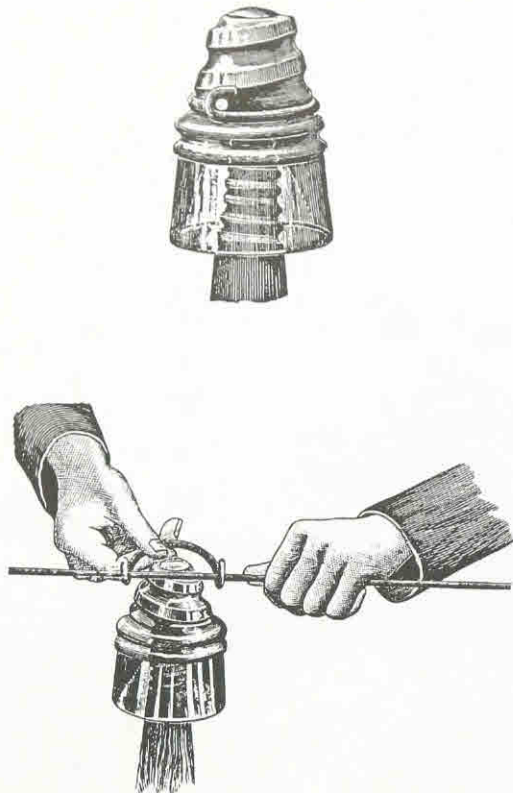
**CD 110.6**

**NATIONAL**

(Base) NATIONAL INSULATOR CO./PAT.MAY 1.  
 DEC.25.1883 JAN.1. OCT.7.1884  
 Aqua, Green Aqua, Light Green, Light Aqua

Both the **CD 110.5** and **CD 110.6** are designs based upon a patent issued to **Joseph S. Lewis** on May 1, 1883 and another patent issued to **Frank L. Pope** on December 25, 1883. (See New England Manufacturers -- American Iron Glass Pipe and Plate Company chapter for patent information)





CD 111

CD 111

PYREX  
(F-Skirt) PYREX  
Clear

The only known specimen of **CD 111** resides in the Lyons Historical Museum in Lyons, Colorado. The insulator was donated to the museum by its owner, Al Campbell, at the time of his death. A group of collectors traveled to the museum to provide us with a photograph.

(Photograph courtesy of Don and Dan Reinke, Mike Miller, Dennis McHenry and Dan Wagner)

*Illustration of the "self-binding" insulators as found in a pamphlet of the Brookfield Glass Company. There was no date on the publication, but the use of "National Insulator Company" dates it no earlier than 1886. (Courtesy of David Dale)*



**CD 112**

**CD 112**

**B**

(Dome) [Number] (F-Center between wire grooves) B SB  
Light Aqua

(Dome) [Number] (F-Skirt) B SB  
Aqua

(Dome) [Number] (F-Skirt) B SDP  
Aqua, Dark Aqua

(F-Center between wire grooves) B SB  
Light Aqua, Light Green

(F-Skirt) B SB  
Light Aqua

**BROOKFIELD**

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD SB  
Aqua, Light Aqua, Green, Olive Green

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD  
SDP  
Aqua, Green, Yellow Green, Green Aqua

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD (R-  
Skirt) NEW YORK SB  
Light Aqua, Light Blue, Light Green

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD (R-  
Skirt) NEW YORK SDP  
Olive Amber

(F-Center between wire grooves) B (F-Skirt)  
BROOKFIELD (R-Skirt) NEW YORK SB  
Aqua, Ice Blue

(F-Skirt) BROOKFIELD (R-Skirt) N° 31 SB  
Aqua, Light Aqua

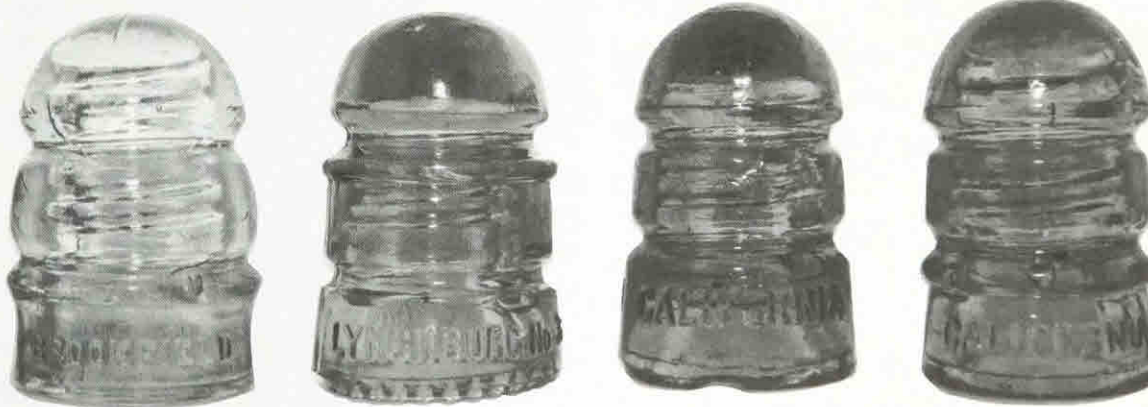
**CALIFORNIA**

(F-Skirt) CALIFORNIA SB  
Smoke, Light Purple, Light Green, Clear, Blue (Style  
Variant), Aqua

**HAWLEY**

(F-Skirt) ['HICo' Entwined Initials] (R-Skirt) HAWLEY.  
PA. U.S.A. SB  
Aqua

(F-Skirt) ['HICo' Entwined Initials]/['STERLING'  
Blotted out] (R-Skirt) HAWLEY, PA. U.S.A. SB  
Aqua, Light Green Aqua



**CD 112 Variations**

(Left to right) *BROOKFIELD* (Fat style; compare to Brookfield pictured for CD 112);  
*LYNCHBURG*; and two different styles of the *CALIFORNIA* CD 112)



(F-Skirt) ['HICo' Entwined Initials]/['STERLING'  
Blotted out] (R-Skirt) HAWLEY, PA. U.S.A./['Pound  
Sign' Blotted out] SB  
Light Green

### LYNCHBURG

(Dome) [Letter or Number] (F-Skirt) LYNCHBURG  
No.31 (R-Skirt) ['L' in an oval] [Number] MADE IN/  
U.S.A. RDP  
Green, Emerald Green, Straw, Apple Green, Yellow  
Green, Clear

(Dome) [Letter or Number] (F-Skirt) LYNCHBURG  
No.31 (R-Skirt) ['L' in an oval] [Number] MADE IN/  
U.S.A. SDP  
Aqua, Green, Light Green Aqua, Sage Green

(F-Skirt) LYNCHBURG No.31 (R-Skirt) ['L' in an oval]  
[Number] MADE IN/U.S.A. RDP  
Pink

(F-Skirt) LYNCHBURG No.31 (R-Skirt) ['L' in an oval]  
[Number] MADE IN/U.S.A. SDP  
Aqua, Yellow Green

### NEW ENGLAND TEL

(F-Skirt) NEW ENG (R-Skirt) TEL & TEL CO.  
{MLOD} SB  
Light Aqua

(F-Skirt) NEW ENG (R-Skirt) TEL & TEL.Co. SB  
Aqua, Green

### NO NAME

[No Embossing] {Unembossed S.B.T.& T.} CD  
Aqua, Olive Green, Green

### O.V.G.

(F-Skirt) #11 O.V.G.CO. SB  
Light Aqua, Green, Light Purple, Green Aqua, Blue

### S.B.T.&T.

(F-Center between wire grooves) S.B.T.& T.CO. SB  
Ice Blue, Green, Off Clear, Ice Green, Dark Aqua

(F-Skirt) S.B.T.& T.Co. CD  
Aqua, Ice Blue, Green, Light Aqua, Off Clear, Light  
Green, Forest Green

### S.F.

(F-Skirt) S.F. SB  
Aqua

### STAR

(F-Skirt) [Star] SB  
Aqua, Lime Green, Olive Green, Olive Amber, Green,  
Yellow Green, Apple Green, Light Blue, Light Aqua,  
Yellow Olive, Light Gray Lavendar

(F-Skirt) [Star] (R-Skirt) [Star] SB  
Dark Aqua, Lime Green, Olive Green, Light Yellow  
Green, Aqua, Light Blue, Green

### STERLING

(F-Skirt) STERLING (R-Skirt) [Pound Sign] SB  
Light Aqua



CD 112.4

### CD 112.4

### DIAMOND

(F-Skirt) [Vertical Bar]/[Diamond] (R-Skirt) [Vertical  
Bar]/[Diamond] SB  
Aqua, Light Blue, Olive Blackglass

### HEMINGRAY

(F-Skirt) HEMINGRAY/N° 8 SB  
Aqua, Light Blue, Light Green, Off Clear, Golden  
Amber, Light Purple, Blue

(F-Skirt) HEMINGRAY/N° 8/[Blotted out Embossing]  
SB  
Aqua



**CD 112.5**

**CD 112.5**

**NO NAME-CANADA**

(F-Skirt) [Vertical Bar] (R-Skirt) [Vertical Bar] SB  
Dark Olive Green

[No Embossing] SB  
Dark Olive Green



**CD 113**



**CD 113 Variations**

*WESTINGHOUSE/NO. 4 (left) and the newer style  
HEMINGRAY - 12 mold (right)*

**CD 113**

**ARMSTRONG**

(F-Skirt) *Armstrong's* No.13 (R-Skirt) MADE IN U.S.A.  
['A' in a circle] [Numbers and dots] SB  
Straw, Clear

**HEMINGRAY**

(F-Skirt) HEMINGRAY (R-Skirt) N° 12 SDP  
Aqua, Hemingray Blue, Green, Emerald Green, Dark  
Green, Dark Yellow Green

(F-Skirt) HEMINGRAY (R-Skirt) PATENTED SDP  
Aqua

(F-Skirt) HEMINGRAY-12 (R-Skirt) MADE IN U.S.A.  
RDP  
Aqua, Light Hemingray Blue, Clear, Hemingray Blue

(F-Skirt) HEMINGRAY-12 (R-Skirt) MADE IN U.S.A.  
SDP  
Aqua, Green, Emerald Green, Light Blue, Hemingray  
Blue

(F-Skirt) HEMINGRAY-12 (R-Skirt) MADE IN U.S.A./  
[Number and Dots] RDP  
Clear, Hemingray Blue

(F-Skirt) HEMINGRAY-12 (R-Skirt) MADE IN U.S.A./  
[Number] {Mold variation has a larger lower wire ridge  
and tapers more from there to the lower wire groove}  
RDP  
Clear, Light Yellow

(F-Skirt) HEMINGRAY-12/[Number] (R-Skirt) MADE  
IN U.S.A./[Number] RDP  
Clear, Ice Blue



(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N° 12 SDP  
Aqua, Light Blue, Hemingray Blue

(F-Skirt) HEMINGRAY/N° 12 (R-Skirt) PATENT/MAY 2 1893 {'E' is backwards} SDP  
Aqua

(F-Skirt) HEMINGRAY/N° 12 (R-Skirt) PATENT/MAY 2, 1893 SDP  
Aqua, Hemingray Blue, Sage Green, Emerald Green, Jade Green Milk, Purple, Light Gray Purple, Light Aqua, Jade Blue Milk, Pink

(F-Skirt) HEMINGRAY/N° 12 (R-Skirt) PATENTED SDP Aqua

(F-Skirt) HEMINGRAY/N° 9 [Note 'N° 9'] (R-Skirt) PATENT/MAY 2 1893 RDP  
Aqua

#### NO NAME-CANADA

(F-Skirt) [Dots] (R-Skirt) [Dots] {Several variations that appear like braille} SDP  
Royal Purple, Milky Purple

#### STAR

(F-Skirt) [Star] SB  
Aqua, Lime Green, Yellow Green, Olive Green, Green, Light Blue, Blue Aqua

#### WESTINGHOUSE

(F-Skirt) WESTINGHOUSE/NO.4 SB  
Off Clear, Light Green, Brooke's Blue

#### WHITALL TATUM

(F-Skirt) WHITALL TATUM CO. No.13/[Number] (R-Skirt) MADE IN U.S.A. ['W/T' in a triangle] SB  
Clear, Light Straw

(F-Skirt) WHITALL TATUM No.13/[Number] (R-Skirt) MADE IN U.S.A. ['A' in a circle]/[Numbers and Dots] SB Clear

(F-Skirt) WHITALL TATUM No.13/[Number] (R-Skirt) MADE IN U.S.A. ['W/T' in a triangle] SB  
Clear

#### CD 113.2

#### DUQUESNE

(F-Skirt) DUQUESNE (R-Skirt) GLASS.CO. SB  
Aqua, Blue

(F-Skirt) DUQUSNE {Note Spelling} (R-Skirt) GLASS.CO. SB  
Blue Aqua, Cornflower Blue



CD 113.2



CD 114

#### CD 114

#### HEMINGRAY

(F-Skirt) HEMINGRAY/N° 11 (R-Skirt) PATENT MAY 2 1893 SDP  
Aqua, Off Clear, Ice Blue, Red Amber, Light Aqua, Green Aqua, Bubbly Jade Aqua, Jade Blue Milk



**CD 114.2**

**CD 114.2**

**STANDARD GLASS**

(Base) THE STANDARD GLASS INSULATOR CO./  
BOSTON MASS.

Light Aqua, Blue Aqua



**CD 115**

**CD 115**

**ARMSTRONG**

(F-Skirt) (A)rmstrong No.3 ['A' in a circle] (R-Skirt)  
MADE IN U.S.A. [Number and Dots] SB  
Clear, Off Clear

(F-Skirt) *Armstrong's* No.3 (R-Skirt) MADE IN U.S.A.  
['A' in a circle] [Numbers and Dots] SB  
Clear

**BROOKFIELD**

(Dome) [Number] (F-Skirt) BROOKFIELD SB  
Aqua, Green

(F-Skirt) BROOKFIELD SB  
Olive Green, Aqua, Green, Yellow Green, Green Aqua

(F-Skirt) BROOKFIELD SDP  
Aqua, Green

**DIAMOND**

(F-Skirt) [Diamond] (R-Skirt) [Diamond] SB  
Straw, Light Aqua, Aqua, Light Green, Ice Blue, Blue

**DOMINION**

(F-Skirt) DOMINION-10 (R-Skirt) [Diamond] RDP  
Clear, Straw, Light Green

**HEMINGRAY**

(F-Skirt) HEMINGRAY (R-Skirt) N° 10 SDP  
Aqua, Green, Light Aqua, Blue

(F-Skirt) HEMINGRAY (R-Skirt) PATENTED SDP  
Hemingray Blue

(F-Skirt) HEMINGRAY (R-Skirt) PATENTED/MAY 2  
1893 SDP  
Aqua, Green

(F-Skirt) HEMINGRAY-10 (R-Skirt) MADE IN U.S.A.  
RDP  
Clear, Ice Green, Aqua, Hemingray Blue, Green Aqua

(F-Skirt) HEMINGRAY-10 (R-Skirt) MADE IN U.S.A./  
[Number] CB  
Clear, Pink Tint

(F-Skirt) HEMINGRAY-10 (R-Skirt) MADE IN U.S.A./  
[Number] SB  
Clear

(F-Skirt) HEMINGRAY-10 (R-Skirt) [Numbers] SB  
Clear



(F-Skirt) HEMINGRAY-10/[Number] (R-Skirt) MADE IN U.S.A. RDP  
Ice Blue

(F-Skirt) HEMINGRAY-10/[Number] (R-Skirt) MADE IN U.S.A./[Numbers] RDP  
Clear

(F-Skirt) HEMINGRAY-16 {Note '16'} (R-Skirt) MADE IN U.S.A./[Number] SB  
Clear

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N° 10 SDP  
Aqua

#### MAYDWELL

(F-Skirt) MAYDWELL-10 (R-Skirt) U.S.A. RDP  
Clear, Off Clear, Peach, Straw, Light Green, Gingerale

(F-Skirt) MAYDWELL-10 (R-Skirt) U.S.A. SDP  
Peach, Straw, Smoke

(F-Skirt) MAYDWELL-10 (R-Skirt) U.S.A./  
['M<sup>c</sup>LAUGHLIN' Blotted out] RDP  
Straw

#### M<sup>c</sup>LAUGHLIN

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) N° 10 SB  
Light Green, Sage Green

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) N° 10 FDP  
Light Green, Ice Blue, Sage Green, Aqua, Gingerale

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) N° 10 RDP  
Light Blue, Light Green, Light Aqua, Green, Bubbly  
Clear

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) N° 10 SDP  
Light Green

#### WHITALL TATUM

(F-Skirt) (Arc)WHITALL TATUM/No.3 (R-Skirt)  
(Arc)MADE IN U.S.A./[Numbers and Dots] ['A' in a  
circle] SB  
Clear, Light Straw

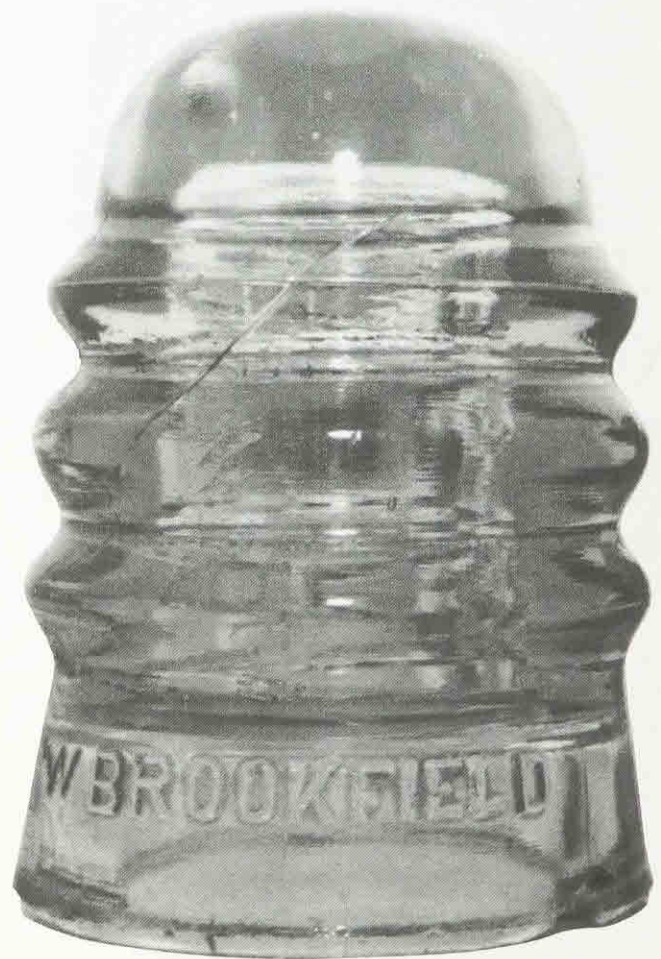
(F-Skirt) WHITALL TATUM CO. No.3 (R-Skirt)  
[Number] MADE IN U.S.A. SB  
Light Pink

(F-Skirt) WHITALL TATUM CO. No.3/[Number] (R-  
Skirt) MADE IN U.S.A. SB  
Clear, Peach, Light Aqua

(F-Skirt) WHITALL TATUM CO. No.3/[Number] (R-  
Skirt) MADE IN U.S.A. ['W/T' in a triangle] SB  
Clear, Off Clear, Light Aqua, Ice Blue, Light Peach,  
Amber (Fake), Olive, Straw

(F-Skirt) WHITALL TATUM CO. No.3/[Number] (R-  
Skirt) [Number] MADE IN U.S.A. SB  
Aqua, Light Blue

(F-Skirt) WHITALL TATUM No.3/[Number] (R-Skirt)  
MADE IN U.S.A. ['W/T' in a triangle] SB  
Clear, Straw Tint, Pink Tint, Light Aqua



**CD 116**

**CD 116**

#### A.U.

(F-Crown) PATENT/DEC. 19, 1871 (F-Skirt) ['A.U.'  
Blotted out] (R-Skirt) JULY 1<sup>ST</sup> 1882/PAT APPLIED  
FOR SB  
Aqua

#### BROOKFIELD

(F-Skirt) W. BROOKFIELD SB  
Aqua, Light Blue, Green, Light Aqua, Dark Green



**CD 116 Variation**

*The narrow body style is found on units that are not embossed "BROOKFIELD"*

(F-Skirt) W. BROOKFIELD {MLOD} SB  
Aqua, Green, Light Blue, Light Aqua, Dark Aqua

**NO NAME**

(F-Crown) ['PAT JAN ...' Blotted out] SB  
Light Aqua

(F-Skirt) JULY 1<sup>ST</sup> 1882/PAT APPLIED FOR (R-Skirt) PATENT/MAY 2 1893 SDP  
Ice Aqua, Aqua, Light Green

(F-Skirt) JULY 1<sup>ST</sup> 1882/PAT APPLIED FOR (R-Skirt) [Letter] SB  
Aqua

**NO NAME-DEC PAT**

(F-Crown) PATENT/DEC. 19, 1871 (F-Skirt) PATENT/MAY 2 1893 (R-Skirt) JULY 1<sup>ST</sup> 1882/PAT APPLIED FOR SDP  
Aqua, Light Green, Ice Aqua

(F-Crown) PATENT/DEC.19, 1871 (F-Skirt) PATENT/MAY 2 1893 (R-Skirt) PATENT APPLIED FOR SB  
Aqua

(F-Crown) PATENT/DEC.19, 1871 (F-Skirt) [Letter] (R-Skirt) JULY 1<sup>ST</sup> 1882/PAT APPLIED FOR SB  
Aqua, Cornflower Blue

**CD 116.5**

**B**  
(F-Skirt) B (R-Skirt) B SB  
Light Aqua, Light Green



**CD 116.5**



**CD 117**

**NO NAME**  
(F-Skirt) & {Ampersand} SB  
Aqua, Green, Olive Green, Dark Aqua, Snowy Aqua

**CD 117**





CD 118

**CD 118**

**NO NAME**

[No Embossing] SB  
Carnival



CD 119

**CD 119**

**BROOKFIELD**

(F-Skirt) W. BROOKFIELD. N.Y. (R-Skirt) PAT. APRIL  
28 1885 SB

Light Aqua, Aqua



**CD 118 with Metal Outer Skirt**

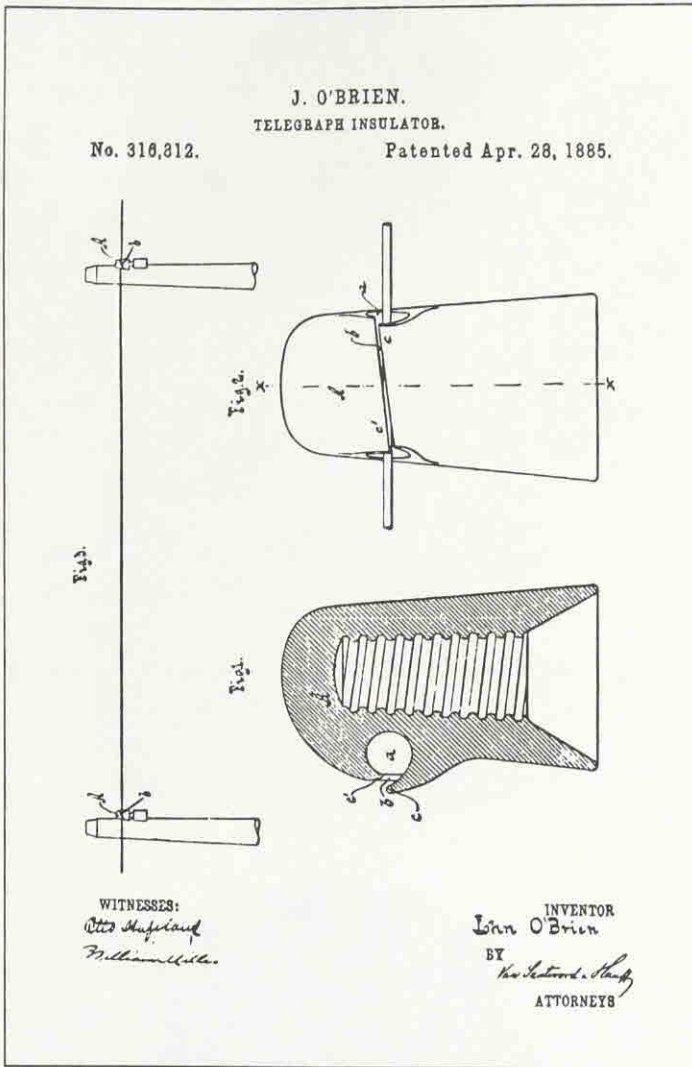
*A few CD 118 units have been located with a copper sheath cemented to the glass insulator. The ridges in the skirt of the insulator provided a corrugated surface to assist the attachment of the outer sheath.*

(Courtesy of Don Wacker collection;  
photograph by John McDougald)

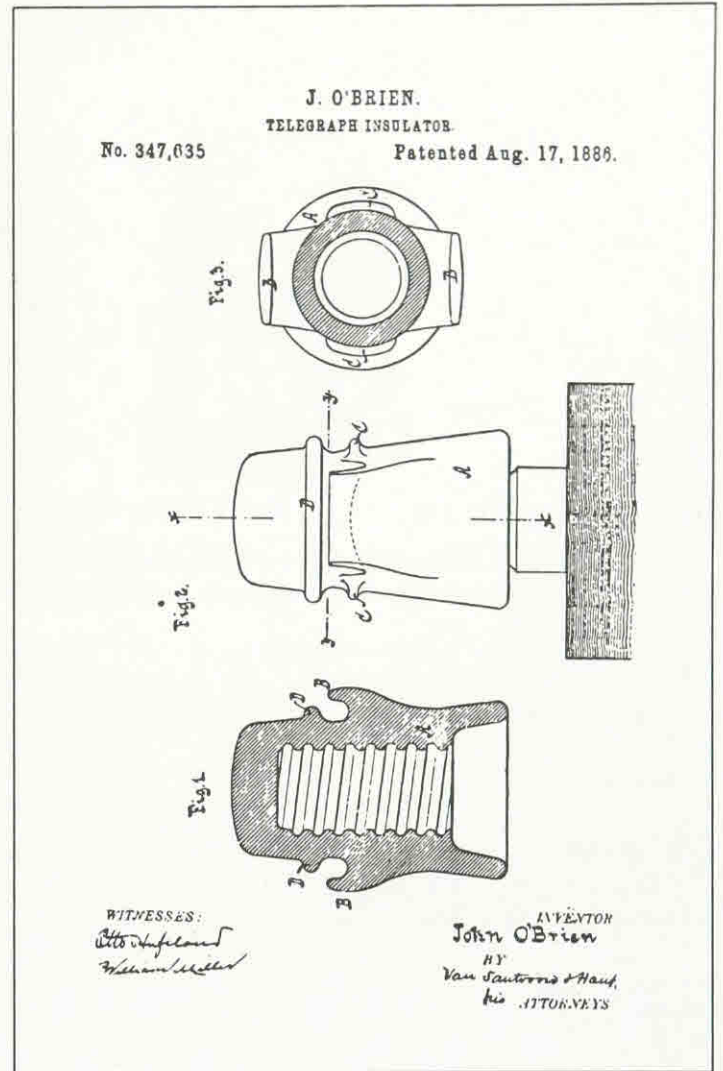
**CD 119** is a real curiosity. The patent of **John O'Brien**, which he assigned to William Brookfield, has the date "PAT. APRIL 28 1885" embossed on the skirt and provided for a "no-tie" design. The insulator pictured in the patent drawing shows the body of the insulator with a transverse hole and corresponding slot through which the line wire was placed. The upper and lower walls of the slot supported the line wire and held it in place. The drawing and CD 119 do not resemble each other.

However, a year later on August 17, 1886, John O'Brien was issued another patent which he also assigned to William Brookfield. The patent drawing resembles the CD 119. The design covered "lug" supports under the wire groove to support a tie wire while the installer had the choice of using the "right" or "left" arm to support the line wire. It makes one wonder why the later patent date was not embossed on this CD style.

One of the known installation locations for the O'Brien patents was Paraguay. Most have come from that source. However, several units were recently excavated in Canada.



O'Brien Patent No. 316,812, April 28, 1885



O'Brien Patent No. 347,635, August 17, 1886



CD 120

CD 120

**BROOKE'S**

(Dome) [Letter] (F-Skirt) H. BROOKE'S PAT. (R-Skirt)  
AUG 14 1883. SB

Brookes Blue

(F-Skirt) [Letter]/H. BROOKE'S PAT. (R-Skirt) AUG 14  
1883. SB

Light Blue Aqua, Light Blue, Brooke's Blue

**C.E.W.**

(F-Skirt) C.E.W. SB

Aqua, Blue, Cornflower Blue, Purple, Olive Green,  
Cobalt Blue

(F-Skirt) C.E.W. [MLOD] SB

Light Aqua





**CD 120 Variations**

*On the left is Hemingray unit with drip points. The skirt flares and the dome has a different shape. The middle insulator and the one to the right are both embossed "C.E.W." and show the wide variety of heights available.*

**K.C.G.W.**

(F-Skirt) [Glass Dot]/K.C.G.W (R-Skirt) [Glass Dot]/5  
SB

Aqua, Light Green

(F-Skirt) PATENT/DEC 19 1871 (R-Skirt) 5/[Letter] SB

Light Green, Aqua, Green Aqua

**NO NAME**

[No Embossing] {Hemingray Style} SB

Purple, Lavendar, Light Aqua

[No Embossing] {Unembossed C.E.W.} SB

Clear, Straw, Royal Purple, Aqua

**NO NAME-DEC PAT**

(F-Crown) PAT DEC.19. 1871 (R-Crown) 5 (R-Skirt)

[Letter] SB

Aqua, Light Aqua, Green Aqua, Blue Aqua, Off Clear

(F-Crown) PAT.DEC.19, 1871 (F-Skirt) [Letter or

Number] (R-Crown) 5 SB

Aqua, Light Green, Light Blue, Ice Green, Dark Aqua,  
Green Aqua, Blue Aqua, Jade Green, Light Aqua

(F-Crown) PAT.DEC.19. 1871 (R-Crown) 5 SB

Aqua, Green Aqua

(F-Crown) PATENT/DEC 19 1871 (R-Crown) 5 (R-Skirt)

[Letter] SB

Aqua, Green Aqua

(F-Skirt) PATENT/DEC 19 1871 (R-Skirt) 5 SB

Aqua, Ice Blue, Olive Green, Light Green, Milky Clear,  
Clear, Light Aqua, Light Blue, Off Clear, Blue Aqua

(F-Skirt) PATENT/DEC 19 1871 (R-Skirt) 5/PATENT

MAY 2 1893 SDP

Aqua, Blue Aqua, Green Aqua, Light Green, Yellow  
Green Tint, Off Clear, Light Aqua



**CD 120.2**

**CD 120.2**

**PAT APP FOR**

(F-Skirt) PAT APP FOR (R-Skirt) [Letter] SB

Aqua, Blue, Emerald Green w/Milk

**PONY**

(F-Skirt) PONY (R-Skirt) PAT APP FOR SB

Blue, Jade Green Milk



**CD 121**

**CD 121**

**A.T.& T.**

(Dome) [Letter or Number] (F-Skirt) A.T.& T.Co. SB  
Aqua, Light Blue, Green, Yellow Green, Light Blue  
Aqua, Green Aqua, Dark Aqua, Light Green, Olive Green

(F-Skirt) A.T.& T.Co. SB  
Light Green Aqua

**AM.TEL.& TEL.**

(Dome) [Letter or Number] (F-Skirt) AM.TEL.&  
TEL.Co. SB  
Aqua, Light Green, Light Blue, Hemingray Blue, Ice  
Blue, Green, Light Green Aqua, Blue Aqua

(Dome) [Number] (F-Crown) AM.TEL & TEL.Co.  
{MLOD} SB  
Light Aqua, Green

(Dome) [Number] (F-Crown) [Number] (F-Skirt)  
AM.TEL.& TEL.Co. SB  
Aqua, Light Yellow Green

(Dome) [Number] (F-Skirt) AM.TEL. TEL.Co. {No  
Ampersand} SB  
Aqua

(Dome) [Number] (F-Skirt) AM.TEL.& TE. Co. {Note  
Spelling} SB  
Green

(Dome) [Number] (F-Skirt) ['AM.TEL.& TEL.Co.'  
Blotted out] SB  
Light Aqua

(F-Crown) AM.TEL & TEL.Co. {MLOD} SB  
Aqua, Light Aqua

(F-Skirt) AM TEL TEL Co {No Ampersand} SB  
Blue Aqua

(F-Skirt) AM.TEL & TEL.Co. (R-Skirt) [Blotted out  
Embossing] SB  
Green

(F-Skirt) AM.TEL.& TEL.Co. SB  
Aqua, Light Blue, Purple, Jade Green Milk, Hemingray  
Blue, Green, Yellow Green, Light Blue Aqua, Light  
Green Aqua

(F-Skirt) AM.TEL.& TEL.Co. SDP  
Aqua

(F-Skirt) AM.TEL.& TEL.Co. (R-Skirt) ['AM.TEL.&  
TEL.Co.' Blotted out] SB  
Aqua

(F-Skirt) AM.TEL.& TEL.Co. {MLOD} SB  
Light Aqua

(F-Skirt) ['AM.TEL.& TEL.Co.' Blotted out] SB  
Light Aqua

**B.T.C.**

(F-Skirt) B.T.C./CANADA SB  
Light Aqua, Clear, Royal Purple, Ice Green, Light Blue,  
Ice Aqua, Off Clear

(F-Skirt) B.T.C./MCANADAL SB  
Light Aqua, Off Clear, Steel Blue, Aqua

(F-Skirt) B.T.C./MONTREAL SB  
Light Aqua, Ice Blue, Dark Blue, Ice Aqua

(F-Skirt) B.T.CO./CANADA SB  
Light Aqua, Light Purple, Royal Purple, Blue Aqua,  
Green Aqua

(F-Skirt) B.T.Co.OF CAN. SB  
Aqua, Blue Aqua, Green, Yellow Green

(F-Skirt) ['B.T.C.' Blotted out]/CANADA SB  
Off Clear, Ice Aqua, Light Aqua, Royal Purple





### CD 121 Variations

(Left) A product of W.G.M. CO. (See Robert Good, Jr. and the Valverde Glass Works chapter) and the pleated skirt style (right) patented by Withycombe. (See Our Neighbors-North and South of the Border -- Canadian Insulators chapter)

(F-Skirt) ['B.T.C.' Blotted out]/CANADA (R-Skirt) [Diamond] SB  
Royal Purple

(F-Skirt) ['B.T.C.' Blotted out]/MCANADAL SB  
Light Aqua, Ice Blue, Lavendar, Royal Purple

(F-Skirt) ['B.T.C./CANADA' Blotted out] (R-Skirt) [Diamond] SB  
Green Tint

### BROOKFIELD

(Dome) [Number] (F-Skirt) BROOKFIELD SB  
Aqua, Green Aqua, Green, Yellow Green

(Dome) [Number] (F-Skirt) BROOKFIELD SDP  
Dark Aqua, Green, Emerald Green, Yellow Green, Olive Green, Amber

(Dome) [Number] (F-Skirt) BROOKFIELD (R-Skirt) [Five Blots] SB  
Aqua, Green, Emerald Green, Light Green, Dark Yellow Green, Light Aqua, Dark Aqua

(Dome) [Number] (F-Skirt) BROOKFIELD (R-Skirt) [Five Blots] SDP  
Aqua, Green, Yellow Green, Olive Green, Olive Amber, Amber Blackglass

(Dome) [Number] (F-Skirt) W. BROOKFIELD SB  
Light Lime Green, Light Aqua, Light Green, Blue Aqua

(F-Skirt) BROOKFIELD (R-Skirt) [Five Blots] SB  
Light Aqua, Blue Aqua,

(F-Skirt) W. BROOKFIELD SB  
Aqua, Light Green Aqua

### C.& P.

(Dome) [Number] (F-Skirt) C.& P. TEL Co. SB  
Aqua, Light Aqua, Green, Light Green, Yellow Green

(F-Skirt) C.& P.TEL Co. SB  
Aqua, Green, Blue, Light Aqua

### C.D.& P.

(Dome) [Letter or Number] (F-Skirt) C.D.& P.TEL Co SB  
Aqua, Yellow Green, Light Green Aqua, Green, Light Aqua

(F-Skirt) C.D.& P.T.Co SB

Aqua, Ice Blue, Light Green, Lime Green, Light Yellow Olive, Blue Aqua, Yellow Green

### CALIFORNIA

(F-Skirt) A 007/CALIFORNIA SB  
Smoke, Yellow Sage, Sage Green, Steel Blue, Purple, Burgundy, Light Purple, Peach, Sage/Purple Two Tone

### CANADA

(F-Skirt) CANADA/['MONTREAL' Blotted out] SB  
Light Aqua, Ice Aqua, Off Clear, Clear, Royal Purple, Light Steel

### DIAMOND

(F-Skirt) [Diamond] SB  
Light Aqua, Straw, Light Green, Light Lavendar, Royal Purple, Green Aqua, Sage Gray, Off Clear, Steel Blue, Yellow Green

(F-Skirt) [Diamond] (R-Skirt) [Blotted out Embossing] SB  
Aqua, Royal Purple, Straw

(F-Skirt) [Diamond] (R-Skirt) [Diamond] SB  
Aqua, Light Aqua, Lemon, Steel Blue, Royal Purple, Blue Aqua

### GAYNER

(F-Skirt) GAYNER (R-Skirt) NO.160/[Number] SDP  
Aqua, Ice Blue, Green Aqua, Light Aqua

### GOOD

(F-Skirt) R. GOOD JR./DENVER, COLO./[1,2 or 3 Dots] (R-Skirt) 16 {2 Dot mold has a period between 'DENVER' and 'COLO.'} SB  
Light Aqua, Aqua, Blue Aqua, Ice Blue, Steel Blue, Yellow Green, Light Purple, Royal Purple, Light Green, Purple, Steel Gray

### HAWLEY

(F-Skirt) ['HICO' Entwined Initials]/HAWLEY, PA./ U.S.A. SB  
Aqua, Blue Aqua

**HEMINGRAY**

(Dome) [Number] (F-Skirt) HEMINGRAY (R-Skirt) N° 16 SDP  
Aqua, Light Aqua, Blue, Emerald Green

(Dome) [Number] (F-Skirt) HEMINGRAY/N° 16 (R-Skirt) HEMINGRAY SDP  
Aqua, Blue, Yellow Green, Olive Green, Dark Green, Light Blue Aqua

(F-Skirt) HEMINGRAY {Note Spelling} (R-Skirt) PATENT/MAY 2 1893 SDP  
Aqua

(F-Skirt) HEMINGRAY {Note Spelling} (R-Skirt) PATENTED/MAY 2 1893 SDP  
Aqua

(F-Skirt) HEMINGAY/[Blotted out Embossing] {Note Spelling} (R-Skirt) PATENT/MAY 2 1893/[Blotted out Embossing] SDP  
Aqua

(F-Skirt) HEMINGRAY (R-Skirt) N°16 SDP  
Aqua, Emerald Green, Blue, Yellow Green, Olive Amber

(F-Skirt) HEMINGRAY (R-Skirt) PATENT/MAY 2 1893 SB  
Aqua, Hemingray Blue, Jade Green Milk

(F-Skirt) HEMINGRAY (R-Skirt) PATENT/MAY 2 1893 SDP  
Aqua, Blue Aqua, Light Aqua, Aqua Jade Milk, Hemingray Blue

(F-Skirt) HEMINGRAY (R-Skirt) PATENTED SDP  
Light Aqua

(F-Skirt) HEMINGRAY (R-Skirt) PATENTED/MAY 2 1893 RDP  
Aqua

(F-Skirt) HEMINGRAY (R-Skirt) PATENTED/MAY 2 1893 SDP  
Aqua

(F-Skirt) HEMINGRAY (R-Skirt) PATENTED/[‘AM.TEL.& TEL.Co.’ Blotted out] SDP  
Aqua, Light Green

(F-Skirt) HEMINGRAY (R-Skirt) PATENTED/MAY 2 1893 {Note Spelling} SDP  
Aqua, Blue

(F-Skirt) HEMINGRAY/[‘AM.TEL.& TEL.Co.’ Blotted out] (R-Skirt) PATENTED SDP  
Aqua

**LYNCHBURG**

(Dome) [‘L’ in an oval] (F-Skirt) LYNCHBURG (R-Skirt) No.30/MADE IN U.S.A. SDP  
Blue Aqua

(Dome) [‘L’ in an oval] (F-Skirt) LYNCHBURG (R-Skirt) No.30/[Number]/MADE IN U.S.A. SDP  
Aqua, Ice Blue, Green, Light Aqua

**MAYDWELL**

(F-Skirt) MAYDWELL-16W (R-Skirt) U.S.A. SDP  
Straw

(F-Skirt) MAYDWELL-16W/[‘M<sup>c</sup>LAUGHLIN’ Blotted out] (R-Skirt) U.S.A. RDP  
Off Clear

(F-Skirt) MAYDWELL-16W/[‘M<sup>c</sup>LAUGHLIN’ Blotted out] (R-Skirt) U.S.A. SDP  
Off Clear

**M<sup>c</sup>LAUGHLIN**

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) N° 16 SB  
Gray Blue, Light Steel Blue, Yellow Green, Light Sage Green, Light Blue

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) N° 16 RDP  
Light Aqua, Green, Light Green, Cornflower Blue, Light Blue, 7-up Green, Emerald Blackglass, Olive Blackglass, Amber Blackglass, Lime Green

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) N° 16 RDP  
Olive, Delft Blue, Ice Aqua, Dark Green, Light Straw

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) N° 16 SDP  
Amber Blackglass, Dark Olive Green, Slate Green, Steel Blue, Light Gray Blue, Delft Blue, Emerald Green, Dark Olive Amber, Aqua

**NEW ENGLAND TEL**

(F-Skirt) (Arc)NEW EEG.TEL.& TEL.CO. {Note Spelling} SB  
Aqua, Green Aqua

(F-Skirt) (Arc)NEW ENG.TEL.& TEL.CO. SB  
Aqua, Light Green

**NO NAME**

(F-Skirt) [Glass Dot] (R-Skirt) [Glass Dot] SB  
Ice Blue, Light Green, Gray, Light Aqua

[No Embossing] {Four fins under the wire groove - Unembossed Duquesne} SB  
Light Aqua, Light Blue



[No Embossing] {Glass dot in dome distinguishes it from the unembossed AM.TEL.& TEL.; possible Pennycuick} SB  
Light Aqua

[No Embossing] {Unembossed AM.TEL.& TEL.} SB  
Aqua, Purple, Clear

#### NO NAME-CANADA

(Dome-in a circle) PAT'D SEPT.19TH 1899 {Pleated Skirt} SB  
Aqua, Blue, Green, Yellow Green, Olive Green, Light Aqua, Blue Aqua

#### O.V.G.

(F-Skirt) O.V.G.CO. SB  
Aqua, Blue, Green, Light Aqua, Blue Aqua

#### STANDARD GLASS

(Base) THE STANDARD GLASS INSULATOR CO./ BOSTON MASS.  
Light Aqua, Light Blue

#### U.S.TEL.

(Dome) [Number] (F-Skirt) U.S.TEL.CO. SB  
Aqua, Light Green, Yellow Green, Olive Green, Green, Blue Aqua

#### W.F.G.

(F-Skirt) W.F.G.CO./DENVER, COLO./[1,2 or 3 Dots] (R-Skirt) 16 {2 Dot molds have a period between 'DENVER' and 'COLO.'} SB  
Aqua, Off Clear, Ice Blue, Steel Blue, Lavendar, Green, Cornflower Blue, Light Ink Blue, Steel Gray, Light Aqua Clear, Ice Aqua, Milky Aqua, Steel Aqua, Light Lavendar, Emerald Green, Dark Violet

#### W.G.M.

(F-Skirt) W.G.M.CO. SB  
Purple, Royal Purple, Peach, Straw, Off Clear, Burgundy, Milky Purple, Light Purple, Straw/Peach Two Tone, Clear



CD 121.4

#### CD 121.4

##### A.U.

(F-Crown) PATENT/DEC. 19, 1871 (F-Skirt) A.U. SB  
Light Aqua, Light Green

(F-Crown) PATENT/DEC. 19, 1871 (F-Skirt) A.U. (R-Skirt) [Letter] SB  
Green Aqua, Light Aqua, Light Green

(F-Crown) PATENT/DEC. 19, 1871 (F-Skirt) A.U./ [Letter] (R-Skirt) [Letter] SB  
Light Green

(F-Crown) PATENT/DEC. 19, 1871 (F-Skirt) ['A.U.' Blotted out] (R-Skirt) [Letter or Number] SB  
Aqua, Yellow Green

(F-Crown) PATENT/DEC. 19, 1871 (F-Skirt) ['A.U.' Blotted out]/[Letter] SB  
Aqua

(F-Crown) PATENT/DEC. 19, 1871 (F-Skirt) ['A.U.' Blotted out] SB  
Aqua



CD 122

**CD 122**

**ARMSTRONG**

(F-Skirt) Ⓐrmstrong No.2 (R-Skirt) MADE IN U.S.A.  
SB  
Clear

(F-Skirt) Ⓐrmstrong No.2 (R-Skirt) MADE IN U.S.A./  
[Numbers and Dots] SB  
Clear, Smoke

(F-Skirt) *Armstrong's* No.2 (R-Skirt) MADE IN U.S.A.  
['A' in a circle] SB  
Off Clear, Straw, Pink, Smoke

(F-Skirt) *Armstrong's* No.2 (R-Skirt) MADE IN U.S.A.  
['A' in a circle] [Numbers and Dots] CB  
Off Clear

