

NORTH AND SOUTH OF THE BORDER

A discussion of North American pintype insulators would not be complete without exploring their production and use in Mexico and Canada. Both countries had numerous glassworks which produced insulators; however, both Mexico and Canada also imported pintypes which were manufactured in the United States.

There is also evidence that some of the glasshouses of our neighbors to the north and south copied mold styles similar to those being used on telegraph, telephone, and electric power applications in the United States. Each country, however, also produced insulator styles which were unique to its own country's mold manufacturing.

CANADIAN INSULATORS

In Canada, there has been very little research on which glass plant produced specific styles of insulators. The limited research instead has focused on authenticating what household glass plate patterns or kerosene lamps were made and by whom. Even when insulator shards were found, no knowledgeable insulator collector was consulted, so there remains much speculation as to insulators and their manufacture. What can be stated absolutely is that numerous glass plants advertised that insulators would be or were being produced as part of their production line, and it is reasonable to assume that they did in fact produce insulators as advertised.

The following is a list of Canadian companies which indicated that insulators would be part of their production:

The Canada Glass Works (Foster Brothers) in St. Johns, Quebec, from 1854 to 1860. (See Glass Insulators....The Beginnings -- Early Glass Factories in Canada chapter)

The British American Glass Works in Como, Quebec, from 1857 to 1860.

The Canada Glass Company (Ltd.) in Hudson, Quebec, from 1864 to 1877. (See Glass Insulators....The Beginnings -- Early Glass Factories in Canada chapter)

The Hamilton Glass Works (Co.) in Hamilton, Ontario, from 1864 to 1898. (See Glass Insulators....The Beginnings -- Early Glass Factories in Canada chapter)

St. Johns Glass Company in St. Johns, Quebec, from 1875 to 1877.

The Excelsior Glass Company in St. Johns, Quebec from 1879 to 1880 and in Montreal, Quebec, from 1880 to 1883.

Nova Scotia Glass in New Glasgow, Nova Scotia, from 1881 to 1890.

The North American Glass Company in Montreal, Quebec, from 1883 to 1890.

Lamont Glass Company in Trenton, Nova Scotia, from 1890 to 1897.

The Diamond Glass Company and the **Diamond Flint Glass Companies (Ltd.)** in Montreal, Quebec, from 1890 to 1913.

Sydenham Glass Company in Wallaceburg, Ontario, from 1894 to 1913.

The Ontario Glass Company (Ltd.) in Kingsville, Ontario, from 1899 to 1901.

Crystal Glass Company (Ltd.) in Sapperton, British Columbia, from 1906 to 1908.

Dominion Glass Company in Wallaceburg, Ontario and Montreal, Quebec, from 1913 to 1967.

It is clear that many companies were involved in the production of insulators from the mid-1850's until 1967. In that period of time, numerous mold varieties were bound to evolve. This was especially true of the CD 143, a style unique to Canadian usage. The CD 143 styles, while all having the same basic design criteria, come in many variants.

In Canada, the only insulators that have positively been authenticated and attributed to a specific manufacturer are the styles that can be identified by manufacturer name or symbol embossed on the insulator. The earliest embossed insulator was an early threadless style (CD 740) which was manufactured by the Canada Glass Works of St. Johns, Canada East. They were embossed on the base of the insulator and read: "FOSTER BROTHERS.ST.JOHN C.E. 1858". (It should be noted that the "N" in the word "JOHN" is embossed backwards.) (See Glass Insulators....The

Beginnings -- Early Glass Factories in Canada chapter). The earliest examples of the rural telephone style were made by the Diamond Glass Company and were embossed with their trademark.

**DIAMOND GLASS COMPANY
&
DIAMOND FLINT GLASS
COMPANY, LIMITED
Montreal, Quebec**

The history of this glass-manufacturing concern begins with William and David Yuile who had been associated with the Canada Glass Works of St. Johns, Canada East. In 1879 the Yuile brothers formed Excelsior Glass Company in St. Johns, moving the company to Montreal, Quebec, in 1880. In 1883 a reorganization of the company took place and the Yuile brothers founded the North American Glass Company, which operated in Montreal until 1890.

