

SURGE ELECTRIC FENCE INSULATORS

SURGE INSULATORS were produced in both porcelain and glass. They were intended for use on electric fences on farms for stock control. They were designed and patented by Lorell John Schilling of Brookfield, Illinois in 1940-1941. Schilling sold the rights to Babson Bros. Company. Babson's ran a mercantile and catalog mail order business in Chicago. Their Surge Dairy Farm Equipment line was a perfect fit for the electric fence. The Surge and Babson names were already prominent in the farming community for the renowned Surge Milker that dominated the market.

There are two styles of porcelain SURGE insulators. The dark brown insulator is embossed on the top with: TRADE MARK REG. / SURGE / PATENTS PENDING. L. J. Schilling described it as a strain insulator according to his application for Design Patent 126,721. It has a narrow slot molded into the bottom to accept its unique metal bracket. This piece is shown in a 1941 Surge Fencer book and described as a Corner Insulator.

The white insulator is embossed on the top with: TRADE MARK REG. / SURGE / PATENTS PEND. This piece is listed in the Fencer Book as a Line Insulator. This is the same description Schilling used on his application for Design Patent 126,722. It has a smaller molded slot on the bottom for its metal mounting bracket. Patents 2,311,779 and 2,350,420 cover the mounting brackets for these two insulators. Both porcelain styles are relatively uncommon. Only a limited number have surfaced in the hobby.

A 1949 Babson sales brochure depicts the glass insulators as replacing their porcelain predecessors. Porcelain insulators were susceptible to damage and cracks to the glaze, allowing moisture to penetrate and cause shorts. Babson claimed the "Surge Glass Insulators offered Superior Performance." The glass insulators were manufactured by the Hemingray Glass Company in Muncie, Indiana during the late 1940's and 1950's. The Fencer was sold until 1955, but the supply of insulators on hand lasted until 1978.

The CD100 glass insulator is the most common of all the SURGE insulators. It resembles a scaled down Hemingray 42. It has a very distinctive 1/2" threaded pin hole. Colors included clear and a less common straw. McDougald's Price Guides list four embossing variations, the front skirts read: SURGE / REG. U.S. PAT. OFF. or SURGE / T. M. REQ. PAT. PEND. The rear skirt reads: BABSON BROS. CO. / CHICAGO U.S.A. Two versions reflect the incorrect spelling of Chicago as CHCIAGO. One of these is purported to have a blotted out embossing on the front skirt. Many collectors are not convinced that this listing actually exists. We would like some documented proof. Roger, would you please dig this piece out of its box. A photo of the blot out or a show and tell session would prove it exists and dispel our doubts.

The CD100.2 glass insulator is very rare. Probably less than a handful exist. All of these were salvaged from the former Hemingray site. This style has a larger and more common 1" threaded pin hole. It is embossed (fs) SURGE. I can not find any literature that references or depicts this style insulator. Some suspect this may have been a test piece for a sturdier gate latch.



Strain Insulator



Line Insulator



CD 100



CD 100.2



Other Related Accessories

Some of the other accessories for the Surge Electric Fence line included: the Fencer, Charger or Controller (unit that produced the electrical charge), Insulator Brackets (oak side pins), the Fencer Posts (a four foot long threaded and tapered oak fence post), an iron Post Driver (a temporary cap to prevent damage while driving the fencer posts into the ground), Gate and Corner Bracing (a two foot stake, stainless steel brackets and a six foot brace placed against the fence post at corners and gates), a Safety Gate Latch (a spring type glass insulated gate handle to enable shock-free access in and out of the fenced enclosure), the KKSG Clips (for quickly attaching the wire to the insulator) and Smooth Wire (more economical and easier to handle than barbed wire and it carried the current well).

How does an electric fence work?

The charger creates an electrical charge. The ground terminal of the charger is connected to a rod that's driven into the ground. The live or positive terminal connects to the electric fence wire. The charge moves through the wire. The insulators prevent the charge from completing a circuit by insulating the wire from the post and the ground. Once an animal came in contact with the wire and ground at the same time, it completes the circuit and receives a shock. The charge was a 25 milliamperes impulse delivered once a second. This would allow the animal to break away from the wire. A constant charge may have rendered the animal helpless to break away from the charge. This shock was designed to deter the animal from coming near the wire again. On the other hand, a bird could sit on the wire all day long and never get shocked. The bird could not touch the wire and the ground at the same time to complete the circuit.

SURGE vs. COCA COLA

During the 1997 Super Bowl Championship Game, The Coca Cola Company introduced a new citrus drink called SURGE. Babson Bros. in turn filed suit against Coca Cola over the use of the name. SURGE has been a trademark of Babson Bros. since 1925. Babson won an out of court settlement, for an undisclosed amount, from the Coca Cola Bottling Co.

Babson Bros. Co. Company SOLD

On March 5, 1999, WESTFALIA LANDTECHNIK GmbH a German company purchased the Babson Brothers Company, manufactures of Surge Dairy Farm Equipment and related supplies creating a new company, WESTFALIA-SURGE, INC.