**DIAMOND**

(F-Skirt) [Diamond] SB  
Straw, Light Green

**DOMINION**

(F-Skirt) DOMINIOIN-16 {Note Spelling} (R-Skirt)  
[Diamond] RDP  
Light Green

(F-Skirt) DOMINION-16 (R-Skirt) ['D' in a diamond]  
SDP  
Light Green

(F-Skirt) DOMINION-16 (R-Skirt) ['D' in a diamond]  
[Number] SB  
Clear

(F-Skirt) DOMINION-16 (R-Skirt) [Diamond] SB  
Clear, Straw

(F-Skirt) DOMINION-16 (R-Skirt) [Diamond] RDP  
Clear, Straw, Light Peach, Light Green

(F-Skirt) DOMINION-16 (R-Skirt) [Diamond] SDP  
Light Green

(F-Skirt) DOMINOIN-16 {Note Spelling} (R-Skirt)  
[Diamond] RDP  
Peach

**HEMINGRAY**

(F-Skirt) HEMIGRAY-16 {Note Spelling} (R-Skirt)  
MADE IN U.S.A. RDP  
Aqua, Green

(F-Skirt) HEMINGRAY (R-Skirt) N°16 SB  
Hemingray Blue

(F-Skirt) HEMINGRAY (R-Skirt) N°16 SDP  
Aqua, Hemingray Blue, Green

(F-Skirt) HEMINGRAY-16 (R-Skirt) MADE IN U.S.A.  
RDP  
Clear, 7-up Green, Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY-16 (R-Skirt) MADE IN U.S.A.  
SDP  
Clear, Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY-16 (R-Skirt) MADE IN U.S.A./  
[Number] CB  
Clear, Straw, Ice Blue

(F-Skirt) HEMINGRAY-16 (R-Skirt) MADE IN U.S.A./  
[Number] SB  
Clear

(F-Skirt) HEMINGRAY-16 (R-Skirt) [Number] SB  
Clear

(F-Skirt) HEMINGRAY-16/[Number and Dots] (R-Skirt)  
MADE IN U.S.A. RDP  
Ice Blue



(F-Skirt) HEMINGRAY-16/[Number and Dots] (R-Skirt)  
MADE IN U.S.A./[Number] SB  
Clear, Light Straw, Light Pink

(F-Skirt) HEMINGRAY-16/[Number and Dots] (R-Skirt)  
MADE IN U.S.A./[Number] RDP  
Clear, Ice Blue, Light Green, White Milk, 7-up Green

(F-Skirt) HEMINGRAY-17 (R-Skirt) MADE IN U.S.A.  
[Number] CB  
Clear, Green Tint, Light Straw

(F-Skirt) HEMINGRAY-17 (R-Skirt) MADE IN U.S.A.  
[Number] SB  
Clear

(F-Skirt) HEMINGRAY/N<sup>o</sup> 16 (R-Skirt) HEMINGRAY  
SDP  
Aqua

#### **KERR**

(F-Skirt) KERR No.2 (R-Skirt) MADE IN U.S.A.  
[Number and Dots] SB  
Clear

#### **LYNCHBURG**

(Dome) ['L' in an oval] (F-Skirt) LYNCHBURG (R-  
Skirt) NO.30/[Number]/MADE IN U.S.A. SDP  
Apple Green

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt) NO.30  
[Number]/MADE IN U.S.A. RDP  
Aqua, Green, Ice Blue

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt) NO.30  
[Number]/MADE IN U.S.A. SDP  
Aqua, Light Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt)  
[Blotted out Embossing]/NO.30 [Number]/MADE IN  
U.S.A. SDP  
Aqua, Light Green, Ice Blue, Yellow Green, Straw, Blue  
Aqua, Green, Off Clear

#### **MAYDWELL**

(F-Skirt) MAYDWELL-16 (R-Skirt) U.S.A. SDP  
Clear, Straw, Gray, Light Green, Light Yellow Green,  
Olive Green, Purple Tint, Yellow Green, Gingerale

(F-Skirt) ['NO.16' Blotted out]/MAYDWELL-16 (R-  
Skirt) ['M<sup>c</sup>LAUGHLIN' Blotted out]/U.S.A. SDP  
Clear, Dark Straw

#### **M<sup>c</sup>LAUGHLIN**

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-In Wire Groove) [Number]  
(R-Skirt) NO.16 RDP  
Light Apple Green, Citron, Yellow Green

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) NO.16 RDP  
Aqua, Light Green, Blue Tint, Light Yellow Green, Lime  
Green, Apple Green, Dark Green, Olive Green

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) NO.16 SDP  
Aqua, Ice Green

#### **V.M.R.NAPOLI**

(F-Skirt) V M R /NAPOLI SB  
Aqua, Light Green, Sage Green, Light Green Aqua

#### **WHITALL TATUM**

(F-Skirt) (Arc)WHITALL TATUM/No.2 (R-Skirt)  
(Arc)MADE IN U.S.A./[Numbers and Dots]/['A' in a  
circle] SB  
Light Pink, Light Olive Green, Clear, Off Clear, Light  
Sage, Light Yellow Green, Light Steel Blue

(F-Skirt) (Arc)WHITALL TATUM/No.2 (R-Skirt)  
(Arc)MADE IN U.S.A./[Numbers and Dots]/['A' in a  
circle] {'N' is backwards} SB  
Clear, Light Olive Green, Light Sage Green, Light Blue

(F-Skirt) WHITALL TATUM CO. No.2 (R-Skirt) MADE  
IN U.S.A./['W/T' in a triangle] SB  
Light Straw

(F-Skirt) WHITALL TATUM CO. No.2 (R-Skirt) ['W/T'  
in a triangle]/MADE IN U.S.A./[Number] SB  
Smoky Straw

(F-Skirt) WHITALL TATUM CO. No.2 (R-Skirt)  
[Number] MADE IN U.S.A. SB  
Light Blue Aqua

(F-Skirt) WHITALL TATUM CO. No.2/[Number] (R-  
Skirt) MADE IN U.S.A. ['W/T' in a triangle] SB  
Off Clear, Straw, Light Green Aqua, Light Aqua, Peach

(F-Skirt) WHITALL TATUM CO. No.2/[Number] (R-  
Skirt) MADE IN U.S.A. ['W/T' in a triangle]/[Number]  
SB  
Light Straw

(F-Skirt) WHITALL TATUM No.2/[Number] (R-Skirt)  
MADE IN U.S.A. ['W/T' in a triangle]/[Number] SB  
Off Clear, Straw, Pink, Ice Blue, Amber (Fake)



**CD 122.4**

**CD 122.4**

**HEMINGRAY**

(F-Skirt) HEMINGRAY-E 2 (R-Skirt) MADE IN U.S.A.  
 {Inside of Skirt is Threaded} SB

Lemon, Off Clear

**PYREX**

(F-Skirt) PYREX/REG.U.S.A.PAT.OFF.MADE IN  
 U.S.A. (R-Skirt) [Number]/PAT.APPD.FOR SB

Light Lemon, Clear

(F-Skirt) PYREX/REG.U.S.PAT.OFF. (R-Skirt) [Letter  
 or Number]/MADE IN U.S.A./PAT.APPD.FOR. SB

Clear, Light Lemon

(F-Skirt) PYREX/REG.U.S.PAT.OFF. MADE IN U.S.A.  
 SB

Light Lemon, Off Clear, Clear

(F-Skirt) PYREX/REG.U.S.PAT.OFF.MADE IN U.S.A.  
 (R-Skirt) PAT.APPD.FOR SB

Clear



**CD 123**

**CD 123**

**E.C. & M.**

(F-Crown) E.C. & M. C<sup>o</sup> S.F. {There may be a glass button  
 on the front or rear skirt; See Volume I, page 85, for  
 detail style and color information} {MLOD} SB

Aqua, Light Green, Cobalt Blue, Blue, Bubbly Green,  
 Dark Yellow Green, Olive Green Amber, Olive Amber,  
 Purple, Green Aqua, Light Blue, Dark Green, Emerald  
 Green, Ink Blue, Lime Green, Sage Green, Dark Yellow  
 Amber, Apple Green, Light Cobalt Blue, Olive Amber  
 Blackglass

(F-Crown) E.C. & M. C<sup>o</sup> S.F. {Embossed upsidedown} (F-  
 Skirt) [Glass Dot] {MLOD} SB

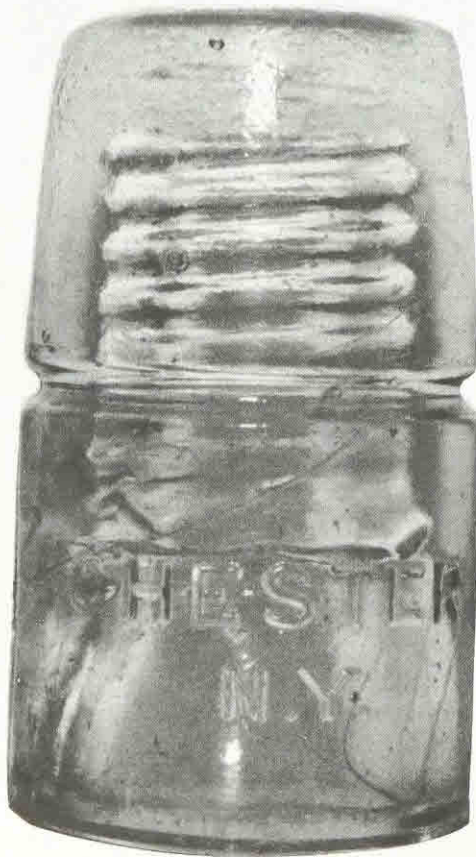
Emerald Green, Cobalt Blue, Aqua





**CD 123 Variations**

*The tallest, the shortest and the upsidedown embossing of the "E.C.&M.Co S.F." (See Contributions from California chapter for details on mold types and colors)*



**CD 123.2**

**CD 123.2**

**CHESTER**

(F-Skirt) CHESTER/N.Y. (R-Skirt) PAT JAN 25 1870  
SB  
Aqua



**CD 124**

**CD 124**

**HEMINGRAY**

(Dome) [Number] (F-Skirt) [Vertical Bar]/HEMINGRAY/N° 4 (R-Skirt) PATENT/MAY 2 1893 SDP  
Blue Aqua

(F-Crown) 4 (F-Skirt) HEMINGRAY/N° 4 (R-Skirt) PATENT/MAY 2 1893 SDP  
Aqua

(F-Skirt) A/HEMINGRAY/N° 4 (R-Crown) PAT.DEC.19. 1871 (R-Skirt) 4/PATENT/MAY 2 1893 SDP  
Aqua, Light Aqua

(F-Skirt) HEMINGRAY/4/N° 4 (R-Crown) PAT.DEC.19. 1871 (R-Skirt) PATENT/A/MAY 2 1893 SDP  
Aqua

(F-Skirt) HEMINGRAY/N° 13/['4' Blotted out] (R-Skirt)  
PATENT/MAY 2 1893 SDP  
Aqua, Hemingray Blue, Light Aqua

(F-Skirt) HEMINGRAY/N° 4 (R-Skirt) PATENT/MAY 2  
1893 SDP  
Light Aqua, Light Blue, Olive Green, Green, Emerald  
Green, Aqua w/Amber Swirls

(F-Skirt) HEMINGRAY/N° 4 {'4' is backwards} (R-  
Skirt) PATENT/MAY 2 1893 SDP  
Aqua, Green, Olive Green

**NO NAME**

(Dome) 4 (F-Skirt) [Vertical Bar] (R-Skirt) [Crescent]  
SB  
Aqua, Light Blue

(F-Skirt) [Backwards '7'] (R-Skirt) [Backwards '7'] SB  
Aqua

**NO NAME-DEC PAT**

(F-Crown) PAT.DEC.19. 1871 (F-Skirt) 4 (R-Skirt)  
[Letter] SB  
Aqua, Light Blue, Light Aqua, Light Green, Clear, Green  
Tint



**CD 124.2**

**CD 124.2**

**NO NAME-DEC PAT**

(F-Crown) PATENT/DEC.19, 1871 (R-Crown) 4 SB  
Aqua, Off Clear, Light Aqua, Dark Blue Aqua, Dark  
Aqua, Teal Blue



**CD 124.3**

**CD 124.3**

**NO NAME-DEC PAT**

(F-Crown) PAT.DEC.19. 1871 (F-Skirt) [Letter] (R-Skirt)  
4 SB  
Green Aqua

(F-Crown) PATENT/DEC.19, 1871 (F-Skirt) [Letter] (R-  
Crown) 4 SB  
Aqua, Blue, Light Green, Purple, Olive Green, Light  
Aqua, Light Green Aqua

(F-Crown) PATENT/DEC.19. 1871 (R-Crown) 4 (R-  
Skirt) [Letter] SB  
Aqua, Blue, Blue Aqua, Light Aqua, Dark Aqua, Light  
Green

**CD 104**, **CD 124.2** and **CD 124.3** are all older Hemingray "Number 4" styles. The newer style "Number 4" is **CD 124**. You will also note that the mold for the **CD 124.5**, which is part of the Chambers lightning rod system, appears to be a CD 124.3 mold which has been modified to provide a flared skirt and the wing projection.





*Front View*



*Side View*

### CD 124.5

#### CD 124.5

#### CHAMBERS

(F-Crown) PATENT/DEC. 19. 1871 (F-Skirt) CHAMBERS/PAT.AUG. 14. 1877 (R-Crown) 4 SB  
Light Aqua

This insulator is part of the **Chambers' Lightning Protection System**. One theory is that the CD 124.5 was the "poor man's" version of CD 132.4, the companion insulator to CD 317. CD 124.5 was used with CD 317.5 which was the "poor man's version of CD 317. (See CD 132.4 and CD 317 for additional information)



## CD 125

### CD 125

#### HEMINGRAY

(F-Skirt) HEMINGRAY (R-Skirt) N° 15 SDP  
Aqua, Green

(F-Skirt) HEMINGRAY-15 (R-Skirt) MADE IN U.S.A.  
RDP  
Aqua, Ice Blue, Blue

(F-Skirt) HEMINGRAY-15 (R-Skirt) MADE IN U.S.A.  
SDP  
Aqua

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N°  
15 SDP  
Light Aqua

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt)  
PATENT/DEC. 19. 1871/[Letter] SB  
Light Green

(F-Skirt) HEMINGRAY/W.U. N° 5 (R-Skirt) PATENT/  
MAY 2 1893 SDP  
Dark Aqua, Green, Purple, Hemingray Blue, Aqua, Light  
Green



### CD 125 Variations

*Differences occur in both the dome size and the  
angle of the skirt on these Hemingray styles.*

#### NO NAME

(F-Skirt) ['PAT DEC 19 1871' Blotted out] {MLOD}  
SB  
Light Aqua

(F-Skirt) ['PAT JAN 25 1870' Blotted out] SB  
Light Aqua

[No Embossing] SB  
Aqua

#### PAT APP FOR

(F-Skirt) PAT.APP.FOR (R-Skirt) 5/[Letter] SB  
Aqua, Blue, Milky Green, Dark Sapphire Blue

#### W.U.

(F-Skirt) W.U./5 (R-Skirt) PAT.APP.FOR SB  
Blue

(F-Skirt) W.U./5 (R-Skirt) PATENT/DEC. 19. 1871 SB  
Aqua, Light Green, Olive, Ice Blue, Green, Blue Aqua,  
Lemon Yellow, Light Aqua, Apple Green, Yellow Green

(F-Skirt) W.U./5 (R-Skirt) PATENT/DEC. 19. 1871/  
[Letter] {Comes in two distinct dome sizes} SB  
Aqua, Light Aqua, Clear, Off Clear, Blue, Olive Green,  
Lime Green

(F-Skirt) W.U./5/PATENT/MAY 2 1893 (R-Skirt)  
PATENT/DEC 19 1871/[Letter] SDP  
Aqua

(F-Skirt) W.U./5/[Letter] (R-Skirt) PATENT/DEC. 19.  
1871 SB  
Aqua, Green, Green Aqua, Lemon Yellow

(F-Skirt) W.U./PATENT/MAY 2 1893 (R-Skirt) PAT-  
ENT/DEC. 19. 1871/[Letter] SDP  
Aqua, Ice Blue, Lime Green, Yellow Green





CD 126

CD 126

**BROOKFIELD**

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
 (R-Crown) (Arc)CAUVET/JULY 25, 1865/PAT.JAN. “ ,  
 1870/ “ FEB. 22, “ SB  
 Light Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
 (R-Crown) [Number] SB  
 Aqua

(F-Crown) PAT.MARCH 20, 1870/W. BROOKFIELD  
 {Note Date} (R-Crown) PAT.JAN. 25, 1870/PAT.FEB.  
 20, 1870/55 FULTON ST. N.Y. {Note ‘Feb.20’ Date}  
 {MLOD} SB  
 Blue Aqua

(F-Crown) PAT.MARCH 20, 1877/W. BROOKFIELD  
 (R-Crown) PAT.JAN. 25, 1870/PAT.FEB. 20, 1870/55  
 FULTON ST. N.Y. {Note ‘Feb.20’ Date} {MLOD} SB  
 Light Aqua

(F-Crown) PAT.MARCH 20, 1877/W. BROOKFIELD  
 (R-Crown) PAT.JAN. 25, 1870/PAT.FEB. 20, 1870/  
 NO.55 FULTON ST. N.Y. {Note ‘Feb.20’ Date}  
 {MLOD} SB  
 Green

(F-Crown) PAT.MARCH 20, 1877/W. BROOKFIELD  
 (R-Crown) PAT.JAN. 25, 1870/PAT.FEB. 22, 1870/55  
 FULTON ST. N.Y. {MLOD} SB  
 Light Aqua, Yellow Green

(F-Crown) PAT.MARCH 20, 1877/W. BROOKFIELD  
 (R-Crown) [Number]/PAT.JAN 25, 1870/PAT.FEB 22,  
 1870/55 FULTON ST. N.Y. {MLOD} SB  
 Light Aqua

(F-Crown) PAT.MARCH 20, 1877/W. BROOKFIELD  
 (R-Crown) PAT.JAN. 25, 1870/PAT.FEB. 22, 1870/  
 NO.55 FULTON ST. N.Y. {MLOD} SB  
 Green, Aqua, Blue, Olive Green, Light Green, Dark  
 Green

(F-Crown) PAT.MARCH 22, 1877/W. BROOKFIELD  
 {Note Date} (R-Crown) PAT.JAN. 25, 1870/PAT.FEB.  
 22, 1870/55 FULTON ST. N.Y. {MLOD} SB  
 Aqua

(F-Crown) W U T CO./CAUVETS PAT./W.  
 BROOKFIELD (F-Just below wire groove)  
 PAT.MARCH 20, 1877 (R-Crown) [Number]/FEB. 22,  
 70/NO 55 FULTON ST. N.Y. (R-Just below wire groove)  
 PAT.JAN. 25, 1870 {MLOD} SB  
 Light Aqua, Olive Green, Blue Aqua

(F-Crown) W U T CO./CAUVETS PAT./W.  
 BROOKFIELD (R-Crown) [Number]/FEB. 22, 70/NO.55  
 FULTON ST. N.Y. {MLOD} SB  
 Aqua, Light Aqua, Powder Blue

(F-Crown) W. BROOKFIELD/45 CLIFF ST. N.Y. SB  
 Purple

(F-Crown) W. BROOKFIELD/45 CLIFF ST. N.Y. (R-  
 Crown) PAT./JAN. 25<sup>TH</sup> 1870/JAN. 14<sup>TH</sup> 1879 {MLOD}  
 SB  
 Blue Aqua

(F-Crown) W. BROOKFIELD/45 CLIFF ST. N.Y. (R-  
 Crown) [Number]/PAT./JAN. 25<sup>TH</sup> 1870/JAN. 14<sup>TH</sup> 1879  
 {MLOD} SB  
 Blue Aqua

(F-Crown) W. BROOKFIELD/45 CLIFF ST./N.Y. SB  
 Aqua

(F-Crown) W. BROOKFIELD/45 CLIFF ST./N.Y. (R-  
 Crown) PAT.JAN. 25, 1870/PAT.JAN. 14, 1879  
 {MLOD} SB  
 Aqua

(F-Crown) W. BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) PAT.FEB. 22, 1870/ “ JAN. 25, 1870/ “ JAN. 14, 1879 SB  
Aqua

(F-Crown) W. BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) PAT.FEB. 22<sup>ND</sup>, 1870/ “ JAN. 25<sup>TH</sup>, 1870/ “ JAN. 14<sup>TH</sup>, 1879 {MLOD} SB  
Aqua, Light Green, Green, Yellow Green, Blue Aqua, Green Aqua

(F-Crown) W. BROOKFIELD/55 FULTON ST. N.Y. {‘S’ is backwards} (R-Crown) PAT.FEB. 22<sup>ND</sup>, 1870/ “ JAN. 25<sup>TH</sup>, 1870/ “ JAN. 14<sup>TH</sup>, 1879 {MLOD} SB  
Light Aqua, Snowy Green, Yellow Green, Blue Aqua

(F-Crown) W. BROOKFIELD/55 FULTON ST. N.Y. {‘S’ is backwards} (R-Crown) PAT.FEB 22 1870/ “ JAN 25 “ / “ “ 14 1879 {MLOD} SB  
Yellow Green

(F-Crown) W. BROOKFIELD/NEW YORK {MLOD} SB  
Aqua, Blue

(F-Crown) W<sup>M</sup> BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) PAT. FEB 22<sup>ND</sup> 1870/JAN 25<sup>TH</sup> 1870/JAN 14<sup>TH</sup> 1879 SB  
Blue Aqua

(F-Crown) W<sup>M</sup> BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) PAT.FEB. 22<sup>ND</sup> 1879/JAN. 25<sup>TH</sup> 1879/JAN. 14<sup>TH</sup> 1879 {Note three 1879 dates} SB  
Aqua, Light Aqua

(F-Crown) W<sup>M</sup> BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) PAT.FEB. 22<sup>ND</sup> 1879/JAN. 25<sup>TH</sup> 1870/JAN. 14<sup>TH</sup> 1879 {Note Feb.’79 Date} SB  
Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF ST. N.Y. (R-Crown) PAT.JAN.25, 1870/PAT.JAN. 14, 1879 {MLOD} SB  
Aqua, Purple

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. (R-Crown) (Arc)CAUVET/JULY 25 1865/PAT JAN. “ 1870/ “ FEB. 22 “ {MLOD} SB  
Aqua, Yellow Green, Teal Green

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. (R-Crown) (Arc)DAUVET/PAT./JULY 25, 1865/JAN. 25, 1870/FEB. 22, 1870 {Note Spelling} {MLOD} SB  
Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. {MLOD} SB  
Aqua, Blue Aqua, Green, Yellow Green, Teal Green, Mint Green

(F-Crown) [Number]/PAT.MARCH 20, 1877/W. BROOKFIELD (R-Crown) PAT.FEB. 22,1879/JAN. 25, 1870 JAN. 14, 1879 {Note Feb.’79 Date} {MLOD} SB  
Aqua, Light Green

(F-Crown) [Number]/PAT.MARCH 20, 1877/W. BROOKFIELD (R-Crown) PAT.JAN. 25,1870/PAT.FEB. 22, 1870/55 FULTON ST. N.Y. {MLOD} SB  
Light Aqua, Light Green, Lime Green, Green, Yellow Green, Light Blue

(F-Crown) [Number]/PATT.MARCH 20, 1877/W. BROOKFIELD {Note Spelling} (R-Crown) PAT.JAN. 25, 1870/PAT.FEB. 22, 1870/55 FULTON ST. N.Y. {MLOD} SB  
Blue Aqua

(F-Crown) [Number]/W. BROOKFIELD/45 CLIFF ST. (R-Crown) PAT JAN 25. 1870/PAT JAN 14. 1879 {MLOD} SB  
Light Blue

(F-Crown) [Number]/W. BROOKFIELD/45 CLIFF ST. (R-Crown) PAT JAN 25. 1870/PAT JAN 14. 1870 {Note second Jan.’70 Date} {MLOD} SB  
Blue Aqua

(F-Crown) [Number]/W. BROOKFIELD/45 CLIFF ST. N.Y. (R-Crown) (Arc)CAUVET/JULY 25, 1865/ PAT.JAN. “ ,1870/ “ FEB. 22, “ {MLOD} SB  
Aqua, Olive Green

(F-Crown) [Number]/W. BROOKFIELD/45 CLIFF ST. N.Y. (R-Crown) PAT JAN 25. 1870/PAT JAN 14. 1879 {MLOD} SB  
Aqua, Light Aqua, Light Green

(F-Crown) [Number]/W. BROOKFIELD/45 CLIFF ST./ N.Y. (R-Crown) PAT JAN 25, 1870/PAT JAN 14, 1879 {MLOD} SB  
Blue

(F-Crown) [Number]/W. BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) FEB 22 1870/JAN 25 1870/JAN 14 1879 {MLOD} SB  
Light Aqua, Light Green Aqua, Olive Green, Yellow Green, Green, Lime Green, Blue

(F-Crown) [Number]/W. BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) PAT FEB 22 1870/JAN 25 1870/ JAN 14 1879 {MLOD} SB  
Aqua



(F-Crown) [Number]/W. BROOKFIELD/55 FULTON  
ST. N.Y. (R-Crown) PAT FEB 22<sup>ND</sup> 1870/JAN 25<sup>TH</sup> 1870/  
JAN 14<sup>TH</sup> 1879 {MLOD} SB  
Aqua, Light Green, Yellow Green, Olive Amber, Dark  
Red Amber

(F-Crown) [Number]/W. BROOKFIELD/55 FULTON  
ST. N.Y. (R-Crown) PAT.FEB. 22, 1870/JAN. 14, 1879  
{MLOD} SB  
Aqua, Green, Yellow Green, Olive Green

(F-Crown) [Number]/W. BROOKFIELD/55 FULTON  
ST. N.Y. {'S' is backwards} (R-Crown) PAT FEB 22<sup>ND</sup>  
1870/ " " JAN 25<sup>TH</sup> 1870/ " " JAN 14<sup>TH</sup> 1879 {MLOD}  
SB  
Blue Aqua, Light Blue Aqua

(F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK SB  
Aqua, Light Green, Green Aqua, Light Blue, Emerald  
Green, Lime Green

#### NO NAME

(F-Crown) 7 {Large Number} {MLOD} SB  
Green

(F-Crown) PATd (R-Crown) [Number] SB  
Green

(F-Crown) ['PAT.JAN. 25, 1870' Blotted out] SB  
Aqua

(F-Skirt) RD 149959 SB  
Green Aqua, Green Jade

[No Embossing] {Large round dome} SB  
Aqua, Green, Dark Blue, Dark Aqua

[No Embossing] {MLOD} SB  
Mint Green



CD 126.1

CD 126.1

#### BROOKFIELD

(F-Crown) W U T CO./CAUVETS PAT./W.  
BROOKFIELD (R-Crown) [Number]/FEB. 22 70/NO 55  
FULTON ST. N.Y. {MLOD} SB  
Light Aqua, Powder Blue



**CD 126.3**

**CD 126.3**

**A.U.**

(F-Crown) PATENT/DEC. 19. 1871 (F-Skirt) A.U. SB  
Dark Aqua, Blue Aqua, Teal Green

(F-Crown) PATENT/DEC. 19. 1871 (F-Skirt) A.U. (R-Crown) [Number] SB  
Aqua

(F-Crown) PATENT/DEC. 19. 1871 (F-Skirt) A.U. (R-Skirt) [Letter] SB  
Aqua, Light Green

**BROOKFIELD**

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST. N.Y. (R-Crown) PAT.JAN. 25, 1870 SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. (R-Crown) (Arc)CAUVET/PAT./JULY 25, 1865/JAN. 25, 1870/FEB. 22, 1870 SB  
Light Aqua, Light Blue

(F-Crown) W. BROOKFIELD/45 CLIFF ST. N.Y. (R-Crown) PAT.JAN. 25, 1870 {MLOD} SB  
Light Aqua, Light Green

(F-Crown) W. BROOKFIELD/55 FULTON ST N.Y. (R-Crown) [Number]/PAT FEB. 22<sup>ND</sup> 1870/JAN. 14<sup>TH</sup> 1879 {MLOD} SB  
Light Blue

(F-Crown) W. BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) PAT FEB 22<sup>ND</sup> 1870/JAN 25<sup>TH</sup> 1870/JAN 14<sup>TH</sup> 1870 {Note second Jan. '70 Date} SB  
Aqua, Blue Aqua

(F-Crown) W. BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) [Number]/PAT.FEB 22<sup>ND</sup> 1870/JAN 25<sup>TH</sup> 1870/JAN 14<sup>TH</sup> 1879 {MLOD} SB  
Light Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. (R-Crown) (Arc)CUAVET/PAT./JULY 25, 1865/JAN. 25, 1870/FEB. 22, 1870 {Note Spelling} {MLOD} SB  
Aqua, Light Aqua, Blue Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. (R-Crown) (Arc)DAUVET/PAT./JULY 25, 1865/JAN. 25, 1870/FEB. 22, 1870 {Note Spelling} {MLOD} SB  
Light Aqua, Blue

(F-Crown) [Number]/W. BROOKFIELD/45 CLIFF ST. N.Y. (R-Crown) PAT.JAN 25<sup>TH</sup> 1870 SB  
Light Aqua, Blue Aqua

(F-Crown) [Number]/W. BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) FEB. 22, 1870/JAN. 25, 1870 SB  
Aqua



**CD 126.3 Variations**

*(Left) A dome embossed Brookfield; (Right) No Name with "X" or "111" markings on dome which are similar to markings found on American Insulator Company products.*



(F-Crown) [Number]/W. BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) PAT.FEB. 22<sup>TH</sup> 1870/JAN 25<sup>TH</sup> 1870/JAN 14<sup>TH</sup> 1879 SB  
Yellow Green

(F-Crown) [Number]/W. BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) PAT.FEB. 22,1870/ " JAN. 25 " / " " 14, 1879 ['4' is backwards] {MLOD} SB  
Aqua, Light Blue, Light Green, Blue Aqua, Light Aqua

(F-Crown) [Number]/W. BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) PAT.FEB. 22,1870/ " JAN. 25, " / " " 14, 1879 {MLOD} SB  
Aqua, Light Blue Aqua, Light Green, Blue Aqua, Green Aqua

(F-Crown) [Number]/W. BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) PAT.FEB. 22,1870/ " JAN. 25, " / " " 14, 1870 {Note second Jan.'70 Date} {MLOD} SB  
Light Aqua, Blue

(F-Crown) [Number]/W. BROOKFIELD/55 FULTON ST. N.Y. (R-Crown) PAT.FEB. 22<sup>ND</sup> 1870/JAN 25<sup>TH</sup> 1870/JAN 14<sup>TH</sup> 1879 SB  
Light Aqua

#### NO NAME

(Dome) ['X' or '111'] SB  
Aqua, Light Green, Olive Green, Light Yellow Olive, Blue, Green Aqua, Light Yellow Green

#### CD 126.4

##### AMERICAN

(Base) AM INS CO PAT SEP 13 1881.  
Aqua

(Dome) [Number] (Base) AM INS CO./PAT SEP 13 1881  
Light Aqua, Light Blue, Aqua

##### W.E.MFG.

(F-Crown) W.E.MFG.CO. (F-Skirt) PATENT/APPLIED FOR (R-Crown) W.U. SB  
Aqua, Blue, Lime Green, Cornflower Blue

(F-Crown) W.E.MFG.CO. (F-Skirt) PATENT/APPLIED FOR/['DEC 19 1871' Blotted out] (R-Crown) W.U. SB  
Light Green, Green Aqua

(F-Crown) W.E.MFG.CO. (F-Skirt) PATENT/DEC. 19. 1871 (R-Crown) W.U. SB  
Dark Aqua, Light Green Aqua, Aqua, Light Lime Green, Light Blue, Cornflower Blue

(F-Crown) W.E.MFG.CO. (F-Skirt) PATENT/DEC. 19. 1871 (R-Crown) W.U. (R-Skirt) [Letter] SB  
Aqua, Light Aqua, Green Aqua, Blue Aqua

(F-Crown) W.E.MFG.CO. (R-Crown) W.U. SB  
Aqua, Lime Green

(F-Crown) W.E.MFG.CO. (R-Crown) W.U. (R-Skirt) [Letter] SB  
Lime Green, Blue



CD 126.4



**CD 127**

**CD 127**

**BROOKE'S**

(Base) H. BROOKE'S PAT. JAN. 25TH 1870  
Aqua, Ice Blue, Light Aqua

**BROOKFIELD**

(Dome) [Letter and a Number in a circle] (F-Crown) W.  
BROOKFIELD 55 FULTON ST. N.Y./CAUVETS PAT.  
FEB. 22 70 PAT. JAN. 25 1870 SB  
Light Blue

(F-Crown) W. BROOKFIELD 55 FULTON ST. (R-  
Crown) CAUVETS PAT. APL. 4, 1870 {Note Date}  
{MLOD} SB  
Aqua, Blue

(F-Crown) W. BROOKFIELD 55 FULTON ST. (R-  
Crown) PAT. APL. 4, 1871 {MLOD} SB  
Blue, Green

(F-Crown) W. BROOKFIELD 55 FULTON ST. (R-  
Crown) [Number]/PAT. APR. 4, 1871 {MLOD} SB  
Aqua

(F-Crown) W.U.T.Co./CAUVET'S PAT/W.  
BROOKFIELD (R-Crown) FEB. 22, 1870/NO 55 FUL-  
TON ST N.Y. {MLOD} SB  
Aqua

(F-Crown) W.U.T.Co./CAUVET'S PAT/W.  
BROOKFIELD (R-Crown) [Number]/FEB 22 1870/NO  
55 FULTON ST {MLOD} SB  
Aqua

(F-Crown) W.U.T.Co./CAUVET'S PAT/W.  
BROOKFIELD (R-Crown) [Number]/FEB. 22 1870/55  
FULTON ST. {MLOD} SB  
Aqua

(F-Crown) W.U.T.Co./CAUVET'S PAT/W.  
BROOKFIELD (R-Crown) [Number]/FEB. 22-70/NO 55  
FULTON ST. N.Y. {MLOD} SB  
Ice Aqua, Light Blue, Aqua, Light Yellow Green

(F-Crown) W.U.T.Co./CAUVETS PAT./W.  
BROOKFIELD (R-Crown) [Christian Cross or Letter]/  
FEB. 22 70/NO 55 FULTON ST. N.Y. {MLOD} SB  
Aqua, Light Blue

(F-Crown) W.U.T.Co./CAUVETS PAT./W.  
BROOKFIELD (R-Crown) [Number]/FEB. 22 70/NO 55  
FULTON ST. {MLOD} SB  
Aqua

(F-Crown) [Number]/W. BROOKFIELD 55 FULTON  
ST. (R-Crown) PAT. APR. 4, 1871 {MLOD} SB  
Aqua, Blue Aqua

(F-Crown) [Number]/W. BROOKFIELD 55 FULTON  
ST. (R-Crown) PAT. APRIL 4, 1870 {Note Date}  
{MLOD} SB  
Blue Aqua

(F-Crown) [Number]/W. BROOKFIELD 55 FULTON  
ST. (R-Crown) PAT. APRIL 4, 1871 {MLOD} SB  
Lime Green, Mint Green, Blue Aqua, Blue

(F-Crown) [Number]/W. BROOKFIELD 55 FULTON  
ST. (R-Crown) PATD APL 4 1871 {MLOD} SB  
Blue Aqua



**CD 127 Variation**

*Some of the Brookfield molds used for the CD 127 style had no lip below the wire groove and a straight skirt from the wire groove to the base.*



**NO NAME**

(Dome) [\*W/1' in a circle] SB  
Aqua, Ice Blue, Emerald Green

[No Embossing] {MLOD} SB  
Aqua

[No Embossing] {Unembossed W/1} SB  
Light Aqua, Ice Blue, Emerald Green

**W.U.**

(Dome) [Number] (F-Crown) L.A.C.S PAT.JULY 25<sup>TH</sup>  
1865 (F-Skirt) W.U. PATTERN SB  
Aqua, Blue

(Dome) [Number] (F-Skirt) W.U.P. SB  
Dark Cobalt Blue, Dark Teal Green, Dark Aqua



**CD 127.4**

**CD 127.4**

**NO NAME**

[No Embossing] SB  
Dark Aqua, Light Purple, Sage Aqua

**NO NAME-DEC PAT**

(F-Skirt) PATENT/DEC. 19. 1871 SB  
Dark Aqua, Green Aqua, Light Purple



**CD 128**

**CD 128**

**ARMSTRONG**

(F-Skirt) (A)rmstrong C.S.C. (R-Skirt) MADE IN U.S.A.  
[Numbers and Dots] SB  
Clear

(F-Skirt) *Armstrong's* C.S.C. (R-Skirt) Made in U.S.A.  
[\*A' in a circle] [Numbers and Dots] SB  
Clear, Smoke, Straw, Purple Tint

**HEMINGRAY**

(F-Skirt) HEMINGRAY-C S/[Entwined diamond and  
oval] (R-Skirt) E\_14B SB  
Off Clear, White Milk, Opalescent

(F-Skirt) HEMINGRAY-E.1. (R-Skirt) MADE IN U.S.A.  
{Inside of skirt is threaded} SB  
Off Clear, Light Lemon

(F-Skirt) HEMINGRAY/[Number and Dots] (R-Skirt)  
C.S.A. SB  
Clear, Light Yellow, Light Green, Dark Yellow

(F-Skirt) HEMINGRAY/[Numbers and Dots] (R-Skirt)  
C.S.C. CB  
Clear

(F-Skirt) HEMINGRAY/[Numbers and Dots] (R-Skirt)  
C.S.C. SB  
Off Clear

(F-Skirt) [Vertical Bar]/HEMINGRAY/[Number] (R-  
Skirt) C.S.C. SB  
Light Green

(F-Skirt) [Vertical Bar]/HEMINGRAY/[Number] (R-  
Skirt) [Vertical Bar]/C.S.O. SB  
Clear

(F-Skirt) [Vertical Bar]/HEMINGRAY/[Number] (R-  
skirt) C.S.O. SB  
Ice Green

### KERR

(F-Skirt) KERR C.S.C. (R-Skirt) MADE IN U.S.A.  
[Numbers and Dots] SB  
Off Clear

### NO NAME

(F-Skirt) C.S./[Entwined diamond and oval] (R-Skirt)  
E\_14B {Threads inside skirt} SB  
Off Clear

### PYREX

(F-Skirt) PYREX [Letter]/T.M.REG.U.S.PAT.OFF. (R-  
Skirt) C.S.A./MADE IN U.S.A./[Number] {Threads  
inside skirt} SB  
Clear, Straw

(F-Skirt) PYREX/REG.U.S.PAT.OFF. (R-Skirt) MADE  
IN U.S.A. PAT.APPD.FOR {Threads inside skirt} SB  
Clear, Straw

(F-Skirt) PYREX/REG.U.S.PAT.OFF./MADE IN U.S.A.  
(R-Skirt) PAT.APPD FOR {Threads inside skirt} SB  
Clear

(F-Skirt) PYREX/REG.U.S.PAT.OFF./MADE IN U.S.A.  
(R-Skirt) [Number]/PAT.APPD.FOR {Threads inside  
skirt} SB  
Clear

(F-Skirt) PYREX/T.M.REG.U.S.PAT.OFF. (R-Skirt)  
MADE IN U.S.A./PAT.APPD FOR[Letter] {Threads  
inside skirt} SB  
Clear, Straw

### WHITALL TATUM

(F-Skirt) (Arc)WHITALL TATUM/C.S.C. (R-Skirt)  
(Arc)MADE IN U.S.A./[Numbers and Dots]/['A' in a  
circle] SB  
Clear

(F-Skirt) (Arc)WHITALL TATUM/[Number]/['A' in a  
circle] (R-Skirt) C.S.C./MADE IN U.S.A. SB  
Clear, Smoke



CD 128.4

CD 128.4

### HEMINGRAY

(F-Skirt) HEMINGRAY/[Number] (R-Skirt) S.B. SB  
Clear, Yellow Tint

(F-Skirt) HEMINGRAY/[Number] (R-Skirt) S.B. {1" Pin  
hole} SB  
Clear, Ice





CD 129

CD 129

**ARMSTRONG**

(F-Skirt) Ⓐrmstrong T.S. (R-Skirt) MADE IN U.S.A.  
[Numbers and Dots] SB  
Green Tint, Clear, Off Clear

**HEMINGRAY**

(F-Skirt) HEMINGRAY/[Numbers and Dots] (R-Skirt)  
T.S. CB  
Clear, Light Straw, Blue Tint

**KERR**

(F-Skirt) KERR T.S. (R-Skirt) MADE IN U.S.A. [Num-  
bers and Dots] SB  
Off Clear



CD 130

CD 130

**CALIFORNIA ELECTRIC WORKS**

(F-Skirt) CAL.ELEC.WORKS/PATENT SB  
Aqua, Light Green, Blue, Ice Blue, Dark Aqua



CD 130.1

CD 130.1

**CALIFORNIA ELECTRIC WORKS**  
(F-Skirt) CAL.ELEC.WORKS/PATENT {MLOD} SB  
Cobalt Blue, Aqua



CD 130.2

CD 130.2

**SEILERS**  
(F-Skirt) SEILERS PATENT/FEB. 6-1877 (R-Skirt)  
PATENT/DEC. 19-1871 SB  
Aqua, Green

**Paul Seiler** was issued a patent on February 6, 1877 for the design of **CD 130.2**. It should be noted that the insulator also is embossed with Robert Hemingray's December 19, 1871 patent date. Since this patent appears exclusively on Hemingray manufactured products, it is assumed that Seiler had his insulators manufactured by Hemingray. (See Contributions from California chapter for patent information)





**CD 131**

(F-Crown) [Number]/(Arc)CAUVETS/PAT./JULY 25, 1865 (F-Skirt) W. BROOKFIELD/55 FULTON ST. N.Y. (R-Skirt) [Number] {MLOD} SB  
Aqua

(F-Crown) [Number]/(Arc)CAUVETS/PAT./JULY 25, 1865 (F-Skirt) W. BROOKFIELD/55 FULTON ST. N.Y. {MLOD} SB  
Aqua, Light Aqua

**NO NAME**  
[No Embossing] {MLOD} SB  
Aqua

**TILLOTSON**  
(F-Crown) (Arc)L.G. TILLOTSON/& CO./N.Y. (F-Skirt) BROOKE'S PAT/JAN 25<sup>TH</sup> 1870 SB  
Gingerale, Light Aqua

(F-Crown) (Arc)L.G. TILLOTSON/& CO./N.Y. (F-Skirt) BROOKE'S PAT {Note Spelling} SB  
Dark Aqua

(F-Crown) (Arc)L.G.TILLOTSON/& CO./N.Y. (F-Skirt) BROOKE'S PAT/JAN 25<sup>TH</sup> 1870 (R-Skirt) PAT.JAN 25, 1870/PAT.FEB 22, 1870 {MLOD} SB  
Light Aqua, Aqua

**CD 131**

**BROOKFIELD**

(F-Crown) (Arc)CAUVETS/PAT./JULY 25, 1865 (F-Skirt) W. BROOKFIELD/55 FULTON ST. N.Y. SB  
Aqua

(F-Crown) (Arc)CAUVETS/PAT./JULY 25, 1865 (F-Skirt) W. BROOKFIELD/55 FULTON ST. N.Y. (R-Skirt) [Number]/[Number] SB  
Light Aqua

(F-Crown) (Arc)CAUVETS/PAT./JULY 25, 1865 (F-Skirt) W. BROOKFIELD/NO 55 FULTON ST. N.Y. (R-Skirt) [Number] SB  
Light Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. (R-Crown) (Arc)CAUVET/JULY 25, 1865/PAT JAN " 1870/" FEB. 22, " {MLOD} SB  
Light Aqua, Ice Blue

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST/N.Y. (R-Crown) (Arc)CAUVET/PAT JULY 25 1865/" JAN " 1870/" FEB 22 " SB  
Light Green, Lime Green



**CD 131.4**

**CD 131.4**

**NO NAME**

[No Embossing] SB  
Dark Aqua, Milky Aqua, Blue Aqua, Celery Green, Light  
Purple, Sage Green, Purple, Dark Yellow Green

**NO NAME-DEC PAT**

(F-Crown) PATENT/DEC. 19, 1871 (R-Crown) 1 SB  
Light Aqua

(F-Crown) PATENT/DEC. 19, 1871 (R-Crown) 1  
{MLOD} SB  
Aqua, Light Green, Dark Green, Light Aqua

**TILLOTSON**

(F-Skirt) L.G.T.& CO. (R-Skirt) PAT.JAN. 25, 1870/  
PAT.FEB. 22, 1870 {MLOD} SB  
Aqua



**CD 132**

**CD 132**

**NO NAME**

[No Embossing] SB  
Light Green

**NO NAME-DEC PAT**

(F-Crown) PAT.DEC. 19. 1871 (R-Crown) 2 (R-Skirt)  
[Letter] SB  
Aqua, Light Green Aqua, Light Purple, Light Aqua

(F-Crown) PATENT/DEC. 19. 1871 (F-Skirt) [Letter] (R-  
Crown) 2 SB  
Aqua, Green Aqua

(F-Crown) PATENT/DEC. 19. 1871 (R-Crown) 2 SB  
Aqua, Green Aqua, Light Purple, Cobalt Blue, Dark  
Olive Green, Purple, Light Aqua, Dark Aqua

(F-Crown) PATENT/DEC. 19. 1871 (R-Crown) 2 (R-  
Skirt) [Letter] SB  
Aqua, Light Aqua, Green Aqua, Clear, Off Clear, Smoke,  
Light Purple, Blue Aqua

**PAT APP FOR**

(F-Skirt) PAT APP FOR (R-Skirt) 2 SB  
Dark Aqua, Dark Blue Aqua

**PAT'D**

(F-Crown) 2 (Base) PAT'D  
Green Aqua



**CD 131.8**

**CD 131.8**

**NO NAME**

[No Embossing] SB  
Aqua





**CD 132.2**

**NO NAME**

(Dome) 2 SB

Aqua, Ice Blue, Teal Blue, Cobalt Blue, Light Green, Green, Yellow Green, Lime Green, Dark Cobalt Blue

**PAISLEY**

(F-Skirt) S.T.PAISLEY/MAKER/BEAVER FALLS, PA.