In 1900, the North American Glass Company was reorganized once again and the Diamond Glass Company was formed. Offices were located at DeMontigny and Parthenais Streets in Montreal. Three years later, in 1903, the Diamond Glass Company underwent a name change and became known as "The Diamond Flint Glass Company, Limited" of Montreal with a second branch in Toronto, Ontario. (Figure 1.) The company was simply referred to

as "Diamond Glass" until it became part of the Dominion Glass Company conglomerate in 1913.

William and David Yuile are often referred to as the "fathers of the glass industry" in Canada, for during the years they spent in business, they bought eight different glassworks. These included Burlington Glass Company, Lamont Glass Company, Hamilton Glass Works, Nova Scotia Glass Works, North American Glass Company, Foster Glass Works, Dominion Glass Company (not to be confused with the later Dominion conglomerate), and Toronto Glass Company.

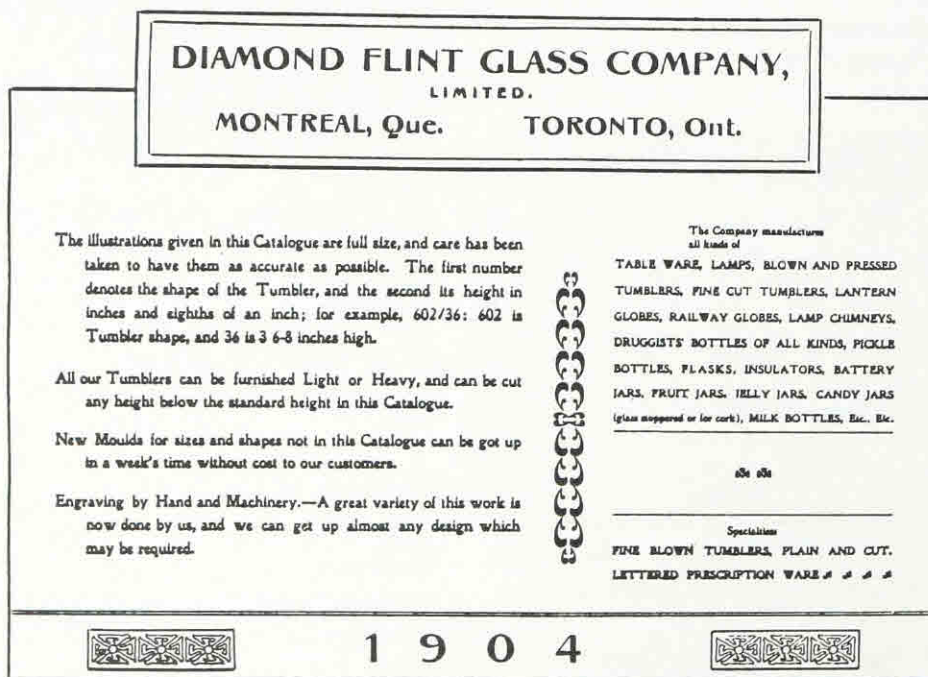
The Diamond Flint Glass Company marked their insulators with an embossed "Diamond" on the front skirt. (Figure 2.) Some of the units, CD's 102 and 112.4, have a short, vertical bar about 3/8" in length embossed above the diamond. And other units have only a bar with no diamond marking. These are the CD 102 and CD 112.5 styles.

The following is a list of CD styles manufactured by Diamond Flint Glass Company:

- CD 102
- 106
- 108
- 112.4
- 112.5
- 115
- 121
- 152
- 154
- 164
- 190/191



(Figure 2.) Company logo of an embossed "Diamond" is usually found embossed on only the front skirt. This is the earliest embossing used by Diamond.



(Figure 1.) A 1904 Diamond Flint Glass Company catalog indicating the manufactured wares. (Courtesy of Morgan Davis)

Research by Canadian collectors indicates that the single "Diamond" embossing as well as the "Bar over a Diamond" embossing were probably used by Diamond Glass prior to the 1913 takeover by the Dominion Glass Company. CD 102 Diamond-embossed units continued to be manufactured following the Dominion takeover. However, the molds were not as crude, the insulators were well made, and usually a second "Diamond" was embossed on the rear skirt. (Figure 3.)

