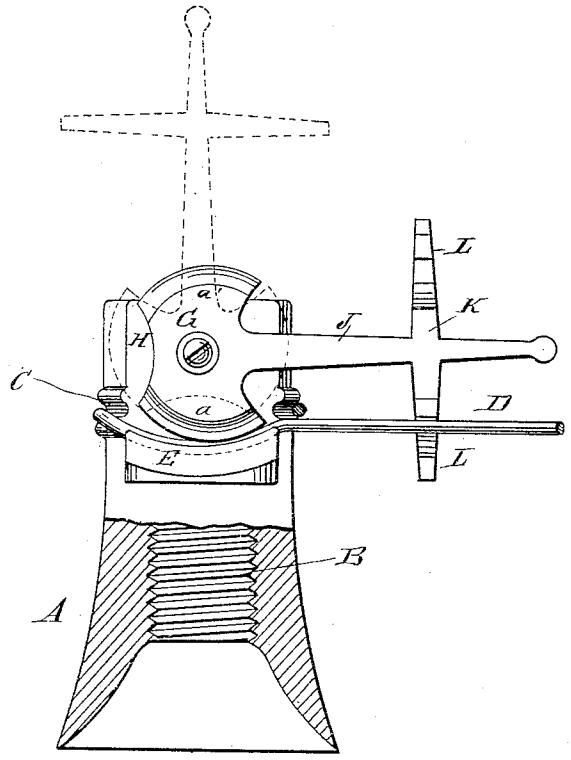
(No Model.)

J. M. LEONARDSON.

INSULATOR FOR ELECTRIC WIRES.

No. 347,943. Patented Aug. 24, 1886.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN M. LEONARDSON, OF LUDINGTON, MICHIGAN.

INSULATOR FOR ELECTRIC WIRES.

SPECIFICATION forming part of Letters Patent No. 347,943, dated August 24, 1886.

Application filed May 10, 1886. Serial No. 201,707. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. LEONARDSON, of Ludington, Mason county, and State of Michigan, have invented a new and useful Improvement in Insulators for Electric Wires, of which the following is a specification, reference being had to the annexed drawing, which is a side elevation, partly in section.

The object of my invention is to effect an improvement in the class of insulators having a clamping device, by which the electric wire may be securely fastened without the necessity of special wire-fastenings, and which will permit of readily releasing the wire when desirable.

My invention consists of an insulator cut away on one side and provided with a concave laterally-projecting lip, and a cam-lever pivoted to the side of the insulator, provided with a cross-arm near its free end, having hooks for engaging the wire when the wire is clamped between the cam and the concave lip.

The body A of the insulator is formed of glass or other suitable material, and is made hollow, and provided with internal screw-threads, B, to receive the insulator-pin in the usual way. The upper end of the insulator is flattened on one side, forming a bearing-surface, H, and is provided with a laterally-projecting concave lip, E, having a transverse groove adapted to receive the wire D. Above the lip E, and in the plane face H, is pivoted the cam-lever G, which is provided with two cam-segments, *a a'*, which are oppositely arranged with respect to each other, the cam-segments being grooved in their peripheries to receive the wire D. The cam-lever G is provided with an arm J, having the cross-arm K, with hooks L L' formed on opposite ends thereof, and oppositely arranged with respect to each other. The wire D is placed across the concave lip E when the arm J is in a vertical position, and the wire is clamped between the cam-segment *a* and the concave lip E by turning the arm J into a horizontal position, as shown in full lines, and the arm J is retained in a horizontal position by bringing the hook L into engagement with the wire D. The oppositely arranged cam-segment *a'* permits of clamping the wire upon the lip E by turning the cam-lever in the opposite direction, bringing the hook L' into engagement with the wire D.

By means of my improvement wires may be readily strung and securely fastened, and when it is desirable to remove the wires from their insulators they may be readily disengaged by releasing the cam-lever and turning it into a vertical position.

The insulator-body A is provided with a circumferential groove, C, which permits of applying the usual binding-wire, if desirable.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the insulator-body A, provided with the concave lip E, of the cam-lever G, having the arm J, and provided with the cross-arm K, having hooks L L' on opposite ends for engagement with the wire, substantially as herein shown and described.

2. The combination, with the insulator-body A, provided with the concave lip E, and having the flattened bearing-surface H, of the cam-lever G, provided with the segmental cams *a a'*, oppositely arranged with respect to each other, and having the arm J, provided with the cross-arm K, having hooks L L' on opposite sides thereof, substantially as herein shown and described.

3. The combination, with the insulator-body A, provided with the concave lip E, and having the flattened bearing-surface H, and the circumferential groove C, of the cam-lever G, provided with the segmental cams *a a'*, oppositely arranged with respect to each other, and having the arm J, provided with the cross-arm K, having hooks L L' on opposite ends thereof, substantially as herein shown and described.

JOHN M. LEONARDSON.

Witnesses:
JERRY E. DARR,
GEO. P. MCMAHON.