(R-Skirt) L.A.CAUVET'S/PAT'D/JULY 25<sup>TH</sup> 1865 SB

Aqua

**CD 132.2**

### **Chambers' Lightning Protection System**

Somewhere in the heartland of rural Missouri we find the rooftop of a barn with the Chambers' lightning protection system installed and in operation. You will see the **CD 317** "candlestick" mounted to the apex of the roof and the **CD 132.4** "companion" mounted next to the vertical lightning rod.

The CD 317 is mounted on standard threaded pin and attached to the roof. The CD 132.4 is mounted with a standard threading at the top of the tripod stand. The side view of the CD 132.4 (pictured on following page) shows the specially molded slot in the skirt of the insulator which received the "riser" lightning rod. The horizontal cable of the system is mounted into the saddle groove on the top of the dome of the CD 317.



(Photograph courtesy of Chris Hedges and Charlie Allmon)



*Front View*

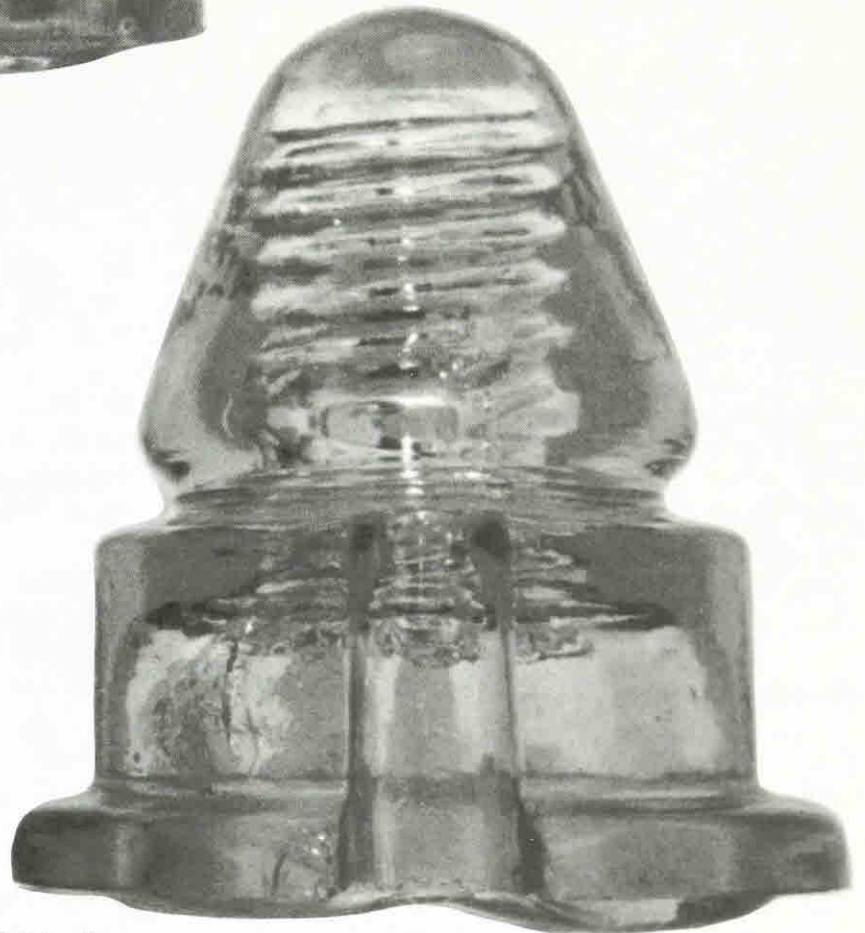
CD 132.4

CD 132.4

NO NAME-DEC PAT

(F-Crown) PATENT/DEC. 19. 1871 SB

Aqua, Dark Aqua, Light Green



*Rear View*

This is the companion insulator used with CD 317 in the **Chambers' Lightning Protection System**. The vertical slot used during installation for the "riser" lightning rod. (See CD 317 for additional information)





### CD 133

#### CD 133

#### B.G.M.

(F-Skirt) B.G.M.C. SB  
Purple

(F-Skirt) B.G.M.CO. SB  
Light Purple

#### BROOKFIELD

(Dome) [Number] (F-Skirt) BROOKFIELD (R-Skirt)  
NEW YORK SB  
Aqua, Yellow Green, Light Aqua, Green Aqua

(Dome) [Number] (F-Skirt) BROOKFIELD (R-Skirt) N°  
20 SB  
Dark Aqua, Yellow Green, Green, Emerald Green, Aqua,  
Olive Green, Dark Olive Amber

(Dome) [Number] (F-Skirt) W. BROOKFIELD (R-Skirt)  
NEW YORK SB  
Light Aqua, Blue Aqua, Green, Yellow Green

(F-Crown) (Arc)BROOKFIELD {'W' Blotted out}/['1'/  
'55 FULTON ST.' Blotted out]/N.Y. (F-Skirt) ER (R-  
Crown) [Blotted out Embossing] SB  
Aqua

(F-Crown) (Arc)CAUVET'S/PAT/JULY 25, 1865 (F-  
Skirt) W. BROOKFIELD/N° 55 FULTON ST. (R-Skirt)  
[Number] SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
{Note Spelling} (R-Crown) PAT/JAN 25 1870 SB  
Yellow Green

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST. N.Y.  
SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST. N.Y.  
{'N' is backwards} SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
(R-Crown) [Number]/PAT/JAN 25 1870 {MLOD} SB  
Blue

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
{'4' is backwards} (R-Crown) (Arc)CAUVET'S/PAT./  
JULY 25, 1865/PAT.JAN. 25, 1870/PAT.FEB. 22, 1870  
{MLOD} SB  
Light Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
{'N' is backwards} (R-Crown) PAT./JAN. 25, 1870  
{MLOD} SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
{MLOD} SB  
Light Aqua, Light Blue, Green, Yellow Green

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./NEW  
YORK (R-Crown) [Number]/PAT/JAN 25, 1870  
{MLOD} SB  
Aqua, Olive Green

(F-Crown) (Arc)W. BROOKFIELD/55 FULTON ST./  
N.Y. (R-Crown) (Arc)CAUVET'S/PAT/JULY 25 1865/  
PAT JAN 25 1870/PAT FEB 22 1870 {MLOD} SB  
Light Aqua

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK (R-  
Crown) (Arc)W. BROOKFIELD/NEW YORK SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK (R-  
Crown) [Letter] {MLOD} SB  
Light Aqua, Aqua, Apple Green, Ice Blue, Light Blue

(F-Crown) (Arc)W. BROOKFIELD/[Number]/55  
FULTON ST. N.Y. (F-Skirt) E.R. (R-Crown)  
(Arc)CAUVET'S/PAT./JULY 25, 1865 (R-Skirt)  
PAT.JAN. 25, 1870 {MLOD} SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/[Number]/55  
FULTON ST. N.Y. (F-Skirt) E.R. (R-Crown)  
(Arc)CAUVET'S/PAT./JULY 25, 1865 {MLOD} SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/[Number]/55  
FULTON ST./N.Y. (F-Skirt) E.R. (R-Crown)  
(Arc)CAUVET'S/PAT./JULY 25, 1865 (R-Skirt)  
PAT.JAN. 25, 1870/PAT.FEB. 22, 1870 {MLOD} SB  
Aqua, Blue, Light Aqua

(F-Crown) (Arc)W. BROOKFIELD/[Number]/55  
FULTON ST./N.Y. (R-Crown) CAUVET'S/PAT/JULY  
25, 1865 {MLOD} SB  
Blue Aqua, Apple Green, Light Aqua, Teal Blue, Dark  
Green, Sapphire Blue

(F-Crown) W. BROOKFIELD/NEW YORK (R-Crown)  
[Letter] SB  
Aqua, Light Blue, Yellow Green

(F-Crown) [Number]/(Arc)CAUVET'S/PAT/JULY 25,  
1865 (F-Skirt) W. BROOKFIELD/NO 55 FULTON ST  
(R-Skirt) [Large '7'] {MLOD} SB  
Aqua

(F-Crown) [Number]/(Arc)W. BOOKFIELD {Note  
Spelling}/45 CLIFF ST./N.Y. {'4' is backwards} (R-  
Crown) (Arc)CAUVET'S/PAT./JULY 25, 1865/  
PAT.JAN. 25, 1870/PAT.FEB. 22, 1870 {MLOD} SB  
Aqua

(F-Crown) [Number]/(Arc)W. BOOKFIELD/45 CLIFF  
ST/N.Y. {Note Spelling} {MLOD} SB  
Green Aqua, Light Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF  
ST {'C' is backwards} (R-Crown) PAT./JAN. 25, 1870  
{MLOD} SB  
Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF  
ST. N.Y. (R-Crown) (Arc)CAUVET'S/PAT./JULY 25,  
1865/JAN. 25, 1870/FEB. 22, 1870 SB  
Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF  
ST. N.Y. (R-Crown) PAT/JULY 25, 1865 {MLOD} SB  
Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF  
ST./N.Y. (R-Crown) PAT./JAN. 25 1870 {MLOD} SB  
Aqua, Green, Yellow Green

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF  
ST./N.Y. {'N' is backwards} (R-Crown) PAT./JAN. 25  
1870. {MLOD} SB  
Light Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF  
ST./N.Y. {MLOD} SB  
Light Aqua, Ice Blue, Light Green

(F-Crown) [Number]/(Arc)W. BROOKFIELD/55  
FULTON ST./N.Y. (R-Crown) (Arc)CAUVET'S/  
PAT.JULY 25, 1865/PAT.JAN. 25, 1870/PAT.FEB. 22,  
1870 {MLOD} SB  
Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/NEW  
YORK SB  
Light Blue

(F-Crown) [Number]/(Arc)W. BROOKFIELD/NEW  
YORK (R-Crown) [Letter] {MLOD} SB  
Aqua, Light Blue, Light Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/NEW  
YORK {MLOD} SB  
Light Aqua, Aqua, Green

(F-Crown) [Number]/(Arc)W. BROOKFIELD {Note  
Spelling}/45 CLIFF ST./N.Y. (R-Crown) PAT.JAN. 25,  
1870 {MLOD} SB  
Aqua

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SB  
Aqua, Light Blue, Light Green, Green

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK/  
['B.G.M.CO.' Blotted Out] SB  
Light Aqua, Light Yellow Green

(F-Skirt) BROOKFIELD (R-Skirt) N<sup>o</sup> 20 SB  
Aqua, Yellow Green

(F-Skirt) BROOKFIELD (R-Skirt) N<sup>o</sup> 20 SDP  
Dark Aqua, Yellow Green, Olive Green

(F-Skirt) BROOKFIELD (R-Skirt) [Blotted out Emboss-  
ing] SB  
Aqua

(F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK SB  
Aqua, Apple Green, Lime Green





**CD 133 Variations**

*(Left to right) Star; No Name - Canada; Dome embossed Brookfield with "ER" embossed on the skirt; B.G.M.CO.*

**CALIFORNIA**

(F-Skirt) CALIFORNIA SB  
Aqua, Purple, Peach, Smoke, Yellow, Burgundy, Light Purple, Blue Aqua

**CITY FIRE ALARM**

(F-Skirt) CITY FIRE ALARM SB  
Light Aqua

**E.R.**

(F-Skirt) E R SB  
Aqua, Light Aqua, Light Green

**H.G.CO.**

(F-Skirt) H.G.CO. (R-Skirt) N° 7/STANDARD SB  
Aqua, Clear, Light Green, Light Blue, Orange Amber, Purple Tint

(F-Skirt) H.G.CO. (R-Skirt) N° 7/STANDARD { 'S' is backwards } SB Aqua

(F-Skirt) H.G.CO. (R-Skirt) STANDARD SB  
Aqua

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt) N° 20 SDP  
Aqua, Lime Green

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt) N° 20/[ 'STANDARD' Blotted out ] SDP  
Aqua

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt) STANDARD SB  
Aqua

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt) STANDARD SDP  
Aqua, Light Aqua, Milky Aqua, Jade Green Milk, Light Green, Lemon, Yellow Green, Light Yellow Green, Green, Gray Sage

**HEMINGRAY**

(F-Skirt) HEMINGRAY (R-Skirt) PATENT/MAY 2 1893 SDP  
Dark Aqua

(F-Skirt) HEMINGRAY/N° 20 (R-Skirt) PATENT MAY 2 1893 SDP  
Aqua

(F-Skirt) HEMINGRAY/PATENT MAY 2 1893 (R-Skirt) STANDARD SDP  
Aqua, Light Green

**NO NAME**

(Dome) [Number] (F-Skirt) N° 20 SB  
Aqua, Yellow Green

(F-Skirt) N° 20 SB  
Aqua, Green, Light Green, Emerald Green, Yellow Green, Light Blue, Ice Blue, Olive Green

(F-Skirt) Rd N° 154745 SB  
Aqua, Jade Green Milk

[No Embossing] SDP  
Aqua

[No Embossing] {MLOD} SB  
Light Aqua

**NO NAME-CANADA**

[No Embossing] RB  
Light Aqua

[No Embossing] {High Narrow Dome} SB  
Light Aqua, Light Green, Blue, Purple

**NO NAME-DEC PAT**

(F-Crown) PATENT/DEC. 19, 1871 SB  
Ice Aqua, Aqua, Light Green, Purple

**O.V.G.**

(F-Skirt) O.V.G.CO. SB  
Aqua

**STAR**

(F-Skirt) [Star] SB  
Aqua, Blue, Green, Lime Green, Yellow Green, Olive  
Green, Aqua/Yellow Green Two Tone, Blue Aqua, Light  
Blue, Light Green

**TEL.FED.MEX**

(F-Skirt) TEL. FED./MEX. (R-Skirt) JM. {MLOD} SB  
Dark Green Aqua



**CD 133.1**

**CD 133.1**

**BROOKE'S**

(F-Skirt) HOMER BROOKE'S PAT (R-Skirt) [Letter]/  
AUG 14 1883 SB  
Aqua, Brooke's Blue, Light Blue

**ELECTRICAL SUPPLY CO.**

(F-Crown) [Number] (F-Skirt) THE ELECTRICAL  
SUPPLY Co./CHICAGO {MLOD} SB  
Aqua, Light Green, Light Aqua

(F-Skirt) THE ELECTRICAL SUPPLY Co./CHICAGO  
{MLOD} SB

Aqua, Light Green, Green Aqua, Light Blue

**NO NAME-DEC PAT**

(Dome) [Letter] (F-Skirt) PATENT/DEC. 19, 1871 (R-  
Skirt) [Number] SB  
Aqua, Light Green, Apple Green, Light Aqua, Off Clear,  
Purple Tint

(F-Skirt) PATENT/DEC. 19, 1871 (R-Skirt) [Number]/  
[Letter] SB  
Clear, Apple Green

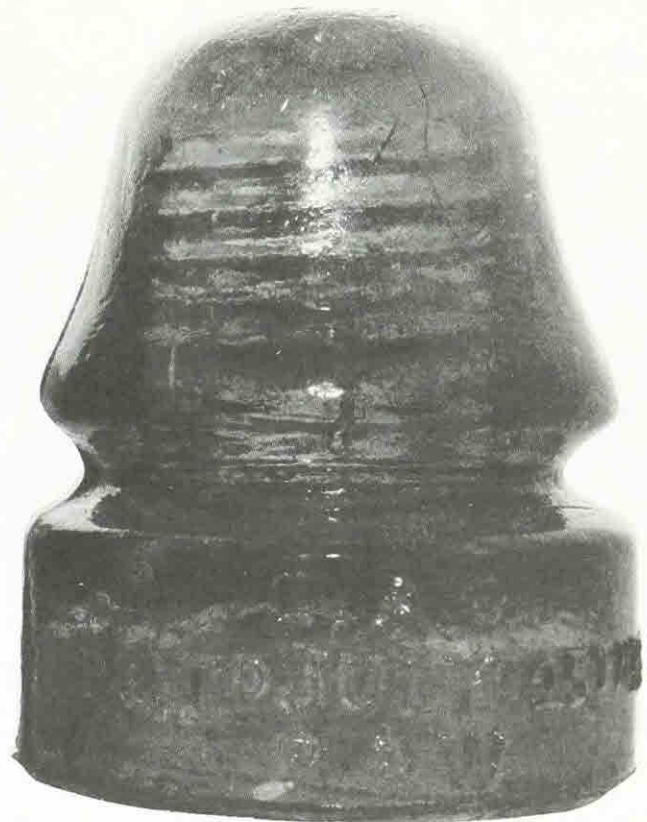
**PAT APP FOR**

(F-Skirt) PAT APP FOR (R-Skirt) 3 SB  
Teal Blue, Teal Green, Dark Blue Aqua

(F-Skirt) PAT APP FOR (R-Skirt) 3/[Letter] SB  
Aqua, Hemingray Blue

**TEL.FED.MEX**

(F-Skirt) SAMUEL H<sup>NOS</sup>/NEW YORK. (R-Skirt)  
TEL.FED./MEX. SB  
Aqua



**CD 133.2**

**CD 133.2**

**B.F.G.**

(Dome) ['I' and 'C' Entwined Initials] (F-Crown)  
(Arc)L.A.C.'S PAT JULY 25<sup>TH</sup> 1865 (F-Skirt) B.F.G.Co.  
SB  
Aqua

(Dome) [Number] (F-Crown) (Arc)L.A.C.'S PAT JULY  
25<sup>TH</sup> 1865 (F-Skirt) B.F.G.Co. SB

Aqua, Blue



**NO NAME**  
(Dome) M SB  
Aqua, Blue

[No Embossing] SB  
Aqua

**P&W**  
(Dome) ['2' in a circle] (F-Crown) (Arc)PATD JULY  
25<sup>TH</sup> 1865/L.A.C. (F-Skirt) P & W SB  
Aqua, Blue

(F-Crown) (Arc)PATD JULY 25<sup>TH</sup> 1865/L.A.C (F-Skirt)  
P & W SB  
Aqua

(F-Skirt) L.A.C./PAT<sup>D</sup> JULY 25<sup>TH</sup> 1865/P & W SB  
Aqua



**CD 133.4**



**CD 133.3**

**CD 133.3**

**NO NAME**  
(F-Skirt) [Vertical Bar] (R-Skirt) [Vertical Bar] SB  
Aqua, Green

**CD 133.4**

**NO NAME**  
[No Embossing] SB  
Aqua, Light Blue, Light Green, Yellow Green, Light  
Purple, Purple, Dark Plum, Honey Amber, Purple/Sage  
Two Tone

**NO NAME-DEC PAT**  
(F-Crown) PATENT/DEC. 19. 1871 (F-Skirt) [Letter] (R-  
Crown) 3 SB  
Aqua, Green, Light Green, Light Aqua, Green Aqua

(F-Crown) PATENT/DEC. 19. 1871 (R-Crown) 3 SB  
Light Blue, Light Green, Aqua, Light Aqua, Dark Aqua,  
Dark Green

(F-Crown) PATENT/DEC. 19. 1871 (R-Crown) 3 (R-  
Skirt) [Letter] SB  
Aqua, Light Aqua, Dark Aqua, Green, Light Green, Blue  
Aqua, Dark Yellow Green, Blue, Light Purple

**PAT'D**  
(Base) PAT'D  
Aqua, Green, Yellow Green, Cobalt Blue, Milky Aqua,  
Green Aqua, Dark Green



CD 133.5

CD 133.5

**TEL.FED.MEX.**

(F-Skirt) TEL.FED./MEX (R-Skirt) JM/[Blotted out Embossing] {MLOD} SB  
Dark Green Aqua



CD 134

**CD 134**

**AMERICAN**

(Base) AM INS CO/PAT.SEP 13 1881  
Light Green, Blue Aqua, Aqua, Light Aqua

(Base) AM INSR Co PAT<sup>D</sup> SEPT. 13, '81. {'R' is backwards}  
Aqua, Light Green, Honey Amber, Light Green Aqua, Olive Amber

(Base) AM INSR Co. PATD SEPT. 13, '81 {'N' is backwards}  
Light Aqua, Light Olive Green, Light Green Aqua, Light Blue, Ice Green, Aqua, Light Green, Light Yellow Green, Green, Olive Green

(Base) AM. INS. CO. PAT. SEPT 13. 81.  
Light Aqua

(Base) AM. INS. CO. PAT<sup>D</sup> SEPT 13.'81. [Glass Dot]  
Light Aqua, Light Green, Aqua, Light Green Aqua

**B.G.M.**

(F-Skirt) B.G.M.CO. SB  
Clear, Purple, Light Purple, Light Lemon, Pink

**BROOKFIELD**

(Dome) [Number] (F-Skirt) BROOKFIELD SB  
Dark Green

(Dome) [Number] (F-Skirt) BROOKFIELD SDP  
Dark Green, Dark Aqua

(Dome) [Number] (F-Skirt) BROOKFIELD (R-Skirt)  
NEW YORK SB  
Aqua, Green Aqua, Light Aqua

(Dome) [Number] (F-Skirt) BROOKFIELD (Note Spelling) SB  
Aqua, Dark Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST (R-Crown) [Number] {MLOD} SB  
Light Green

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST. N.Y. (R-Crown) [Number]/PAT. JAN 25. 1870 {MLOD} SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST. N.Y. {MLOD} SB  
Aqua, Green, Light Yellow Green

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. (R-Crown) [Number] SB  
Ice Blue, Green, Apple Green



(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
{MLOD} SB  
Light Aqua, Light Yellow Green, Green, Aqua

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK (R-  
Crown) [Letter] SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK (R-  
Crown) [Number] {MLOD} SB  
Light Green, Aqua

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK  
{MLOD} SB  
Aqua

(F-Crown) (Arc)W<sup>M</sup> BROOKFIELD/45 CLIFF ST. N.Y.  
(R-Crown) PAT.JAN. 25 1870 {MLOD} SB  
Light Green, Light Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF  
ST/N.Y. {MLOD} SB  
Aqua, Light Green, Green

(F-Skirt) BROOKFIELD SB  
Aqua

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SB  
Light Green

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK/  
['B.G.M.CO.' Blotted out] SB  
Aqua, Green

(F-Skirt) BROOKFIELD (R-Skirt) N° 36/[Number] {This  
is a CD162 with no inner skirt} SB  
Dark Aqua, Blue

(F-Skirt) BROOKFIELD (R-Skirt) N° 41 SB  
Aqua, Green

(F-Skirt) BROOKFIELD/[Number] (R-Skirt) N° 36 {This  
is a CD162 with no inner skirt} SB  
Aqua

(F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK SB  
Light Aqua, Yellow Green, Green, Aqua, Light Blue  
Aqua

(F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK/  
['B.G.M.CO.' Blotted out] SB  
Light Aqua

### **C.E.L.**

(F-Skirt) C. E.L.CO./[Blotted out Embossing] SB  
Aqua, Jade Aqua, Green Aqua, Blue Aqua

(F-Skirt) C.E.L.CO. {MLOD} SB  
Aqua, Green, Blue Aqua

### **CALIFORNIA**

(Dome) [Letter] (F-Skirt) CALIFORNIA SB  
Light Rose

(F-Skirt) CALIFORNIA SB  
Aqua

### **DIAMOND P**

(F-Skirt) ['P' in a diamond] (R-Skirt) PAT.AUG 11. 85.  
SB  
Blue Aqua, Sage Green Vaseline, Light Apple Green,  
Lime Green, Sapphire Blue, Jade Green Milk, Apple  
Green, Green, Light Green Slag, Teal Aqua, Steel Blue,  
Yellow Green Vaseline, Gray Green Vaseline, Light  
Yellow Green, Light Aqua, Aqua, Apple Green

### **ELECTRICAL SUPPLY CO.**

(F-Skirt) THE ELECTRICAL SUPPLY CO/CHICAGO  
{MLOD} SB  
Light Aqua

(F-Skirt) THE ELECTRICAL SUPPLY CO/CHICAGO  
(R-Skirt) 905 {MLOD} SB  
Light Aqua, Green, Aqua

### **FALL RIVER**

(F-Skirt) FALL RIVER (R-Skirt) POLICE SIGNAL SB  
Aqua

### **G.E.CO.**

(Dome) [Letter or Number] (F-Skirt) G.E.CO./['T-H.E.  
CO.' Blotted out] {MLOD} SB  
Aqua, Light Aqua

(F-Skirt) G.E.CO. SB  
Light Aqua, Light Green, Green

(F-Skirt) G.E.CO. {MLOD} SB  
Light Aqua, Aqua

### **GOOD**

(F-Skirt) GOOD SB  
Light Aqua, Aqua

(F-Skirt) GOOD/[1 or 2 Dots] SB  
Light Aqua, Aqua, Light Green

### **HEMINGRAY**

(F-Skirt) HEMINGRAY (R-Skirt) N° 18 SB  
Green



**CD 134 Variations**

*(Left to right) American Insulator Company embossed on the base;  
Western Flint Glass Company; a C.E.L.CO. embossing.*

(F-Skirt) HEMINGRAY (R-Skirt) N° 18 SDP  
Aqua, Light Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY (R-Skirt) PATENT/MAY 2 1893  
SDP  
Aqua, Light Aqua, Green Aqua

(F-Skirt) HEMINGRAY-18 (R-Skirt) MADE IN U.S.A.  
RDP  
Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY-18/[Numbers and Dots] (R-  
Skirt) MADE IN U.S.A/[Number] RDP  
Clear, Ice Aqua

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N°  
18 SDP  
Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY/PATENT MAY 2 1893 (R-Skirt)  
STANDARD SDP  
Aqua

(F-Skirt) HEMINGRY {Note Spelling} (R-Skirt) PAT-  
ENT/MAY 2 1893 SDP  
Aqua

**K.C.G.W.**

(F-Skirt) ['K.C.G.W.' Blotted out] (R-Skirt) ['FAIR-  
MOUNT' Blotted out] SB  
Aqua

(F-Skirt) [Glass Dot]/K.C.G.W. (R-Skirt) [Glass Dot]/  
FAIRMOUNT SB  
Green Aqua, Aqua, Ice Blue

(F-Skirt) [Glass Dot]/['K.C.G.W.' Blotted out] (R-Skirt)  
[Glass Dot]/['FAIRMOUNT' Blotted out] SB  
Ice Green, Dark Aqua, Aqua

**NO NAME**

(F-Skirt) [Glass Dot] (R-Skirt) [Glass Dot] SB  
Aqua

(F-Skirt) [Vertical Bar] (R-Skirt) [Vertical Bar] SB  
Light Green

[No Embossing] {Hemingray style} RDP  
Aqua

[No Embossing] {Oakman Style - seen with and without  
a small diamond shape on the dome} SB  
Aqua, Root Beer Amber, 7-up Green, Apple Green, Light  
Green, Light Green Aqua, Light Blue Aqua, Olive  
Amber, Emerald Green

[No Embossing] {Oakman mold - Diamond plunger mark  
in the pinhole} SB  
Aqua, Blue, Light Green

[No Embossing] {Pennycuick style} SB  
Aqua, Light Sage Green, Blue

**NO NAME-CANADA**

[No Embossing] {Slope shoulder} {MLOD} SB  
Light Blue, Blue, Blue Aqua, Dark Green, Green Aqua

**NO NAME-DEC PAT**

(Dome) [Letter] (F-Skirt) PATENT/DEC. 19. 1871 SB  
Clear, Ice Blue, Aqua, Green Tint, Light Green Aqua,  
Light Purple, Dark Aqua, Light Blue Aqua

(Dome) [Letter] (F-Skirt) PATENT/DEC. 19. 1871 (R-  
Skirt) PATENT/MAY 2 1893 SDP  
Light Aqua

(F-Skirt) PATENT/DEC. 19. 1871 SB  
Blue Aqua, Ice Blue, Light Green, Peacock Blue, Olive  
Green, Lemon, Off Clear, Blue



(F-Skirt) PATENT/DEC. 19. 1871 (R-Skirt) PATENT  
MAY 2 1893 SDP  
Aqua, Clear, Peacock Blue, Green Aqua, Light Blue,  
Dark Yellow, Light Green, Off Clear, Lime Green

(F-Skirt) PATENT/DEC. 19. 1871 (R-Skirt) PATENT/  
MAY 2 1893 SDP  
Aqua, Light Aqua, Light Green, Violet Blue

(F-Skirt) PATENT/DEC. 19. 1871 (R-Skirt) [Letter] SB  
Light Purple, Aqua, Clear, Light Yellow Green, Blue,  
Light Green, Light Aqua, Sky Blue, Green Aqua

#### OAKMAN

(Base) OAKMAN PATD SEPT 13. 81.  
Aqua, Emerald Green

#### PETTINGELL ANDREWS

(F-Skirt) PETTINGELL ANDRE (R-Skirt) WS CO.  
BOSTON SB  
Aqua, Blue Aqua, Light Green Aqua

#### STAR

(F-Skirt) [Star] SB  
Aqua, Green, Light Blue, Lime Green, Dark Green, Dark  
Aqua, Blue

#### T-H.E.

(Dome) T-H.E. CO (F-Skirt) PATENT/DEC. 19. 1871  
SB  
Light Green, Light Lime Green, Light Aqua, Aqua

(F-Skirt) T-H.E. CO. SB  
Light Blue, Aqua

(F-Skirt) T-H.E. CO. (R-Crown) [Number] {MLOD} SB  
Yellow Green, Light Green, Blue, Aqua, Root Beer  
Amber, Light Blue Aqua

#### W.F.G.

(F-Skirt) W.F.G.CO./DENVER, COLO. (R-Skirt) [0,1 or  
2 Dots] SB  
Aqua, Steel Blue, Light Gray, Pink, Purple, Lime Green,  
Light Peach, Milky Lavendar, Light Gingerale, Blue  
Aqua, Straw

(F-Skirt) W.F.G.CO./DENVER, COLO. (R-Skirt)  
[Blotted out Embossing] SB  
Light Lavendar, Clear

#### W.G.M.

(F-Skirt) W.G.M.Co. SB  
Purple

#### WESTINGHOUSE

(F-Skirt) WESTINGHOUSE/NO.6 SB  
Light Aqua, Blue Aqua, Peacock Blue, Light Green



CD 134.4

CD 134.4

#### NO NAME

[No Embossing] {American Threads} SB  
Light Green, Aqua, Yellow Green, Golden Amber, Blue  
Aqua, Olive Amber, Olive Green

CD 134.6 was given a nickname, "**The Mad Hatter**", many years ago. The insulator was removed from a line in the Philadelphia Naval Ship Yard. To date, only one example of this CD has been found.

On the following page is an article about this insulator which appeared in the March 24, 1897 *Electrical Review*. You will read that the insulator was "made by the Philadelphia Insulator Company."

Philadelphia city and business directories from 1890 to 1902 show no record of a Philadelphia Insulator Company. However, **Hannibal W. Rappleye** was listed as a resident at 2814 Poplar Street [currently a downtown Philadelphia address] between 1890 and 1902. His professional listings were: Gas Burner Service and Repair (1890-1893); Plumbers Materials and Supply (1894); President (1895); General Agent (1896); Unemployed (1897); Machinist (1898-1901); Refrigerator Sales & Service (1902). The listings in 1895 and 1896 indicated no company name, but the





CD 134.6

CD 134.6

**BROOKFIELD**

(F-Skirt) BROOKFIELD (R-Skirt) PHILADELPHIA/  
PAT'D APRIL 17, 1896 SB  
Aqua

address for both listings is 503 Penn Mutual Building, Philadelphia.

It might be assumed that no listing for the Philadelphia Insulator Company suggests that they did not have a manufacturing location in the Philadelphia or Delaware Valley area.

Since the CD 134.6 bears the Brookfield name, it is likely that Rappleye was the General Agent for the Brookfield Glass Company in 1896. It is logical that he sold his patent rights to Brookfield and became their General Sales Agent in the Philadelphia area.

Jack Kesling, in researching "The Mad Hatter", concludes "that the Philadelphia Insulator Company was a flash in the pan. The fact that more insulators have not been found suggests this was an experimental style for Brookfield, but technical performance never met expectations and the insulator was dropped from their product line."

**The "Philadelphia" Insulator and Tie.**

In the accompanying illustration is shown a novel method of tying line wires, made by the Philadelphia Insulator Company, of Philadelphia, Pa. The tie, in its operation, seems to be similar to the stopper device ordinarily used on beer bottles. The tie is made instantly, by the snap of the lever, or is unmade in the same manner. A number of ties on a line



**THE PHILADELPHIA INSULATOR AND TIE.**

can be simultaneously made. The tie adapts itself to the position of the line wire by means of the movable band on the insulator being turned to any desired position to conform with the line wire.

In new work it is the practice to have gangs of as many as five men on the poles, and when ready to make their ties, they tie in succession, the second man awaiting word from the



first before he makes his tie, and so to the fifth, or last. It will take an expert lineman two minutes to make a good tie, thus requiring an average of 10 minutes for each tie made. With the "Philadelphia" the tie is made so readily as to admit of the five ties practically being made simultaneously. This means a saving of time of practically 50 minutes for the five ties.

In repair work, where the former tie must be removed, it requires about two minutes to remove the old tie, and at least as much more time to

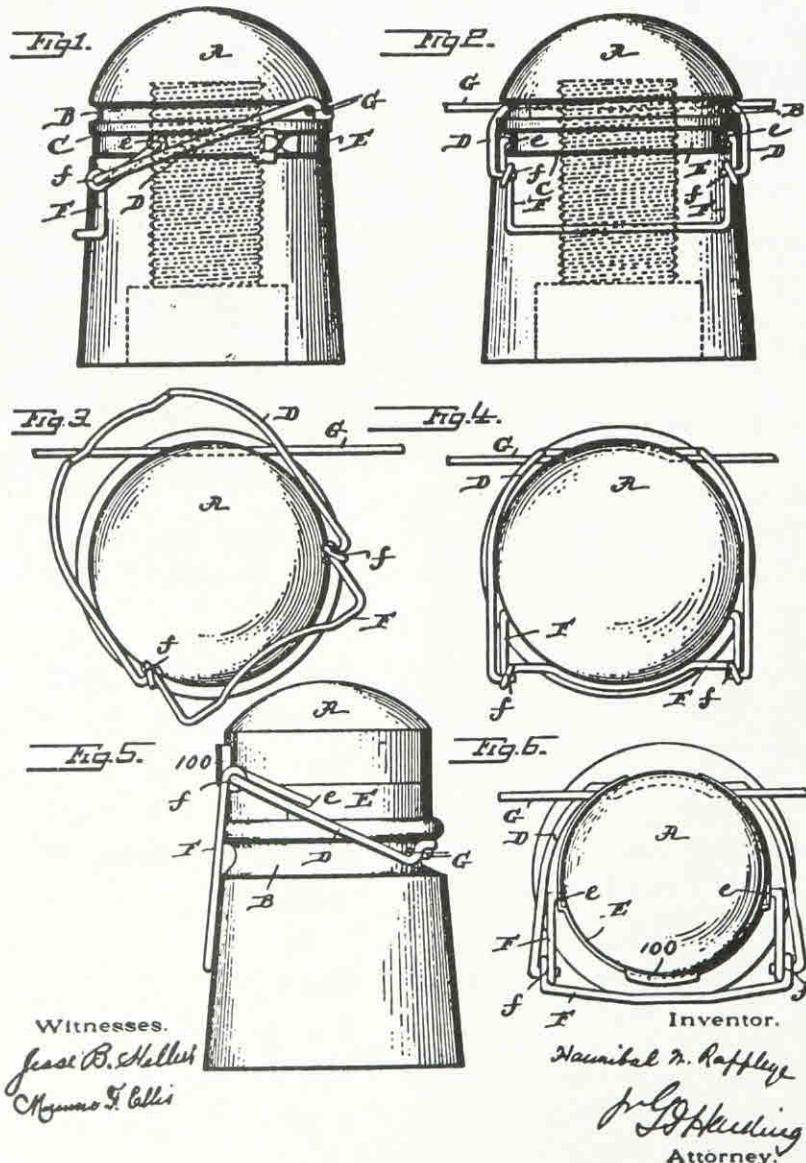
make the new one. The old tie is of no further use, and if of copper, has cost at least one cent. A new copper tie will cost as much more, or, in all, two cents for ties to replace one removed. It is claimed that with the device illustrated the tie can be made or unmade any number of times without impairment. Practically no time is required in making or unmaking them.

The "Philadelphia" Insulator and Tie from *Electrical Review*, March 24, 1897. (Courtesy of Mike Miller)

H. W. RAPPLEYE.  
INSULATOR.

No. 557,881.

Patented Apr. 7, 1896.



Witnesses.  
Jessie B. Haller  
Thomas G. Collier

Inventor.  
Harriet W. Rappleye  
J. G. Hurd  
Attorney.



CD 135



CD 135.5

CD 135

**CHICAGO**

(Base) CHICAGO INSULATING CO./PAT OCT 16 1883. (F-Skirt) [Glass Dots] SB  
Blue Aqua, Blue

(Upper Shoulder) CHI.INS.CO. PAT.OCT. 16. 1883 (F-Skirt) [Glass Dots] SB  
Aqua

(Upper Shoulder) CHI.INS.CO. PAT<sup>d</sup> OCT. 16. 1883 (F-Skirt) [Glass Dots] SB  
Aqua, Blue, Blue Milk

The **Fiske and Mott** patent of October 16, 1883 covers the design of **CD 135**. (See Insulators of the Mid-West -- Chicago and Its Insulators chapter)

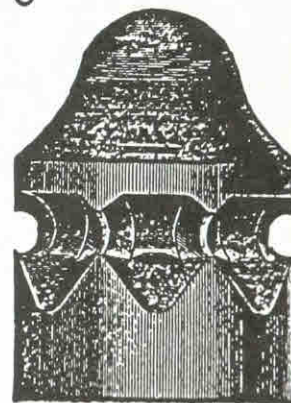
*(Right) The "Fiske & Mott High Resistance Insulator" ad appeared in the February 28, 1894 issue of Electrical Review. (Courtesy of Elton Gish)*

CD 135.5

**E.R.W.**

(F-Skirt) E.R.W. SB  
Ice Blue, Lime Green, Green Aqua, Blue Aqua, Light Aqua

**THE FISKE & MOTT**  
*High Resistance Insulator*



We will be ready to fill orders after January 1st in order of receipt--in glass or of our patent com position.  
For long lines, or wherever HIGH INSULATION is required, they are unequalled.  
For prices, catalogues, etc., address,  
**THE CHICAGO INSULATING CO.,**  
122 La Salle St., Chicago, Ill.





**CD 136**

**CD 136**

**B&O**

(F-Crown) B & O (R-Crown) PAT. JAN 25<sup>TH</sup> 1870 SB  
Aqua, Lime Green, Light Aqua

(F-Crown) B & O (R-Crown) [Number] {MLOD} SB  
Green

(F-Crown) B & O {MLOD} SB  
Green Aqua

(F-Skirt) B & O/[Letter] (R-Skirt) PATENT/DEC. 19.  
1871 SB  
Aqua, Light Green, Green Aqua, Green

(F-Skirt) B & O/[Letter] (R-Skirt) PATENT/PEC. 19.  
1871 {Note Spelling} SB  
Light Green, Aqua

**BROOKFIELD**

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
(F-Skirt) B & O (R-Crown) PAT/JAN 25<sup>TH</sup> 1870  
{MLOD} SB  
Light Blue

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
(F-Skirt) B & O (R-Crown) [Letter]/PAT/JAN 25<sup>TH</sup> 1870  
{MLOD} SB  
Light Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
{'N' is backwards} (F-Skirt) B & O (R-Crown) PAT/JAN  
25<sup>TH</sup> 1870 {'N' is backwards} {MLOD} SB  
Aqua, Light Green, Light Blue

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
{'N' is backwards} (F-Skirt) B & O (R-Crown) [Num-  
ber]/PAT/JAN 25<sup>TH</sup> 1870 {'N' is backwards} {MLOD}  
SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
{'N' is backwards} (F-skirt) B & O (R-Crown) [Number]/  
PAT/JAN 25<sup>TH</sup> 1870 {MLOD} SB  
Aqua, Light Aqua, Light Blue



**CD 136 Variation**

*The older style with "B & O" embossed on the dome.*



**CD 136.4**

**CD 136.4**

**NO NAME**

[No Embossing] {Four Segmented Threads} SB  
Yellow Olive, Aqua, Light Aqua, Yellow Green, Green,  
Emerald Green, Blue Aqua, Dark Green Aqua

[No Embossing] {MLOD} SB  
Aqua, Dark Green Aqua, Light Blue, Sapphire Blue, Dark  
Yellow Green, Turquoise Blue, Dark Green, Sky Blue

**CD 136.5**

**BOSTON BOTTLE**

(Base of Threads) BOSTON BOTTLE WORKS - PAT.  
OCT. 15 72 {Three Segmented Threads; This is a  
CD158.2 with no inner skirt} SB  
Aqua

**CD 136.7**

**NO NAME**

(Base of Threads) PAT.OCT. 15, 1872. {Three Seg-  
mented Threads} SB  
Aqua, Apple Green, Celery, Ice Aqua, Blue Aqua, Off  
Clear

[No Embossing] {Three Segmented Threads} SB  
Aqua



**CD 136.5**



**CD 136.7**





**CD 137**

**CD 137**

**HEMINGRAY**

(F-Skirt) HEMINGRAY (R-Skirt) D-990 SB  
Clear, Aqua

(F-Skirt) HEMINGRAY [Number] (R-Skirt) D-990 SB  
Ice Blue

(F-Skirt) HEMINGRAY [Numbers and Dots] (R-Skirt) D-990 [Number] CB  
Clear



**CD 138**

**CD 138**

**BROOKFIELD**

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
(F-Skirt) POSTAL TEL. Co. (R-Crown) [Number]/PAT/  
JAN 25<sup>TH</sup> 1870 {MLOD} SB

Light Blue, Light Green, Apple Green, Light Aqua, Off  
Clear, Yellow Green



**CD 137.5**

**CD 137.5**

**NO NAME**

[No Embossing] SB  
Clear

CD 138.2

**LAWRENCE GRAY**

(Base) MANUFACTURED BY LAWRENCE B.  
GRAY'S/PATENT PROCESS SB  
Blue Gray

**NATIONAL**

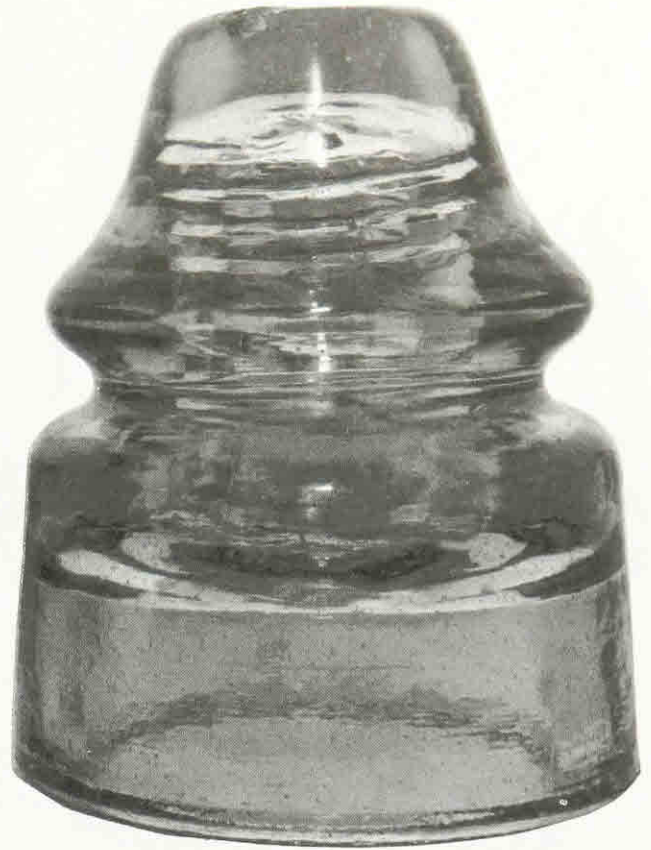
(Base) NATIONAL INSULATOR CO./PAT.JAN.1 &  
OCT.7.1884 SB  
Aqua, Green, Light Aqua

**NO NAME**

[No Embossing]  
Dark Teal Aqua

**STANDARD GLASS**

(Base) THE STANDARD GLASS INSULATOR CO./  
BOSTON MASS. SB  
Aqua, Light Aqua, Light Blue

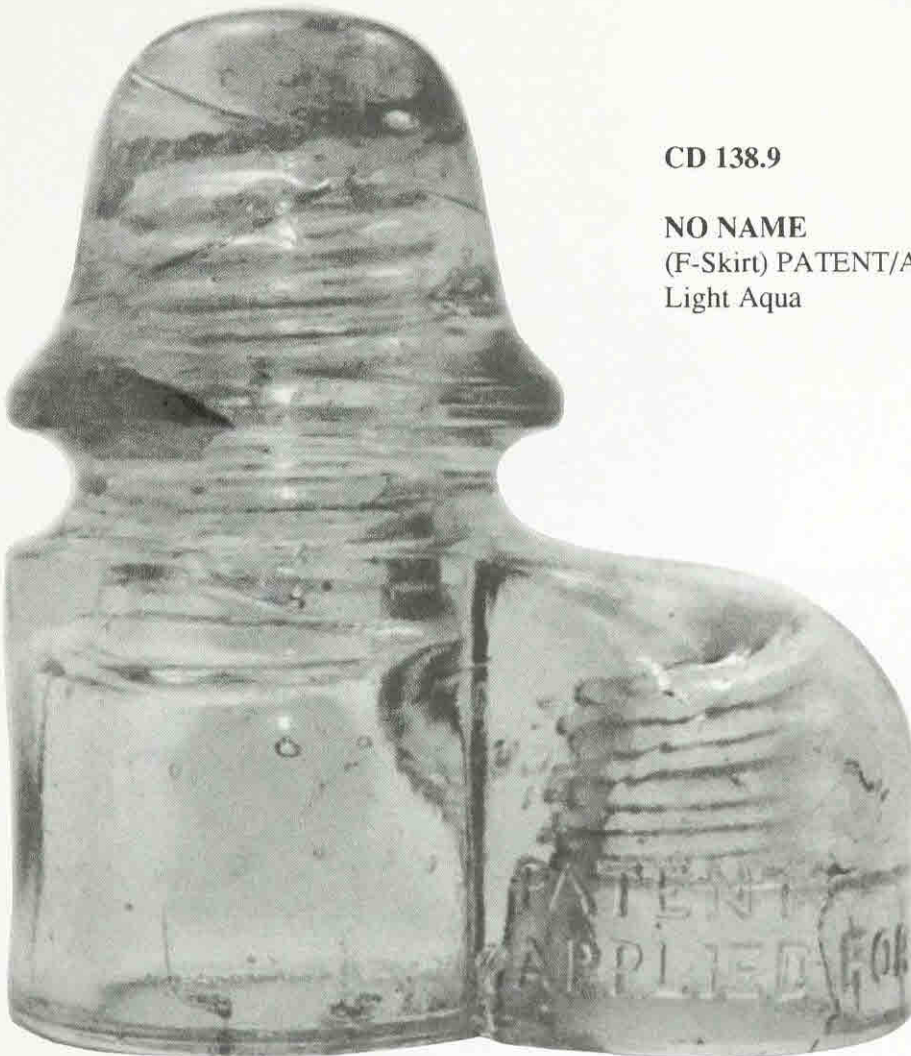


CD 138.2

CD 138.9

**NO NAME**

(F-Skirt) PATENT/APPLIED FOR SB  
Light Aqua



CD 138.9

CD 138.9 is probably one of the most bizarre shapes found in pin-type insulators. The main body has a standard threaded pinhole and a wire groove. But riding along like a "motorcycle's side car" is another section which also has a standard threaded pinhole but no wire groove.