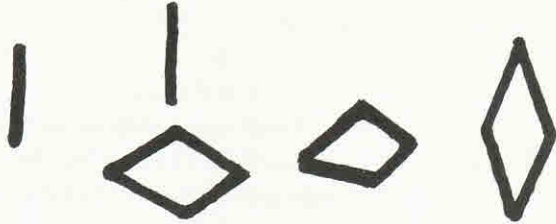


Figure 3. The "Bar" and "Bar/Diamond" embossings.

DOMINION GLASS COMPANY, LIMITED

Dominion Glass and its numerous branch plants produced every conceivable glass product including mil-

lions of insulators in numerous styles. Certainly, the CD 154 skirt-embossed with "DOMINION 42" is the most widely known.

The most frequently used embossing pattern was the name "DOMINION" followed by a style number on the front skirt, and a "DIAMOND" embossed on the rear skirt. When a new trademark for the Dominion Glass Company was adopted in 1928, the letter "D" was placed in the center of the "DIAMOND" on the rear skirt embossing. Some units have been found with a letter "P" within a "DIAMOND", but it is thought that this marking is the result of an engraving error. (Figure 4.)

Dominion Glass Company manufactured the following styles:

CD	106
	108
	115
	122
	154
	155
	164



(Figure 4.) Embossing found on a CD 154 Dominion manufactured after the 1928 adoption of the "D within a Diamond".

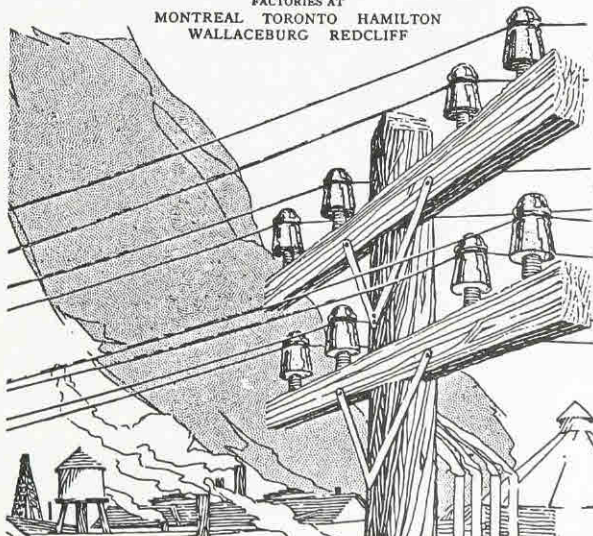
There is evidence that the Diamond Glass Company or its successor, Dominion Glass Company, also

DOMINION GLASS COMPANY
LIMITED

GLASS INSULATORS

HEAD OFFICE: MONTREAL

FACTORIES AT
MONTREAL TORONTO HAMILTON
WALLACEBURG REDCLIFF



INDUSTRIAL WARE

Industrial ware includes all the other nonbottle items, such as insulators, streetlamp globes, lantern globes, lenses for railroad and ship lights, battery jars, fuse cases, percolator tops, bird seed cups, castor cups, ashtrays and other miscellaneous items. The most interesting and collectible item from this list is the insulator.

Insulators were made to be used with three different types of line service: electricity, telephone and telegraph. The earliest insulators were simply notched pieces of wood nailed to a tree, which kept the wires off the ground. These were superseded by glass insulators and porcelain insulators. In more contemporary times, insulators have been made of rubber and also of plastic.

In Canada the story of the insulator began with the coming of the telegraph in 1846, just ten years after the first railroad, the Champlain and St. Lawrence Railway, was completed. One of the earliest telegraph services was provided by the Montreal Telegraph Company, which was incorporated in 1847 and, for many years, was the outstanding service of its kind in Canada.

Catalog cover showing glass insulators and a description of the industrial wares produced by Dominion Glass Company, Limited.

