

C. M. E. PRIESTLEY.
 SUSPENSION CHAIN FOR HIGH PRESSURE ELECTRIC TRANSMISSION LINES.
 APPLICATION FILED DEC. 20, 1910.

1,039,799.

Patented Oct. 1, 1912.

Fig. 1.

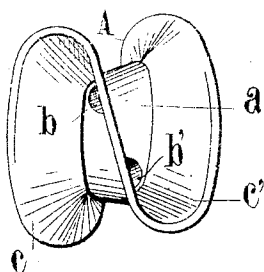


Fig. 2.

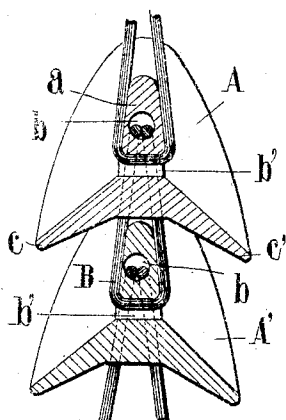


Fig. 3.

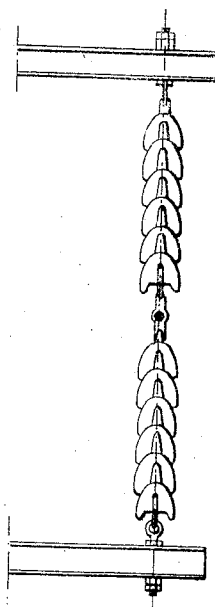


Fig. 4.

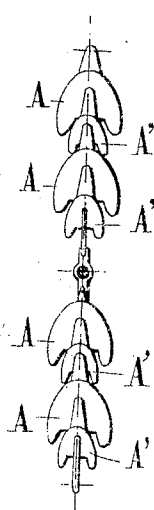
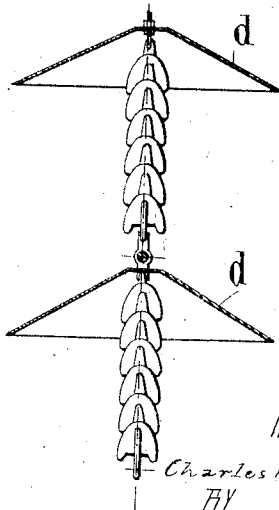


Fig. 5.



WITNESSES

Olive D. White
 Helen S. Morris

INVENTOR

Charles M. E. Priestley

BY

Oliver B. Smith, Jr.
 ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLES MARIE EDOUARD PRIESTLEY, OF PARIS, FRANCE, ASSIGNOR TO SOCIÉTÉ
VEDOVELLI, PRIESTLEY ET COMPAGNIE, OF PARIS, FRANCE.

SUSPENSION-CHAIN FOR HIGH-PRESSURE ELECTRIC TRANSMISSION-LINES.

1,080,799.

Specification of Letters Patent.

Patented Oct. 1, 1912.

Application filed December 20, 1910. Serial No. 598,445.

To all whom it may concern:

Be it known that I, CHARLES MARIE EDOUARD PRIESTLEY, a citizen of the Republic of France, and resident of Paris, France, have invented new and useful Improvements in Suspension-Chains for High-Pressure Electric Transmission-Lines, which improvements are fully set forth in the following specification.

A suspension method for aerial electric transmission lines for any pressure has been proposed, according to which any number of lines can be supported by means of insulating chains composed either of insulating links or of links consisting partly of insulating and partly of metallic material. Especially an insulating chain or chaplet has been suggested, each element of which consists of a porcelain or a glass block provided with two semi-circular cavities crossing one another, iron wires being passed through these cavities, in such manner that the material is constantly under compression. These blocks are then linked together and form the uninterrupted chain.

Now the object of the present application is to improve this suspension chain, in order to make it more especially suitable for the suspension of high pressure electric transmission lines.

The accompanying drawings represent by way of example the device forming the object of the present invention.

Figure 1 is a perspective view of a porcelain insulator. Fig. 2 is a vertical section showing two elements linked together. Figs. 3, 4 and 5 are elevation views, on a smaller scale, showing various forms of constructing the suspension chain.

The porcelain insulators A (Fig. 1) consist each of a core *a*, perforated by two holes *b* and *b'*, at right angles to each other and provided with integral wings *c*, *c'*, of such profile and thickness as to offer suitable resistance for the given pressure of the transmission line, which the device has to support.

Two similar porcelain insulators A, A¹ (Fig. 2) are linked together by a ring B made of iron wires passed through the hole *b'* of the porcelain insulator A¹, as well as

through the hole *b* of the porcelain insulator A.

The suspension chain or cable is formed by consecutively linking together in the above-described manner any desired number of the porcelain insulators according to the requirements.

It will be noted that the wings *c*, *c'* are formed by a single continuous curved flange which projects radially from the body of the link and extends around both ends of both openings. As a result of this arrangement, the link is made reversible and perfectly symmetrical in space. This flange reduces to a minimum the possibility of the formation of short circuits; and, due to the peculiar inclined shape thereof, that portion of the flange adjacent one opening, such as *b'* in Fig. 2, acts as a water-shed to protect the ring or band B which passes through the other opening *b* of the link. These bands or rings are preferably made of flexible steel or iron wire which is looped back and forth through the holes so as to form a cable of the necessary tensile strength.

Fig. 3 shows the complete arrangement of a suspension chain. The transmission line C represented is for single-phase current, but it is quite evident that it may be for two-phase or three-phase currents.

The elements of the chain (Fig. 3) are all of the same dimensions, whereas the chain shown in Fig. 4 consists of porcelain insulators A, A¹ of different dimensions which alternate.

Fig. 5 represents the suspension chain of Fig. 1 protected by hoods *d* preferably made of enameled sheet iron. These hoods may be of conical shape, as shown, and may be attached to the chain at any suitable or desired intervals so as to protect the links from the action of the weather.

Without confining myself to the details of construction as herein described, what I claim as my invention and desire to secure by Letters Patent is:—

In a suspension insulator, a link comprising a pair of saddles disposed at right angles to each other, each saddle having a similarly located opening therethrough, said openings adapted to receive loops for se-

curing the links together, and a continuous flange or wing extending around each end of each opening in each saddle, said flange being substantially straight in transverse section and of uniform inclination throughout, that part of the flange adjacent one opening serving as a water shed to protect the loop passing through the other opening.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES MARIE EDOUARD PRIESTLEY.

Witnesses:

GASTON DEMOGETE,
H. C. COXE.