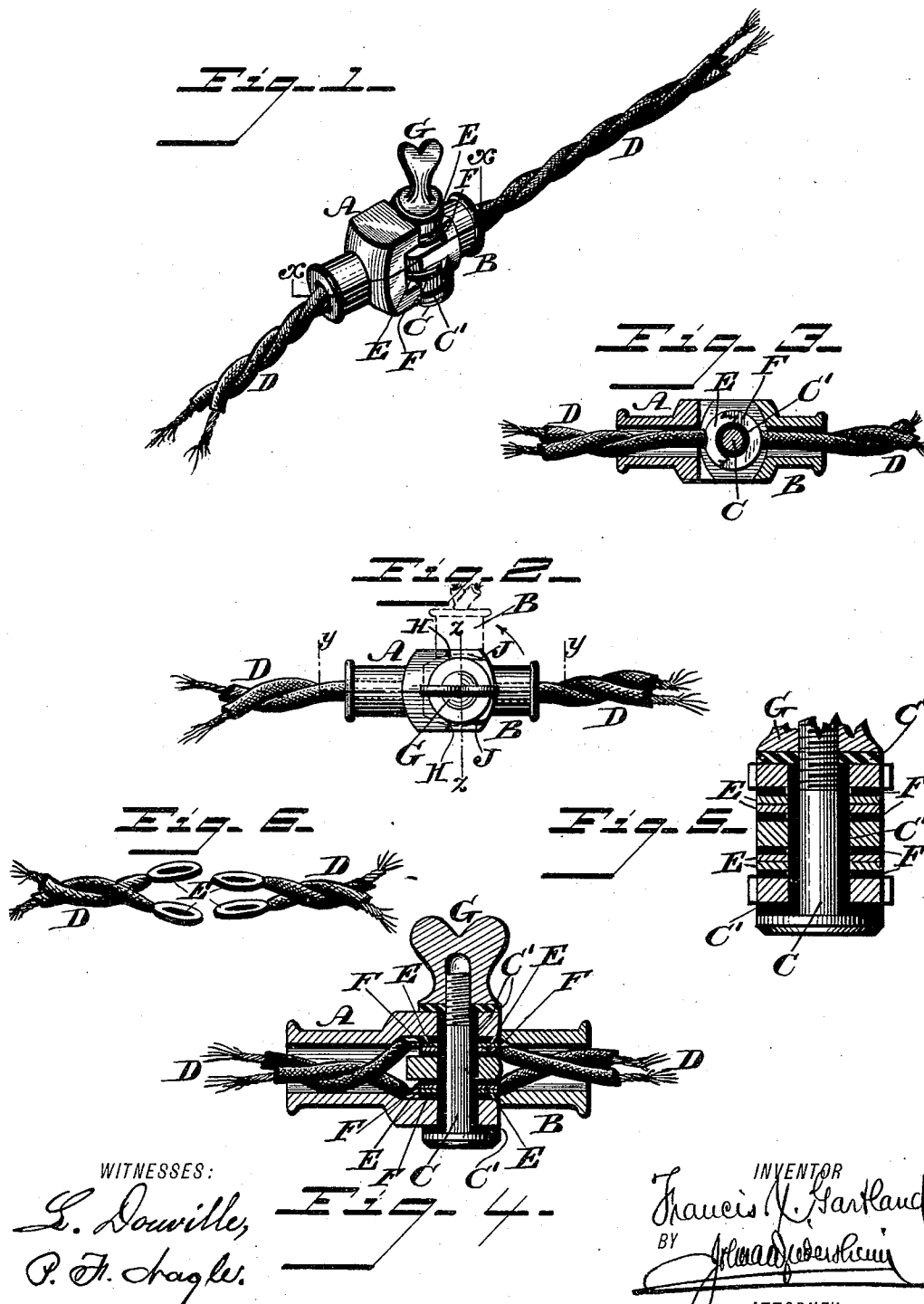


(No Model.)

F. X. GARTLAND.
COUPLING FOR ELECTRIC WIRES.

No. 463,420.

Patented Nov. 17, 1891.



UNITED STATES PATENT OFFICE.

FRANCIS X. GARTLAND, OF PHILADELPHIA, PENNSYLVANIA.

COUPLING FOR ELECTRIC WIRES.

SPECIFICATION forming part of Letters Patent No. 463,420, dated November 17, 1891.

Application filed July 16, 1891. Serial No. 399,765. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS X. GARTLAND, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Couplings for Electric Wires, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in couplings for electric wires; and it consists, first, of heads having a pivotal connection adapted to have secured thereto the connected ends of the wires.

It further consists of the combination of parts hereinafter set forth.

Figure 1 represents a perspective view of a coupling device embodying my invention. Fig. 2 represents a top plan view of the coupling shown in Fig. 1, the dotted lines showing one head at an angle to the other. Fig. 3 represents a section on line *xx*, Fig. 1. Fig. 4 represents a section on line *yy*, Fig. 2. Fig. 5 represents a section on line *zz*, Fig. 2. Fig. 6 represents end views of the wires, showing the loops on the ends thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A and B designate tubular heads pivotally connected by a headed pin C. One of the heads, as A, is provided with two limbs, each having an opening therein, and the other head or B has a limb adapted to be located between the limbs of the head A and also with an opening, the pivotal pin C being inserted in the said openings for connecting the heads. D designates electric wires held in said tubular heads and having at their ends the metallic loops E, adapted to be secured on said pin C, which latter is electrically insulated from said heads by a covering C'. A loop E of a wire in the head A is placed on the pin adjacent and in contact with a loop of a wire in the head B, and on both sides of said loops between the same and the adjacent limbs of the heads are placed insulating-washers F, whereby the wires, though connected electrically with each other, are insulated from the coupling.

A thumb-nut G on the threaded end of the pin and having between it and the outer face of the head A an insulated washer holds the said pin in place.

The limbs of the head A are of less diameter or width than the main portion of the head, forming shoulders H thereon adapted to come in contact with shouldered portions J of the head B when the said heads are sufficiently moved or rotated on the pin C.

It will be noticed that the heads may be set at different angles to each other, according as the wires are to be arranged.

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

1. A coupling for electric wires, consisting of two heads with an insulating pivotal pin, wires with loops, and insulating-washers, said parts being combined substantially as described.

2. A coupling for electric wires, consisting of tubular heads with limbs having openings therein, a pivotal pin, and insulating-washer, said parts being combined substantially as described.

3. A coupling for electric wires, consisting of heads having an insulating pivotal pin, said heads having shoulders adapted to come in contact with each other, limiting the movements of said heads on said pins, substantially as described.

4. A coupling for electric wires, consisting of two tubular heads having limbs with openings, an insulated headed pin in said openings, and a nut on a threaded end of said pin, said parts being combined substantially as described.

5. A coupling for electric wires, consisting of two tubular heads pivotally connected by an insulated pin, in combination with electric wires having looped ends on said pin and insulating-washers between two contacting loops and said heads, said parts being combined substantially as described.

FRANCIS X. GARTLAND.

Witnesses:

JOHN A. WIEDERSHEIM,
A. P. JENNINGS.