(Glass in Canada, Thomas B. King, 1987, p. 184)

manufactured other unembossed insulators which didn't bear the manufacturer's name or logo. The following CD styles were probably part of their product line:

- CD 143 No-Name, mold line over dome
- 145 Large, heavy beehive-straw, peach, lt. pink
- 162
- 162.4 "1673" and "1678"
- 252 "No. 2 Cable"

HAMILTON GLASS COMPANY

Insulator collectors became familiar with the name of Hamilton Glass Company after examples of several CD 162 styles were located with "HAMILTON GLASS CO." embossed on the front skirt of the insulator. These uncommon insulators are found in shades of aqua and are boldly embossed. They are one of the very few Canadian insulators, other than the Diamond/Dominion products, embossed with the manufacturer's name and not the user's name.

This glass-manufacturing concern was located in Hamilton, Ontario, and was making glass by 1864 under the name of "Hamilton Glass Works". The product line was essentially industrial bottles, jars, and insulators. A local independent competitor, the Burlington Glass Works, merged with Hamilton in 1875 and continued production of an extensive line of flint (clear) glass windowpanes, tableware and lamp chimneys.

In 1880 the company reorganized and incorporated as the "Hamilton Glass Company" and by 1885 had completely taken over the Burlington facility. In 1891, the company was itself taken over by the Diamond Glass Company, Ltd. with the facility finally closing in 1898.

The Hamilton Glass Company was reported to have used wooden models to design some of their insulator molds. The insulator's body would be carved out of wood, a casting made and a mold produced. Insulators from these hand-tooled molds are said to have a surface resembling carved plates or "whittle marks". There is a No-Name CD 143 variety known as the "whittle mold" style that has this same type of surface contours and may have been a product of Hamilton Glass Company.

Although the CD 162 is the only style embossed with the Hamilton name, one of its characteristic mold features (a rounded base) is also found on unembossed CD 102, 133, 143, and 162.4 styles. These products may also be linked to Hamilton Glass Company.

There were other glass plants in Canada from coast to coast that may have also made insulators, but to date no clear evidence exists of this. Did the Ottawa Glass Works located at Como, Quebec, from 1847 to 1857 make some of the early Canadian threadless insulators? Who made the 102 N.W.&B.I.T.CO. insulators? Was it the Crystal Glass Company of Sapperton, British Columbia?

How about the CD 113 "Braille Dot", the CD 136.4 No-Name, the CD 143 double-threaded or the ridged Withycombe beehives, or the CD 164 "B.C.DRIPS"? These questions are left to be answered by future Canadian insulator researchers.

HARVEY PRENTICE DWIGHT and CD 143

Harvey Prentice Dwight was born in the village of Belleville, Jefferson County, New York on December 23, 1828. At fourteen years of age, he left the local school to seek his fortune, and like many young men of the day, he took to the magic of the telegraph. Drifting eventually to Belleville, Ontario, he began working as a telegrapher until 1847 when he moved to Montreal, Quebec, and became chief operator for the recently formed Montreal Telegraph Company. By 1850, he was transferred to Toronto to take charge of M.T.CO.'s office there, and in 1865 he became their western superintendent. After the Great Northwestern Telegraph Company amalgamated with the Montreal Telegraph Company under the G.N.W. charter in 1881, Mr. Dwight became the general manager. In 1892, Mr. Dwight rose to the presidency of G.N.W. but also continued his role as general manager until 1903.



Harvey Prentice Dwight

Mr. Dwight was a very energetic and highly respected businessman who continued to act as consultant to

FREDERICK WITHYCOMBE and CD 143

and director of various businesses. He was the first vice president of the Canadian General Electric Company, vice president of the London Electric Light Company, and a director of the Toronto Electric Light Company at the time of his death.

In Morgan's *Canadian Men and Women of the Time* (1912) it was said of Dwight that there was "nobody like him. An able, experienced and upright business manager. Doubly gifted with a keen scientific instinct on the one hand and a rare business capacity on the other." The 1886, Volume 1 of *The Cyclopaedia of Canadian Biography* by Rose states that "under his [Dwight's] direction, telegraph lines have been laid in every portion of the country where roads made it practical to establish them." Obviously, Mr. Dwight was quite a man, and Canada was fortunate to have been the recipient of his many talents.