There are six known specimens, but only one is mint. The rest have been reconstructed by gluing broken pieces. The insulator is named "**The Miller Twin Pin**" for Stewart and Isabelle Miller who were the original owners of the pieces.

The "Twin Pin" insulators were found along a railroad spur in Polks, Michigan, in an old barrel.

The "PATENT APPLIED FOR" embossing indicates that patent application had been made; however, no issued patent data has been found.





CD 139

CD 139

**COMBINATION SAFETY**

(F-Skirt) COMBINATION/SAFETY (R-Skirt) PAT. APPLIED FOR SB  
Aqua

(F-Skirt) COMBINATION/SAFTY {Note Spelling} (R-Skirt) PAT. APPLIED FOR SB  
Aqua

CD 139 is one of the more unusual "no-tie" insulators designed during the early 1900's. All of the units are embossed with "PAT. APPLIED FOR" on the rear skirt, however a patent was issued to **E. F. Shoenthaler** of Longbranch, New Jersey, assignor of two-thirds to **William H. Parker** and **Joseph F. Finn**, of Longbranch, New Jersey. The patent date is November 17, 1903.

The Electrical Review and Western Electrician of May 29, 1909 carried an article about four insulators offered by the Brookfield Glass Company. One of the insulators described was the "**Combination Safety**".

To date there is only one known unit with the misspelled "SAFTY" (pictured above) and it is evident on the four other known specimens that the "TY" of "SAFTY" were removed and the mold reengraved with the correct spelling.

**Brookfield Glass Insulators.**

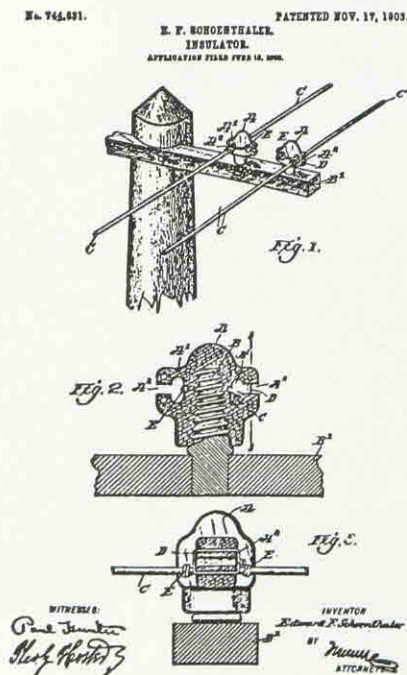
The Brookfield Glass Company, 2 Rector Street, New York is one of the pioneer and one of the most prominent manufacturers of glass insulators. This company's product has been standard for forty years, and with the Barclay improved in-



Fig. 1.

ulator a fine range of selection is afforded, meeting every exigency of line construction. The accompanying illustrations show four types of Brookfield insulators. Fig. 1 is a "Combination Safety" insulator, which is designed to prevent the dropping of the line wire to the cross-arm if the tie-wire breaks and to eliminate the necessity of tying to every insulator.

Electrical Review and Western Electrician, May 29, 1909 (Courtesy of Elton Gish)





CD 139.6

**PYREX**  
(F-Skirt) 660-PYREX-  
PAT.MAY-27-1919 (R-  
Skirt) CORNING MADE  
IN U.S.A. SB  
Clear

CD 139.6



CD 139.8

**NO NAME**  
[No Embossing] SB  
Root Beer Amber

CD 139.8





**CD 139.9**

**CD 139.9**

**M<sup>c</sup>LAUGHLIN**

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) USLD

{Comes with a rounded or a peaked  
dome} SB

Aqua



**CD 139.9 Variation**  
*Peaked dome*



**CD 140**

**CD 140**

**JUMBO**

(F-Skirt) JUMBO SB  
Aqua

**NO NAME**

[No Embossing] SB  
Aqua, Blue, Turquoise, Dark Green, Amber, Olive Green,  
Jade Milk, Clear, Light Purple, Green, Lime Green,  
Yellow Green, 7-up Green, Purple w/Milk Swirl

**OAKMAN**

(Base) OAKMAN M'F'G CO. BOSTON SB  
Aqua

(F-Skirt) JUMBO (Base) OAKMAN M'F'G' CO.  
BOSTON SB  
Aqua, Blue

(F-Skirt) JUMBO (R-Skirt) PATD JUNE 17, 1890, AUG  
19, 1890 (Base) OAKMAN M'F'G. CO. BOSTON SB  
Aqua, Light Green Aqua





CD 140.5

NO NAME

(F-Skirt) [Glass Dot] {MLOD} SB  
Cobalt Blue, Cobalt Blackglass

CD 141

NO NAME

[No Embossing] SB  
Green, Dark Aqua, Emerald Green, Aqua w/Amber  
Swirls, Light Aqua

CD 140.5



*Front View*

CD 141.6

CD 141.6

NO NAME

(F-Skirt) PAT'D AUG 29-93 SB  
Light Aqua



CD 141



Side View

G. W. BLACKBURN.  
INSULATOR.

No. 504,059.

Patented Aug. 29, 1893.

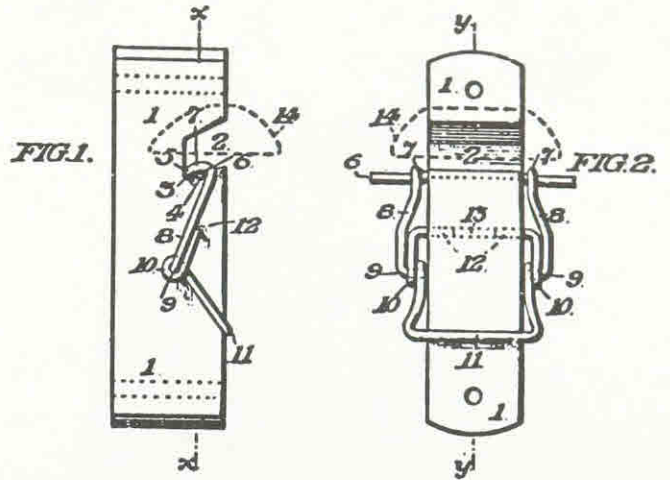
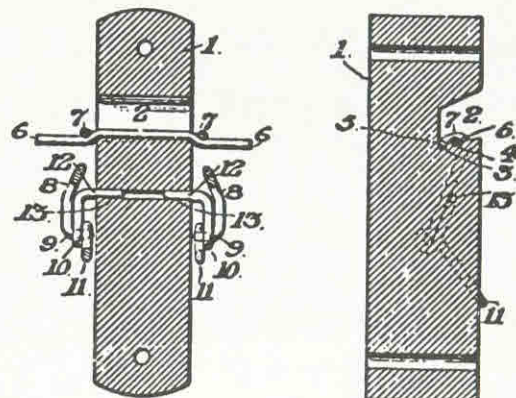


FIG. 3.

FIG. 4.



WITNESSES:

*N. E. Paige*  
*A. J. Zahn*

INVENTOR:

*George W. Blackburn*  
*by [Signature]*

The CD 141.6 pictured on the previous page illustrates how the bail wire was attached to the insulator. There are two round indentations just below the wire groove line on both the front and rear skirts into which the bail wire fits. You will see that the wire is using the left indentation and the right indentation which is clearly visible is not in use.

The side view (above) shows the flat sides of the dome and the attachment of the bail wires.

In this insulator's case, the wire groove was not used for the "line wire", but for the "bail wire". The line wire was attached to the bail wire clamp.

George W. Blackburn of Palmyra, New Jersey was granted a patent on August 29, 1893 covering "a block of insulating material with a bail shaped clamping lever adapted to receive a line wire." The patent drawing was a block design, but the molded insulator has a standard threaded pinhole.

To date, both specimens of the CD 141.6 have been found on the East Coast. It is suspected that the insulator may have been a product of one of the New Jersey glasshouses.





No. 798,235.

PATENTED AUG. 29, 1905.

W. R. TWIGGS.  
INSULATOR.

APPLICATION FILED MAY 9 1904

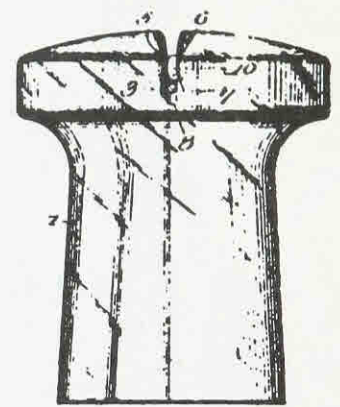
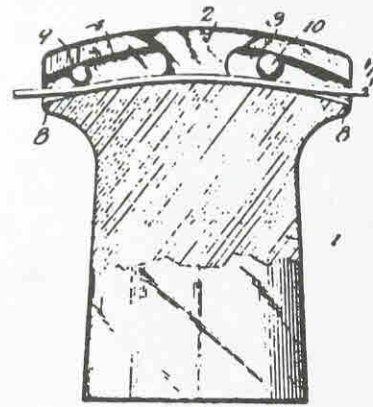


Fig. 1.

Fig. 2.

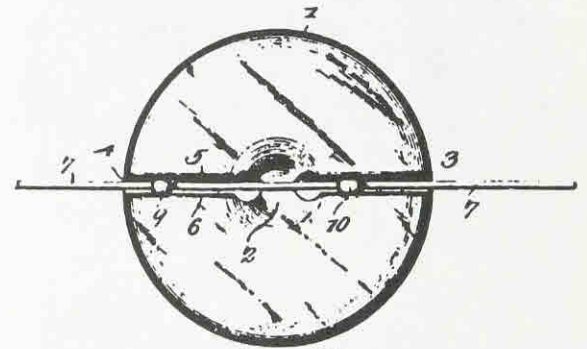


Fig. 5.

CD 141.7

CD 141.7

TWIGGS

(Dome-in a circle) W.R. TWIGGS PAT AUG 29 1905

SB

Crystal Clear

Witnesses  
*W. H. Clarke*

William R. Twiggs, Inventor  
by *C. A. Snowles* Attorney

Sandusky, Ohio, was the residence of **William R. Twiggs**. The 1905 city directory of that town lists Twiggs as a letter carrier. He died in Cleveland, Ohio, on July 19, 1938 and is buried in Oakland Cemetery in Sandusky.

CD 141.7 is another example of a "no-tie" insulator design. The patent issued on August 29, 1905 covered a standard, threaded pintype with a slot running through a large disk-shaped crown. On the top of the crown there is a rectangular opening which accesses the slot. The channel of the slot narrows as it approaches the outer diameter of the crown. The line wire was placed into the slot and two glass balls (similar to a marble) were dropped into the rectangular opening on top of the line wire. The balls were then slid in opposite directions along the narrowing slot, wedging the line

and securing it in place. The idea eliminated the use of a tie wire and would speed the process of installation.

To date only one unit has been located. It is made of clear glass with almost a crystal-looking quality. It is quite possible that the insulator was manufactured in Toledo, Tiffin or Findlay, all of which are in close proximity to Sandusky, Ohio. These Ohio glasshouses were noted for quality glass products and stemware during the early 1900's.

The design and idea were unique and it is suspected that the one known specimen may have been a test unit that Twiggs planned to use in selling his patent idea.

A five dollar bill bought the insulator at an Ohio flea market in 1981.



### CD 141.8

CD 141.8

#### BUZBY

(Crown behind wire groove) J.F.BUZBY/PAT'D MAY 8/  
1890 SB

Ice Aqua, Aqua

Patented on May 8, 1890, the **CD 141.8** was one of the first of the "no-tie" insulators designs. The patent was granted to **Joseph F. Buzby** of Royer's Ford, Pennsylvania. About a half dozen of this style have been located indicating that it did not receive widespread acceptance or use.

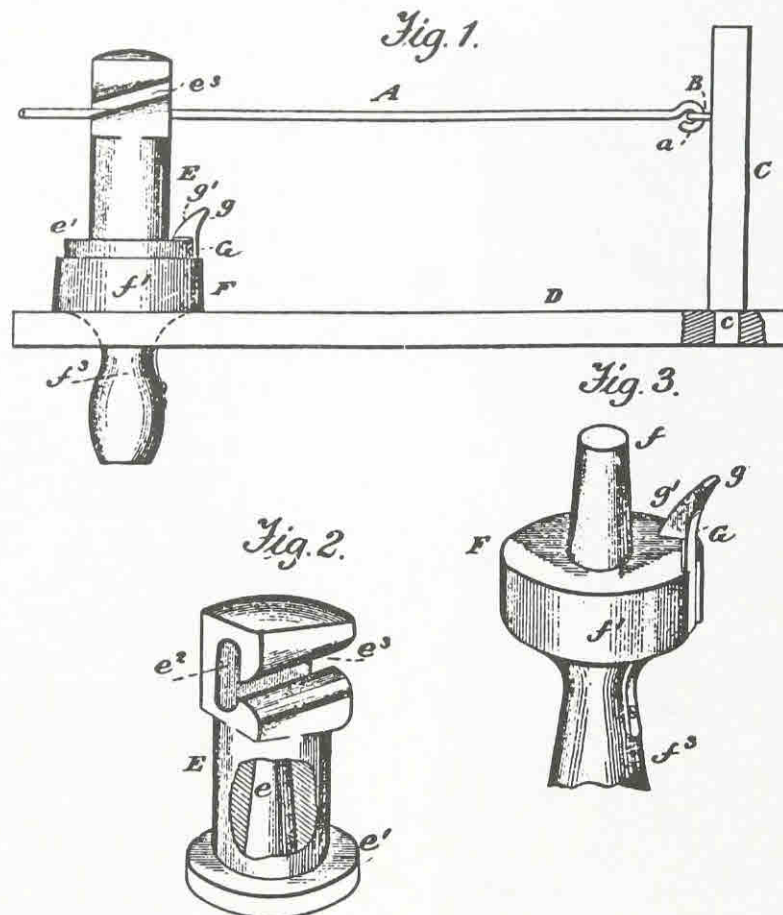
In the picture above (left) as one looks from the embossed side through the upper portion of the insulator, an angular slot can be seen traversing from the upper left portion of the dome to the lower right portion. The line wire was slid through the angular slot and dropped into the bottom of another vertical channel

(seen clearly in the photo on the right) which ran through the width of the crown. Once the line wire had been positioned in the lower slot, it would be difficult for it to slip out of place.

The patent describes how installation of the line was accomplished:

"In order to put the insulator on the wire, it is turned out of perpendicular until the slot  $e^3$  is in the same plane with the wire, which is then readily entered. The insulator is then turned back to a perpendicular and so locked to its stand. The head  $g$  of the spring-catch projects over the flange  $f'$  of the stand, and being





WITNESSES:  
*A. Ruppert,*  
*H. A. Daniels*

INVENTOR  
*Joseph F. Buzby*  
BY *Thomas P. Humphreys*  
ATTORNEY.

inclined at  $g'$ , yields to the insulator, flange  $e'$  as the latter is pressed down, and then overlaps it so as to hold the insulator  $E$  securely to its stand  $F$ . In the position shown in Fig. 1 of the drawings the wire  $A$  lies across the slot  $e^2$ , and therefore cannot possibly escape."

Since so few of the "Buzby Patent" insulators have been located, it is not surprising that an example of the interesting installation stand used in conjunction with the patent design has not been found.

Ray Klingensmith in the February, 1986 issue of *Antique Bottle and Glass Collector* wrote: "This insulator is a very interesting design in that the lower and central portion of the insulator is round, and the upper portion is square. The very top of the insulator then tapers into a more rounded form once again. [The photographs on the previous page] show the square portion to have beveled corners. One could assume the corners were made that way to prevent any breakage as might be the case if the corners were of a sharp, 90

degree angle type. The style apparently was well designed...

The embossing, which is located on a flat panel of the dome, is visible in the left photo on the previous page. These insulators are of a very tall pattern. This is mostly due to the fact that the slotted top prevented the pinhole from going very close to the top portion of the insulator. It was necessary to form the pinhole of a standard, required length in order to have the pin remain long enough to have sufficient strength. So the end result is a taller than average product.

It is also interesting to note that by changing from a round design to a square one at the dome portion, a small lip is formed. Should a lineman decide to still use a tie wire on the insulator, it would have been very easy to wrap a tie wire under this lip and around the line wire.

There was a lot more thought that went into this design than what may be first apparent."



### CD 141.9

CD 141.9

#### EMMINGERS

(Base) EMMINGER'S PAT/FEBY 20T<sup>H</sup> 1872 SB  
Light Aqua

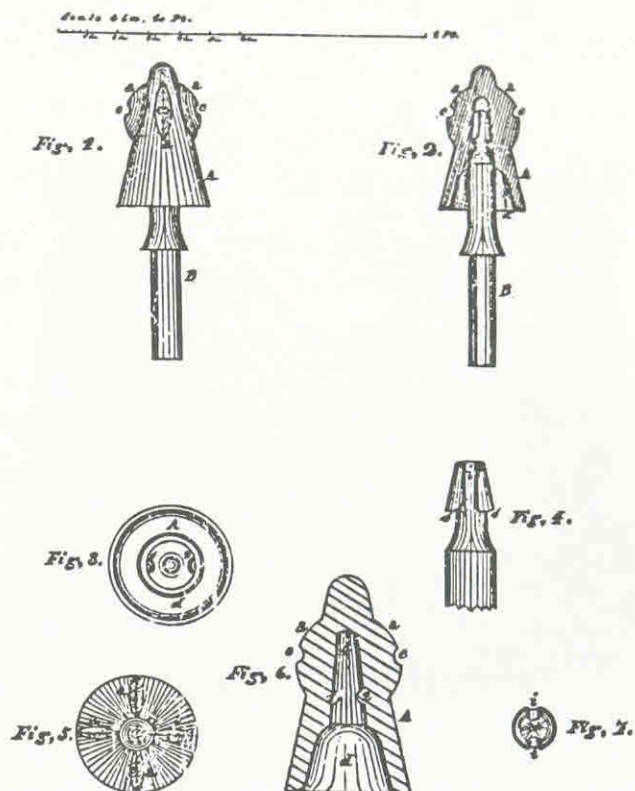
**David R.P. Emminger** of Harrisburg, Pennsylvania, was granted a patent on February 20, 1872, for the production of **CD 141.9**. His patent states that "the nature of my invention consists in so constructing my improved insulator that dust and dirt are prevented from accumulating upon its outer surface. Also in reducing the points of contact of the conducting wire with the insulator, in a great degree, by a peculiar method of constructing of said insulator.... Upon its outer surface, a proper distance from the upper rounded end, four rhombus or lozenge-shaped projections *a a a a*, are formed. These projections have circular or rounded notches formed in their outer edges a proper distance from their terminations. They are intended to receive

D. R. P. EMMINGER.

Improvement in Telegraph Insulators.

No. 123,878.

Patented Feb. 20, 1872.



and retain in place the binding wire that secures the conducting wire to the insulator." Emminger also stated that the number of projections could be increased, but four seemed to be sufficient. In Fig. 6 of the patent, the insulator drawn has a smooth, threadless pinhole with two glass knobs that projected into the pinhole. A special wooden peg (Fig. 4) was designed to be used with the Emminger patent. It had grooves on each side of the pin, which allowed it to slide passed the pinhole projections and be turned to lock it into position.

Apparently the original design was unsuccessful, for all the known Emminger's patent insulators have the standard threaded pinhole.

All CD 141.9 specimens have come from Pennsylvania. The manufacturer of the insulators is still only speculation. One theory is that the Lancaster Glass Works (See Threadless-The Beginnings -- Manufacturers of Glass Threadless chapter) or the Beaver Falls Glass Company (See Pennsylvania Manufacturers chapter) may have produced the insulator. Lancaster because of its years of operation and proximity to Harrisburg, and B.F.G.CO. due to the years of operation; the similarity in numeral engraving in the embossing on the Emminger and known B.F.G.CO. products; and the presence of a "Y" shaped crease in the top of the pinhole which occurred in embossed and unembossed pieces made by the Beaver Falls Glass Company.





CD 142

**CD 142**

**HEMINGRAY**

(F-Skirt) TS\_2/[Letter and Numbers]/HEMINGRAY (R-Skirt) W.U.T.CO. RDP  
Carnival

(F-Skirt) [Letters and Numbers]/HEMINGRAY (R-Skirt) W.U.T.CO./TS\_2 RDP  
Carnival, Ice Blue

**NO NAME**

(F-Skirt) TS\_2 RDP  
Carnival



CD 142.4



**Glass Insert**

*Insert used with the CD 142.4*

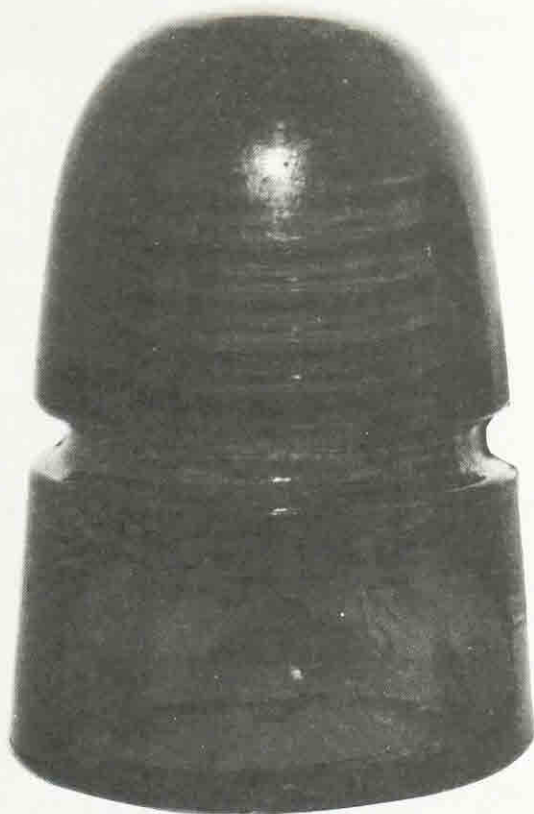
Both **CD 142** and **CD 142.4** designs are covered by the **Wheeler and McGinnis** Patent No. 2,165,773 of July 11, 1939 and the **Wheeler, McGinnis and Thordarson** Patent No. 2,194,189 of March 19, 1940. Both patents were assigned to the Western Union Telegraph Company of New York. The patents provided for threading on the inside of the single petticoat, a glass insert to protect the insulator from the pin and an iridized coat to reduce water adherence.

**CD 142.4**

**NO NAME**

(F-Skirt) TS\_3 {'S' is backwards} RDP  
Carnival

[No Embossing] RDP  
Carnival



**CD 143**

**CD 143**

**C.N.R.**

(F-Skirt) C N R (R-Skirt) STANDARD { 'CNR' small embossing } SB  
Aqua

(F-Skirt) C.N.R (R-Skirt) STANDARD/[ 'CANADIAN PACIFIC RY CO' Blotted out ] SB  
Aqua

(F-Skirt) C.N.R (R-Skirt) STANDARD/[ 'CNR' Blotted out ] SB  
Aqua, Gray Green, Steel Blue, Light Gray, Light Purple

(F-Skirt) C.N.R. SB  
Aqua, Steel Blue, Light Gray, Light Purple, Light Violet Blue, Violet Blackglass, Dark Purple

(F-Skirt) C.N.R. (R-Skirt) STANDARD SB  
Aqua, Steel Blue, Light Purple, Dark Purple, Dark Violet

(F-Skirt) C.N.R. {Periods are shaped like prisms} SB  
Aqua, Green, Yellow Green, Olive Green, Blue, Light Green

(F-Skirt) C.N.R./[ 'CNR' Blotted out ] (R-Skirt) STANDARD { 'CNR' small embossing } SB  
Aqua, Steel Blue, Light Purple

(F-Skirt) C.N.R./[ 'CNR' Blotted out ] (R-Skirt) STANDARD/[ 'CANADIAN PACIFIC RY CO' Blotted out ] SB  
Aqua

(F-Skirt) [ 'CNR' Blotted out ] SB  
Aqua

(F-Skirt) [ 'CNR' Blotted out ] (R-Skirt) [ 'CPR' Blotted out ] SB  
Aqua

(F-Skirt) [ 'CNR' Blotted out ] (R-Skirt) [ 'STANDARD' Blotted out ] { 'CNR' small embossing } SB  
Aqua

(F-Skirt) [Horizontal dashes]/[ 'CNR' Blotted out ] SB  
Aqua

**C.P.R.**

(F-Skirt) C.P.R. (R-Skirt) STANDARD SB  
Aqua, Light Purple, Steel Blue

(F-Skirt) C.P.R. (R-Skirt) [ 'CANADIAN PACIFIC RY CO' Blotted out ] SB  
Aqua, Light Purple, Light Blue, Blue Gray, Steel Blue

(F-Skirt) C.P.R. (R-Skirt) [ 'CNR' Blotted out ] SB  
Aqua, Steel Blue, Blue Gray, Light Purple

(F-Skirt) C.P.R. (R-Skirt) [Horizontal Dashes]/[ 'CNR' Blotted out ] SB  
Aqua, Light Purple, Blue Gray

(F-Skirt) C.P.R./[ 'CNR' Blotted out ] (R-Skirt) STANDARD/[ 'CANADIAN PACIFIC RY CO' Blotted out ] SB  
Aqua, Light Purple, Steel Blue, Blue Gray, Light Purple/ Aqua Two Tone

(F-Skirt) C.P.R./[ 'CNR' Blotted out ] (R-Skirt) STANDARD/[ 'CNR' Blotted out ] SB  
Aqua, Light Purple

**CANADIAN PACIFIC**

(F-Skirt) CANADIAN (R-Skirt) PACIFIC RY CO { 'RY' Embossed over upsidedown 'RY' } {MLOD} RB  
Light Green, Blue, Aqua

(F-Skirt) CANADIAN (R-Skirt) PACIFIC RY CO { 'RY' is upsidedown } {MLOD} RB  
Aqua, Light Green, Blue Aqua, Blue

(F-Skirt) CANADIAN (R-Skirt) PACIFIC RY CO {MLOD} RB  
Aqua, Green, Dark Yellow Green, Light Olive Green, Blue, Light Lime Green, Light Yellow Green



(F-Skirt) CANADIAN (R-Skirt) PACIFIC RY. CO.  
[MLOD] RB  
Aqua, Green

(F-Skirt) CANADIAN PACIFIC RY CO (R-Skirt)  
['STANDARD' Blotted out] SB  
Aqua, Steel Blue, Gray, Purple, Light Green

(F-Skirt) CANADIAN PACIFIC RY CO {First 'C' in  
'PACIFIC' is backwards} {MLOD} SB  
Aqua, Green, Clear, Yellow Olive Green, Light Gray,  
Blue, Royal Purple, Light Green, Sage Green, Light  
Aqua, Light Yellow Green

(F-Skirt) CANADIAN PACIFIC RY CO {MLOD} SB  
Aqua, Green, Yellow Green, Clear, Royal Purple, Light  
Purple, Light Green, Blue, Sage Green, Light Aqua

(F-Skirt) CANADIAN PACIFIC RY CO {Withycombe -  
69 vertical ridges above wire groove, 9 left hand spiral  
ridges below wire groove} SB  
Light Aqua, Light Purple

(F-Skirt) CANADIAN PACIFIC RY {Slug Embossing}  
{MLOD} RB  
Aqua, Light Green, Blue, Olive Green, Green, Dark Aqua

(F-Skirt) CANADIAN PACIFIC RY.CO. (R-Skirt)  
STANDARD RB  
Aqua

(F-Skirt) CANADIAN PACIFIC RY.CO. (R-Skirt)  
STANDARD/['CANADIAN PACIFIC RY CO' Blotted  
out] SB  
Aqua, Light Green

(F-Skirt) CANADIAN PACIFIC RY.CO. (R-Skirt)  
['STANDARD' Blotted out] SB  
Aqua, Light Purple, Light Gray, Light Aqua, Steel Blue

(F-Skirt) CANADIAN PACIFIC RY.CO./['C N R'  
Blotted out] (R-Skirt) STANDARD/['CANADIAN  
PACIFIC RY CO' Blotted out] RB  
Aqua

(F-Skirt) CANADIAN PACIFIC RY.CO./['CNR' Blotted  
out] (R-Skirt) STANDARD RB  
Aqua

(F-Skirt) CANADIAN. PACIFIC. R.Y. CO {MLOD}  
SB  
Aqua, Green, Blue, Purple, Gray, Light Aqua, Light  
Green, Jade Green Milk

(F-Skirt) CANADIAN.PACIFIC.RY.CO. {Comes in  
many different 'period' patterns} SB  
Aqua, Green, Steel Blue, Light Purple, Royal Purple, Ice  
Blue, Light Gray, Light Green, Clear, Light Yellow  
Amber, Purple, Steel Gray, Blue, Light Aqua

(F-Skirt) ['CANADIAN PACIFIC RY CO' Blotted out]  
SB  
Aqua, Light Blue

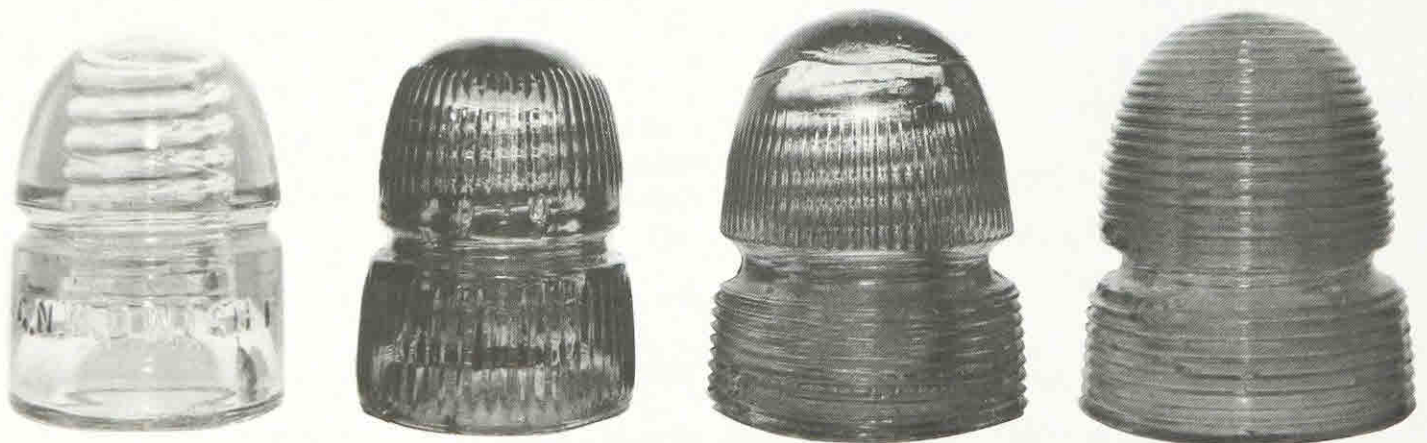
(F-Skirt) ['CANADIAN PACIFIC RY CO' Blotted out]  
(R-Skirt) ['STANDARD' Blotted out] SB  
Aqua

#### DWIGHT

(Dome) [Number] (F-Skirt) ['G.N.W.' Blotted out]  
DWIGHT (R-Skirt) PATTERN GB  
Light Aqua, Light Green, Aqua, Blue Aqua

(F-Skirt) DWIGHT (R-Skirt) PATTERN SB  
Aqua, Light Purple, Light Green

(F-Skirt) G.N.W. DWIGHT (R-Skirt) PATTERN GB  
Aqua



#### CD 143 Variations

*(Left to right) G.N.W. DWIGHT PATTERN, No Name with vertical ridges, No Name (reusing old  
Canadian Pacific RY. CO molds) with horizontal and vertical ridges, and No Name with horizontal ridges.*

(F-Skirt) G.N.W.DWIGHT (R-Skirt) PATTERN SB  
Aqua, Green Aqua

(F-Skirt) ['G.N.W.' Blotted out] DWIGHT (R-Skirt)  
PATTERN SB  
Aqua, Light Green, Steel Blue, Light Purple, Gray

#### **G.N.R.**

(F-Skirt) G.N.R. (R-Skirt) STANDARD SB  
Aqua, Gray, Light Purple

(F-Skirt) G.N.R./['CNR' Blotted out] (R-Skirt) STAN-  
DARD {'CNR' small embossing} SB  
Aqua, Light Purple, Gray, Light Steel Blue

#### **G.N.W.**

(F-Skirt) G N W {Irregular spacing} {MLOD} SB  
Aqua, Green, Gray, Purple, Light Green, Blue Aqua,  
Smoke

(F-Skirt) G.N.W SB  
Aqua, Light Green

(F-Skirt) G.N.W/[Raised slug plate] {MLOD} SB  
Aqua, Light Green

#### **G.P.R.**

(F-Skirt) G.P.R./['CNR' Blotted out] (R-Skirt) STAN-  
DARD {'CNR' large or small embossing} SB  
Aqua, Steel Blue, Light Purple

#### **GREAT NORTHWESTERN**

(F-Skirt) GREAT NORTHWESTERN (R-Skirt) TELE-  
GRAPH CO GB  
Aqua, Light Green

(F-Skirt) GREAT NORTHWESTERN (R-Skirt)  
TELEGRAPH.CO {MLOD} SB  
Aqua, Light Green

#### **MONTREAL**

(F-Skirt) MONTREAL TELEGRAPH (R-Skirt) CO  
{MLOD} SB  
Green, Olive Green, Blue, Dark Sky Blue, Aqua, Dark  
Yellow Green, Dark Aqua

(F-Skirt) MONTREAL TELEGRAPH CO {MLOD} SB  
Aqua, Green, Olive Green, Dark Yellow Green, Blue,  
Dark Sky Blue, Light Blue, Green Aqua

#### **NO NAME-CANADA**

[No Embossing] {Double Threaded} {MLOD} SB  
Aqua, Green, Blue, Yellow, Blue Gray, Olive Green,  
Cornflower Blue

[No Embossing] {MLOD} RB  
Aqua, Green, Yellow Green, Blue, Clear, Olive Green,  
Royal Purple, Blue Purple, Gray, Dark Sky Blue, Light  
Aqua

[No Embossing] {MLOD} SB  
Aqua, Green, Blue, Lime Green, Royal Purple

[No Embossing] {Whittle mold} {MLOD} SB  
Aqua, Blue, Green, Gray, Purple, Smoke

[No Embossing] {Withycomb - 11 circular rings above  
and 10 circular rings below the wire groove} {MLOD}  
SB  
Aqua

[No Embossing] {Withycomb - 14 circular ridges above  
and 10 left hand spiral ridges below wire groove}  
{MLOD} SB  
Light Green

[No Embossing] {Withycombe - 16 or 19 circular Rings  
above and 8 right hand spiral ridges below wire groove}  
{MLOD} SB  
Light Gray, Light Purple

[No Embossing] {Withycombe - 50, 52, 53 or 54 vertical  
ridges above and below wire groove} SB  
Aqua, Green, Blue

#### **STANDARD**

(F-Skirt) STANDARD SB  
Aqua, Gray, Light Purple, Royal Purple, Clear, Purple,  
Light Aqua, Green

(F-Skirt) STANDARD (R-Skirt) ['CNR' Blotted out] SB  
Aqua, Olive Green Blackglass

(F-Skirt) STANDARD (R-Skirt) ['CNR' Blotted out]  
{'CNR' is small embossing} SB  
Aqua, Gray, Light Purple, Royal Purple

(F-Skirt) STANDARD/['CANADIAN PACIFIC RY CO'  
Blotted out] SB  
Aqua, Light Gray Green, Olive Green Blackglass, Light  
Aqua

(F-Skirt) STANDARD/['CANADIAN PACIFIC RY CO'  
Blotted out] (R-Skirt) ['CNR' Blotted out] SB  
Aqua

(F-Skirt) STANDARD/['CNR' Blotted out] SB  
Aqua

(F-Skirt) STANDARD/['CNR' Blotted out] (R-Skirt)  
['CNR' Blotted out] SB  
Aqua





**CD 143.4**

**CD 143.4**

**AMERICAN**

(Dome) [Letter] (Base) AM. INSULATOR CO. N.Y. DOUBLE PETTICOAT/PAT'D SEPT. 13, 1881, NOV. 13, 1883, FEB. 12, 1884 {This is a CD145 with no inner skirt}

Blue

(Dome) [Letter] (Base) AMERICAN INSULATOR CO. N.Y. DOUBLE PETTICOAT/PAT'D SEPT. 13, 1881, NOV. 13, 1883 {This is a CD145 with no inner skirt}

Blue

**BROOKFIELD**

(F-Crown) [Number]/(Arc)W. BROOKFIELD/83 FULTON ST/N.Y. (R-Crown) (Arc)PATD.NOV. 13<sup>TH</sup> 1883/FEB 12<sup>TH</sup> 1884 {This is a CD145 with no inner skirt} SB

Aqua

(F-Crown) [Number]/(Arc)W.BROOKFIELD/45 CLIFF ST/N.Y. (R-Crown) (Arc)PATD NOV. 13, 1883/FEB. 12, 1884 {This is a CD145 with no inner skirt} SB

Aqua

(F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK

{This is a CD145 with no inner skirt} SB

Aqua



**CD 143.5**

**CD 143.5**

**T-H.E.**

(F-Crown) T-H.E. CO. {MLOD} {Comes in two dome sizes} SB

Light Aqua, Light Green, Aqua



CD 143.6

CD 143.6

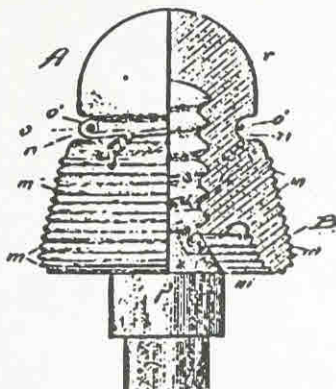
**BOSTON BOTTLE**

(Base of Threads) BOSTON BOTTLE WORKS/  
PAT.OCT 15 '72 {Three Segmented Threads} SB  
Aqua, Dark Green Aqua

F. BAIN.  
ELECTRIC INSULATOR.

No. 443,187.

Patented Dec. 23, 1890.



*Foree Bain Patent No. 443,187 dated December 23, 1890.*

On stationery with "Foree Bain, Patent Lawyer, Monadnock Building, Chicago" as its letterhead, Foree Bain assigned his patent rights to Hemingray Glass Company of Covington, Kentucky, on February 28, 1901 for the sum of one dollar.



CD 144

CD 144

**NO NAME**

(Dome-in a circle) PATENT.DEC. 23 1890. {Foree Bain} {Inside of skirt has horizontal threaded ridges from the base to the pinhole} SB  
Aqua, Light Green

[No Embossing] {Foree Bain} {Inside of skirt has horizontal threaded ridges from the base to the pinhole} SB  
Green, Aqua, Light Green, Blue Aqua

**NO NAME-CANADA**

[No Embossing] {Circular rings above and spiral ridges below the wire groove; known as the "High groove Withycomb"} SB  
Light Green



**CD 144 Variation**

*This is the high wire groove Withycombe patent which should not be confused with the CD 143 with horizontal ridges.*



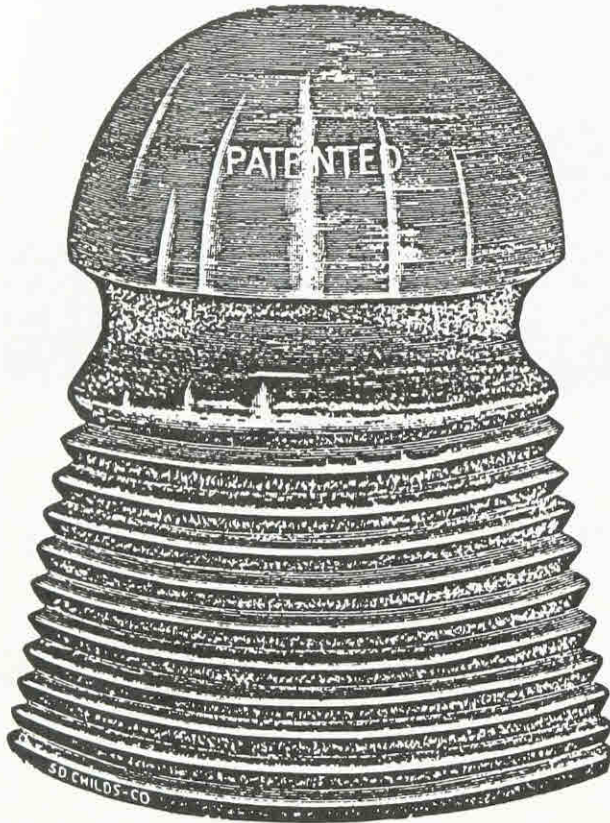
## THE BAIN INSULATOR

We present this week a cut of a new high resistance glass insulator, the invention of Mr. Foree Bain, of Chicago.

The insulator is made extra strong and is especially adapted to heavy work, such as carrying large primary wires, and particularly feeder wires for electric railroad work. The corrugations which are made both outside and inside of the apron increase the distance from the wire to the pin fully 100 per cent, and it is claimed that water will, in passing over the edges of the rings, become thin and broken, and on reaching the inside of the glass will drop off rather than creep over the inner obstructions to the pin.

Another point in favor of this form of insulator is that the many surfaces will reflect the light under the glass in such a way as to keep insects out, obviating a source of much annoyance where plain dark glass is employed.

This insulator will cost a little more to manufacture than the



THE BAIN INSULATOR.



CD 144.5

CD 144.5

NO NAME

(Dome) ['111'] (Base) PAT'D AUG. 19, 1890 {Inside of skirt has horizontal threaded ridges from the base to the pinhole} SB

Aqua, Light Aqua

ordinary plain glass insulator, but the inventor claims that an advance of a few cents per mile in the cost of construction will not be any objection where a high class of work is desired.

Mr. Bain has assigned his patent to the Central Electric Company, of Chicago, who are now sole owners and by whom the article is being placed upon the market.

*Electrical Engineer*, page 661, December 10, 1890

(Courtesy of Elton Gish)





**CD 145**

**CD 145**

**AMERICAN**

(Base) AM.INSULATOR CO. N.Y. DOUBLE PETTI-COAT/PAT'D SEPT. 13, 1881, NOV. 13, 1883, NOV. 1883 {Note spelling; "3's" in both 1883's are backwards; no'day' in third date}

Light Green, Light Blue Aqua, Light Green Aqua

(Dome) [Letter] (Base) AM. INSULATOR CO. N.Y. DOUBLE PETTICOAT/PAT'D SEPT. 13, 1881. NOV. 13, 1883.