Although Dwight never received a patent for an insulator design, it is clearly evident that his influence upon the development of the telegraph inspired the naming of one of the most prominent insulator designs used in Canada. It is the CD 143 single petticoat style which was used in telegraph line construction. The front skirt is embossed with "DWIGHT" and the rear skirt with "PATTERN". Most of the units have the letters "G.N.W." blotted out preceding the word "DWIGHT". The Dwight Pattern insulators with an embossed "G.N.W. DWIGHT" on the front skirt are rarely found. Dwight's association with Great Northwestern Telegraph Company continued until 1903.

It has generally been assumed that the G.N.W. was blotted out on the mold shortly after the company was absorbed into the Canadian Northern network around 1915. However, full turnover didn't occur overnight, and G.N.W. telegraphs continued to function until at least 1919. Since Mr. Dwight died in 1912, it is hard to comprehend why these insulators were seemingly produced years after his death. It would seem that both insulator varieties were produced simultaneously while he was alive and in charge of the company, but it leaves the reason for the blotout of the "G.N.W." still a mystery.

The CD 143 style was also used by the early telegraph and railway companies which included Montreal Telegraph Company, Great Northwestern Telegraph and the Canadian Pacific Railway Company. Some of the Canadian Pacific units are embossed with only "C.P.R." A wide variety of embossings and colors are available in these insulators. Another embossing is "C.N.R." which is an abbreviation for "Canadian Northern Railway". Since this was a much earlier line than the Canadian National Railway which incorporated in 1919, it is thought the insulators were used by Canadian Northern.

In some collector's minds those CD 143's which are embossed "G.N.R." were used by the Great Northern Railway, an American-owned company which had lines routed into British Columbia. However, some also feel that they may only be embossing errors for a "C.N.R." insulator of the same design.

Very little is known about Frederick H. Withycombe except what is found in the 1908 Montreal *Business Directory*: "Withycombe, F. H., 25 Jurors Street near Bleury. Mechanical Engineer and Expert Mechanic. High Class Machine Work, Inventors Models. Mechanical, Electrical and Scientific Apparatus Designed, Made and Repaired."

Frederick Henry Withycombe paid twenty dollars and applied for a Canadian patent for "electric insulators" in July 1898. The Canadian Patent No. 63026 was issued in May 1899. Mr. Withycombe also applied for American patents for "electric insulators" in February and September 1899. Patent No. 633173 through Patent No. 633176 plus Design Patent No. 31798 and Design Patent No. 31799 were issued in September and November 1899 respectively. Both American and Canadian patent applications were essentially the same, except that in Canada seven design concepts were covered under one patent issued. The Canadian patent documents went into a little more detail on each design, but overall there was little difference between them. The drawing supplied with the patent applications were clearly modeled after the standard Canadian telegraph insulator of the day, now known as the CD 143.

Withycombe's patents covered molding an insulator with surface ridges. The three most common styles are: a CD 143 with verticle ridges; one with horizontal ridges and a third with verticle ridges above the wire groove and horizontal ridges below the wire groove. This last style was molded in a former "CANADIAN PACIFIC RY CO" mold into which horizontal ridges were cut. Withycombe stated in his patent that the ridges were "to render insulators of whatever form, less liable to breakage by providing a simple and efficient means to enable them the better to withstand the impact of foreign bodies". In other words, "bad boys" throwing rocks or shooting with rifles would find it harder to shatter the main body of the insulator with the ridges present to absorb the shock.

Two other insulators found with the Withycombe ridges are the CD 144 which has horizontal ridges but a high wire groove, and the vertical-ridged or pleated-skirt CD 121. This insulator is embossed on the dome with the American Withycombe patent date "PAT'D SEPT 19TH 1899" and has only been located on American telephone lines.

Identification of the manufacturer of the Withycombe patent insulators remains a mystery. The CD 121 style was probably manufactured in the United States between 1900 and 1914 and quite possibly by Brookfield Glass Company. Many of the CD 143 Withycombes were found in western Canada and the CD 144 was found exclusively in British Columbia and southern Alberta. It is possible that the Crystal Glass Company (1906-1908) in British Columbia may have been their source, for they

advertised "...manufacturing all grades of glass from bottles to insulators...one feature of these insulators is that they have been specially ribbed..."

TELEGRAPH AND RAILWAY COMPANIES and CD 145

After the 1884 double petticoat-patent beehive (CD 145) was adopted in the United States, the same style was used by various communications companies in Canada.

Great Northwestern Telegraph Company (G.N.W. TEL.CO.). Colin McIntosh in *Canadian Insulators* states that this company "was incorporated in 1880 and established lines in the North West Territories, the District of Keewatin, and the Provinces of Manitoba and British Columbia in connection with the Province of Ontario." As a result of the merger of Montreal Telegraph and Dominion Telegraph companies under the charter of the G.N.W., this company became the controlling company for Canadian telegraph lines.

Grand Trunk Pacific Telegraph Company (G.T.P. TEL. CO.) was incorporated in 1906 and merged in 1928 with the Canadian National Telegraph system.

The Grand Trunk Railway was incorporated in 1852 and became the controlling railway system in Canada as it absorbed other smaller companies until 1905. In *Canadian Insulators*, McIntosh states that in 1902 in "an agreement with the Federal Government, the railway agreed to build between Winnipeg and Prince Rupert. This line was to be built by the **Grand Trunk Pacific** (G.T.P.), a subsidiary of the Grand Trunk [Railway]. The Dominion Government was to build the Eastern section from Moncton, New Brunswick, through Ontario and Quebec to Winnipeg." The project was a financial disaster and G.T.P. entered into receivership with the minister of railways in 1919. Its parent railway company went bankrupt in 1923 and became part of the government-run Canadian National.

There still seems to be a lack of substantial proof as to the meaning of the "T.C.R." embossing. However it is most likely an abbreviation for **Transcontinental Railway** which was the name to be given to the 1903 plan for a trans-Canada railway. The eastern half was to be built by the Dominion government, the western portion by the Grand Trunk Pacific. The line was completed on November 17, 1913.

Another embossing found on the CD 145 style of insulator is "E.D.R.". Colin McIntosh gives a historical account of this railway in *Canadian Insulators*: "Incorporated in 1907 to build from Edmonton to Dunvegan, hence

via the Peace River Valley Westerly to the Parsnip River in British Columbia, then Southerly via The Parsnip River Valley to the town of Fort George. To be called the **Edmonton Dunvegan** and British Columbia it was an ambitious plan which ran into financial difficulties. The railway was opened in 1915, but by 1921 the Provincial Government had appointed the Canadian Pacific to manage and operate it. It was operated by that company until August 1926, when the government took full control. Today it is known as the the Northern Alberta Railway. The early settlers had their own interpretation of the initials. They called it the 'Ever Dangerous and Badly Constructed'."

The **Hudson Bay Railway** also had CD 145-style beehives manufactured for use along their lines. They are embossed "H.B.R." on the skirt.

Information for Canadian Insulators came from several articles researched and written by Eric Halpin of Thunder Bay, Ontario, who has been collecting Canadian insulators since the mid-1970's, specializing in CD 143 and CD's 743.1, 743.2, and 743.3. Eric's insulator displays have won several awards at both National and Regional insulator shows. He has also been an active supporter and participant in the National Insulator Association and has served as the organization's executive director from 1986 to 1990. Eric is also a contributing writer for *Crown Jewels of the Wire*.

Morgan Davis of Toronto, Ontario, has also done considerable research on the glasshouses of Canada and also provided information pertinent to this chapter. Morgan began collecting in 1982 and has an extensive CD 102 Diamonds, CD 143's and Canadian threadless collection. Making his living as a professional musician, Morgan travels across Canada which affords him the opportunity to search out additions to his collection from all parts of the country. Morgan also contributes to *Crown Jewels of the Wire* magazine as Canadian correspondent.

MEXICAN INSULATORS

Because the development of telegraph lines into Mexico was later than in America, need for communication insulators came at a later date. Most of what is known about Mexican manufacturing of glass insulators has been recorded by Mr. N.R. Woodward in *The Glass Insulator in America, 1988 Report*. What we share here are descriptive embossing marks on Mexican insulators.