Aqua, Light Blue, Yellow Green, Apple Green, Yellow Olive, Golden Amber, Blue, Light Jade, Light Aqua, Green Aqua

(Dome) [Letter] (Base) AM. INSULATOR CO. N.Y. DOUBLE PETTICOAT/PAT'D SEPT. 13, 1881, NOV. 13, 1883, FEB. 12, 1884

Light Aqua, Blue, Light Blue, Aqua, Blue Aqua, Green Aqua, Yellow Olive, Yellow Green, Apple Green, Green

(Dome) [Letter] (Base) AM. INSULATOR CO. N.Y. DOUBLE PETTICOAT/PAT'D SEPT. 13, 1881, NOV. 13, 1883, JAN. 29, 1884 {Note January date} SB

Aqua, Green, Light Blue Aqua, Lime Green, Light Aqua, Light Green, Yellow Olive

**B**

(Dome) [Letter or Number] (F-Skirt) B SB  
Aqua, Blue, Light Blue, Green, Green Aqua, Emerald Green, Yellow Green, Light Green, Light Aqua

(Dome) [Letter or Number] (F-Skirt) B (R-Skirt) B SB  
Light Aqua, Light Purple, Off Clear, Emerald Green, 7-up Green, Light Blue, Aqua, Light Green

(Dome) [Number] (F-Skirt) B SDP  
Aqua

(F-Skirt) B SB  
Emerald Green, Dark Olive Green, Light Aqua, Light Blue, Dark Green, Dark Yellow Green, Green Aqua, Green, Olive Amber, Aqua

(F-Skirt) B (R-Skirt) B SB  
Aqua, Green, Yellow Green

(F-Skirt) B (R-Skirt) B SDP  
Aqua, Green, Blue, Amber

(F-Skirt) B (R-Skirt) N° 44/[Number] SB  
Aqua, Snowy Green Aqua

(F-Skirt) B (R-Skirt) [Number] SB  
Light Aqua, Light Green

(F-Skirt) B/['B.G.M.CO.' Blotted out] (R-Skirt) B SB  
Light Aqua

**B.G.M.**

(F-Skirt) B.G.M.CO. SB  
Off Clear, Lemon, Purple, Light Purple, Green Tint, Pink

**BROOKFIELD**

(Dome) [Letter or Number] (F-Crown) (Arc)W.  
BROOKFIELD/NEW YORK (R-Crown) PAT.NOV. 13, 1883/FEB. 12 1884 SB  
Aqua

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD SB  
Aqua, Green, Lime Green, Dark Yellow Green

(Dome) [Number] (F-Skirt) BROOKFIELD (R-Skirt)  
NEW YORK SB  
Aqua, Light Blue, Green, Dark Green, Yellow Green, Green Aqua

(Dome) [Number] (F-Skirt) BROOKFIELD (R-Skirt)  
NEW YORK SDP  
Green



(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
(F-Skirt) ER (R-Crown) [Number]/(Arc)PAT'D NOV.  
13<sup>TH</sup> 1883/FEB. 12<sup>TH</sup> 1884 {MLOD} SB  
Aqua, Light Blue, Yellow Green, Light Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
(R-Crown) (Arc)PAT.NOV. 13,1883/FAB. 12, 1884  
{Note Spelling} {MLOD} SB  
Aqua, Green

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
(R-Crown) PAT/JAN. 25<sup>TH</sup> 1870 {MLOD} SB  
Light Aqua, Purple

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
(R-Crown) [Number]/(Arc)PAT'D NOV. 13<sup>TH</sup> 1883/FEB.  
12<sup>TH</sup> 1884 {MLOD} SB  
Aqua, Blue Aqua, Yellow Green

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y.  
(R-Crown) [Number]/PAT/JAN. 25<sup>TH</sup> 1870 {MLOD} SB  
Light Green, Aqua

(F-Crown) (Arc)W. BROOKFIELD/83.FULTON.ST/  
N.Y. (R-Crown) [Number]/(Arc)/PAT'D NOV 13<sup>TH</sup> 1883/  
FEB 12<sup>TH</sup> 1884 {MLOD} SB  
Aqua, Yellow Green

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK (R-  
Crown) PAT.NOV. 13<sup>TH</sup> 1883/ " FEB.12<sup>TH</sup> 1881 {Note  
1881 Date} SB  
Aqua, Green Aqua

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK (R-  
Crown) [Letter]/PAT.NOV. 13<sup>TH</sup> 1883/ " FEB. 12<sup>TH</sup> 1881  
{Note 1881 Date} SB  
Aqua, Green Aqua

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK (R-  
Crown) [Number]/PAT.NOV. 13, 1883/FEB. 12 1884  
{MLOD} SB  
Aqua

(F-Crown) W. BROOKFIELD/45 CLIFF ST./N.Y. (R-  
Crown) [Number]/(Arc)PAT'D NOV. 13<sup>TH</sup> 1883/FEB.  
12<sup>TH</sup> 1884 {MLOD} SB  
Ice Blue, Aqua

(F-Crown) W<sup>M</sup> BROOKFIELD/45 CLIFF ST./N.Y. (R-  
Crown) [Number]/PAT./JAN. 25<sup>TH</sup> 1870 {MLOD} SB  
Light Green

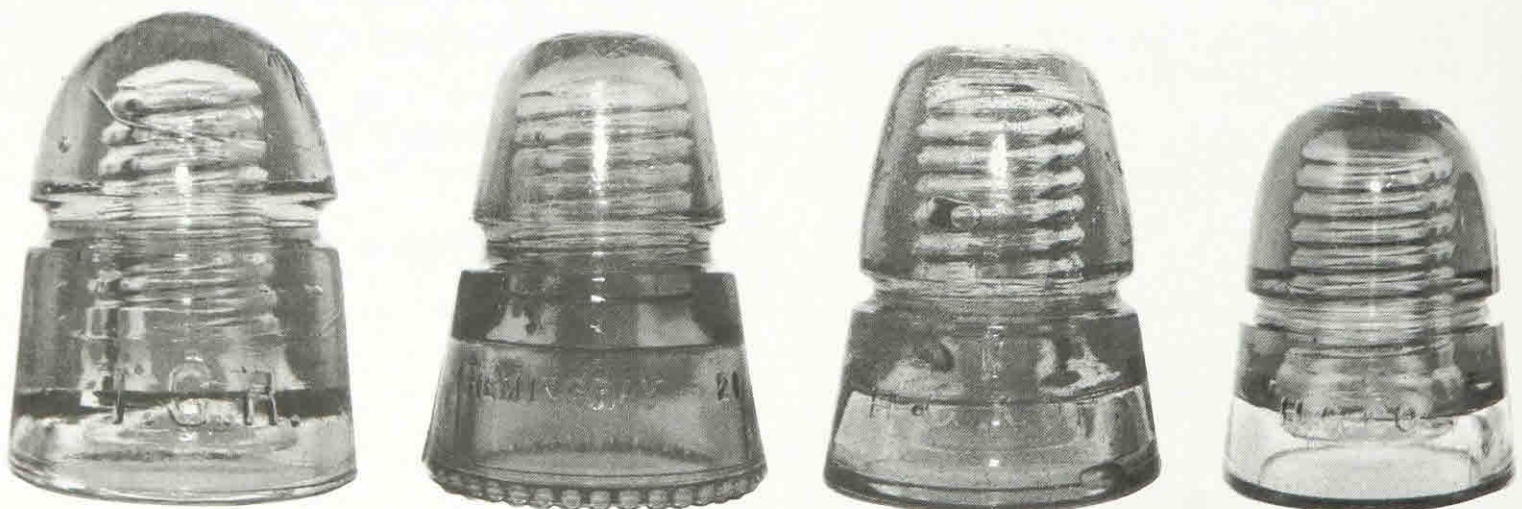
(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF  
ST./N.Y. (R-Crown) (Arc)PAT'D NOV. 13<sup>TH</sup> 1883/FEB.  
12<sup>TH</sup> 1884 {MLOD} SB  
Aqua, Yellow Green, Ice Blue

(F-Crown) [Number]/(Arc)W. BROOKFIELD/45 CLIFF  
ST./N.Y. {MLOD} SB  
Light Blue w/Snow, Light Aqua, Yellow Green, Purple,  
Green, Aqua, Light Green Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/83.  
FULTON. ST/N.Y. (R-Crown) (Arc)PATD. NOV. 13<sup>TH</sup>  
1883/FEB 12<sup>TH</sup> 1884 {MLOD} SB  
Aqua

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK/  
['B.G.M.CO.' Blotted out] SB  
Aqua

(F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK SB  
Light Aqua



#### CD 145 Variations

(Left to right) T.C.R., a large Canadian railroad communications insulator; three Hemingray products - HEMINGRAY - 21 with a narrow dome, H.G.CO. with the tall, flat dome, H.G.CO. with a straight skirt



**CALIFORNIA**

(F-Skirt) CALIFORNIA SB

Green, Sage Green, Smoke, Light Purple, Purple, Burgundy, Sage/Purple Two Tone

**E.D.R.**

(F-Skirt) E.D.R./[Blotted out Embossing] SB

Light Aqua, Light Blue

**G.N.W.**

(F-Skirt) G.N.W. TEL.CO. SB

Light Aqua, Light Blue, Ice Blue, Purple, Royal Purple, Light Green, Steel Blue, Light Purple

**G.T.P.**

(Dome) [Number] (F-Skirt) G.T.P. (R-Skirt) B SB

Aqua, Green, Dark Aqua, Emerald Green

(F-Skirt) G.T.P. SB

Light Aqua, Light Blue, Green, Light Lavendar, Gray

(F-Skirt) G.T.P. TEL.CO. SB

Light Aqua, Clear, Steel Blue, Blue, Ice Blue, Light Purple

(F-Skirt) G.T.P./['G.N.W. TEL.CO.' Blotted out] SB

Aqua

(F-Skirt) G.T.P./['G.T.P. TEL.CO.' Blotted out] SB

Steel Blue, Light Purple, Delft Blue, Light Aqua

**H.B.R.**

(F-Skirt) H.B.R. SB

Aqua, Ice Blue

(F-Skirt) H.B.R./[Blotted out Embossing] SB

Aqua, Ice Blue, Light Aqua

**H.G.CO.**

(Dome) H (F-Skirt) H.G.CO. SB

Aqua, Light Green, Hemingray Blue, Jade Green Milk, Jade Blue Milk, Green

(Dome) H (F-Skirt) H.G.CO. (R-Skirt) ['H.G.CO.' Blotted out] SB

Aqua

(Dome) [Letter] (F-Skirt) H.G.CO. (R-Skirt) PETTI-COAT SB

Bubbly Clear, Light Aqua, Purple Tint, Ice Green, Yellow Olive, Green Tint, Light Green, Light Apple Green, Yellow Green Tint, Purple

(Dome) [Letter] (F-Skirt) H.G.CO. (R-Skirt) PETTI-COAT {Narrow style} SB

Yellow Olive, Aqua

(Dome) [Letter] (F-Skirt) H.G.CO. (R-Skirt) PETTI-COAT/[Letter] SB

Light Green, Lime Green, Light Aqua, Ice Green, Ice Blue, Dark Lavendar, Ice Aqua, Blue Aqua, Light Purple, Aqua, Light Steel Blue, Jade Blue Milk, Light Blue Aqua, Light Blue, Blue, Sapphire Blue

(Dome) [Letter] (F-Skirt) H.G.CO./[Letter] (R-Skirt) PETTICOAT SB

Light Aqua, Green Aqua, Light Green

(F-Skirt) H.G.CO. SB

Aqua

(F-Skirt) H.G.CO. (R-Skirt) PETTICOAT SB

Ice Green, Clear, Apple Green, Ice Blue, Green, Aqua, Green Tint, Lavendar, Ice Aqua, Light Blue Aqua, Light Yellow Green, Green Tint, Blue Aqua, Green Aqua, Bright Yellow Green, Lime Green, Teal Green

(F-Skirt) H.G.CO. (R-Skirt) PETTICOAT {Narrow style} SB

Purple, Light Blue, Light Green, Dark Purple

(F-Skirt) H.G.CO. (R-Skirt) PETTICOAT/[Letter] SB

Honey Amber, Apple Green, Purple, Yellow, Blue, Sapphire Blue, Yellow Green, Pink, Light Purple, Jade Aqua Milk, Light Aqua, Light Green, Orange Amber, Blue Aqua, Light Lavendar, Ice Blue, Light Steel Blue, Lime Green, Sky Blue, Green Tint, Purple, Ice Aqua, Light Blue Aqua, Light Green Aqua, Amber Olive Green

(F-Skirt) H.G.CO./[Letter] (R-Skirt) PETTICOAT SB

Honey Amber, Steel Blue, Light Blue, Yellow Olive Amber, Light Yellow Green, Ice Aqua, Dark Aqua, Ice Blue, Golden Amber, Light Green, Aqua, Purple, Light Aqua, Light Steel Blue, Yellow Green, Blue Aqua, Orange Amber, 7-up Green

(F-Skirt) [Letter]/H.G.CO. (R-Skirt) PETTICOAT SB

Light Green, Ice Blue, White Milk, Yellow Green, Apple Green, Sky Blue, Aqua, Blue Aqua, Jade Green Milk, Off Clear, Ice Green, Light Aqua, Green Aqua, Sapphire Blue, Ice Aqua, Light Smoky Purple, Lavendar, Light Sky Blue, Forest Green, Golden Amber, Light Lavendar, Light Blue Aqua, Christmas Tree Green, Light Purple, Blue Tint, Aqua Tint, Clear, Cornflower Blue, Light Blue, Yellow Amber, Honey Amber, Dark Orange Amber, Sage Green, Jade Aqua Milk, Dark Aqua

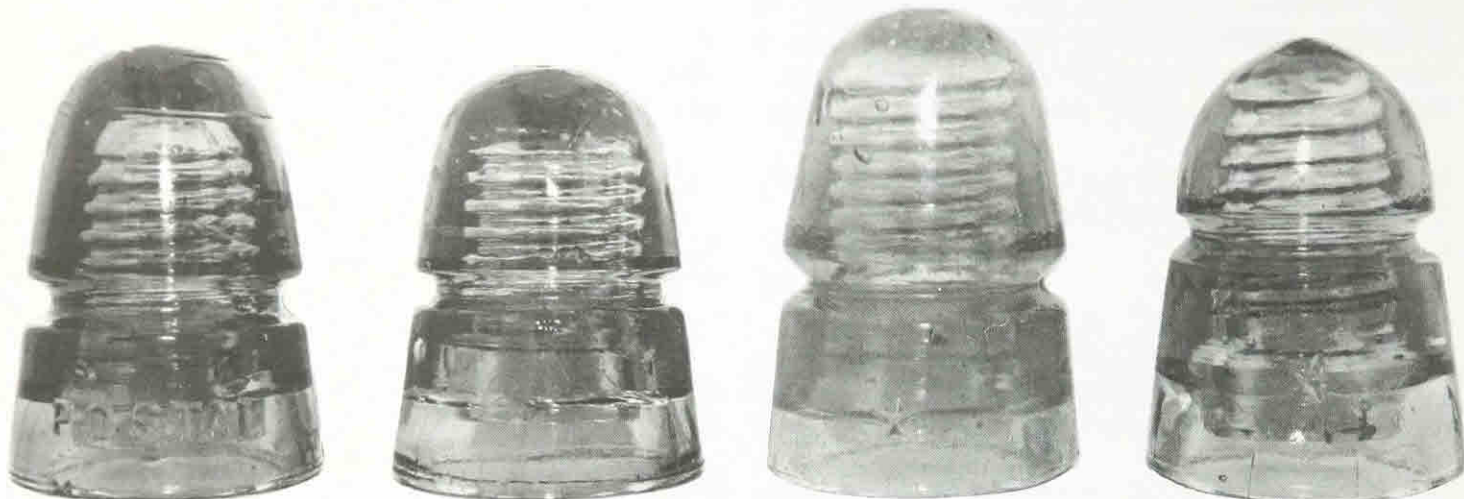
**HAWLEY**

(Dome) [Letter or Number] (F-Skirt) ['HICo' Entwined Initials]/HAWLEY PA./U.S.A. (R-Skirt) [Letter or

Number] SB

Green Aqua





### CD 145 Variations

*(Left to right) POSTAL; No Name nicknamed "The Grand Canyon"; tall dome embossed with a "star"; pointed dome embossed on both the front and rear skirt with a "star".*

(Dome) [Letter or Number] (F-Skirt) ['HICo' Entwined Initials]/HAWLEY PA./U.S.A. SB  
Aqua, Green Aqua, Light Aqua

(Dome) [Letter or Number] (F-Skirt) ['HICo' Entwined Initials]/HAWLEY, PA./U.S.A. {'S' is backwards} (R-Skirt) [Letter or Number] SB  
Green Aqua, Ice Green, Aqua, Light Aqua

(Dome) [Letter or Number] (F-Skirt) ['HICo' Entwined Initials]/HAWLEY, PA./U.S.A. {'S' is backwards} SB  
Milky Aqua

(F-Skirt) ['HICo' Entwined Initials]/HAWLEY PA./U.S.A. (R-Skirt) [Letter or Number] SB  
Aqua, Bubbly Aqua

(F-Skirt) ['HICo' Entwined Initials]/HAWLEY, PA./U.S.A. {'S' is backwards} (R-Skirt) [Letter or Number] SB  
Aqua

(F-Skirt) ['HICo' Entwined Initials]/HAWLEY, PA./U.S.A. {Postal Style} SB  
Light Aqua

#### HEMINGRAY

(F-Skirt) HEMINGRAY SB  
Aqua

(F-Skirt) HEMINGRAY SDP  
Aqua, Blue Aqua

(F-Skirt) HEMINGRAY (R-Skirt) DOUBLE/PETTI-COAT SB  
Aqua

(F-Skirt) HEMINGRAY (R-Skirt) DOUBLE/PETTI-COAT SDP  
Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY (R-Skirt) N° 21 SB  
Aqua

(F-Skirt) HEMINGRAY (R-Skirt) N° 21 SDP  
Aqua, Green, Yellow Green, Olive Green, Hemingray Blue

(F-Skirt) HEMINGRAY-21 (R-Skirt) MADE IN U.S.A. RDP  
Aqua, Hemingray Blue, Clear

(F-Skirt) HEMINGRAY-21 (R-Skirt) MADE IN U.S.A. SDP  
Hemingray Blue

(F-Skirt) HEMINGRAY-21/[Numbers and Dots] (R-Skirt) MADE IN U.S.A./[Number] RDP  
Clear

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N° 21 SDP  
Hemingray Blue, Aqua

#### K.C.G.W.

(F-Skirt) K.C.G.W. SB  
Aqua, Light Green, Green, Light Aqua

#### LYNCHBURG

(Dome) [Letter or Number] (F-Skirt) LYNCHBURG/['L' in an oval] (R-Skirt) No.43/MADE IN/U.S.A. SDP  
Aqua, Celery Green, Light Aqua, Blue Aqua

(Dome) [Letter or Number] (F-Skirt) LYNCHBURG/[‘L’  
in an oval] (R-Skirt) No.-43/MADE IN [Number]/U.S.A.  
SDP  
Aqua, Blue Aqua

**N.E.G.M.**

(F-Skirt) N.E.G.M.CO. SB  
Light Aqua, Green, Yellow Green, Emerald Green, Olive  
Green, Ice Blue, Amber

**NO NAME**

(Dome) H SB  
Light Green

(Dome) H (F-Skirt) [Vertical Bar] (R-Skirt) [Vertical  
Bar] SB  
Aqua

(Dome) [Letter] {American style} SB  
Ice Blue

(F-Skirt) [Vertical Bar] SB  
Straw

[No Embossing] {American Style} SB  
Light Aqua, Blue Aqua

[No Embossing] {Grand Canyon Style} SB  
Blue Aqua, Light Aqua, Teal Blue, Purple, Pink, Steel  
Blue, Off Clear, Clear, Lavendar

[No Embossing] {Pennycuick Style} SB  
Apple Green, Aqua, Ice Aqua

**NO NAME-CANADA**

[No Embossing] {Canadian Style} SB  
Straw, Pink, Peach, Light Green

**O.V.G.**

(F-Skirt) O.V.G.CO. SB  
Aqua, Green, Light Green, Blue

**POSTAL**

(F-Skirt) POSTAL SB  
Aqua, Green, Yellow Green, Sage Green, Olive Green,  
Purple, Burgundy, Sapphire Blue, Black Royal Purple

**STANDARD GLASS**

(Base) THE STANDARD GLASS INSULATOR CO./  
BOSTON MASS.  
Blue Aqua, Light Aqua

**STAR**

(F-Skirt) [Star] SB  
Aqua, Blue Aqua, Green, Light Green, Yellow Green,  
Olive Green, Lime Green, Light Blue, Olive Amber

(F-Skirt) [Star] (R-Skirt) [Star] {Pointed Dome} SB  
Aqua, Blue Aqua, Green, Light Blue, Dark Green, Dark  
Yellow Green

(F-Skirt) [Star] {Postal Style} SB  
Blue Aqua, Green, Dark Green, Aqua, Olive Green

**T.C.R.**

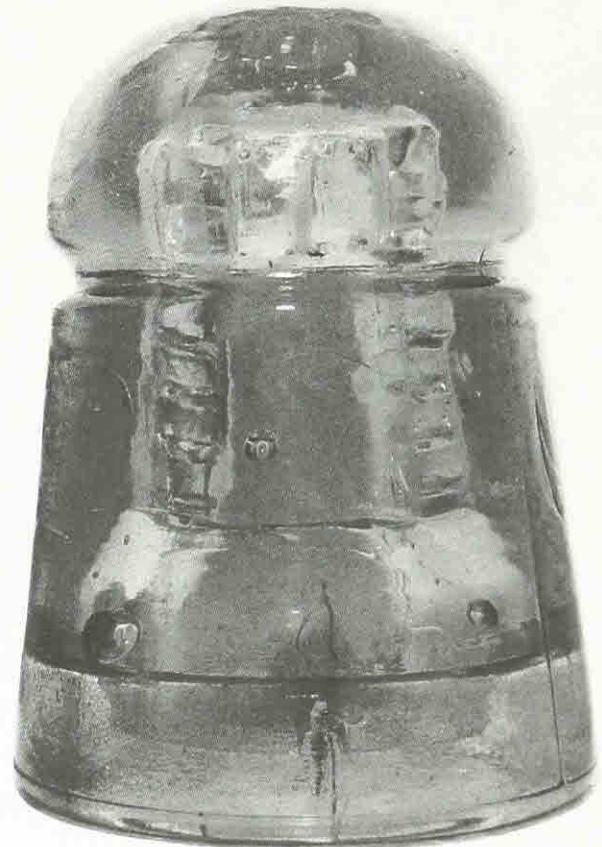
(F-Skirt) T.C.R. SB  
Ice Blue, Light Purple, Light Aqua

(F-Skirt) T.C.R./[Blotted out Embossing] SB  
Aqua

**W.G.M.**

(F-Skirt) W.G.M.Co. SB  
Purple, Royal Purple, Gray, Straw, Milky Royal Purple

(F-Skirt) W.G.M.Co. {Postal Style} SB  
Purple



CD 145.6

CD 145.6

**BOSTON BOTTLE**

(Base of Inner Skirt) BOSTON BOTTLE WORKS/  
PATENT APPLIED FOR {Four Segmented Threads}  
{MLOD} SB  
Aqua, Root Beer Amber, Dark Olive Green, Blue Aqua

(Base of Inner Skirt) BOSTON BOTTLE WORKS/  
PATENT APPLIED FOR {Three Segmented Threads}  
{MLOD} SB  
Aqua



(Base of inner skirt) BOSTON BOTTLE WORKS/  
PATENT OCT 15 72 SB  
Aqua

**NO NAME**

[No Embossing] [Four Segmented Threads] SB  
Light Blue Aqua



**CD 146.4**

**CD 146.4**

**NO NAME**

[No Embossing] {This is a CD 104 with an inner skirt}  
SB  
Aqua, Dark Aqua



**CD 146.5**

**CD 146.5**

**NO NAME**

(F-Skirt) [Vertical Bar] SB  
Light Green

[No Embossing] SB  
Light Green



**CD 147**

**CD 147**

**HEMINGRAY**

(F-Skirt) HEMINGRAY (R-Skirt) PATENTED OCT. 8 1907. SB

Aqua, Light Aqua

(F-Skirt) HEMINGRAY (R-Skirt) PATENTED OCT. 8 1907. {Second 'E' is backwards} SB

Aqua

**NO NAME**

(Dome) [Number] (F-Skirt) PATENT'D OCT 8 1907 SB

Aqua

(F-Skirt) PAT. APPL'D FOR SB

Aqua

(F-Skirt) PATENTED (R-Skirt) OCT. 8<sup>TH</sup> 1907. SB

Aqua, Green, Dark Yellow Green

(F-Skirt) PATENTED OCT 8 1907 SB

Aqua, Green, Emerald Green, Light Aqua

(F-Skirt) PATNTED OCT. 8 1907. {Note Spelling} SB

Aqua

[No Embossing] SB

Aqua



**CD 149**

**CD 149**

**BROOKFIELD**

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SB

Aqua, Dark Green, Dark Aqua

**NO NAME**

[No Embossing] SB

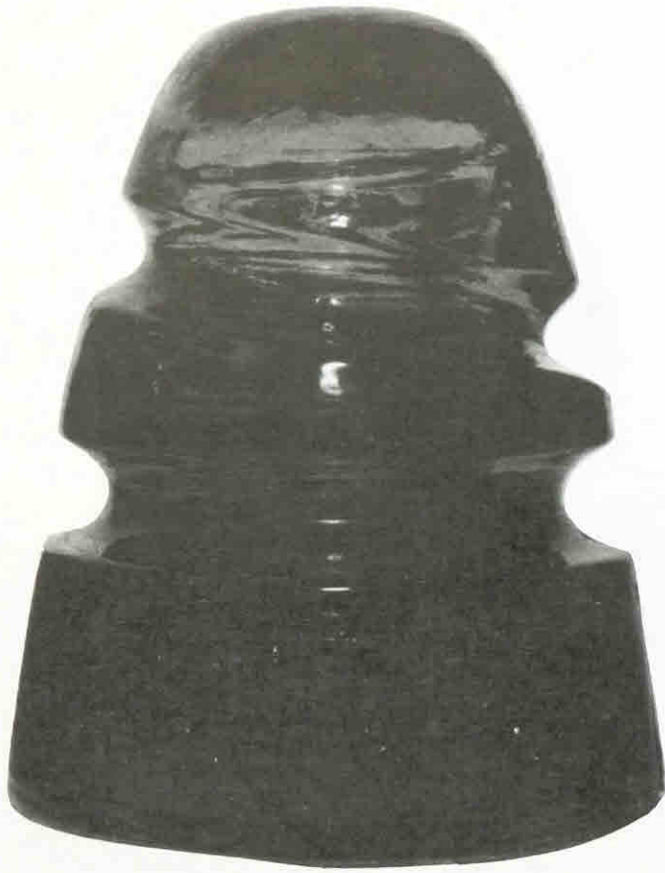
Aqua, Light Green Aqua, Sapphire Blue, Yellow Green, Blue Aqua, Green Aqua

**CD 149 Variation**

*No Name with an elongated wire groove and Pennycuick style pinhole threading.*







CD 150

CD 150

**BARCLAY**

(F-Skirt) BARCLAY (R-Skirt) PATENTED OCT. 8 1907. SDP

Aqua

**BROOKFIELD**

(F-Skirt) BROOKFIELD/PAT.OCT. 8- 1907 SB

Aqua

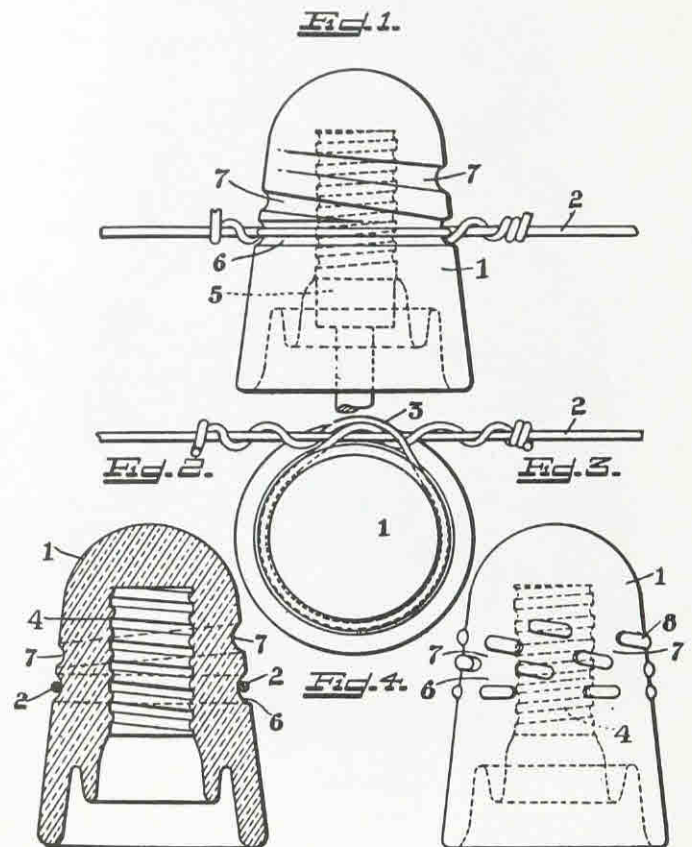
On October 8, 1907 **John C. Barclay** was issued a patent for a new insulator design. The letter of patent reads: "For various reasons it is necessary from time to time to renew insulators. They are not infrequently broken for one reason or another, and even if not broken the insulator resistance becomes impaired in time in many locations, owing to the formation on the surface of the insulator, of a film of dust or smoke deposit which reduces materially the insulation resistance. The renewal or even the cleaning of insulators is commonly deferred as long as possible, however, not merely because of the cost of the actual renewals, including the labor and new tie wires required, but because in the renewal the line wire is adapted to be more or less nicked or twisted, and therefore is apt to

No. 867,901.

PATENTED OCT. 8, 1907.

**J. C. BARCLAY.**  
**INSULATOR.**

APPLICATION FILED JULY 28, 1907.



Attest:  
*[Signature]*  
Wm. Rappaport

Inventor:  
*J. C. Barclay*  
Atty  
*H. M. D. Smith*

break during cold weather. This last objection is the more serious because the line conductor, thus injured, is never as reliable as before, and the damage which may result from its injury cannot be estimated."

By the present invention I provide means whereby the insulators may be removed and replaced without unwrapping the tie wire from the line wire and without the slightest injury to the line wire; and it is moreover possible to renew and replace insulators much more rapidly than when the tie wire must be removed and replaced as heretofore. According to my present invention, therefore, I not only save time in the removal of the insulators and save the cost of new tie wires, but I avoid the still greater expense resulting from injury to the line wire due to removal and replacing of the tie wires."

This patent also covers the design of **CD 110** and **CD 147**. (Further information with CD 110)



**CD 151**

**CD 151**

**BROOKFIELD**

(Dome) [Number] (F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK SB  
Light Aqua, Light Green, Light Blue, Aqua

(F-Crown) [Number]/(Arc)W. BROOKFIELD/NEW YORK {MLOD} SB  
Aqua, Light Green, Blue Aqua, Light Aqua

(F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK SB  
Apple Green

**H.G.CO.**

(F-Crown) N.A.T.CO. (F-Skirt) H.G.CO./PAT'D MAY 2<sup>ND</sup> 1893 (R-Skirt) PETTICOAT SDP  
Aqua, Green, Peacock Blue, Electric Blue, Cobalt Blue

(F-Crown) N.A.T.CO. (F-Skirt) H.G.CO./PAT<sup>D</sup> MAY 2, 1893 (R-Skirt) PETTICOAT SDP  
Aqua, Peacock Blue

(F-Crown) N.A.T.CO. (F-Skirt) H.G.CO./PAT<sup>D</sup> MAY 2<sup>ND</sup> 1893 (R-Skirt) PETTICOAT]/'H.G.CO.' Blotted out] SDP  
Peacock Blue

(F-Skirt) H.G.CO. (R-Skirt) PETTICOAT SB  
Aqua, Bubbly Clear, Light Green, Yellow Green, Ice Blue, Light Aqua, Cornflower Blue, Orange Brown Amber, Light Purple, Olive Green, Hemingray Blue, Yellow Olive, Purple, Smoke, Clear, Apple Green

(F-Skirt) H.G.CO. (R-Skirt) PETTICOAT SDP  
Aqua

(F-Skirt) H.G.CO./PAT<sup>D</sup> MAY 2<sup>ND</sup> 1893 (R-Skirt) PETTICOAT SDP  
Aqua, Light Green, Snowy Aqua, Ice Aqua

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt) PETTICOAT SDP  
Aqua

(F-Skirt) H.G.CO./PATENT MAY 2<sup>ND</sup> 1893 (R-Skirt) PETTICOAT SDP  
Aqua, Light Green

(F-Skirt) H.G.CO./['PAT'D MAY 2 1893' Blotted out] (R-Skirt) PETTICOAT SDP  
Aqua

**NO NAME**

(F-Skirt) 7 (R-Skirt) 7 SB  
Green, Dark Green Aqua, Dark Aqua

(F-Skirt) [Vertical Bar] (R-Skirt) [Vertical Bar] SB  
Light Green

[No Embossing] SB  
Dark Green Aqua, Ice Aqua





CD 152

CD 152

**B**

(F-Skirt) B SB  
Aqua, Green, Emerald Green, Dark Olive Green, Root Beer Amber, Dark Olive, Dark Olive Amber

**BROOKFIELD**

(Dome) [Number] (F-Skirt) BROOKFIELD SB  
Light Blue, Dark Green, Olive Green, Green Aqua, Blue Aqua

(F-Skirt) BBOOKFIELD [Note Spelling] SB  
Aqua, Emerald Green, Olive Green, Green

(F-Skirt) BBOOKFIELD [Note Spelling] SDP  
Aqua, Emerald Green, Olive Green, Blue, Amber

(F-Skirt) BROOKFIELD SB  
Aqua, Emerald Green, Olive Green, Blue, Green, Olive Amber, Dark Aqua

(F-Skirt) BROOKFIELD SDP  
Aqua, Emerald Green, Olive Green, Green, Dark Blue Aqua

(F-Skirt) BROOKFIELD/[Number] (R-Skirt) No 48 SB  
Green Aqua

(F-Skirt) BROOKFIELD/[Number] (R-Skirt) No 48 { 'N' is backwards } SB  
Aqua, Green

**CALIFORNIA**

(F-Skirt) CALIFORNIA SB  
Aqua, Light Green, Sage Green, Smoke, Clear, Light Purple, Blue, Yellow, Purple/Sage Two Tone, Straw

**DIAMOND**

(F-Skirt) [Diamond] SB  
Straw, Ice Green, Blue

**HEMINGRAY**

(Dome) [Number] (F-Skirt) HEMINGRAY (R-Skirt) N° 40 SDP  
Aqua, Light Green Aqua

(Dome) [Number] (F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N° 40 SDP  
Aqua, Olive Green

(F-Skirt) HEMINGRAY (R-Skirt) N° 40 SDP  
Aqua, Dark Yellow Green, Emerald Green, Blue, Milky Aqua, Green, Dark Aqua, Light Green, Jade Milk, Olive Green

(F-Skirt) HEMINGRAY (R-Skirt) N°:40 or N° 40: {Comes with several punctuation variations} SDP  
Aqua, Milky Aqua

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N° 40 SDP  
Aqua

(F-Skirt) HEMINGRAY/N° 40 (R-Skirt) HEMINGRAY SDP  
Aqua

(F-Skirt) HEMINGRAY/N° 40 (R-Skirt) PATENTED/MAY 2 1893 SDP  
Aqua, Green

**M<sup>c</sup>LAUGHLIN**

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) N° 40 SDP  
Aqua, Green

**NO NAME**

(Dome) [Letter] (F-Skirt) N° 48 SB  
Aqua, Green, Blue Aqua

(Dome) [Number] (F-Skirt) N° 40 SB  
Dark Aqua, Green, Blue

(F-Skirt) N° 48 SDP  
Snowy Aqua

[No Embossing]  
Green, Aqua



**CD 153**

**CD 153**

**BROOKFIELD**

(F-Skirt) BROOKFIELD SB  
Aqua, Green, Dark Green Aqua

**GAYNER**

(F-Skirt) GAYNER (R-Skirt) NO. 48-400/[Number] SB  
Aqua

(F-Skirt) GAYNER (R-Skirt) NO. 48-400/[Number] SDP  
Blue Aqua, Light Green Aqua, Light Green

**NO NAME**

(F-Skirt) NO.48-40/[Number] SB  
Aqua, Light Aqua

**CD 153 Variation**

*The Gayner and No Name units are shaped similar to CD 154 but have smaller dimensions.*



**CD 154**

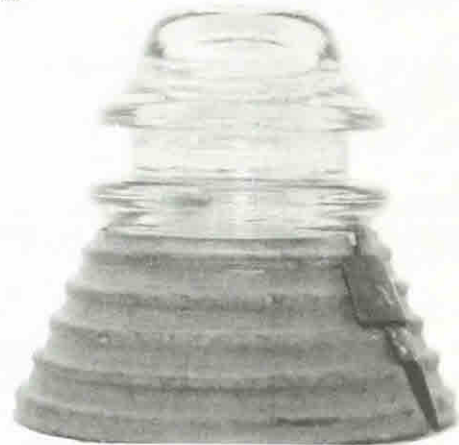
**CD 154**

**A.A.**

(F-Skirt) A.A. [Embossed in a dotted oval] RDP  
Aqua, Yellow Green, Green

**CIA TELEFONICA**

(F-Skirt) CIA.TELEFONICA Y TELEGRAFICA MEXICANA RDP  
Light Aqua



**A CD 154 Dominion-42 with a Corrugated, Metal Shield**

*This type of protective shield is sometimes installed on the skirt of the insulator in order to protect the glass. The unit is used in areas where rock slides and flying debris might be prevalent.*



## DIAMOND

(F-Skirt) ['D' in a diamond] RDP  
Light Green, Straw, Honey Amber

(F-Skirt) ['D' in a diamond] (R-Skirt) ['D' in a diamond]  
RDP  
Straw, Green

(F-Skirt) ['D' in a diamond] (R-Skirt) ['D' in a diamond]/  
['C.N.R.' Blotted out] SB  
Light Green, Light Pink

(F-Skirt) ['D' in a diamond] (R-Skirt) ['D' in a diamond]  
{Threaded inner skirt to base} RDP  
Straw, Dark Green, Olive Green

(F-Skirt) ['P' in a diamond] SB  
Ice Yellow Green

(F-Skirt) [Diamond] SB  
Light Green, Straw, Light Yellow Green

## DOMINION

(F-Skirt) DOMINION-42 (R-Skirt) ['D' in a diamond]  
RDP  
Light Green, Dark Red Amber, Yellow Amber, Light  
Cornflower Blue, Cornflower Blue, Light Yellow Amber,  
Dark Straw, Clear, Light Straw, Pink, Light Sage Green,  
Light Yellow, Honey Amber, Dark Cornflower Blue

(F-Skirt) DOMINION-42 (R-Skirt) ['D' in a diamond]  
[Number] RDP  
Clear, Straw, Cornflower Blue, Yellow Amber, Peach,  
Light Cornflower Blue, Red Amber

## GAYNER

(F-Skirt) GAYNER (R-Skirt) MADE IN NO.44 U.S.A./  
[Number] SB  
Aqua, Light Aqua

(F-Skirt) GAYNER (R-Skirt) MADE IN NO.44 U.S.A./  
[Number] SDP  
Light Green, Aqua

## HEMINGRAY

(F-Skirt) HEMINGRAY-42 (R-Skirt) MADE IN U.S.A.  
SB  
Hemingray Blue

(F-Skirt) HEMINGRAY-42 (R-Skirt) MADE IN U.S.A.  
RDP  
7-up Green, Light Green, Light Blue, Aqua, Blue Aqua,  
Carnival, Ice Blue, Green, Hemingray Blue, Green/Blue  
Two Tone

(F-Skirt) HEMINGRAY-42 (R-Skirt) MADE IN U.S.A.  
SDP  
Hemingray Blue

(F-Skirt) HEMINGRAY-42 (R-Skirt) MADE IN U.S.A./  
[Numbers] RDP  
Clear, Ice Blue

(F-Skirt) HEMINGRAY-42 {'2' is backwards} (R-Skirt)  
MADE IN U.S.A. SDP  
Aqua

(F-Skirt) HEMINGRAY-42/[Blotted out Embossing] (R-  
Skirt) MADE IN U.S.A. SDP  
Hemingray Blue

(F-Skirt) HEMINGRAY-42/[Numbers and Dots] (R-  
Skirt) MADE IN U.S.A. RDP  
Ice Blue, Green Tint

(F-Skirt) HEMINGRAY-42/[Numbers and Dots] (R-  
Skirt) MADE IN U.S.A./[Numbers] RDP  
Clear, Off Clear, Ice Blue, White Milk

(F-Skirt) MR/HEMINGRAY-42/[Numbers and Dots] (R-  
Skirt) MADE IN U.S.A./[Number and Letters] RDP  
Clear

(F-Skirt) ['HEMINGRAY-42' Blotted out] (R-Skirt)  
MADE IN U.S.A. {Many varieties of blotouts on the  
front skirt} RDP  
Hemingray Blue

(F-Skirt) ['HEMINGRAY-42' Blotted out] (R-Skirt)  
MADE IN U.S.A. {Many varieties of blotouts on the  
front skirt} SDP  
Hemingray Blue

## LYNCHBURG

(Dome) ['L' in an oval] (F-Skirt) LYNCHBURG (R-  
Skirt) MADE IN NO.44 U.S.A./[Numbers] RDP  
Aqua, Blue, Green

(Dome) ['L' in an oval] (F-Skirt) LYNCHBURG (R-  
Skirt) MADE IN NO.44 U.S.A./[Number] SDP  
Blue Aqua, Light Aqua, Blue

(F-Skirt) LYNCHBURG (R-Skirt) [Number]/MADE IN  
NO.44 U.S.A. RDP  
Sage Green, Smoke, Lime Green

(F-Skirt) LYNCHBURG (R-Skirt) [Number]/MADE IN  
NO.44 U.S.A. SDP  
Smokey Straw, Ice Green, Aqua, Light Aqua, Ice Blue,  
Blue, Green

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt)  
MADE IN NO.44 U.S.A. {'44' is backwards} RDP  
Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt)  
[Number]/MADE IN NO.44 U.S.A. RDP  
Pink Tint, Green Aqua, Green, Ice Green, Ice Blue

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt)  
[Number]/MADE IN NO.44 U.S.A. SDP  
Smoke, Straw, 7-up Green, Light Aqua, Ice Blue, Ice  
Green, Yellow Green

(F-Skirt) ['L' in an oval]/[Number] LYNCHBURG (R-  
Skirt) MADE IN NO.44 U.S.A. RDP  
Clear, Olive, Sage Green, Yellow Green

(F-Skirt) ['L' in an oval]/[Number] LYNCHBURG (R-  
Skirt) MADE IN NO.44 U.S.A. SDP  
Straw, Ice Blue

### MAYDWELL

(F-Skirt) MAYDWELL-42 (R-Skirt) U.S.A. RDP  
Straw, Light Green

(F-Skirt) MAYDWELL-42 (R-Skirt) U.S.A. SDP  
Gingerale, Clear, Pale Green, Yellow Straw, Straw, Light  
Green, Light Amber, Off Clear, Light Yellow Green,  
Pink

(F-Skirt) MAYDWELL-42 (R-Skirt) U.S.A./  
['M<sup>CL</sup>LAUGHLIN' Blotted out] RDP  
Straw

(F-Skirt) MAYDWELL-42/['M<sup>CL</sup>LAUGHLIN' Blotted  
out] (R-Skirt) U.S.A. SDP  
Clear, Straw

### M<sup>CL</sup>LAUGHLIN

(Dome) [Number] (F-Skirt) M<sup>CL</sup>LAUGHLIN (R-Skirt) N<sup>o</sup>  
42 RDP  
Aqua, Light Green, Blue Gray, Green, Ice Green, Light  
Aqua

(Dome) [Number] (F-Skirt) M<sup>CL</sup>LAUGHLIN (R-Skirt) N<sup>o</sup>  
42 {'2' is backwards} RDP  
Emerald Green, Light Aqua, Apple Green, Light Green,  
Aqua

(F-Skirt) M<sup>CL</sup>LAUGHLIN (R-Skirt) N<sup>o</sup> 40 {Note 'N<sup>o</sup> 40'}  
SB  
Sage Green, Green Aqua, Aqua

(F-Skirt) M<sup>CL</sup>LAUGHLIN (R-Skirt) N<sup>o</sup> 40 {Note 'N<sup>o</sup> 40'}  
RDP  
Blue

(F-Skirt) M<sup>CL</sup>LAUGHLIN (R-Skirt) N<sup>o</sup> 42 SB  
Blue Aqua, Aqua, Sage Green

(F-Skirt) M<sup>CL</sup>LAUGHLIN (R-Skirt) N<sup>o</sup> 42 RDP  
Light Green, Light Steel Blue, Dark Steel Blue, Corn-  
flower Blue, Delft Blue

(F-Skirt) M<sup>CL</sup>LAUGHLIN 42 SB  
Light Green, Blue, Aqua, Sage Green

(F-Skirt) M<sup>CL</sup>LAUGHLIN-42 FDP  
Emerald Green, Light Green, Green

(F-Skirt) M<sup>CL</sup>LAUGHLIN-42 (R-Skirt) MADE IN U.S.A.  
RDP  
Blue Gray, Light Green, Light Aqua, Off Clear

### NO NAME

(F-Skirt) MADE IN NO.44 U.S.A./[Number] {This is a  
Gayner/Lynchburg product with no trace of embossing on  
the other side} SDP  
Light Aqua

(F-Skirt) MADE IN U.S.A. (R-Skirt) MADE IN U.S.A.  
{Hemingray product} RDP  
Aqua

(F-Skirt) MADE IN U.S.A. (R-Skirt) MADE IN U.S.A.  
{Hemingray product} SDP  
Hemingray Blue

### WHITALL TATUM

(F-Skirt) WHITALL TATUM CO. N<sup>o</sup> 1 (R-Skirt) MADE  
IN U.S.A./[Number] SB  
Purple

(F-Skirt) WHITALL TATUM CO. N<sup>o</sup> 1 (R-Skirt)  
[Number]/MADE IN U.S.A. ['W/T' in a triangle] SB  
Straw, Light Aqua, Light Lavendar

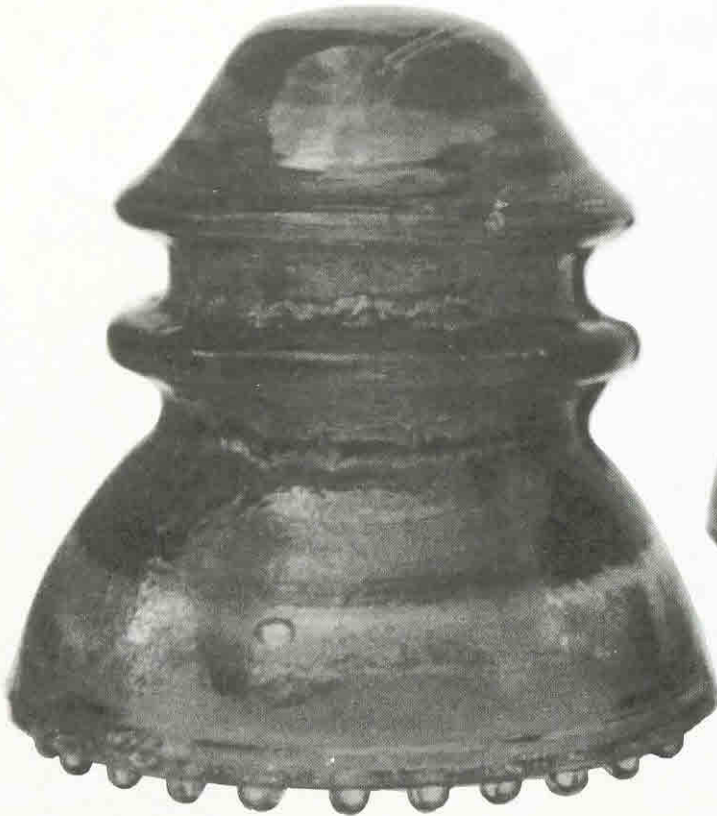
(F-Skirt) WHITALL TATUM CO. N<sup>o</sup> 1/[Number] (R-  
Skirt) MADE IN U.S.A. ['W/T' in a triangle] SB  
Light Aqua, Light Green, Straw, Dark Red Amber, Pink

(F-Skirt) WHITALL TATUM CO. ['W/T' in a triangle]  
(R-Skirt) N<sup>o</sup> 1. MADE IN U.S.A. SB  
Light Aqua

(F-Skirt) WHITALL TATUM CO. ['W/T' in a triangle]  
(R-Skirt) [Number]/N<sup>o</sup> 1 MADE IN U.S.A. SB  
Light Aqua

(F-Skirt) WHITALL TATUM N<sup>o</sup> 1 (R-Skirt) MADE IN  
U.S.A. ['W/T' in a triangle] SB  
Clear, Pink Tint





**CD 154.5**

**CD 154.5**

**DERFLINGER**

(F-Skirt) DERFLINGER-T.N.-1 {Note Spelling} RDP  
Aqua, Green

(F-Skirt) DERFLINGER-T.N.-1 RDP  
Aqua, Green, Dark Green Aqua, Dark Green, Green Aqua

(F-Skirt) DERFLINGER-T.N.-1 SDP  
Yellow Green

**NO NAME**

[No Embossing] RDP  
Aqua



**CD 155**

**CD 155**

**ARMSTRONG**

(F-Skirt) Ⓐrmstrong D.P.1 (R-Skirt) MADE IN U.S.A. ['A' in a circle] [Numbers and Dots] SB  
Off Clear, Straw

(F-Skirt) Ⓐrmstrong D.P.1 (R-Skirt) MADE IN U.S.A. [Numbers and Dots] SB  
Clear

(F-Skirt) *Armstrong's* D.P.1 (R-Skirt) MADE IN U.S.A. ['A' in a circle] [Numbers and Dots] SB  
Clear, Light Green, Light Olive, Light Smoke, Green Smoke, Amber (Fake)

(F-Skirt) ['K.P.P.' in an oval] [Number] Armstrong D.P.1 (R-Skirt) MADE IN U.S.A. [Numbers and Dots] SB  
Off Clear

**CRIMSA**

(F-Skirt) CRIMSA 45 (R-Skirt) [Letters]-[Number] SB  
Clear, Ice Green

**DIAMOND**

(F-Skirt) ['D' in a diamond]/['C.N.R.' Blotted out] (R-Skirt) ['D' in a diamond] SB  
Straw

(F-Skirt) ['D' in a diamond]/[Number] SB  
Off Clear

**DOMINION**

(F-Skirt) DOMINION 42 (R-Skirt) ['D' in a diamond]/  
[Number] SB  
Straw, Off Clear

**HEMINGRAY**

(F-Skirt) HEMINGRAY-45 (R-Skirt) MADE IN U.S.A./  
[Numbers] CB  
Clear, Ice Blue, Straw, Pink, Ice Green

(F-Skirt) HEMINGRAY-45 (R-Skirt) MADE IN U.S.A./  
[Numbers] SB  
Clear, Ice Green

(F-Skirt) HEMINGRAY-45 (R-Skirt) [Numbers]/MADE  
IN U.S.A. SB  
Clear, Ice Blue, Off Clear

**KERR**

(F-Skirt) KERR DP 1 (R-Skirt) MADE IN U.S.A.  
[Numbers] SB  
Clear, Blue Tint, Clear w/Cobalt Blobs

**NO NAME - MEXICO**

(F-Skirt) 3 SB  
Light Aqua, Emerald Green

(F-Skirt) C 45 SB  
Clear

[No Embossing] SB  
Emerald Green, Olive Green, Dark Yellow Green, Olive  
Amber, Green Aqua

**P.S.S.A.**

(F-Skirt) ['VB' in a circle]/PSSA 42 RDP  
Purple

(F-Skirt) ['VB' in a circle]/PSSA 42 (R-Skirt) DCE-2930  
RDP  
Smoky Sage Green, Ice Green

**R.Y.T.**

(F-Skirt) ['R y T' in a circle] (R-Skirt) [Number] SB  
Aqua

(F-Skirt) ['R y T' upsidedown in a circle] (R-Skirt) ['TC'  
entwined upsidedown in a triangle] SB  
Green Aqua, Lime Green, Emerald Green, Honey Amber,  
Ice Blue

**TEXCOCO**

(F-Skirt) CRISOL ['TC' Entwined in a triangle]/TEX-  
COCO (R-Skirt) 45 SB  
Emerald Green

**WHITALL TATUM**

(F-Skirt) (Arc)WHITALL TATUM/No 1 (R-Skirt)  
(Arc)MADE IN U.S.A./[Numbers]/['A' in a circle] SB  
Clear, Pint Tint, Blue Tint, Straw, Smokey Straw



**CD 155.6**

**CD 155.6**

**HEMINGRAY**

(F-Skirt) HEMINGRAY SB  
Aqua





**CD 156**

**CD 156**

**AMERICAN**

(Base) AM INSULATOR CO/PAT SEP 13 1881.  
Aqua, Blue, Light Green, Blue Aqua, Green Aqua

**POSTAL**

(Base) POSTAL TELEGRAPH CO PAT SEP 13 1881  
{'3' is backwards}  
Aqua, Light Green



**CD 156.1**

**CD 156.1**

**AMERICAN**

(Base) AM INSULATOR CO/PAT SEP 13 1881.  
Light Aqua, Light Green, Ice Blue, Ice Green, Blue  
Aqua, Light Blue Aqua

(Base) AM. INSUALTOR CO. N.Y. DOUBLE PETTI-  
COAT PAT'D SEPT. 13. 1881 NOV. 13. 1883

Light Aqua, Green, Lime Green, Yellow Green, Olive  
Green, Blue Aqua, Aqua, Light Green Aqua, Apple  
Green

**NO NAME**

(Base) PAT SEP 13 1881.  
Light Aqua, Light Green, Blue Aqua

[No Embossing] SB  
Light Blue

**POSTAL**

(Base) POSTAL TELEGRAPH CO. PAT SEP 13 1881  
{'3' is backwards}  
Light Green, Aqua



CD 156.2

CD 156.2

**NO NAME**

(Base of Inner Skirt) PAT OCT 15 1872 SB  
Aqua, Blue

[No Embossing] SB  
Blue Aqua

CD 157

**BROOKFIELD**

(F-Skirt) BROOKFIELD SB  
Aqua, Dark Aqua

**HEMINGRAY**

(F-Skirt) HEMINGRAY/Nº 38. (R-Skirt) PATENTED/  
MAY 2 1893 SDP  
Aqua, Dark Aqua



CD 157.5

CD 157.5

**STANDARD GLASS**

(Base) THE STANDARD GLASS INSULATOR CO./  
BOSTON MASS  
Blue Aqua, Light Green, Light Aqua



CD 157





**CD 158**

**BOSTON BOTTLE**

(Base of Inner Skirt) BOSTON BOTTLE WORKS/  
PATENT APPLIED FOR {Four Segmented Threads}  
{Wide wire groove} {MLOD} SB  
Aqua, Blue Aqua, Green Aqua, Dark Aqua, Dark Amber,  
Light Green, Light Lime Green

(Base of Inner Skirt) BOSTON BOTTLE WORKS/  
PATENT APPLIED FOR {Four Segmented Threads}  
{Narrow wire groove} {MLOD} SB  
Aqua, Light Blue Aqua

**NO NAME**

(Base of Inner Skirt) PAT OCT 15 1872 {This is a  
CD136.7 with an inner skirt} {Three Segmented  
Threads} SB  
Aqua

[No Embossing] {Four Segmented Threads} {Wide  
Groove} {MLOD} SB  
Aqua

**CD 158**



**CD 158 Variations**

*(Left to right) Boston Bottle (wide wire groove); No Name  
"OCT 15 1872" (CD 136.7 with an inner skirt); No Name  
[No Embossing] (extra wide wire groove)*



**CD 158.1**

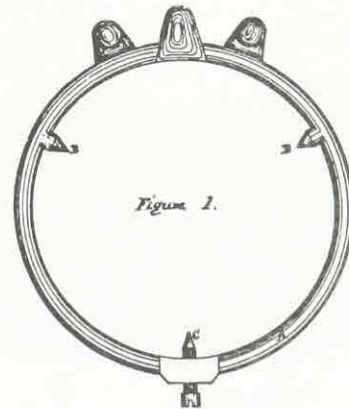
**CD 158.1**

**CHESTER**

(Base of Inner Skirt) CHESTER.104.CENTRE ST. N.Y./  
PATENTED {Four Segmented Threads} {MLOD} SB  
Aqua, Blue, Blue Aqua

**NO NAME**

[No Embossing] {Four segmented threads} {MLOD}  
SB  
Blue



**Stephen Chester** of Elizabeth, New Jersey, patented on May 16, 1871 a metal ring which had three "fingers" to receive the line wire. It is believed that the set screws were used to secure the ring to the wavy, wire groove of **CD 158.1**.





**CD 158.2**

**CD 158.2**

**BOSTON BOTTLE**

(Base of Inner Skirt) BOSTON BOTTLE WORKS/  
PATENT APPLIED FOR- {Four Segmented Threads}  
SB

Aqua, Blue Aqua

(Base of Inner Skirt) BOSTON BOTTLE WORKS/  
PATENT APLD FOR {Four Segmented Threads} SB  
Aqua, Blue, Olive Amber, Root Beer Amber, Green, Blue  
Aqua, Dark Green Aqua

(Base of Inner Skirt) BOSTON BOTTLE WORKS/  
PATENT.OCT.15.72 {MLOD} {Four Segmented  
Threads} SB  
Dark Green, Light Aqua

(Base of inner skirt) BOSTON BOTTLE WORKS/  
PATENT OCT 15 72 {Three segmented threads} SB  
Aqua, Yellow Green

(Base of inner skirt) BOSTON BOTTLE WORKS/  
PATENTED OCT 15 72 {Four segmented threads} SB  
Aqua

(Dome) BOSTON BOTTLE WORKS PATENTED OCT  
15 72 {Four segmented threads} SB  
Aqua, Dark Green

(Dome) [Blotted out Embossing] (Base of Inner Skirt)  
BOSTON BOTTLE WORKS/PATENT.OCT. 15. 72  
{Four Segmented Threads} {MLOD} SB  
Emerald Green

**NO NAME**

[No Embossing] {Four Segmented Threads} SB  
Aqua, Dark Green Aqua



**CD 158.9**

**CD 158.9**

**BOSTON BOTTLE**

(Base of Inner Skirt) BOSTON BOTTLE WORKS/  
PATENT APPLIED FOR- {Four Segmented Threads}  
SB

Light Celery Green, Dark Green, Ice Aqua, Ice Green,  
Light Aqua, Blue Aqua, Aqua, Root Beer Amber, Dark  
Aqua

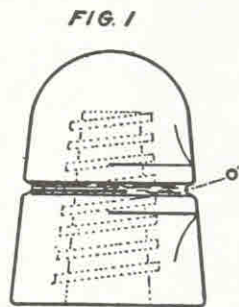


CD 159

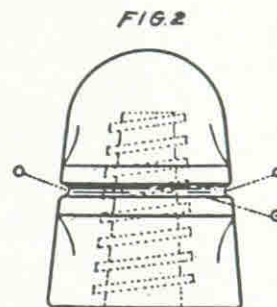
CD 159

GREGORY

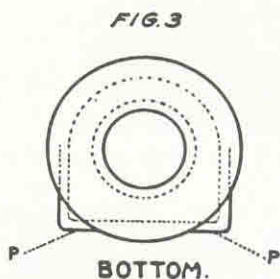
(F-Skirt) PAT. APR. 7TH 1903/F.W. GREGORY SB  
Aqua



SIDE



FRONT



BOTTOM.

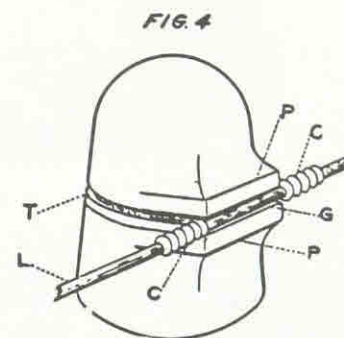


FIG. 4

WITNESSES:  
*J. N. Keep*  
*S. J. Downs*

INVENTOR  
*Ferdinand W. Gregory*  
BY *J. N. Keep*  
ATTORNEY

The design of **CD 159** is based upon a patent issued to **Ferdinand W. Gregory** of New York, New York, and dated April 7, 1903. The patent consisted of "a hollow cap having a vertical face upon one or more sides and horizontal grooves cut into the face of sufficient depth to completely house the line wire and openly terminating on each side of the face. The wire grooves, openly terminating at the parallel sides of the face are equal in length to the diameter of the insulator, thereby making a long solid bearing and reliable support for the line wire and admitting the tie wire being drawn tightly against the ends of the grooves and there easily and smoothly coiled around the line wire without the slightest abrasion, a bend or kink. My improvement ... admits

of using a stronger or thicker tie wire ... and the coil may be extended upon the line wire, thereby relieving any indirect strain at this juncture."

The design of the insulator was not as successful at providing a strong support at the wire groove, for many of the CD 159 units sustained damage which would indicate that the line and tie wire would slice off the corners of the wire groove's ledge.

In recent years treks into the Sierra Mountains of the California have recovered many of the CD 159 style. Their use in that geographical setting would indicate the need for an insulator with extra wire groove support for installations which covered long spans and a change in topographical direction.





**CD 160**

**CD 160**

**ARMSTRONG**

(F-Skirt) *Armstrong's* NO.14 (R-Skirt) MADE IN U.S.A. ['A' in a circle] [Numbers and Dots] SB  
Clear

**B**

(F-Skirt) B SB  
Aqua

(F-Skirt) B SDP  
Aqua

(F-Skirt) B (R-Skirt) N° 32 SB  
Green, Olive Green, Aqua, Blue Aqua, Olive Amber, Blue

**BROOKFIELD**

(Dome) [Number] (F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SB  
Aqua, Light Aqua, Green, Yellow Green, Lime Green

(F-Crown) (Arc)W<sup>M</sup> BROOKFIELD/NEW YORK (F-Skirt) PAT'D NOV. 13TH, 1883 {MLOD} SB  
Aqua, Light Aqua

(F-Skirt) BROOKFIELD SDP  
Aqua

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SB  
Green, Emerald Green, Olive Green, Aqua, Yellow Green, Olive Amber, Light Aqua, Blue Aqua, Green Aqua, Dark Aqua

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SDP  
Green, Emerald Green, Olive Green, Aqua, Dark Aqua

(F-Skirt) BROOKFIELD/N.Y. (R-Skirt) PAT'D NOV. 13TH 1883 SB  
Aqua, Light Green, Light Aqua

(F-Skirt) W. BROOKFIELD/N.Y. (R-Skirt) PAT'D.NOV. 13TH 1883 SB  
Aqua, Light Aqua, Light Blue, Light Green, Yellow Green

**CALIFORNIA**

(F-Skirt) CALIFORNIA SB  
Smoke, Light Purple, Purple, Light Green, Blue, Blue Aqua, Off Clear, Gray, Green, Burgundy, Smokey Purple, Purple/Sage Two Tone

**GAYNER**

(F-Skirt) GAYNER (R-Skirt) NO. 140/[Number] SDP  
Aqua, Light Aqua, Light Blue Aqua

**H.G.CO.**

(F-Skirt) H.G.CO. (R-Skirt) PETTICOAT RDP  
Lime Green

(F-Skirt) H.G.CO. (R-Skirt) PETTICOAT SDP  
Aqua, Clear, Light Green, Blue Aqua

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt) PEITTICOAT {Note Spelling} SDP  
Light Green, Green, Aqua

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt) PETTICOAT RDP  
Aqua, Green, Blue

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt) PETTICOAT SDP  
Aqua, Lime Green, Blue, Light Green, Yellow Olive Green, Milky Aqua, Dark Olive Green

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt) PETTICOET {Note Spelling} SDP  
Aqua, Green, Blue

(F-Skirt) H.G.CO./PATENT MAY 2 1893/[Blotted out Embossing] (R-Skirt) PEITTICOAT {Note Spelling} SDP  
Aqua

(F-Skirt) H.G.CO./PATTENT MAY 2 1893 {Note Spelling} (R-Skirt) PETTICOAT SDP  
Aqua

(F-Skirt) H.G.CO./[Blotted out Embossing]/N° 40 (R-Skirt) DOUBLE/PETTICOAT SB  
Aqua

(F-Skirt) H.G.CO./[Letter] (R-Skirt) PETTICOAT SB  
Light Aqua, Light Lemon, Clear, Off Clear, Aqua,  
Cornflower Blue, Light Blue, Light Green

#### **HAWLEY**

(F-Skirt) HAWLEY P.A./U.S.A. (R-Skirt) ['HICo'  
Entwined Initials] SB  
Aqua, Light Aqua

#### **HEMINGRAY**

(F-Skirt) HEMINGRAY (R-Skirt) N° 14 RDP  
Aqua

(F-Skirt) HEMINGRAY (R-Skirt) N° 14 SDP  
Aqua, Blue Aqua

(F-Skirt) HEMINGRAY-14 (R-Skirt) MADE IN U.S.A.  
RDP  
Aqua, Dark Aqua, Hemingray Blue, Light Green, Blue  
Aqua, Green Tint, Blue Tint

(F-Skirt) HEMINGRAY-14 (R-Skirt) MADE IN U.S.A.  
SDP  
Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY-14 (R-Skirt) MADE IN U.S.A./  
[Numbers and Dots] RDP  
Clear, Light Straw

(F-Skirt) HEMINGRAY-14/PETTICOAT (R-Skirt)  
MADE IN U.S.A./PATENT MAY 2 1893 SDP  
Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY-14/PETTICOAT (R-Skirt)  
MADE IN U.S.A./[Blotted out Embossing]/PATENT  
MAY 2 1893 SDP  
Hemingray Blue

(F-Skirt) HEMINGRAY-14/[Numbers and Dots] (R-  
Skirt) MADE IN U.S.A. RDP  
Ice Aqua, Clear, Green Tint

(F-Skirt) HEMINGRAY/PATENT MAY 2 1893 (R-Skirt)  
MADE IN U.S.A./PETTICOAT SDP  
Blue Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY/['H.G.CO.' Blotted out] (R-  
Skirt) MADE IN U.S.A. SDP  
Hemingray Blue

(F-Skirt) HEMINGRAY/['H.G.CO./PATENT MAY 2  
1893' Blotted out] (R-Skirt) MADE IN U.S.A./['PETTI-  
COAT' Blotted out] SDP  
Aqua

(F-Skirt) HEWNIGRAY {Note Spelling} (R-Skirt) N° 14  
SDP  
Aqua

#### **K.C.G.W.**

(F-Skirt) K C G W (R-Skirt) [Number] SB  
Light Green, Ice Green, Aqua, Dark Green Aqua

#### **LYNCHBURG**

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt)  
NO.32/MADE IN [Number] U.S.A. RDP  
Aqua, Light Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt)  
NO.32/MADE IN [Number] U.S.A. SDP  
Aqua, Green Aqua, Light Aqua

#### **MAYDWELL**

(F-Skirt) MAYDWELL-14 (R-Skirt) U.S.A. SB  
Clear, Straw

(F-Skirt) MAYDWELL-14 (R-Skirt) U.S.A. RDP  
Clear, Purple Tint, Yellow Tint, Straw, Smoke, Gingerale

(F-Skirt) MAYDWELL-14 (R-Skirt) U.S.A. SDP  
Straw, Yellow, Pink, Smoke

(F-Skirt) MAYDWELL-14/['M<sup>c</sup>LAUGHLIN' Blotted  
out] (R-Skirt) U.S.A. RDP  
Light Smoke

#### **M<sup>c</sup>LAUGHLIN**

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) N° 14 FDP  
Olive Green Blackglass, Olive Amber Blackglass, Amber  
Blackglass, Ice Green

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) N° 14 RDP  
Aqua, Light Green, Ice Blue, Sage, Amber Blackglass,  
Olive Amber, Light Blue, Olive Blackglass, Gray Green,  
Steel Blue

(F-Skirt) M<sup>c</sup>LAUGHLIN (R-Skirt) N° 14 SDP  
Light Blue, Green Aqua, Sage Green, Light Aqua

#### **NO NAME**

(F-Skirt) [Glass Dot] (R-Skirt) [Glass Dot] SB  
Aqua

(F-Skirt) [Glass Dot] (R-Skirt) [Number] {Tall narrow  
Dome} SB  
Aqua





**CD 160 Variations**

(Left) CALIFORNIA; (Right) Hemingray-14

(F-Skirt) [Number] (R-Skirt) [Number] SB  
Aqua, Light Green

(F-Skirt) [Two Vertical Bars] (R-Skirt) [Number]  
{Unembossed KCGW} SB  
Aqua, Light Green, Ice Green

**O.V.G.**

(F-Skirt) O.V.G.CO. (R-Skirt) PETTICOAT PONY SB  
Aqua

**S.S. & CO.**

(F-Skirt) S.S. & Co. MFG'S./CHICAGO/N° 40 (R-Skirt)  
DOUBLE/PETTICOAT SB  
Green Tint, Ice Blue, Clear

**STAR**

(F-Skirt) [Star] SB  
Aqua, Lime Green, Light Blue, Olive Green, Light  
Yellow Olive, Yellow Green, Green Aqua, Blue Aqua,  
Light Aqua, Dark Yellow Green

**STERLING**

(F-Skirt) STERLING (R-Skirt) [Pound Sign] SB  
Aqua, Blue Aqua

**WHITALL TATUM**

(F-Skirt) WHITALL TATUM CO. N° 14/[Number] (R-  
Skirt) MADE IN U.S.A. ['W/T' in a triangle] SB  
Clear, Straw

(F-Skirt) WHITALL TATUM N° 14/[Number] (R-Skirt)  
MADE IN U.S.A. ['A' in a circle]/[Number and Dots]  
SB  
Clear, Straw, Pink Tint

(F-Skirt) WHITALL TATUM N° 14/[Number] (R-Skirt)  
MADE IN U.S.A. ['W/T' in a triangle] SB  
Straw, Clear



**CD 160.6**

CD 160.6

**AM.TEL. & TEL.**

(F-Crown) [Number] (F-Skirt) AM.TEL & TEL.CO. (R-  
Skirt) PATD.NOV. 13<sup>TH</sup> 1883. {MLOD} {The [Number]  
is on the (R-Crown) on the Lt. Yellow Green pieces} SB  
Light Aqua Light Yellow Green



**CD 160.7**

**CD 160.7**

**AMERICAN**

(Base) AM INSULATOR CO.N.Y. DOUBLE PETTI-COAT/PAT'D SEPT. 13, 1881, NOV. 13, 1883, FEB. 15, 1884

Light Green, Aqua, Blue Aqua, Yellow Olive, Lime Green, Apple Green, Green Aqua

(Base) AM.INSULATOR CO.N.Y. DOUBLE PETTI-COAT/PAT'D SEPT. 13, 1881 NOV. 13, 1883

Blue Aqua, 7-up Green, Apple Green, Green, Light Blue, Dark Orange Amber



**CD 161**

**CD 161**

**CALIFORNIA**

(Dome) A (F-Skirt) CALIFORNIA SB

Light Sage, Plum, Sage Green, Light Green, Purple/Sage Two Tone, Smoke, Burgundy, Light Purple, Dark Purple, Purple

(F-Skirt) CALIFORNIA SB

Light Green, Light Purple, Light Sage, Sage, Aqua, Purple/Green Two Tone, Purple, Off Clear, Light Yellow Green, Blue Aqua

(F-Skirt) CALIFORNIA SDP

Sage Green, Light Purple

**STAR**

(F-Skirt) [Star] SB

Aqua, Dark Green, Lime Green, Green Aqua



**CD 161.2**

**CD 161.2**

**BROOKFIELD**

(F-Skirt) BROOKFIELD SB

Aqua, Dark Aqua, Dark Green, Dark Yellow Green

(F-Skirt) [Blotted out Embossing]/BROOKFIELD SB

Aqua





CD 162

CD 162

**B.G.M.**

(F-Skirt) B.G.M.CO. SB  
Pink, Clear, Purple, Light Purple

**BROOKFIELD**

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD SB  
Green Aqua, Green

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD  
SDP  
Aqua, Green

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SB  
Emerald Green, Light Blue, Aqua, Dark Aqua, Green, Dark Green

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SDP  
Green, Aqua, Ice Green, Dark Green Aqua, Yellow Green

(Dome) [Number] (F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK SB  
Light Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. (F-Skirt) PAT'D NOV. 13<sup>TH</sup> 1883 (R-Crown) [Number] {MLOD} SB  
Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. (F-Skirt) PAT'D NOV. 13<sup>TH</sup> 1883 {MLOD} SB  
Light Blue, Light Aqua

(F-Crown) (Arc)W. BROOKFIELD/45 CLIFF ST./N.Y. (R-Crown) [Number] SB  
Aqua, Lime Green

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK (F-Skirt) PAT.FEB. 12<sup>TH</sup> 1884. (R-Crown) [Letter] {MLOD} SB  
Light Blue

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK (F-Skirt) PAT.FEB. 12<sup>TH</sup> 1884. {MLOD} SB  
Aqua, Dark Lime Green, Light Blue, Blue Aqua, Light Green

(F-Crown) (Arc)WM BROOKFIELD/83 FULTON ST./N.Y. (F-Skirt) PAT'D NOV. 13<sup>TH</sup> 1883 (R-Crown) [Number] {MLOD} SB  
Light Aqua

(F-Crown) (Arc)WM BROOKFIELD/NEW YORK (F-Skirt) PAT'D NOV. 13<sup>TH</sup> 1883 (R-Crown) [Number] {MLOD} SB  
Aqua, Light Green

(F-Crown) (Arc)WM BROOKFIELD/NEW YORK (R-Crown) PAT'D NOV. 13<sup>TH</sup> 1883 {MLOD} SB  
Light Blue, Light Aqua, Aqua, Light Green

(F-Crown) (Arc)WM. BROOKFIELD/83 FULTON ST./N.Y. (F-Skirt) PAT'D NOV. 13<sup>TH</sup> 1883 {MLOD} SB  
Aqua

(F-Crown) [Number] (F-Skirt) BROOKFIELD {Note Spelling} SB  
Aqua

(F-Skirt) BROOKFIELD SB  
Aqua

(F-Skirt) BROOKFIELD SDP  
Aqua

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SB  
Light Aqua, Ice Blue, Light Blue, Green, Dark Green, Dark Yellow Green, Light Purple, Lime Green

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK/ ['B.G.M.CO.' Blotted out] SB  
Aqua, Light Blue Aqua

(F-Skirt) BROOKFIELD (R-Skirt) ['B.G.M.CO.' Blotted out] SB  
Ice Blue, Aqua

(F-Skirt) BROOKFIELD {Narrow Dome} SDP  
Aqua

(F-Skirt) BROOKFIELD/[Number] SB  
Lime Green, Aqua, Olive Green

(F-Skirt) BROOKFIELD/[Number] (R-Skirt) N° 36 SB  
Aqua, Blue Aqua, Snowy Aqua

(F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK SB  
Aqua, Light Steel Blue

### CALIFORNIA

(F-Skirt) CALIFORNIA SB  
Light Yellow Green, Smokey Purple, Light Purple, Green  
Aqua, Purple, Yellow, Gray, Sage, Burgundy, Plum,  
Purple/Sage Two Tone

### F.F.C.C.N.

(Dome) ['M' and 'V' entwined in a triangle]  
(F-Skirt) FF CC N DE M RDP  
Clear

(F-Skirt) FF CC N DE M RDP  
Ice Green

(F-Skirt) FF CC N DE M SDP  
Ice Green, Light Green

### FORT WAYNE

(F-Crown) [Christian Cross] (F-Skirt) FT.W.E.Co. (R-  
Skirt) PAT'D NOV. 13<sup>TH</sup> 1883 SB  
Aqua

(F-Skirt) FT W.E.Co. (R-Crown) [Christian Cross] (R-  
Skirt) PAT'D NOV. 13<sup>TH</sup> 1883 {MLOD} SB  
Light Aqua

### GAYNER

(F-Skirt) GAYNER (R-Skirt) NO.36-190 SDP  
Aqua

(F-Skirt) GAYNER (R-Skirt) NO.36-190/[Number] SB  
Aqua

(F-Skirt) GAYNER (R-Skirt) NO.36-190/[Number] SDP  
Aqua

### GOOD

(F-Skirt) R.GOOD JR. (R-Skirt) PETTICOAT SB  
Aqua

(F-Skirt) R.GOOD JR./DENVER, COLO. (R-Skirt)  
[Glass Dot]/PETTICOAT SB  
Aqua, Purple, Light Purple

### H.G.CO.

(F-Skirt) H.G.CO. (R-Skirt) PETTICOAT SB  
Peacock Blue, Light Aqua, Ice Blue, Lemon, Light  
Green, Dark Red Amber, Dark Yellow Amber, Milky  
Golden Amber, Purple, Clear, Lime Green, Olive Green,  
Blue Aqua, Yellow, Ice Green, Orange, Hemingray Blue,  
Blue Tint, Green Tint

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt)  
PETTICOAT SDP  
Aqua, Green, Milky Peacock Blue, Sage Green, Hemin-  
gray Blue, Olive Amber, Peacock Blue, Light Peacock  
Blue, Electric Blue, Light Electric Blue, Jade Blue Milk,  
Dark Red Amber, Whiskey Amber, Yellow Amber,  
Orange, Purple, Royal Purple, Cornflower Blue, Light  
Purple, Brown, Lilac, Clear, Dark Honey Amber, Light  
Olive Amber, Yellow Amber, Snowy Aqua, Ice Blue  
Gray, Golden Amber, Root Beer Amber, Ruby Red,  
Brown Amber, Yellow

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt)  
PETTICOAT/['PETTICAOT' Blotted out] SDP  
Purple, Royal Purple, Aqua

(F-Skirt) H.G.CO./PATENT MAY 2, 1893 (R-Skirt)  
PETTICOAY {Note Spelling} SDP  
Aqua

### HAMILTON

(F-Skirt) HAMILTON GLASS CO. {MLOD} RB  
Light Aqua, Light Green, Light Blue Aqua

### HAWLEY

(F-Skirt) ['HICo' Entwined Initials]/HAWLEY PA./  
U.S.A. SB  
Aqua, Green, Green Aqua

### HEMINGRAY

(Dome) 1 (F-Skirt) HEMINGRAY (R-Skirt) N° 19 SB  
Light Aqua

(Dome) [Number] (F-Skirt) HEMINGRAY/MADE IN  
U.S.A. (R-Skirt) N° 19 SB  
Green Aqua

(Dome) [Number] (F-Skirt) HEMINGRAY/MADE IN  
U.S.A. (R-Skirt) N° 19 SDP  
Clear, Ice Blue, Whiskey Amber, Sapphire Blue, Aqua,  
Hemingray Blue, Light Olive Amber

(F-Skirt) HEMINGRAY (R-Skirt) N° 19 SB  
Green Aqua



(F-Skirt) HEMINGRAY (R-Skirt) N° 19 SDP  
Dark Cobalt Blue, Cobalt Blue, Milky Cobalt Blue, Dark  
Aqua, Light Aqua, Dark Red Amber, Dark Orange, Dark  
Green, Green, Light Green, Celery Green, Dark Olive  
Green, 7-up Green, Olive Amber, Dark Yellow Green,  
Root Beer Amber, Jade Green, Hemingray Blue, Sapphire  
Blue, Blue

(F-Skirt) HEMINGRAY (R-Skirt) [Blotted out Emboss-  
ing] N° 19 SDP  
Aqua

(F-Skirt) HEMINGRAY-19 (R-Skirt) MADE IN U.S.A.  
SB  
Hemingray Blue, Aqua

(F-Skirt) HEMINGRAY-19 (R-Skirt) MADE IN U.S.A.  
RDP  
Cobalt Blue, Light Cobalt Blue, Dark Blue, Aqua,  
Hemingray Blue, Ice Blue, Light Blue Aqua, Dark  
Orange Amber, Honey Amber, Yellow Amber, Green,  
Light Green, 7-up Green, Light Carnival, Dark Aqua,  
Red Amber, Orange Amber, Green/Aqua Two Tone,  
Hemingray Blue, Light 7-up Green

(F-Skirt) HEMINGRAY-19 (R-Skirt) MADE IN U.S.A.  
SDP  
Dark Cobalt Blue, Cobalt Blue, Whiskey Amber, Jade  
Aqua Milk, Milky Cobalt, Light Yellow Amber, Aqua,  
Hemingray Blue, Olive Green, Golden Amber

(F-Skirt) HEMINGRAY-19 (R-Skirt) MADE IN U.S.A./  
[Number] RDP  
Green Tint

(F-Skirt) HEMINGRAY-19/[Blotted out Embossing] (R-  
Skirt) MADE IN U.S.A./[Blotted out Embossing] SB  
Hemingray Blue

(F-Skirt) HEMINGRAY-19/[Number and Dots] (R-Skirt)  
MADE IN U.S.A./[Number] RDP  
Clear, Straw, Ice Green, Carnival, Flashed Amber

(F-Skirt) HEMINGRAY-19/[Number] (R-Skirt) MADE  
IN U.S.A. SB Ice Blue

(F-Skirt) HEMINGRAY-19/[Numbers and Dots] (R-  
Skirt) MADE IN U.S.A. RDP  
Ice Blue

(F-Skirt) HEMINGRAY-19/[Numbers and Dots] (R-  
Skirt) [Number]/MADE IN U.S.A. RDP  
Clear

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N°  
19 SB  
Aqua, Ice Blue, Hemingray Blue

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N°  
19 SDP  
Clear, Cobalt Blue, Light Cobalt Blue, Dark Honey  
Amber, Honey Amber, Aqua, Hemingray Blue, Light  
Olive Green, Whiskey Amber, Olive Amber

(F-Skirt) HEMINGRAY/MAY 2 1893 (R-Skirt) PETTI-  
COAT SDP  
Aqua, Cobalt Blue, Green Aqua

(F-Skirt) HEMINGRAY/PATENT MAY 2 1893 (R-Skirt)  
PETTICOAT SDP  
Cobalt Blue, Olive Amber, Orange Amber, Whiskey  
Amber, Root Beer Amber, Olive Green, Aqua, Dark  
Olive Green, Green Aqua, Red Amber

(F-Skirt) HEMINGRAY/PATENTED (R-Skirt) PETTI-  
COAT SDP  
Ice Blue, Dark Electric Blue, Light Electric Blue, Light  
Green, Ice Green, Aqua, Dark Green Aqua, Green Aqua,  
Powder Blue

#### **K.C.G.W.**

(F-Skirt) K.C.G.W. SB  
Light Aqua, Ice Blue, Green, Dark Green

(F-Skirt) K.C.G.W. (R-Skirt) [Number] SB  
Light Green, Dark Green

(F-Skirt) ['K.C.G.W.' Blotted out] SB  
Aqua

#### **LYNCHBURG**

(Dome) ['L' in an oval] (F-Skirt) LYNCHBURG (R-  
Skirt) NO.36/MADE IN [Number] U.S.A. SB  
Aqua, Light Green, Green

(Dome) ['L' in an oval] (F-Skirt) LYNCHBURG (R-  
Skirt) NO.36/MADE IN [Number] U.S.A. RDP  
Sage Green, Aqua

(Dome) ['L' in an oval] (F-Skirt) LYNCHBURG (R-  
Skirt) NO.36/MADE IN [Number] U.S.A. SDP  
Blue Aqua, Blue, Green

(F-Skirt) LYNCHBURG (R-Skirt,Left) NO.36- (R-  
Skirt,Right) MADE IN/U.S.A. SDP  
Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt) NO.36  
U.S.A./[Number] {Note no 'MADE IN'} SDP  
Aqua, Green

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt)  
NO.36/MADE IN [Number] U.S.A. SDP  
Aqua, Milky Aqua, Light Aqua, Blue

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt,Left) NO.36- (R-Skirt,Right) MADE IN/U.S.A. RDP  
Sage Green, Aqua, Light Aqua, Green

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt,Left) NO.36-/ [Number] (R-Skirt,Right) MADE IN/U.S.A. SB  
Light Aqua, Aqua, Ice Blue, Blue, Dark Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt,Left) NO.36-/ [Number] (R-Skirt,Right) MADE IN/U.S.A. SDP  
Aqua, Blue Aqua, Green

(F-Skirt) ['L' in an oval]/LYNCHBURG {'G' is upsid-  
edown} (R-Skirt,Left) NO.36- (R-Skirt,Right) MADE IN  
.U.S.A {Note periods} RDP  
Sage Green

(F-Skirt) ['L' in an oval]/LYNCHBURG {'G' is upsid-  
edown} (R-Skirt,Left) NO.36-/ [Number] (R-Skirt,Right)  
MADE IN/.U.S.A {Note periods} SB  
Light Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG {'G' is upsid-  
edown} (R-Skirt,Left) NO.39-/ [Number] (R-Skirt,Right)  
MADE IN/.U.S.A {Note periods} SDP  
Light Green, Light Aqua, Green Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG {'N' is back-  
wards; 'G' is upsidedown} (R-Skirt,Left) NO.36-/  
[Number] (R-Skirt,Right) MADE IN/.U.S.A {Note  
periods} SDP  
Light Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG {'N' is back-  
wards} (R-Skirt) NO.36-U.S.A./['190' Blotted out]/  
[Number] {'U.S.A.' covers the '190' from a Gayner mold}  
SDP  
Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG {'N' is back-  
wards} (R-Skirt,Left) NO.36-/ [Number] (R-Skirt,Right)  
MADE IN .U.S.A {Note periods} SDP  
Light Green

(F-Skirt) ['L' in an oval]/LYNCHBURG/['NEW YORK'  
Blotted out] (R-Skirt) NO.36 MADE IN/  
['BROOKFIELD' Blotted out]/U.S.A. SDP  
Aqua

#### **MAYDWELL**

(F-Skirt) MAYDWELL-19 (R-Skirt) U.S.A. RDP  
Straw, Clear, Pink, Purple Tint, Light Green, Dark Straw

(F-Skirt) MAYDWELL-19 (R-Skirt) U.S.A. SDP  
Purple Tint, Light Straw, Clear, Pink, Smoke, Gingerale

(F-Skirt) ['U.S.A.' Blotted out]/MAYDWELL-19 (R-  
Skirt) ['M<sup>o</sup>LAUGHLIN 19' Blotted out]/U.S.A. RDP  
Straw, Dark Straw, Light Green, Smoky Gray

#### **M<sup>o</sup>LAUGHLIN**

(F-Skirt) M<sup>o</sup>LAUGHLIN {Note Spelling} (R-Skirt) N<sup>o</sup> 19  
RDP Light Green

(F-Skirt) M<sup>o</sup>LAUGHLIN (R-Skirt) N<sup>o</sup> 19 SB  
Light Green, Green Aqua, Blue, Light Blue Aqua, Steel  
Gray, Aqua

(F-Skirt) M<sup>o</sup>LAUGHLIN (R-Skirt) N<sup>o</sup> 19 FDP  
Light Blue, Blue, Ice Green

(F-Skirt) M<sup>o</sup>LAUGHLIN (R-Skirt) N<sup>o</sup> 19 RDP  
Aqua, Blue Gray, Light Yellow Green, Ice Green, Light  
Blue, Emerald Green, Green Aqua, Green, Lemon, Light  
Plum

(F-Skirt) M<sup>o</sup>LAUGHLIN (R-Skirt) N<sup>o</sup> 19 SDP  
Aqua, Light Green, Light Yellow Green, Light Blue,  
Smoke, Emerald Green, Sage Green, Green

#### **N.E.G.M.**

(F-Skirt) N.E.G.M.CO. SB  
Aqua, Green, Peacock Blue, Blue Aqua, Green Aqua

#### **NO NAME**

(F-Crown) [Number] (F-Skirt) PAT'D.NOV. 13<sup>TH</sup> 1883.  
SB Light Aqua, Light Green

(F-Skirt) NO.36-19 SB  
Aqua

(F-Skirt) N<sup>o</sup> 19 {Hemingray product} SDP  
Cobalt Blue, Blue Aqua, Milky Cobalt Blue

(F-Skirt) PETTICOAT (R-Skirt) PETTICOAT SDP  
Aqua

(F-Skirt) [Vertical Bar] (R-Skirt) [Vertical Bar] SB  
Light Green, Light Aqua

[No Embossing] RDP  
Light Aqua

#### **NO NAME-CANADA**

(F-Skirt) 1678 SDP  
Clear, Light Aqua, Light Purple, Royal Purple, Gray

[No Embossing] {MLOD} {Hamilton Style} RB  
Light Aqua, Clear

#### **NO NAME-MEXICO**

(Dome) ['M' and 'V' entwined in a triangle] SDP  
Sage Green



(Dome) ['M' and 'V' entwined in a triangle]  
(F-Skirt) N<sup>DE</sup> M RDP  
Clear

(Dome) ['M' and 'V' entwined in a triangle]  
(F-Skirt) N<sup>DE</sup> M SDP  
Clear

(F-Skirt) N<sup>DE</sup> M SDP  
Clear

#### O.V.G.

(F-Skirt) O.V.G.CO. (R-Skirt) PETTICOAT SB  
Aqua, Blue, Light Purple

#### S.S.& CO.

(F-Skirt) S.S. & Co. MFG'S/CHICAGO/N<sup>o</sup> 19 (R-Skirt)  
DOUBLE/PETTICOAT SB  
Aqua, Clear, Apple Green, Light Blue, Lime Green,  
Light Green, Light Aqua

#### STAR

(F-Skirt) [Star] SB  
Light Aqua, Aqua, Lime Green, Green, Light Blue,  
Green Aqua, Dark Yellow Green, Olive Green, Yellow  
Green, Blue

(F-Skirt) [Star] SDP  
Aqua, Green, Blue

(F-Skirt) [Star] (R-Skirt) [Star] SB  
Blue Aqua, Aqua, Olive Green

#### T-H.E.

(F-Skirt) T-H.E.CO. (R-Skirt) PAT'D NOV. 13<sup>TH</sup> 1883  
{MLOD} SB  
Aqua, Light Blue

(F-Skirt) T-H.E.CO. (R-Skirt) [Blotted out Embossing]/  
PAT'D NOV. 13<sup>TH</sup> 1883 {MLOD} SB  
Aqua

#### W.F.G.

(F-Skirt) W.F.G.CO./DENVER, COLO. (R-Skirt) [Glass  
Dot]/PETTICOAT SB  
Aqua, Clear, Purple, Ice Blue, Off Clear

#### W.G.M.

(F-Skirt) W.G.M.CO. SB  
Straw, Clear, Purple, Light Purple, Royal Purple, Pink

#### WESTINGHOUSE

(F-Skirt) WESTINGHOUSE/NO.2 SB  
Blue Aqua, Light Green, Off Clear, Lime Green

#### WHITALL TATUM

(F-Skirt) WHITALL TATUM CO. NO.4/[Number] (R-  
Skirt) MADE IN U.S.A. ['W/T' in a triangle] SB  
Clear

(F-Skirt) WHITALL TATUM NO.4/[Number] (R-Skirt)  
MADE IN U.S.A. {'W/T' in a triangle}/[Number] SB  
Clear, Pink



CD 162.1

CD 162.1

#### BROOKFIELD

(Dome) [Number] (F-Skirt) BROOKFIELD SB  
Dark Green Aqua

(Dome) [Number] (F-Skirt) BROOKFIELD (R-Skirt)  
NEW YORK SB  
Aqua, Green, Emerald Green, Olive Amber

(F-Skirt) BROOKFIELD SB  
Aqua, Blue

(F-Skirt) BROOKFIELD SDP  
Aqua, Dark Aqua

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SB  
Aqua, Dark Green

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SDP  
Aqua, Green, Dark Aqua, Dark Yellow Green

**STAR**

(F-Skirt) [Star] SB  
Green Aqua



**CD 162.3**

**CD 162.3**

**BROOKFIELD**

(F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK SB  
Ice Blue, Steel Blue, Gray, Purple, Light Aqua

**STAR**

(F-Skirt) [Star] SB  
Aqua, Light Blue, Green Aqua, Light Purple, Light Steel Blue, Light Green, Dark Green, Lime Green, Apple Green

(F-Skirt) [Star] WDP  
Aqua, Light Green, Blue



**CD 162.4**

**CD 162.4**

**NO NAME - CANADA**

(F-Skirt) 1673 SB  
Aqua, Lemon

(F-Skirt) 1673 SDP  
Light Aqua, Aqua

(F-Skirt) 1678 SB  
Straw, Aqua, Clear, Blue Aqua, Lemon, Olive Green, Dark Aqua, Steel Blue, Green, Lime Green, Purple, Ice Blue, Light Gray, Smokey Purple, Yellow, Sage Green, Purple Tint, Blue