GLASS THREADLESS

There are two styles of threadless insulators whose origins seem to be Mexico. Their manufacturer is not known at this time.

The first is an aqua CD 735.5 embossed "**LINEA DEL SUP^o**" on the front skirt and "**GOBIERNO**" on the rear skirt. Pieces of this insulator were found around a Mexican mine by a collector, so it is felt that they were in use in Mexico if not manufactured in the country.

Marilyn Albers, co-author of *Glass Insulators from Outside North America* and *Worldwide Porcelain Insulators* (See Reference Bibliography), shares the following regarding the translation of the insulator's embossing:

"The word 'SUP^o' is the abbreviation for the Spanish **supremo** and combined with the other embossed words means 'Line of the Supreme Government' or loosely translated 'Property of the Supreme Government'. The reasoning behind this is that Benito Juarez was dictator of Mexico for 30 years (1881-1911), during which time his government was referred to as the 'Supreme Government of Mexico'."

A second threadless is the CD 740.8 style found with two different embossings. Common to each is the forest green color of the glass.

One embossing is "**TELEGRAFICA DE**" on the front skirt and "**JALISCO, COMPA!**" on the rear skirt. The embossing is not clear and the word "COMPA!" may be a poorly embossed "COMPANIA". It would then translate "Telegraph Company of Jalisco". Jalisco is a state (any a town) west of Mexico City on the west coast of Mexico. It is believed to be the original embossing for this style of threadless.

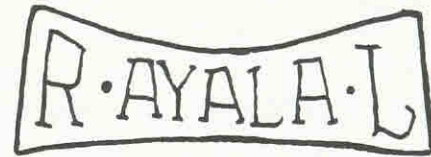
The second embossing style has the embossing on the base of the insulator between the rim of the outer skirt and the collar of the pinhole. It is embossed "**TELEGRAFO DE JALISCO P**" and it is obvious that the embossing found on the front and rear skirt of the first style mentioned above has been erased. The meaning of "P" in the embossing is not known at this time. However, the remaining embossing translates "Telegraph of Jalisco".

THREADED GLASS

AA IN CIRCLE OF DOTS found on CD 154 units in colors. Manufacturer and end user are unknown.



AYALA is found on only the CD 106 style. You will note that the name of the manufacturer or end user "AYALA" is preceded with the letter "R." and followed by the letter "L". It is common practice in Spanish-speaking countries to precede one's surname (in this case "Ayala") with the initial of one's first name (in this case "R") followed by the initial of the mother's maiden name (in this case "L"), on either side of the surname when using in a legal signature.



CIA. COMMERCIAL ERICSSON The embossing on the CD 106 style is done in cursive writing. "CIA." is the abbreviation for "Compania" which means "company".

*Cia. Comercial
Ericsson, S.A.*

CIA. TELEFONICA y TELEGRAFICA The translation for this embossing is "Telephone and Telegraph Company" and is found on the CD 154 style. The manufacturer and end user are unattributed.


**CIA. TELEFONICA Y
TELEGRAFICA MEXICANA**

Continuous embossing around the skirt.


CRISA No information is available on this embossing. It has only been found on a CD 107 style in clear glass. They appear to be newly manufactured. The Spanish word "crisa" means "crucible". The logo contains two glasses which might be interpreted as a crucible-shape.

CRISA  9

CRIMSA A more recent product of Cristales Mexicanos, S.A. The embossing is found on a CD 155 in clear glass.

CRIMSA - 45
 - 67

CRISOL TEXCOCO This embossing is found on both the CD 106.5 and CD 155 styles. The CD 106.5 has two very different dome shapes. (See Volume II) Texcoco is a town near Mexico City and may have had a glassworks in that town which manufactured these insulators.

CRISOL
 45

TEXCOCO

"C 45" A clear CD 155 style manufacture by Cristaleria, S.A. in Monterrey.


C 45

DERFLINGHER Manufacturer and end user are unknown. On the front skirt of CD 154.5 units we find the embossing followed by "TN-1" style number. Derflinger is abbreviated "DERF" on the front skirt of the CD 162.7 style with Telefonos Nacionales abbreviated "TELGS NACLS" on the rear skirt.