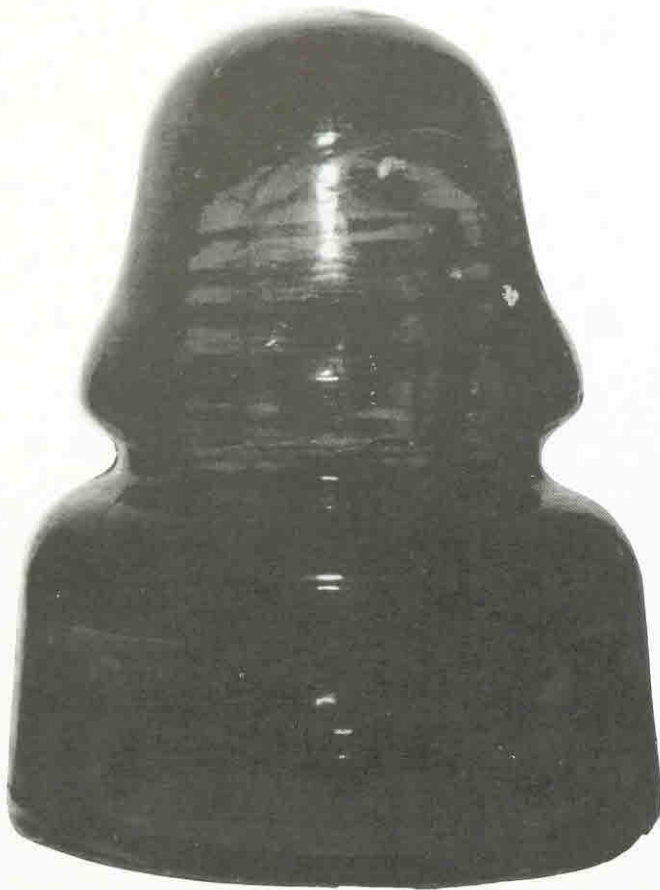
(F-Skirt) 1678 RDP  
Straw, Aqua

(F-Skirt) 1678 SDP  
Aqua, Ice Aqua, Light Purple, Gray, Blue, Ice Gray, Green, Purple, Lime Green, Indigo Blue

(F-Skirt) 1678 {'8' is engraved over a '3'} SB  
Light Green, Dark Green Aqua

[No Embossing] {MLOD} SB  
Green, Aqua, Purple, Blue, Apple Green, Royal Purple





**CD 162.5**

**CD 162.5**

**P.L.W.**

(Dome) P.L.W. (F-Skirt) B SB  
Aqua, Green

**P.R.R.**

(Dome) P.R.R. (F-Skirt) B SB  
Aqua, Yellow Green, Green, Blue Aqua

(Dome) R.R.R. {Note Spelling} (F-Skirt) B SB  
Aqua



**CD 162.7**

**CD 162.7**

**DERF**

(F-Skirt) DERF (R-Skirt) TELG<sup>S</sup> NACL<sup>S</sup> MEXICO SB  
Aqua, Sage Green, Dark Green Aqua

(F-Skirt) DERF (R-Skirt) TELG<sup>S</sup> NACL<sup>S</sup> MEXICO RDP  
Dark Green, Lime Green, Aqua, Emerald Green

(F-Skirt) DERF (R-Skirt) TELG<sup>S</sup> NACL<sup>S</sup> MEXICO SDP  
Aqua, Green Aqua, Dark Yellow Green, Dark Aqua, Dark  
Green Aqua, Dark Olive Green

**F.F.C.C.N.**

(F-Skirt) F.F.C.C.N<sup>DE</sup> M/F.D. RDP  
Aqua, Clear, Lime Green

**NO NAME-MEXICO**

[No Embossing] {MLOD} SB  
Light Green, Dark Olive Green, Aqua

[No Embossing] {MLOD} RDP

Aqua, Lime Green, Purple, Rose, Yellow Green, Light  
Gray, Light Purple

**P.S.S.A.**

(F-Skirt) ['VB' in a circle]/PSSA #19 RDP  
Sage Tint



**CD 163**

**CD 163**

**ARMSTRONG**

(F-Skirt) *Armstrong's* No.4 (R-Skirt) MADE IN USA.  
 ['A' in a circle] [Numbers and Dots] SB  
 Clear

**HEMINGRAY**

(F-Skirt) HEMINGRAY-19 (R-Skirt) MADE IN U.S.A./  
 [Numbers and Dots] RDP  
 Clear, Straw

**WHITALL TATUM**

(F-Skirt) (Arc)WHITALL TATUM/No.4 (R-Skirt)  
 (Arc)MADE IN U.S.A./[Numbers and Dots]/['A' in a  
 circle] SB  
 Clear, Light Pink

(F-Skirt) WHITALL TATUM CO. No.4/[Number] (R-  
 Skirt) MADE IN U.S.A. ['W/T' in a triangle] SB  
 Aqua, Ice Aqua, Straw



**CD 163 Variation**

*Whitall Tatum molds are a little wider in the dome  
 and skirt than Armstrong and Hemingray units.*



**CD 163.2**

**CD 163.2**

**NO NAME**

(F-Skirt) [Vertical Bar] (R-Skirt) [Vertical Bar] SB  
 Light Aqua, Light Green





**CD 164**

**CD 164**

**ARMSTRONG**

(F-Skirt) *Armstrong's* N° 5 (R-Skirt) MADE IN U.S.A.  
 ['A' in a circle] [Numbers and Dots] CB  
 Light Smoke

(F-Skirt) *Armstrong's* N° 5 (R-Skirt) MADE IN U.S.A.  
 ['A' in a circle] [Numbers and Dots] SB  
 Clear, Light Green, Off Clear

**B**

(F-Skirt) B SB  
 Aqua, Green, Yellow Green, Emerald Green

(F-Skirt) B SDP  
 Aqua, Green

**B.C.DRIP**

(F-Skirt) B.C/DRIP SB  
 Light Aqua

(F-Skirt) B.C/DRIP SDP  
 Light Aqua, Aqua

**B.G.M.**

(F-Skirt) B.G.M.CO. SB  
 Clear, Purple, Light Purple

**BROOKFIELD**

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD SB  
 Aqua, Green, Emerald Green, Yellow Green, Olive  
 Green, Olive Amber

(Dome) [Letter or Number] (F-Skirt) BROOKFIELD  
 SDP  
 Aqua, Green, Yellow Green, Olive Amber

(Dome) [Number] (F-Skirt) BROOKFIELD (R-Skirt)  
 NEW YORK SB  
 Aqua, Green

(F-Crown) (Arc)W. BROOKFIELD/NEW YORK (F-  
 Skirt) PAT'D NOV. 13<sup>TH</sup> 1883 SB  
 Aqua, Light Aqua

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SB  
 Aqua, Light Blue, Light Green

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK SDP  
 Aqua, Green, Olive Green

(F-Skirt) BROOKFIELD (R-Skirt) NEW YORK/  
 ['B.G.M.CO.' Blotted out] SB  
 Light Aqua, Light Green

(F-Skirt) BROOKFIELD (R-Skirt) N° 38 SB  
 Aqua, Green, Olive Green, Yellow Green, Olive Amber

(F-Skirt) BROOKFIELD/[Number] SB  
 Aqua, Green, Blue Aqua, Green Aqua

(F-Skirt) W. BROOKFIELD (R-Skirt) NEW YORK SB  
 Aqua, Light Aqua

**DIAMOND**

(F-Skirt) [Diamond] SB  
 Aqua, Straw, Light Green, Peach, Light Steel Blue, Light  
 Purple, Purple, Ice Yellow Green

**DOMINION**

(F-Skirt) DOMINION 614 (R-Skirt) ['D' in a diamond]  
 [Numbers and Dots] RDP  
 Straw, Light Green, Ice Green

(F-Skirt) DOMINION 614 (R-Skirt) ['D' in a diamond]  
 [Numbers and Dots] SDP  
 Light Green, Clear

(F-Skirt) DOMINION-614 (R-Skirt) [Diamond] RDP  
 Clear, Light Green, Straw, Pink

(F-Skirt) DOMINION-614 (R-Skirt) [Diamond] SDP  
 Clear, Light Green, Straw, Light Sage

**GAYNER**

(F-Skirt) GAYNER (R-Skirt) NO.38-20/[Number] SDP  
Aqua

(F-Skirt) GAYNER (R-Skirt) NO.38-20/[Number] {Some  
of them are tall, similar to a CD166} SB  
Aqua

**H.G.CO.**

(F-Skirt) H.G.CO. (R-Skirt) PETTICOAT SB  
Aqua, Ice Blue, Blue Aqua, Ice Green, Off Clear, Light  
Green, Lime Green, Light Steel

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt)  
PETTICOAT SDP  
Aqua, Green, Lime Green, Hemingray Blue, Peacock  
Blue, Emerald Green, Amber, Purple, Ice Aqua, Jade  
Green Milk, Yellow Green, Olive Green

(F-Skirt) H.G.CO./PATENT MAY 2 1893 (R-Skirt)  
PETTICOAY {Note Spelling} SDP  
Aqua

**HAWLEY**

(F-Skirt) ['HICo' Entwined Initials] (R-Skirt) HAWLEY  
PA. U.S.A. SB  
Aqua

(F-Skirt) ['HICo' Entwined Initials]/['STERLING'  
Blotted out] (R-Skirt) HAWLEY PA. U.S.A./['Pound  
Sign' Blotted out] SB  
Aqua, Blue Aqua

**HEMINGRAY**

(F-Skirt) HEMINGRAY (R-Skirt) N° 20 SDP  
Aqua, Emerald Green, Olive Green

(F-Skirt) HEMINGRAY-20 (R-Skirt) HEMINGRAY-20  
RDP  
Hemingray Blue

(F-Skirt) HEMINGRAY-20 (R-Skirt) HEMINGRAY-20  
SDP  
Hemingray Blue

(F-Skirt) HEMINGRAY-20 (R-Skirt) MADE IN U.S.A.  
SB  
Aqua

(F-Skirt) HEMINGRAY-20 (R-Skirt) MADE IN U.S.A.  
RDP  
Aqua, Green, Hemingray Blue, Ice Blue, Golden Amber,  
Clear/Aqua Two Tone, Carnival

(F-Skirt) HEMINGRAY-20 (R-Skirt) MADE IN U.S.A.  
SDP  
Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY-20 (R-Skirt) MADE IN U.S.A./  
[Number] SB  
Clear

(F-Skirt) HEMINGRAY-20/['42' Blotted out] (R-Skirt)  
MADE IN U.S.A. SDP  
Hemingray Blue

(F-Skirt) HEMINGRAY-20/[Numbers and Dots] (R-  
Skirt) MADE IN U.S.A. RDP  
Ice Blue

(F-Skirt) HEMINGRAY-20/[Numbers and Dots] (R-  
Skirt) MADE IN U.S.A./[Number] RDP  
Clear, Ice Blue

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N°  
20 SDP  
Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY/PATENTED MAY 2 1893 (R-  
Skirt) PETTICOAT SDP  
Aqua, Cobalt Blue, Emerald Green, Yellow Green, Lime  
Green

(F-Skirt) HEMINGRAY/[Blotted out Embossing] (R-  
Skirt) N° 20 SDP  
Aqua

(F-Skirt) [Numbers and Dots]/HEMINGRAY-20 (R-  
Skirt) MADE IN U.S.A./[Number] RDP  
Ice Blue

**K.C.G.W.**

(F-Skirt) K C G Co (R-Skirt) PERU SB  
Aqua, Lime Green, Light Blue, Ice Aqua

(F-Skirt) [Glass Dot]/['K C G Co' Blotted out] (R-Skirt)  
[Glass Dot]/['PERU' Blotted out] SB  
Aqua, Light Green, Light Blue

**LYNCHBURG**

(F-Skirt) LYNCHBURG (R-Skirt) NO.38-20/[Number]  
SB  
Aqua

(F-Skirt) LYNCHBURG (R-Skirt) NO.38-20/[Number]  
SDP  
Light Aqua, Yellow Green

(F-Skirt) LYNCHBURG (R-Skirt,Left) No.38-/[Number]  
(R-Skirt,Right) MADE IN/U.S.A. SDP  
Aqua



(F-Skirt) LYNCHBURG/['L' in an oval] [Number] (R-Skirt,Left) No.38-/[Number] (R-Skirt,Right) MADE IN/ U.S.A. SB  
Aqua

(F-Skirt) LYNCHBURG/['L' in an oval] [Number] (R-Skirt,Left) No.38-/[Number] (R-Skirt,Right) MADE IN/ U.S.A. SDP  
Aqua, Blue Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt) NO.38-20/[Number] SB  
Green

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt) NO.38-20/[Number] RDP  
Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt) NO.38-20/[Number] SDP  
Aqua, Green, Sage Green

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt,Left) NO.38-/[Number] [Number] (R-Skirt,Right) MADE IN U.S.A.. {Note periods} SB  
Green, Yellow Green

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt,Left) No.38-/[Number] (R-Skirt,Right) MADE IN/U.S.A. SB  
Aqua, Green, Light Aqua, Blue Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt,Left) No.38-/[Number] (R-Skirt,Right) MADE IN/U.S.A. RDP  
Aqua, Light Blue Aqua

(F-Skirt) ['L' in an oval]/LYNCHBURG (R-Skirt,Left) No.38-/[Number] (R-Skirt,Right) MADE IN/U.S.A. SDP  
Aqua, Light Aqua, Green, Yellow Green

#### MAYDWELL

(F-Skirt) MAYDWELL-20 (R-Skirt) U.S.A. SDP  
White Milk, Straw, Light Sage Green, Off Clear, Clear, Smoke, Light Yellow

(F-Skirt) MAYDWELL-20 (R-Skirt) U.S.A./ ['M<sup>CL</sup>LAUGHLIN' Blotted out] RDP  
White Milk

(F-Skirt) MAYDWELL-20 (R-Skirt) U.S.A./[Number] RDP  
White Milk, Straw, Clear, Pink, Green Tint, Smoke, Off Clear, Peach, Light Yellow

(F-Skirt) MAYDWELL-20/['M<sup>CL</sup>LAUGHLIN' Blotted out] (R-Skirt) U.S.A. RDP  
Clear, White Milk

#### M<sup>CL</sup>LAUGHLIN

(F-Skirt) M<sup>CL</sup>LAUGHLIN (R-Skirt) N<sup>o</sup> 20 SB  
Off Clear, Aqua, Sage Green, Light Blue, Steel Blue, Straw, Smoke, Light Green

(F-Skirt) M<sup>CL</sup>LAUGHLIN (R-Skirt) N<sup>o</sup> 20 RDP  
Green Aqua, Light Green, Lime Green, Light Blue, Yellow, Steel Blue, Aqua, Green Aqua

(F-Skirt) M<sup>CL</sup>LAUGHLIN (R-Skirt) N<sup>o</sup> 20 SDP  
Steel Blue, Light Green, Sage Green, Light Blue

(F-Skirt) M<sup>CL</sup>LAUGHLIN (R-Skirt) N<sup>o</sup>-20 FDP  
Green Aqua

(F-Skirt) M<sup>CL</sup>LAUGHLIN {'N' is backwards} (R-Skirt) N<sup>o</sup> 20 SB  
Aqua, Light Blue, Light Sage Green

(F-Skirt) M<sup>CL</sup>LAUGHLIN {'N' is backwards} (R-Skirt) N<sup>o</sup> 20 RDP  
Light Green, Light Blue, Light Sage Green

(F-Skirt) M<sup>CL</sup>LAUGHLIN {'N' is backwards} (R-Skirt) N<sup>o</sup> 20 SDP  
Sage Aqua, Light Green, Ice Blue, Steel Blue

(F-Skirt) M<sup>CL</sup>LAUGHLIN {'N' is backwards} (R-Skirt) N<sup>o</sup>-20 FDP  
Light Green, Light Green Aqua, Aqua

(F-Skirt) M<sup>CL</sup>LAUGHLIN-20 FDP  
Delft Blue, Ice Green, Light Green, Blue

(F-Skirt) M<sup>CL</sup>LAUGHLIN-20 RDP  
Aqua, Green, Emerald Green, Citron, Clear, Off Clear, Yellow Green, Light Yellow Green, Lemon, Light Green

(F-Skirt) M<sup>CL</sup>LAUGHLIN-20 SDP  
Aqua, Green, Emerald Green, Yellow Green

#### NO NAME

(F-Skirt) NO.38-20/[Number] SB  
Aqua, Blue

(F-Skirt) PETTICOAT SDP  
Purple, Royal Purple

(F-Skirt) [Vertical Bar] [1] {'I' is upsidedown and backwards} (R-Skirt) [Vertical Bar] SB  
Green Aqua

[No Embossing] SB  
Aqua, Sage Green

**STAR**

(F-Skirt) [Star] SB  
Aqua, Blue, Green, Yellow Green, Dark Yellow Green,  
Green Aqua, Olive Green, Lime Green, Blue Aqua

(F-Skirt) [Star] SDP  
Aqua

(F-Skirt) [Star] (R-Skirt) [Blotted Circle] SB  
Dark Aqua

**STERLING**

(F-Skirt) STERLING (R-Skirt) [Pound Sign] SB  
Aqua, Green Aqua

**WHITALL TATUM**

(F-Skirt) WHITALL TATUM CO. No.5 (R-Skirt) MADE  
IN U.S.A. [Numbers and Dots] SB  
Light Pink

(F-Skirt) WHITALL TATUM No.5/[Number] (R-Skirt)  
MADE IN U.S.A. ['W/T' in a traingle]/[Numbers and  
Dots] SB  
Smoke, Clear, Straw

(F-Skirt) WHITALL TATUM No.5/[Number] (R-Skirt)  
MADE IN U.S.A. [Numbers and Dots] SB  
Clear, Straw, Light Pink



**CD 164.4**

**CD 164.4**

**NO NAME**

[No Embossing] {Fry Glass} SB  
White Opalescent, Black Opalescent, Straw, Opaque  
Cobalt Blue



**CD 165**

**CD 165**

**HEMINGRAY**

(F-Skirt) HEMINGRAY-20 (R-Skirt) MADE IN U.S.A./  
[Numbers and Dots] SB  
Clear

(F-Skirt) HEMINGRAY-20 (R-Skirt) MADE IN U.S.A./  
[Numbers and Dots] RDP  
Clear, Light Straw





**CD 165.1**

**WHITALL TATUM**

(F-Skirt) N° 5/WHITALL TATUM CO. (R-Skirt) MADE IN U.S.A. SB

Light Aqua

(F-Skirt) WHITALL TATUM CO. N° 5/[Number] (R-Skirt) MADE IN U.S.A. ['W/T' in a triangle] SB

Ice Aqua, Aqua, Straw, Clear

**CD 166**

**CALIFORNIA**

(F-Skirt) A011/CALIFORNIA SB

Sage Green, Smoke, Peach, Yellow, Purple, Burgundy, Gray Blue, Light Purple

(F-Skirt) CALIFORNIA SB

Aqua, Green, Purple

**CD 165.1**



**CD 166**



**CD 166.2**

**CD 166.2**

**E.L.**

(F-Skirt) E.L.Co. SB

Aqua

**NO NAME**

[No Embossing] SB

Aqua, Emerald Green, Dark Yellow Green, Olive Green, Olive Amber, Light Aqua, Apple Green



**CD 166.2 Variation**  
*The "E.L." embossed units have a long skirt but the same dome shape as the No Name style.*

(F-Skirt) [Numbers] [Owens Illinois Trademark] [Numbers] (R-Skirt) 51 C1 SB  
 Clear



**CD 168**

**CD 168**



**CD 167**

**CD 167**

**ARMSTRONG**

(F-Skirt) (Arc)ARMSTRONG/[Numbers and Dots] ['A' in a circle]/[Number] (R-Skirt) 51-C1/MADE IN U.S.A. CB  
 Root Beer Amber

(F-Skirt) (Arc)ARMSTRONG/[Numbers and Dots] ['A' in a circle]/[Number] (R-Skirt) 51-C1/MADE IN U.S.A. SB  
 Clear, Light Straw, Root Beer Amber

**NO NAME**

(F-Skirt) [Numbers and Dots] [Owens Illinois Trademark] [Number and Dots] (R-Skirt) 51 C1 CB  
 Light Straw, Clear

**HEMINGRAY**

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) D-510 SB  
 Aqua, Carnival

(F-Skirt) LOWEX/HEMINGRAY/MADE IN U.S.A. (R-Skirt) D-510 SB  
 Off Clear

(F-Skirt) [Number] HEMINGRAY/MADE IN U.S.A. (R-Skirt) D-510 SB  
 Carnival, Ice Blue

(F-Skirt) [Number]/HEMINGRAY/MADE IN U.S.A. (R-Skirt) ['LOWEX' Blotted out]/D-510 SB  
 Dark Olive, Dark Olive Amber, Yellow Tint, Clear

(F-Skirt) [Numbers and Dots]/HEMINGRAY/MADE IN U.S.A. (R-Skirt) LOWEX/D-510 SB  
 Carnival, Dark Olive Amber

(F-Skirt) [Numbers and Dots]/HEMINGRAY/MADE IN U.S.A. (R-Skirt) REG.U.S.PAT.OFF./LOWEX/D-510 SB  
 Ice Green, Dark Olive Amber, Straw, Clear

(F-Skirt) [Numbers and Dots]/HEMINGRAY/MADE IN U.S.A. (R-Skirt) ['REG. U.S. PAT.OFF.' Blotted out]/ ['LOWEX' Blotted out]/D-510 CB  
 Clear





**CD 168 Variation**

*The Whitall Tatum units have a larger mold and different dome shape from the Hemingray products.*

(F-Skirt) [Numbers and Dots]/HEMINGRAY/MADE IN U.S.A. (R-Skirt) [Number]/D-510 SB  
Ice Blue, Clear, White Opalescent, Carnival, Orange Amber, Dark Olive Amber

**WHITALL TATUM**

(F-Skirt) WHITALL TATUM CO. N° 11/[Number] (R-Skirt) MADE IN U.S.A. [“W/T” in a triangle] SB  
Light Aqua, Light Green, Ice Blue



**CD 169**

**CD 169**

**HEMINGRAY**

(F-Skirt) HEMINGRAY (R-Skirt) TYPE.1 SDP  
Aqua

**WHITALL TATUM**

(F-Skirt) NO.4/WHITALL TATUM CO. (R-Skirt) MADE IN U.S.A./[Number] SB  
Light Aqua, Ice Blue



**CD 168.5**

**CD 168.5**

**NO NAME**

(F-Skirt) [Glass Dot] SB  
Dark Aqua



**CD 169 Variation**

*The Hemingray unit has a gradual slope in the skirt.*



**CD 169.5**

**BROOKFIELD**

(F-Skirt) BROOKFIELD SB

Aqua, Green, Dark Green, Green Aqua

**CD 170**

**NO NAME**

[No Embossing] SB

Aqua, Green Aqua, Light Aqua

**CD 169.5**



**CD 170**



**CD 170.1**

**CD 170.1**

**NO NAME**

[No Embossing] SB

Aqua, Light Blue Milk, Olive Amber, Light Lavendar,  
Emerald Green, Root Beer Amber





CD 173

**BROOKFIELD**  
(Dome) BROOKFIELD SB  
Aqua

CD 174

**BROOKFIELD**  
(F-Skirt) BROOKFIELD SB  
Aqua

CD 173



CD 174



CD 175

CD 175

**HEMINGRAY**  
(F-Skirt) HEMINGRAY-25 (R-Skirt) MADE IN U.S.A.  
SB  
Aqua, Ice Blue

(F-Skirt) HEMINGRAY-25/[Numbers and Dots] (R-Skirt) MADE IN U.S.A./[Numbers] SB  
Clear



**CD 176**

**CD 176**

**WHITALL TATUM**

(F-Under Wire Groove) WHITALL TATUM CO. NO.12

MADE IN U.S.A. (R-Under Wire Groove) PATENT

NO.1708038 SB

Light Straw

Termed a design for a "low loss" insulator, **Leon T. Wilson** of East Orange, New Jersey, was issued a **patent** for CD 176 on April 9, 1929. The embossing on the unit contains the patent number (**NO. 1708038**) instead of the date the patent was issued. Wilson assigned his patent to the American Telephone and Telegraph Company of New York.

His claim stated: "An insulator having a flange extending outwardly therefrom, a groove in said flange for carrying a line conductor and a tie-wire, an interior bore within the insulator whereby it may be mounted upon a supporting pin, said groove being located well below the top of said supporting pin and the diameter of said groove being more than twice the diameter of said internal bore, and a groove extending upwardly into said flange from the underside thereof to a point well above the external groove and approximately as high as said interior bore so that an air-space will intervene between the said external groove and the supporting pin."



**CD 178**

**CD 178**

**CALIFORNIA**

(F-Skirt) CALIFORNIA (R-Skirt)

303/SANTA ANA SB

Sage Green, Purple

**HEMINGRAY**

(F-Skirt) HEMINGRAY (R-Skirt)

PATENT MAY 2 1893 SDP

Aqua



**NO NAME**

(F-Skirt) 303 SB

Smoke, Purple

[No Embossing] SB

Aqua

**SANTA ANA**

(F-Skirt) 303/SANTA ANA SB

Smoke, Purple

(F-Skirt) SANTA ANA SB

Aqua, Green, Yellow Green, Light Purple, Purple,  
Smoke, Olive Green, Lime Green

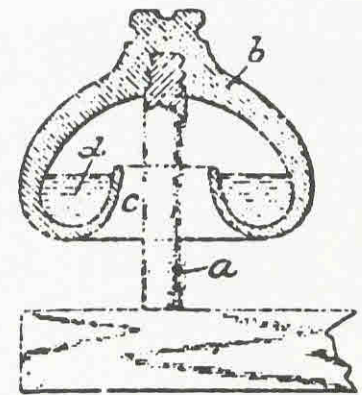
(F-Skirt) [~~SANTA ANA~~] SB

Dark Aqua

Although no specific patent information has been found that covers the design of **CD 180** and **CD 180.1**, there was reference to both of these styles in a patent that was filed August 14, 1894 by George H. Winslow of Pittsburgh, Pennsylvania.

In his patent, Winslow refers to the two styles as the "old form of insulator". He described and illustrated each as follows:

**CD 180** "The old form insulator was composed of the supporting pin *a*, upon which was screwed an insulating head *b*, to which the conductor was intended to be fastened; which head was provided with upturned under edges in annular form shown at *c*, designed for the reception of a bath of insulating oil *d*. The object of this construction was to interpose an insulating surface of oil between the two parts of such a watery film as would form upon the surface of the insulator during the rain storms or in a fog."



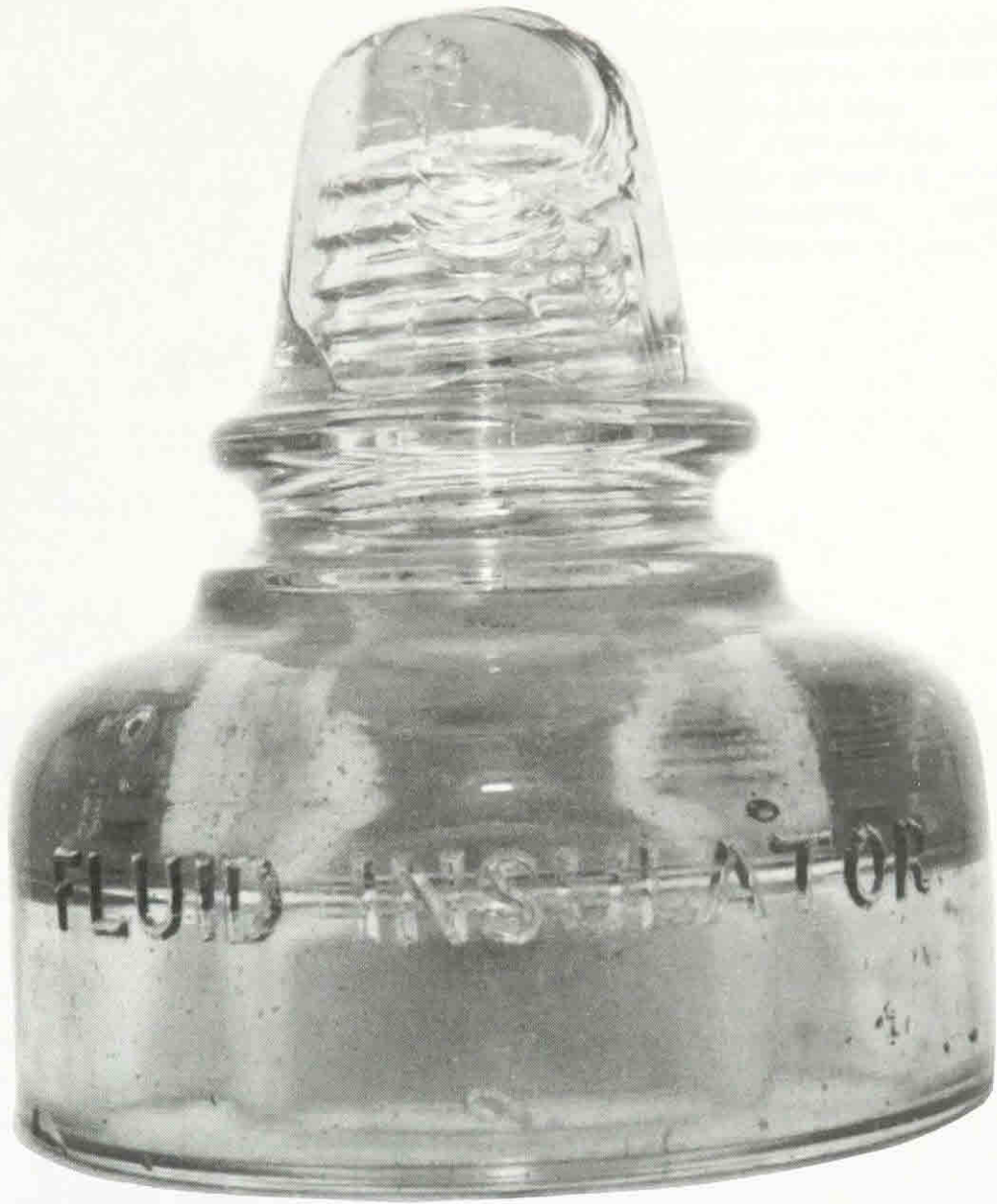
**CD 180**

**CD 180**

**LIQUID**

(F-Skirt) LIQUID INSULATOR SB

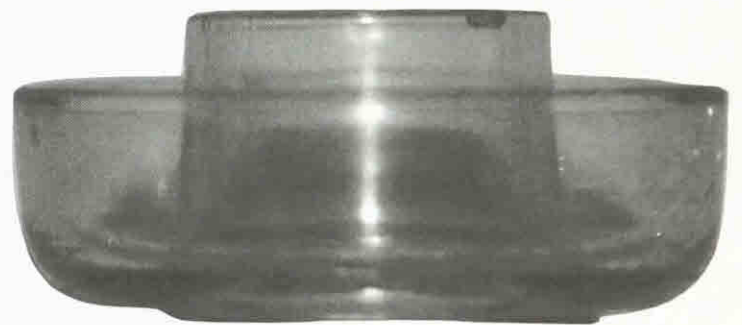
Light Aqua



CD 180.1

CD 180.1

**FLUID**  
(F-Skirt) FLUID INSULATOR SB  
Ice Aqua, Light Aqua

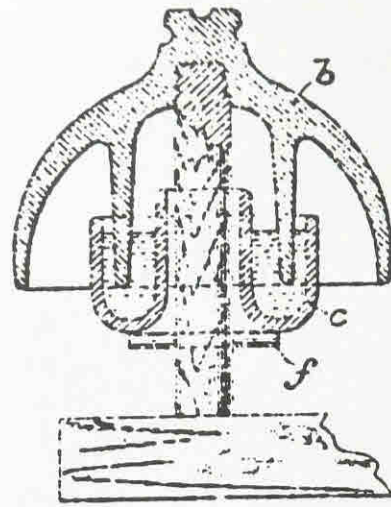


**Insert for Fluid Insulator**

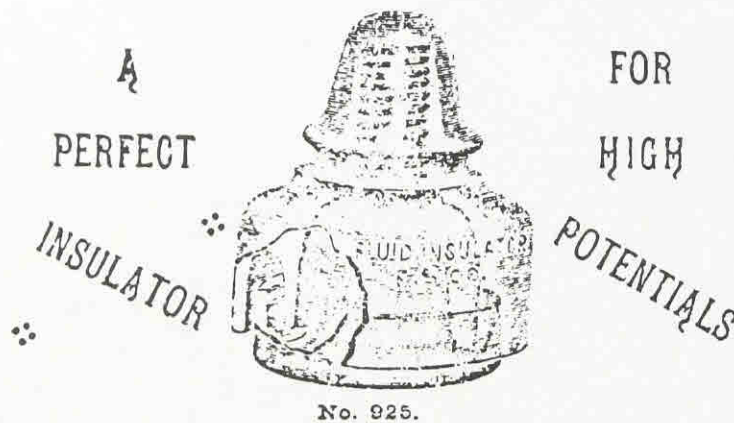
*Oil was placed in the resevoir of the insert to prevent leakage.*



CD 180.1 "Another old form of insulator is where the oil cup *c* is supported upon the stem of the insulator, for instance, usually by means of a cotter pin *f*, passing through the body of the support. The object of this construction was to enable the cup to be lowered by removal of the cotter pin and its contents [insulating oil] to be replenished and the insulator to be cleaned."



• OIL ❖ INSULATORS •



These Insulators are designed to prevent Surface Leakage. An Insulating Fluid which will not support a film of dust or moisture is placed in a recess formed in the insulator.

One gallon of fluid will fill 150 insulators; the fluid does not freeze, creep or evaporate. One filling is effective for 3 or 4 years.

IN USE ALL OVER THE WORLD.

Long Distance Transmission Made Possible.

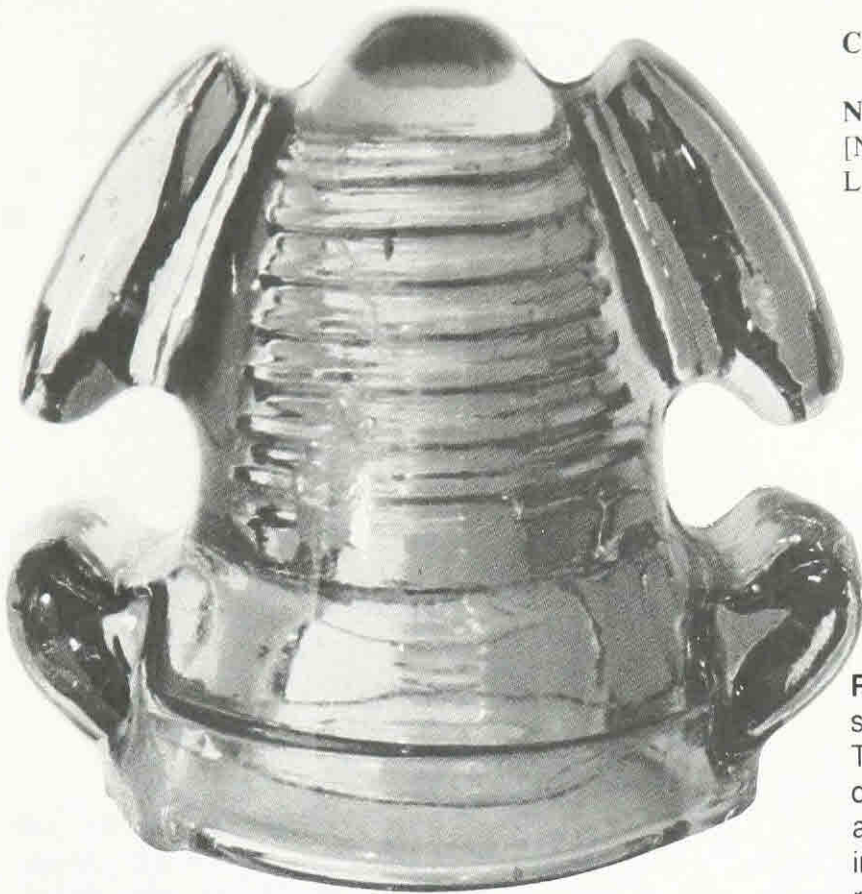
**THE ELECTRICAL SUPPLY CO.,**

102-104 MICHIGAN AVE.,

Formerly 171 Randolph St.,

CHICAGO.

*An interesting Electrical Supply Company ad for the "FLUID INSULATOR"*

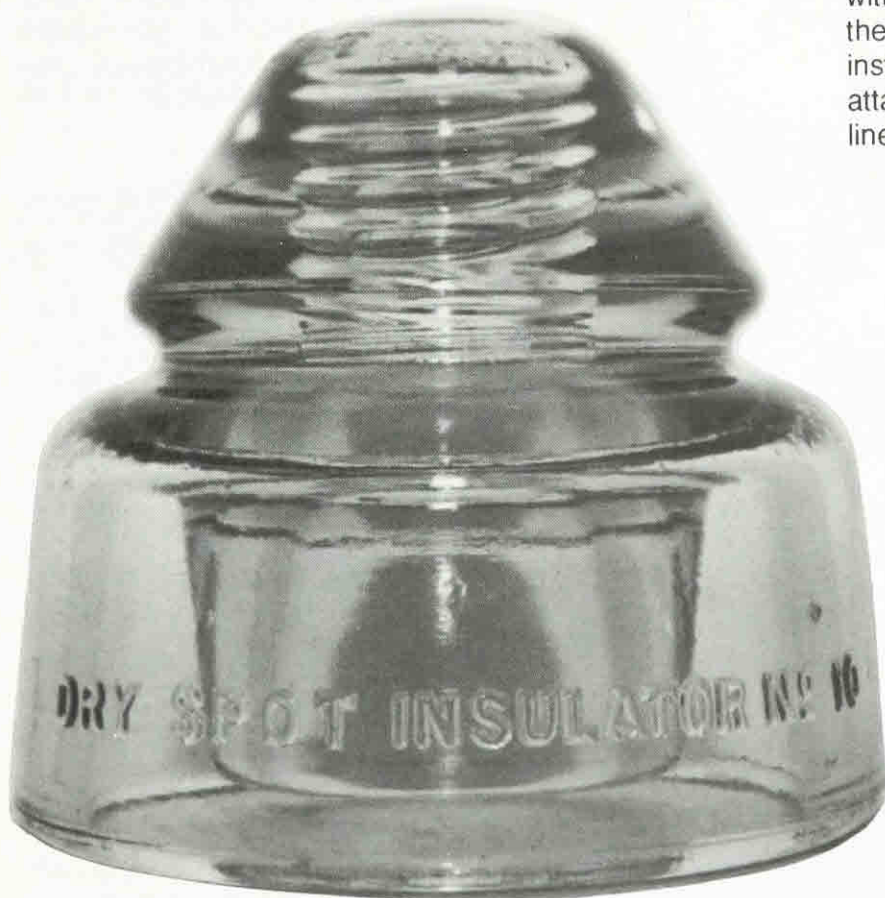


CD 181

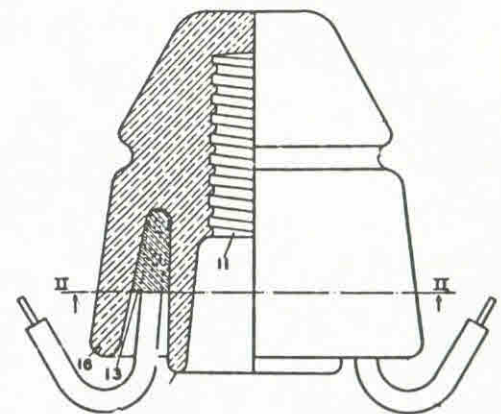
NO NAME  
[No Embossing] SB  
Light Aqua

CD 181

Rufus Gould of New York, New York, assigned one-half of his patent to the Postal Telegraph Cable Company of New York. The design of the February 26, 1929 patent was for a "dry spot" insulator similar to CD 182. The insulator's outer surface was designed to shed rain and moisture. Used in conjunction with the insulator was a material called "Leverite", a trade name for a natural asphalt having a high melting point. The line wire was attached with Leverite to the insulator's recess between the outer and inner petticoats. This type of installation provided a "dry spot" at the point of attachment to the insulator and protected the line wire from precipitation.



CD 182



CD 182

DRY SPOT  
(F-Skirt) DRY SPOT INSULATOR N° 10  
(R-Skirt) ['W/T' in a triangle]/MADE IN  
U.S.A. SB  
Straw, Off Clear





CD 183

**HEMINGRAY**

(F-Skirt) HEMINGRAY-71 (R-Skirt)

MADE IN U.S.A. CB

Clear

(F-Skirt) HEMINGRAY-71 (R-Skirt)

MADE IN U.S.A./[Numbers and  
Dots] CB

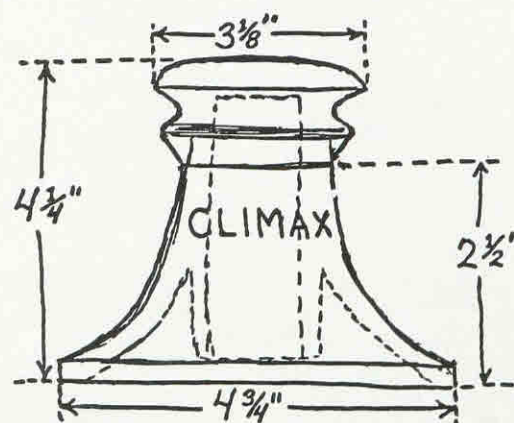
Clear

CD 183

To date no complete **CD 184** has been found, but pieces that almost "match" each other have been dug at one of the Brookfield dump sites in New Jersey. The actual measurements and reconstructed drawing are provided below courtesy of Alonzo Carter (digger), Bob McElvaney (owner) and Claude Wambold (artist).