DERFLINGHER-T.N.-1

TELGS NACLS MEXICO
 DERF

ERICSSON Units with this embossing were supplied to Mexico by the Swedish telephone supply house of the same name. Script embossing was used on the earliest CD 106 units while later units were embossed with "ERICSSON" on the front skirt. The rear skirt had either no embossing, the word "TELEFONOS" or an "M" and "V" entwined within a circle. The CD 250.2 is unique to this manufacturer and is embossed on the front skirt "TELEPHONOS ERICSSON LD-1"

ERICSSON TELEFONOS
 ERICSSON 

TELEFONOS ERICSSON-L-D-1

F.F.C.C.N. de M. This embossing is the abbreviation for the Mexican National Railways, "Ferrocarriles Nacionales de Mexico". Both the CD 162 and CD 162.7 signals are found with this embossing.

FFCCNDEM 
 F.F.C.C.N DE M
 F.D.

N DE M This is a diminutive of the F.F.C.C.N.de M. embossing and is found on CD 162 signals.

N DE M

RyT This embossing occurs on CD 155 units in a variety of beautiful colors. An upside-down "RyT" is an embossing variation found on some units. The logo translates "R and T". No manufacturer or end user is known.



TEL. FED./MEX This embossing occurs on three different insulators. On the CD 133 and CD 133.5 the front skirt is embossed "TEL.FED./MEX" and "JM" appears on the rear skirt. The color of the glass is very similar on both styles and is a dark teal green. On a CD 133.1 unit, the embossing on the rear skirt is "SAMUEL H^{NOS}/NEW YORK". The product is similar to those manufactured in America during the early 1900's. Samuel Hnos ("Hnos" is an abbreviation for "hermanos" which means "brothers") was a New York exporter who may have had the insulator manufactured and shipped to Mexico.

TEL. FED. JM.
MEX.

TEL. FED.
MEX.

SAMUEL H^{NOS}
NEW YORK

TELEGRAPHOS NACIONALES The translation is "National Telegraph" and is found on a CD 214 style. They are manufactured in a wide variety of amber colors. Some units have extremely long, blunt drip points. Manufacturer and end user are unknown.

TELEGRAFOS
NACIONALES

VB The "VB with a Keystone" is a marking found in conjunction with "PSSA" followed by the style number. Units with this embossing include CD's 106, 106.2, 107, 162.7 and 155. The meaning of the "PSSA" embossing has been translated: "Patricio Sordo Sociedad Ananimo". "Pa-

tricio Sordo" is a man's first name and surname. "Sociedad Ananimo" is found in conjunction with several Mexican embossings and means "Company, Incorporated".

P S S A N^o 9

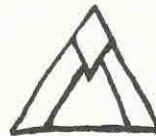


P S S A # 9



P S S A # 19

VIDRIERIA MONTERREY GLASSWORKS is located in Monterrey, Mexico. They made a large variety of glass products including bottles. From research on the use of company markings, the older trademark ("M" and "V" entwined in a triangle) was replaced by the newer trademark ("M" and "V" entwined in a circle) in the mid-1950's. As late as 1980 the company was still in business. Both embossings are found on the CD 106 style.



Marilyn Albers lives with her husband Bill in Houston, Texas. She is the proud mother of six grown children and is grandmother to twelve little ones. She began collecting insulators in 1973 and has been active in the hobby during the ensuing years.

Following several trips to Europe, Marilyn developed a special interest in foreign insulators and in July, 1979, she began writing a regular column for *Crown Jewels of the Wire*, sharing information on new finds from other countries. She is also co-author of *Glass Insulators From Outside North America* (Albers/Woodward) and *Worldwide Porcelain Insulators* (Albers/Tod). (See Reference Bibliography)

Marilyn has been a member of the National Insulator Association since 1974, serving as show standard chairman (1980-1982) and president (1982-1984). She hosted the 1987 NIA Central Regional Show in Pearland, Texas, and was the co-host for the 1988 Houston NIA National Convention. She is a familiar face at shows across the country.

In her spare time, she writes a monthly newsletter for the Houston-based Lone Star Insulator Club and still manages to jog three miles every morning.