CD 184

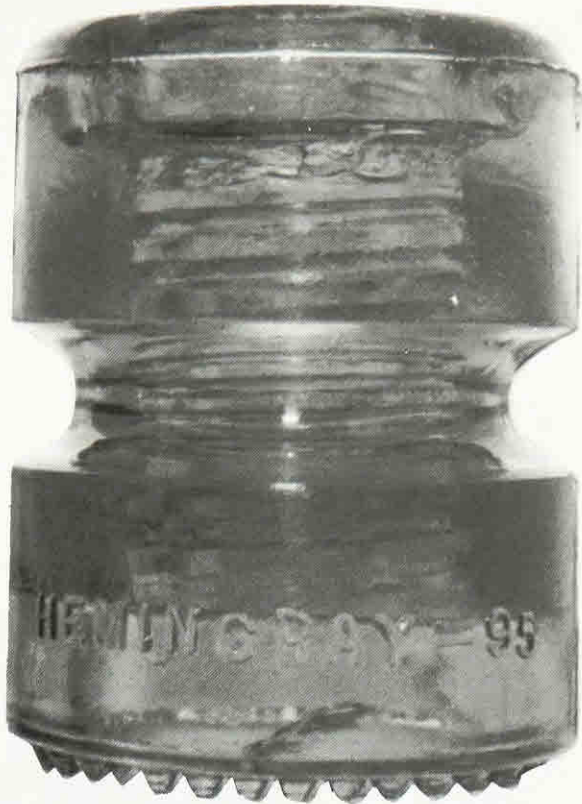


CD 184

**CLIMAX**

(F-Center) CLIMAX SB

Blue Aqua



**CD 185**

**CD 185**

**B**  
(F-Above Wire Groove) B SB  
Aqua

(F-Above Wire Groove) B-1 SB  
Aqua

**HEMINGRAY**  
(F-Skirt) HEMINGRAY (R-Skirt) N° 95 SB  
Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY (R-Skirt) N° 95 SDP  
Aqua

(F-Skirt) HEMINGRAY-95 (R-Skirt) MADE IN U.S.A.  
SDP  
Aqua, Hemingray Blue

**JEFFREY**  
(F-Above Wire Groove) SPECIAL MINE INSULATOR/  
JEFFREY MFG. CO. (F-Skirt) COLUMBUS OHIO/  
PATENT SEPT 25 1894 SB  
Aqua, Ice Aqua

(F-Above Wire Groove) SPECIAL MINE INSULATOR/  
JEFFREY MFG. CO. (F-Skirt) COLUMBUS OHIO/  
PATENT SEPT 25 1894 {Drip points may be on the top  
or on the bottom} SDP  
Aqua

**NO NAME**  
(F-Skirt) MINE/INSULATOR SB  
Aqua

[No Embossing] SB  
Aqua

**STAR**  
(F-Skirt) [Star] SB  
Aqua, Green, Lime Green, Yellow Green



**CD 185.2**

(Photograph courtesy of Mike Guthrie)

**CD 185.2**

**B.E.L.CO.**  
(F-Above Wire Groove) B.E.L.Co. SB  
Dark Aqua





CD 186

CD 186

**HEMINGRAY**

(F-Skirt) HEMINGRAY 19/[Number and Dots] (R-Skirt)

MADE IN U.S.A./[Number] SB

Clear, Green Tint



CD 186.1

CD 186.1

**HEMINGRAY**

(F-Skirt) HEMINGRAY-19/[Numbers and Dots] (R-

Skirt) MADE IN U.S.A./[Number] SB

Clear



CD 186.2

CD 186.2

**HEMINGRAY**

(F-Skirt) HEMINGRAY 19/[Number and Dots] (R-Skirt)

MADE IN U.S.A./[Number] [A six sided nut with

machine threading is embedded in the dome} SB

Clear



**CD 187**



**CD 187 Variation**

*The California and the No Name [Vertical Bar] styles have a square-shape to the lower skirt*

**CD 187**

**CALIFORNIA**

(F-Skirt) CALIFORNIA SB  
Smoke, Light Purple, Light Sage Green

**GREELEY**

(F-Above Wire Groove) GREELEY/N.Y. (R-Above Wire Groove) PATENTED/NOV. 23rd 1886 SB  
Light Aqua

**NO NAME**

(F-Above Wire Groove) PAT'D SB  
Green

(F-Above Wire Groove) PAT'D/NOV. 23<sup>P</sup> 1886 SB  
Aqua, Olive Green, Light Blue, Ice Green, Olive Blackglass, Light Purple, Light Aqua, Clear

(F-Above Wire Groove) PAT'D/NOV. 23<sup>P</sup> 1886 {Two Segmented Threads} SB  
Light Aqua

(F-Skirt) [Vertical Bar] SB  
Light Green, Yellow Green, Blue Aqua, Aqua, Blue, Green Aqua



**CD 188**

**CD 188**

**B**

(F-Above wire groove) B SB  
Dark Aqua, Emerald Green

**NO NAME**

(F-Above Wire Groove) PAT'D/NOV. 23<sup>P</sup> 1886 SB  
Aqua, Green, Emerald Green, Light Blue, Ice Green, Light Aqua, Dark Aqua





## CD 190/191

### CD 190/191

#### A.T.& T.

{191 Top} (Dome) [Number] (F-Skirt) A.T.& T.Co. {190 Bottom} (F-Skirt) [Number] A.T.& T.Co. {Number on the skirt can come before or after 'A.T.& T.Co.'} SB  
Aqua, Green, Light Blue, Light Aqua, Dark Aqua

{191 Top} (F-Skirt) A.T.& T.Co. {190 Bottom} (F-Skirt) A.T.& T.Co. SB  
Light Aqua, Light Blue, Ice Green, Light Green

{191 Top} (F-Skirt) A.T.& T.Co. {190 Bottom} (F-Skirt) [Number] A.T.& T.Co. SB  
Aqua, Green, Dark Green Aqua

{191 Top} (F-Skirt) A.T.& T.Co. {MLOD} {190 Bottom} (F-Skirt) [Number] A.T.& T.Co. SB  
Green, Ice Green, Green Aqua, Light Aqua

{191 Top} {Unverified} {190 Bottom} (F-Skirt) [Number] ['A.T.& T. Co' Blotted out] SB  
Dark Yellow Green

#### AM.TEL.& TEL.

{191 Top} (F-Skirt) AM.TEL.& TEL.Co. (R-Skirt) TWO PIECE/TRANSPOSITION {CD 190 Bottom} (F-Skirt) AM.TEL.& TEL.Co. (R-Skirt) TWO PIECE/TRANSPOSITION SB

Aqua, Blue, Green, Jade Green Milk, Hemingray Blue, Milky Aqua

{191 Top} (F-Skirt) AM.TEL.& TEL.Co. (R-Skirt) TWO PIECE/TRANSPOSITION {Note Spelling} {190 Bottom} (F-Skirt) AM.TEL.& TEL.Co. (R-Skirt) TWO PIECE/TRANSPOSITION {Note Spelling} SB

Aqua

{191 Top} (F-Skirt) AM.TEL.& TEL.Co. {190 Bottom} {Unverified} SB

Light Aqua

#### B

{191 Top} (F-Skirt) B (R-Skirt) [Number] {190 Bottom} (F-Skirt) B (R-Skirt) [Number] SB

Green

{191 Top} (F-Skirt) B {190 Bottom} (F-Skirt) B SB  
Aqua, Olive Green, Emerald Green, Yellow Green, Green, Dark Aqua, Light Aqua, Blue Aqua

#### BROOKFIELD

{191 Top} (F-Skirt) BROOKFIELD (R-Skirt) MNT.TEL.& TEL.CO. {190 Bottom} (F-Skirt) BROOKFIELD (R-Skirt) MNT.TEL.& TEL.CO. SB  
Aqua

#### CALIFORNIA

{191 Top} CALIFORNIA {190 Bottom} (F-Skirt) A021/CALIFORNIA SB  
Light Purple, Smoke

#### DIAMOND

{191 Top} [No Embossing] {190 Bottom} (F-Above Wire Groove) [Diamond] (F-Skirt) [Diamond] (R-Above Wire Groove) [Diamond] (R-Skirt) [Diamond] SB  
Light Aqua, Ice Green, Ice Blue, Lime Green, Light Yellow Green, Royal Purple, Light Purple, Smoke, Gray, Off Clear, Light Yellow

{191 Top} [No Embossing] {190 Bottom} (F-Skirt) [Diamond] (R-Skirt) [Diamond] SB  
Light Blue

#### HEMINGRAY

{191 Top} (F-Skirt) HEMINGAY-50 {Note Spelling} (R-Skirt) MADE IN U.S.A. {190 Bottom} (F-Skirt) HEMINGAY-50 {Note Spelling} (R-Skirt) MADE IN U.S.A. SB  
Aqua

{191 Top} (F-Skirt) HEMINGRAY (R-Skirt) N° 50 {190 Bottom} (F-Skirt) HEMINGRAY (R-Skirt) N° 50 SB  
Aqua, Green Aqua

{191 Top} (F-Skirt) HEMINGRAY-50 (R-Skirt) MADE IN U.S.A. {190 Bottom} (F-Skirt) HEMINGRAY-50 (R-Skirt) MADE IN U.S.A. SB  
Aqua, Blue, Green Aqua, Clear, Green Tint, Hemingray Blue, Ice Blue

{191 Top} (F-Skirt) HEMINGRAY-50/[Numbers and Dots] (R-Skirt) MADE IN U.S.A./[Number] {190 Bottom} (F-Skirt) HEMINGRAY-50/[Numbers and Dots] (R-Skirt) MADE IN U.S.A./[Number] SB  
Clear

{191 Top} (F-Skirt) HEMINGRAY-50/[Numbers and Dots] (R-Skirt) MADE IN U.S.A. {190 Bottom} (F-Skirt) HEMINGRAY-50 (R-Skirt) MADE IN U.S.A. SB  
Ice Aqua

{191 Top} {Unverified} {190 Bottom} (F-Skirt) HEMINGRAY\_50 (R-Skirt) MADE IN U.S.A./[Blotted out Embossing] SB  
Aqua

#### **K**

{191 Top} (F-Skirt) K {190 Bottom} (F-Skirt) K SB  
Aqua, Ice Blue, Light Green

#### **NO NAME**

{191 Top} (F-Skirt) TWO PIECE/TRANSPOSITION (R-Skirt) [Blotted out Embossing] {190 Bottom} (F-Skirt) TWO PIECE/TRANSPOSITION (R-Skirt) [Blotted out Embossing] SB  
Aqua

{191 Top} (F-Skirt) TWO PIECE/TRANSPOSITION {190 Bottom} (F-Skirt) TWO PIECE/TRANSPOSITION SB  
Light Aqua, Aqua, Blue Aqua, Blue, Ice Blue, Green Aqua, Jade Green Milk, Hemingray Blue

{191 Top} (F-Skirt) TWO PIECE/TRANSPOSITON {Note Spelling} {190 Bottom} (F-Skirt) TWO PIECE/TRANSPOSITON {Note Spelling} SB  
Aqua, Green Jade Milk

{191 Top} [No Embossing] {190 Bottom} [No Embossing] SB  
Aqua, Light Blue

#### **P.R.R.**

{191 Top} (Dome) P.R.R. {190 Bottom} (F-Skirt) B SB  
Green, Dark Aqua

#### **PRISM**

{191 Top} (F-Skirt) [Prism] {190 Bottom} (F-Skirt) [Prism] SB  
Dark Yellow Green, Aqua, Ice Blue, Green, Blue Aqua, Olive Green



**CD 192/193**

**CD 192/193**

#### **AM.TEL.& TEL.**

{193 Top} (F-Skirt) AM.TEL.& TEL.Co. {192 Bottom} (F-Skirt) AM.TEL.& TEL.Co. SB  
Aqua

#### **NO NAME**

{193 Top} [No Embossing] {192 Bottom} [No Embossing] SB  
Aqua





**Size Comparison**  
*CD 192/193 (left) and CD 190/191 (right)*

**CD 192/193.1**

(Note: The bottom half shown is CD 192, not CD 192.1)

**CD 192.1/193.1**

**AM.TEL.& TEL.**

{193.1 Top} (F-Skirt) AM.TEL.& TEL.Co.  
 {192.1 Bottom} (F-Skirt) AM.TEL.&  
 TEL.Co. SB  
 Aqua

**NO NAME**

{193.1 Top} [No Embossing] {192.1 Bot-  
 tom} [Unverified] SB  
 Light Aqua

{193.1 Top} [No Embossing] {192.1 Bot-  
 tom} [Unverified] {MLOD} SB  
 Light Aqua, Light Green

**CD 194/195**

**HEMINGRAY**

{195 Top} (F-Skirt) HEMINGRAY-  
 54-A (R-Skirt) MADE IN U.S.A./  
 [Number] {194 Bottom} (F-Skirt)  
 HEMINGRAY-54-B (R-Skirt)  
 MADE IN U.S.A./[Number] SB  
 Purple, Light Purple, Off Clear



**CD 194/195**



CD 194.5/195.5

CD 194.5/195.5

**PYREX**

{195.5 Top} (F-Skirt) PYREX/T.M.REG.U.S.PAT.OFF.  
 MADE IN U.S.A. (R-Skirt) PAT.APP.FOR {194.5  
 Bottom} (F-Below Wire Groove) CODE NO 70005 (F-  
 Skirt) PYREX/T.M.REG.U.S.PAT.OFF. MADE IN  
 U.S.A. SB

Light Carnival (Top), Clear (Bottom)

On June 3, 1930, a patent was granted to **Chester S. Gordon** of Boonton, New Jersey, and **James T. Lowe** of Newark, New Jersey for a transposition insulator. Gordon and Lowe assigned their patent to the American Telephone and Telegraph Company, New York.

CD 194.5 and 195.5 were designed to be used as a two-piece transposition which would transpose the wires at certain points along pole lines to reduce cross-talk. The patent also designed the top of the bottom half to fit snugly into the bottom of the top piece to form a water-tight joint. The inside of the skirt on the bottom half was corrugated to increase the path between the outside of the skirt and the pin, therefore reducing the chance of leakage.

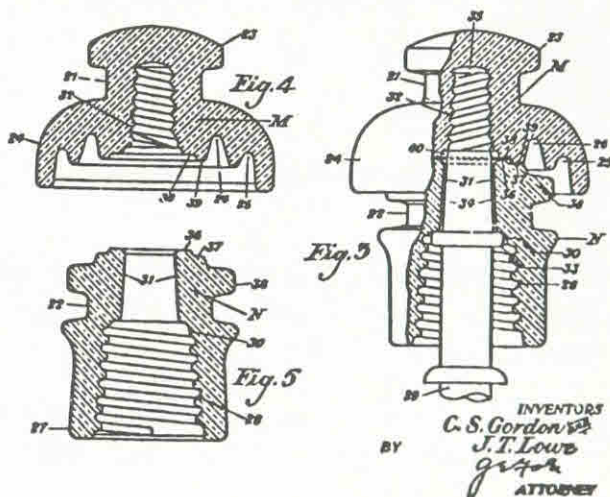
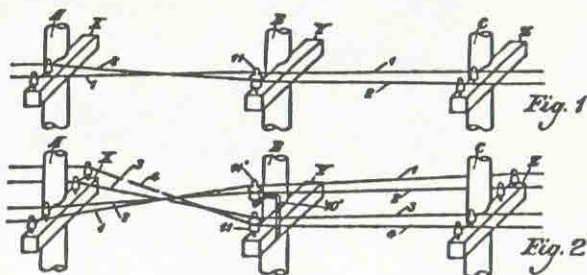
To date, only one complete unit has been located.

June 3, 1930.

C. S. GORDON ET AL  
 INSULATOR

1,760,983

Filed Dec. 19, 1928



INVENTORS  
 C. S. Gordon  
 J. T. Lowe  
 BY [Signature]  
 ATTORNEY





**CD 196**

**CD 196**

**B**

(F-Skirt) B SDP  
Aqua, Green, Emerald Green, Dark Aqua

**H.G.CO.**

(F-Skirt) H.G.CO. (R-Skirt) PAT MAY 2 1893 SDP  
Aqua, Milky Aqua, Hemingray Blue, Gray Green, Light  
Purple, Ice Blue, Ice Aqua

(F-Skirt) H.G.CO. (R-Skirt) PATD MAY 2 1893 SDP  
Ice Aqua, Ice Blue, Light Aqua

(F-Skirt) H.G.CO. (R-Umbrella) PATENT APPLIED  
FOR (R-Skirt) PATD MAY 2 1893 SDP  
Aqua

(F-Skirt) N° 51/H.G.CO. (R-Skirt) PAT. MAY 2 1893  
SDP  
Aqua, Hemingray Blue, Dark Blue Aqua

**HEMINGRAY**

(F-Umbrella) HEMINGRAY (F-Skirt)  
HEMINGRAY (R-Skirt) N° 51 SDP  
Aqua

(F-Umbrella) HEMINGRAY (F-Skirt)  
N° 51 (R-Skirt) HEMINGRAY SDP  
Hemingray Blue

**NO NAME**

[No Embossing] SDP  
Aqua, Blue Aqua

**O.V.G.**

(F-Skirt) O.V.G.CO. SB  
Aqua

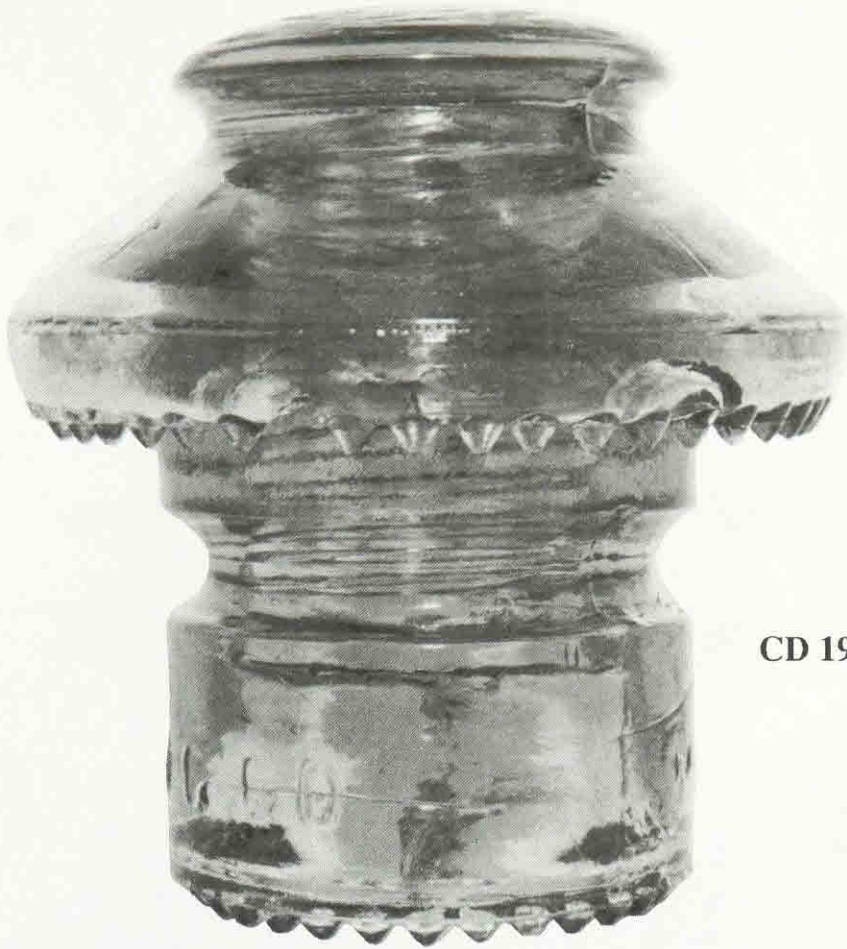


**CD 196.2**

**CD 196.2**

**H.G.CO.**

(F-Skirt) H.G.CO. (R-Umbrella) PATENT APPLIED  
FOR (R-Skirt) PATD MAY 2 1893 SDP  
Aqua



**CD 196.5**

**H.G.CO.**

(F-Skirt) H.G.CO. (R-Skirt) PAT MAY  
2 1893 SDP  
Aqua

**CD 196.5**



**CD 197**

**HEMINGRAY**

(F-Skirt) HEMINGRAY-53 (R-Skirt) MADE  
IN U.S.A./[Number] SB  
Clear, Pink Tint

(F-Skirt) HEMINGRAY-53 (R-Skirt) MADE  
IN U.S.A./[Numbers and Dots] CB  
Clear, Straw, Light Green

(F-Skirt) HEMINGRAY-53S/[Number and  
Dots] (R-Skirt) MADE IN U.S.A./[Number]  
SB  
Off Clear, Clear, Ice Blue

**WHITALL TATUM**

(F-Skirt) (Arc)WHITALL TATUM/NO.15  
(R-Skirt) (Arc)MADE IN U.S.A./[Number  
and Dots] ['W/T' in a circle] SB  
Clear, Smoke

(F-Skirt) WHITALL TATUM CO. NO.15/  
[Number] (R-Skirt) MADE IN U.S.A./['W/  
T'in a triangle]/[Number] SB  
Light Straw

(F-Skirt) WHITALL TATUM NO.15/  
[Number] (R-Skirt) MADE IN U.S.A. ['W/  
T' in a triangle] SB  
Clear

**CD 197**





**CD 200**

**CALIFORNIA**

(F-Skirt) CALIFORNIA SB  
Purple, Yellow, Peach, Dark Burgundy

**NO NAME**

(F-Skirt) N° 2 (R-Skirt) TRANSPOSITION  
SB  
Aqua, Green, Dark Aqua, Light Green Aqua

(F-Skirt) N° 2 (R-Skirt) TRANSPOSITION  
SDP

Aqua, Dark Green Aqua

**STAR**

(F-Skirt) [Star] SB  
Light Aqua, Blue Aqua, Green, Light Green,  
Lime Green

**CD 199**

**CD 199**

**PRISM**

(F-Umbrella) [Prism] SB  
Blue, Yellow Green, Lime Green



**CD 200**



CD 201

**CD 201**

**CALIFORNIA**

(F-Skirt) CALIFORNIA SB  
Blue Aqua, Light Green, Purple

**H.G.CO.**

(F-Skirt) H.G.CO. (R-Skirt) PATENT MAY 2  
1893 SDP  
Aqua

**HEMINGRAY**

(F-Umbrella) N° 2 TRANSPOSITION (F-Skirt)  
HEMINGRAY (R-Skirt) PATENT MAY 2 1893  
SDP  
Aqua, Blue Aqua

(F-Umbrella) N° 2 TRANSPOSITION (F-Skirt)  
HEMINGRAY (R-Skirt) PATENT/MAY 2  
1893 SDP  
Aqua, Green Aqua, Milky Aqua

(F-Umbrella) N° 2 TRANSPOSITION (F-Skirt)  
HEMINGRAY/['H.G.CO.' Blotted out] (R-  
Skirt) PATENT/MAY 2 1893 SDP  
Aqua

(F-Umbrella) N° 2 TRANSPOSITION (F-Skirt)  
HEMINGRAY/['H.G.CO.' Blotted out] (R-  
Skirt) PATENT MAY 2 1893 SDP  
Aqua

**CD 202**

**HEMINGRAY**

(F-Skirt) HEMINGRAY-53 (R-Skirt) MADE IN  
U.S.A. SDP  
Hemingray Blue, Aqua, Blue

(F-Skirt) HEMINGRAY-53/MADE IN U.S.A.  
(R-Skirt) PATENTED/MAY 2 1893 SDP  
Hemingray Blue

(F-Skirt) HEMINGRAY/N° 14 (R-Skirt)  
PATENTED/MAY 2 1893 SDP  
Aqua, Green, Blue

(F-Skirt) HEMINGRAY/N° 53 (R-Skirt)  
PATENTED/MAY 2 1893 SDP  
Aqua

(F-Skirt) HEMINGRAY\_53/[Number and Dots]  
(R-Skirt) MADE IN U.S.A./[Letters and  
Numbers] RDP  
Aqua, Clear, Ice Blue



CD 202



**K**

(F-Skirt) K SB  
 Aqua, Green, Dark Yellow Green, Light Blue, Blue  
 Aqua, Green Aqua

**LOCKE**

(Dome) [Number] (F-Skirt) FRED M. LOCKE VICTOR  
 N.Y. (R-Skirt) N° 14/PAT.MAY 22 1894 SB  
 Aqua, Green

(Dome) [Number] (F-Skirt) LOCKE VICTOR N.Y. (R-  
 Skirt) N° 14/PAT.MAY 22 1894 SB  
 Dark Aqua, Green, Yellow Green, Olive Green

(F-Skirt) FRED M. LOCKE VICTOR N.Y. (R-Skirt) N°  
 14/PAT.MAY 22 1894 SB  
 Blue Aqua, Green Aqua, Light Aqua

(F-Skirt) FRED M. LOCKE VICTOR N.Y. (R-Skirt)  
 PAT.MAY 22 1894 SB  
 Light Aqua, Blue, Light Green

(F-Skirt) LOCKE VICTOR N.Y. (R-Skirt) N° 14/  
 PAT.MAY 22 1894 SB  
 Aqua

**NO NAME**

(F-Skirt) No.51 SB  
 Aqua, Dark Green

(F-Skirt) No.51 (R-Skirt) [Blotted out Embossing] SB  
 Aqua

(F-Skirt) N° 14/[Blotted out Embossing] (R-Skirt)  
 [Blotted out Embossing] SB  
 Dark Aqua, Green, Emerald Green, Olive Green, Olive  
 Amber, Blue Aqua

**CD 203****CD 203****ARMSTRONG**

(F-Skirt) *Armstrong's* T.W. (R-Skirt) MADE IN U.S.A.  
 ['A' in a circle] [Number and Dots] SB  
 Clear, Light Smoke, Light Straw, Light Pink, Green Tint

(F-Skirt) Ⓐrmstrong T.W. (R-Skirt) MADE IN U.S.A.  
 [Numbers and Dots] SB  
 Smoky Straw, Off Clear, Clear

**HEMINGRAY**

(F-Skirt) HEMINGRAY-56 (R-Skirt) MADE IN U.S.A./  
 [Number] CB  
 Clear, Light Straw

**KERR**

(F-Skirt) KERR T.W. (R-Skirt) MADE IN U.S.A.  
 [Number] SB  
 Clear



Feb. 7, 1956

E. J. BONNESEN  
 TRANSPPOSITION INSULATORS  
 Filed Nov. 30, 1950

2,734,098

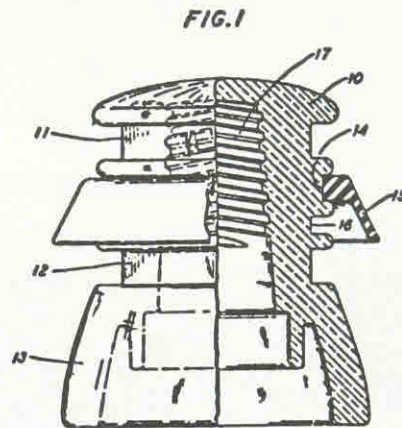


FIG. 1

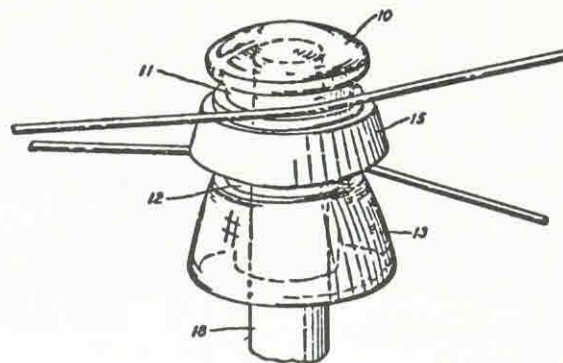


FIG. 2

CD 203.2

CD 203.2

**ARMSTRONG**

(F-Skirt) *Armstrong's* T.W. (R-Skirt) MADE IN U.S.A.

['A' in a circle] [Numbers and Dots] SB

Clear

INVENTOR  
 E. J. BONNESEN  
 BY *E. J. Bonnesen*  
 ATTORNEY

The **CD 203.2** style is covered by a patent issued to **Elmer Johannes Bonnesen** of West Orange, New Jersey, on February 7, 1956. The patent was assigned to the American Telephone and Telegraph Company of New York.

"The object of this invention is the provision of a multiple-groove composite type transposition insulator which will have greater mechanical strength than presently known insulators."

You will note in the patent drawing that a skirt, made of a non-vitreous material such as wax impregnated rubber, is fitted on the insulator between the top and middle wire groove. This provided for a longer leakage path between line wires using the top and bottom wire grooves.





CD 204

CD 204

LOCKE

(F-Skirt) F.M. LOCKE & CO. VICTOR N.Y./PAT'D  
MAY 22, 1884 SB

Light Aqua, Light Green, Blue

NO NAME

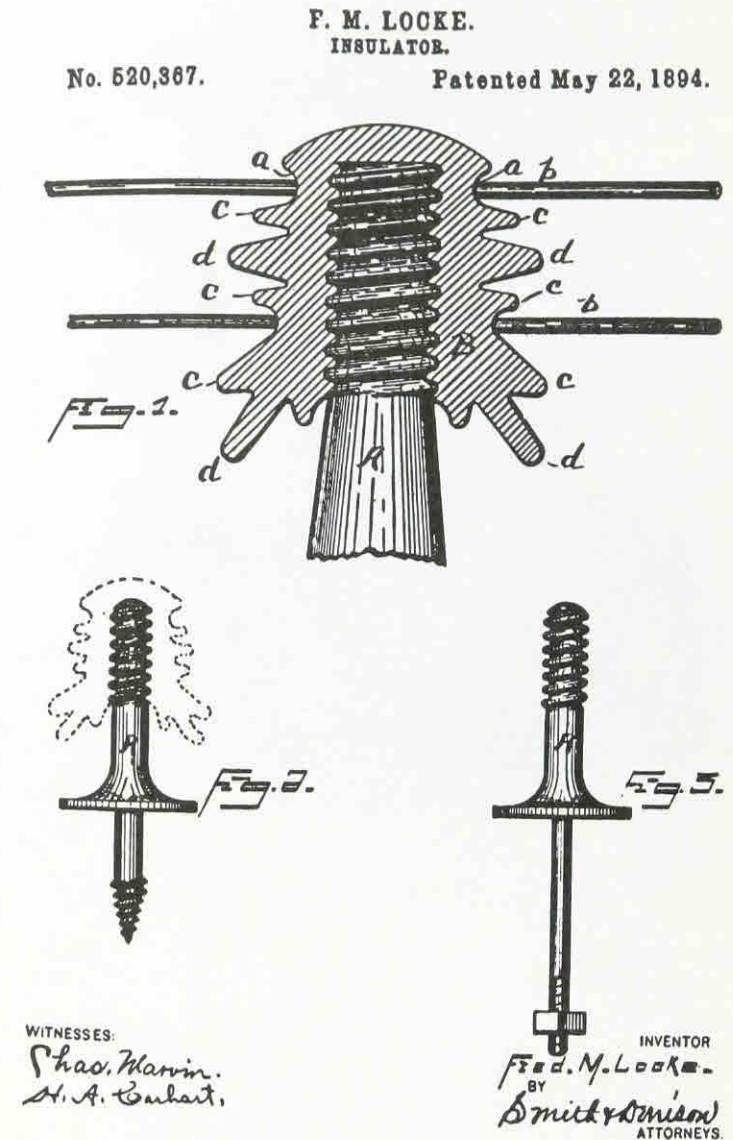
[No Embossing] SB

Blue Aqua

**Fred M. Locke** of Victor, New York, was granted a patent on May 22, 1894 for a one-piece transposition style insulator. He assigned one-half of the patent to **George A. Paddock** of Auburn, New York, and **Willard C. Page** of Palmyra, New York.

Locke wrote "I have learned from experience that electric currents often creep through moisture, dust or other matter on the surface of an insulator part way, that is to the edge of the first petticoat, and then jump through the air to the wet cross arm or other points, and my object is to force the current over the surface, if it escape at all."

"My further object is to produce such an insulating hood so constructed that it may be used to



support one or more wires, and, at the same time, providing it with a multiplicity of petticoats so constructed as to prevent the current from escaping from one wire to another, or from the wire to the pin itself without first traveling the surface of the hood, cheap and durable in construct and of great utility. It may also be used in place of double insulators for transposing wires..."

**CD 204** has the addition of "cross top" saddle groove in the dome, however, the structure of the insulator body is that of the May 22, 1884 patent. Many of the Locke CD 202 units also are embossed with this patent date.



**CD 205**

**CD 205**

**BROOKFIELD**

(F-Skirt) BROOKFIELD SB  
Dark Aqua, Yellow Green, Dark Green

(F-Skirt) BROOKFIELD (R-Skirt) N° 3 TRANS. SB  
Aqua, Green, Dark Yellow Green, Dark Olive Green, Emerald Green, Dark Green, Green Aqua, Dark Blue Aqua

(F-Skirt) BROOKFIELD (R-Skirt) N° 53 SB  
Aqua, Dark Aqua, Green

(F-Skirt) BROOKFIELD (R-Skirt) N° 53/['N° 3 TRANS.' Blotted out] SB  
Dark Green Aqua

(F-Skirt) BROOKFIELD (R-Skirt) ['N° 3 TRANS' Blotted out] SB  
Dark Aqua, Emerald Green, Dark Green

**GAYNER**

(F-Skirt) GAYNER (R-Skirt) NO.530/[Number] SB  
Aqua, Light Aqua, Blue

(F-Skirt) GAYNER (R-Skirt) NO.530/[Number] SDP  
Light Aqua, Sage Green, Celery

**HEMINGRAY**

(F-Skirt) HEMINGRAY (R-Skirt) N° 55 SB  
Aqua, Dark Aqua, Blue Aqua

(F-Skirt) HEMINGRAY-55 (R-Skirt) MADE IN U.S.A. SB  
Aqua, Blue Aqua, Hemingray Blue, Ice Blue

(F-Skirt) HEMINGRAY-55 (R-Skirt) MADE IN U.S.A. RDP  
Aqua, Light Blue, Clear, Ice Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N° 55 SB  
Hemingray Blue, Green

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N° 55 SDP  
Aqua

**LYNCHBURG**

(F-Skirt) LYNCHBURG (R-Skirt) NO.53/MADE IN U.S.A./[Number] SB  
Light Aqua, Light Green

(F-Skirt) LYNCHBURG (R-Skirt) NO.530/MADE IN U.S.A./[Number] SB  
Aqua, Light Green, Green Aqua

(F-Skirt) LYNCHBURG (R-Skirt) NO.530/MADE IN U.S.A./[Number] SDP  
Aqua, Blue Aqua

(F-Skirt) LYNCHBURG/['GAYNER' Blotted out] (R-Skirt) NO.53/MADE IN U.S.A./[Number] SB  
Light Blue

(F-Skirt) LYNCHBURG/['GAYNER' Blotted out] (R-Skirt) NO.530/MADE IN U.S.A./[Number] SDP  
Green Aqua



**CD 205 Variation**

*The Brookfield units are a little narrower through the body of the insulator.*





**CD 206**

**NO NAME**

[No Embossing] FDP  
Light Green, Light Blue, Light Aqua

[No Embossing] SDP  
Straw

[No Embossing] {Rounded turrets} SDP  
Straw

**CD 205.5**

**CD 205.5**

**NO NAME**

[No Embossing] {This is a CD 116 with an inner skirt}

SB  
Aqua



**CD 206.5**



**CD 206**



*Side view of the CD 206.5 Harloe*

CD 206.5

**HARLOE**

(F-Skirt) HARLOE'S PATENT/MAR 21,'99/MAR 12,'01/DEC 9,'02 P2S (R-Skirt) ['HICo' Entwined Initials]/HAWLEY, PA./U.S.A. [Number] SB  
Aqua, Light Aqua

(F-Skirt) HARLOE'S PATENT/MAR 21,99/MAR 12,01/DEC9,02/P2S SB  
Aqua

(F-Skirt) HARLOE'S PATENT/MAR 21,'99/MAR 12,'01/DEC 9,'02 P2 S (R-Skirt) [Blotted out Embossing]/ ['HICo' Entwined Initials]/HAWLEY,PA./U.S.A. SB  
Aqua

*CD 207 with the cap  
screwed onto the body  
of the insulator.*



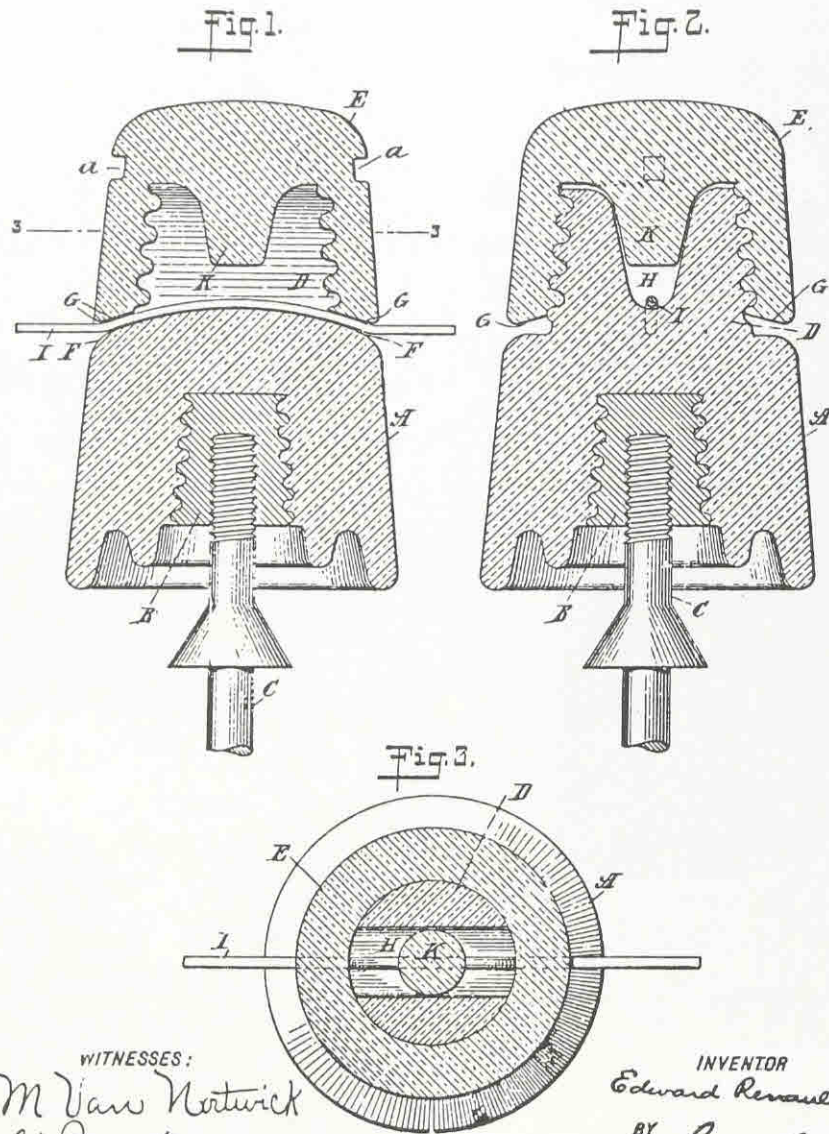
CD 207

**B**  
(F-Crown) B SB  
Aqua



CD 207





WITNESSES:  
*M Van Nortwick*  
*L. Bancker*

INVENTOR  
*Edward Renault*  
BY *George Cook*  
ATTORNEY.

Waldo, Florida, was the home of **Edward Renault** whose was granted a patent on December 25, 1900 for **CD 207**. The insulator was designed with a notched, threaded projection which would receive a correspondingly threaded cap. In previous insulators of this type, the line wire would cross through the notch, be secured by the lug of the screw-on cap and would tend to bind and break with any play in the wire.

Renault stated "I overcome this difficulty by removing the binding action from the central portion of the insulator to the outer edges thereof, the lower edge of the cap at the two opposite points holding the wire against a suitable shoulder formed around the upper

portion of the body of the insulator, the binding edges being properly shaped to prevent the collection and retention of water and also to prevent the chipping or cracking of the edges by reason of the swinging or moving of the wire due to wind or other causes."

To date only one of the Renault patent insulators has been found. It was removed from the side of a house in Florida many years ago. Its only embossing is the letter "B" on the cap. This may indicate that it was manufactured by the Brookfield Glass Company, for they marked many of their products with only the embossed "B" after 1903 until about 1921.



**CD 210**

**NO NAME**

[No Embossing] {Unembossed California} SB  
Sage Green

**POSTAL**

(Top of Ear) POSTAL SB  
Emerald Green, Dark Aqua

(Top of Ear) POSTAL SDP  
Dark Aqua, Aqua

(Top of Ear) POSTAL (F-Skirt) [Vertical Bar] SDP  
Aqua, Dark Aqua



**CD 208**

**CD 208**

**BROOKFIELD**

(F-Skirt) BROOKFIELD SB  
Green, Aqua

**CALIFORNIA**

(F-Skirt) CALIFORNIA SB  
Smoke, Yellow, Light Purple

**HEMINGRAY**

(F-Skirt) HEMINGRAY (R-Skirt) N° 44. SDP  
Aqua, Green Aqua

(F-Skirt) HEMINGRAY-44 (R-Skirt) MADE IN U.S.A.  
RDP  
Aqua

(F-Skirt) HEMINGRAY-44 (R-Skirt) MADE IN U.S.A.  
SDP  
Aqua, Hemingray Blue

(F-Skirt) HEMINGRAY/MADE IN U.S.A. (R-Skirt) N°  
44 SDP  
Aqua, Hemingray Blue, Green Aqua

**CD 210 Variation**

*The POSTAL insulator's shape differs from the unembossed California style.*





The Postal Telegraph Company operated its own lines throughout the United States in direct competition with Western Union. In 1943 the company was absorbed by the Western Union monopoly. Three styles of insulators were used on the Postal lines. The earliest was a large signal made by Brookfield (CD 138). With the issue of a patent to **John J. Irwin** of Cleveland, Ohio, on June 12, 1917, a new style was adopted by the Postal Telegraph Company. The **CD 210** saddle-groove style became the standard for Postal installations. Both Brookfield and Hemingray Glass Company supplied this insulator in great quantities to Postal. Also in use on many of the Postal lines was a CD 145 double petticoat insulator characterized by a lower wire groove than many of the other CD 145 styles. (See CD 145 for picture)

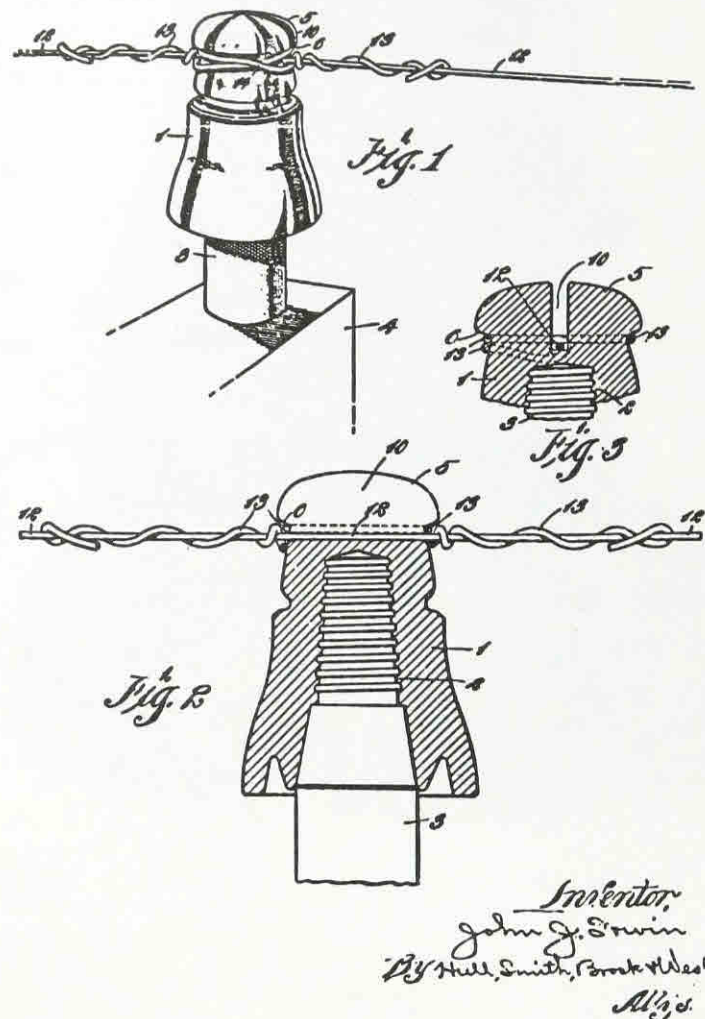
"This invention related to an improved insulator for supporting telephone and telegraph wires or other like electrical conductors, and is of the class known to the trade as the 'saddle-top' insulator, that is, of the sort having a transverse groove in its top within which the line wire rests, in contradistinction to a very common form of insulator having a circumferential groove for the retention of a tie wire by which the line wire is lashed to the side of the insulator.

The numerous advantages of a properly designed saddle-top insulator over that have only the circumferential groove--such as its facilitating the removal of slack from a comparatively long stretch of wire, and its expediting the construction of the line, because of its ability to support the line wire in a well insulated condition even in the absence of tie wire--are well known and thoroughly appreciated by persons familiar with the general subject of 'line wire support'; but, in the use of all saddle-top insulators with which I am familiar the difficulties are experienced of the insulators breaking due to the strains imposed upon them by the line wire by reason of their improper design, and of the breaking of the line wire because of the distortion to which it is subjected by the wire-holding or engaging parts of the insulators.

J. J. IRWIN.  
INSULATOR.  
APPLICATION FILED DEC. 30, 1916.

1,229,272.

Patented June 12, 1917.



In all insulators of the class to which my improvements belong (as well as in the insulators of the circumferential groove type), tie wires or their equivalents are required for holding the line wire against displacement. The conditions sought for and which should exist in an insulator are these: The insulator should support the line wire practically without the need (so far as the support is concerned) of ties and without imposing upon the line wire any biting, bending or straining effect other than results from the weight of the wire; and the tie wire should fulfil its function of holding the line wire against displacement without kinking or pinching the wire or in any way injuring it."

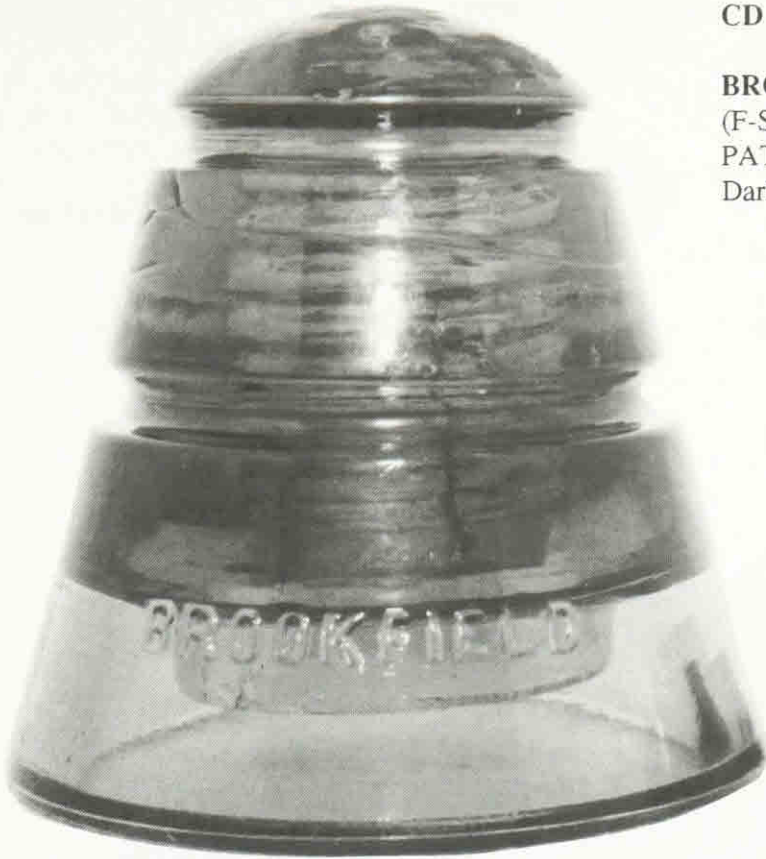
CD 211

**BROOKFIELD**

(F-Skirt) BROOKFIELD (R-Skirt) NO LEAK D./

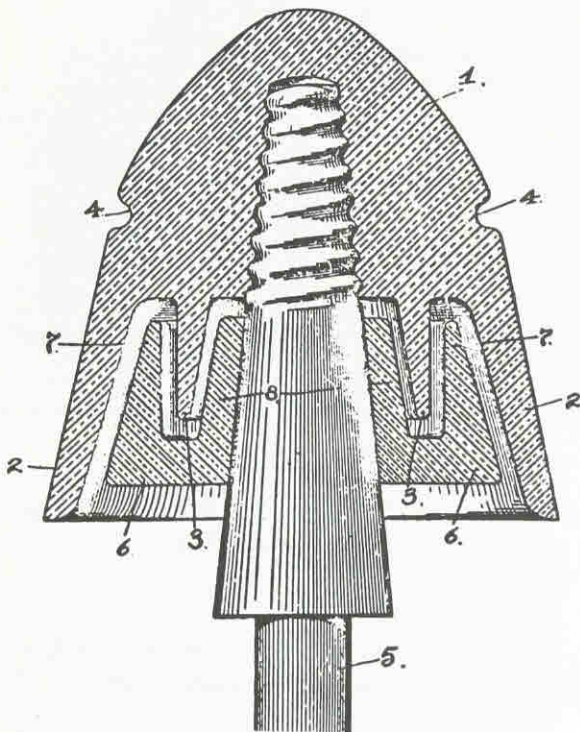
PATENTED SB

Dark Aqua, Green Aqua



*Insert for No Leak*

CD 211



Various techniques during the evolution of the insulator had been tried in order to prevent leakage from the wire to the pin. Oil in cups had been used, but the surface of the oil became covered with dust. The wind and capillarity tended to coat the insulator surfaces with the oil placed in the cups which caused dust and dirt to adhere to the insulator's surface. Others had tried adding petticoats to the insulator which increased the distance current would travel from wire to the pin.

**Leonard W. Storrer** of San Francisco, California, had a better idea. By placing a double petticoat insert underneath a corresponding double petticoat on the underside of the insulator, a protected, unbroken zone of dryness and cleanliness could be accomplished and therefore prevent leakage due to fog, moisture and other substances.

On March 24, 1908, Storrer was granted the patent design for the **CD 211** "No Leak" insulator.