(No Model.)

A. K. EATON.

Compound Telegraph Wire.

No. 240,108. Patented April 12, 1881.

Fig. 1.

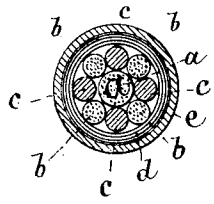
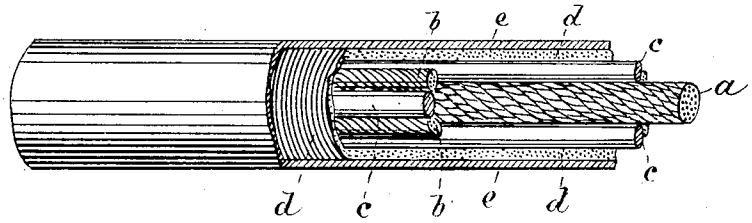


Fig. 2.



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COMPOUND TELEGRAPH-WIRE.

SPECIFICATION forming part of Letters Patent No. 240,108, dated April 12, 1881.

Application filed February 15, 1881. (No model.)

To all whom it may concern:

Be it known that I, ASAHEL K. EATON, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Compound Telegraph-Wire, of which the following is a description in such full, clear, concise, and exact terms as to enable any one skilled in the art to which my invention appertains, or with which it is most nearly connected, to make and use the same, reference being had to the accompanying drawings, and to the figures and letters of reference marked thereon.

Figure 1 of the drawings is a cross-section of said wire, and Fig. 2 a longitudinal section through a section of the same, taken upon different planes, by which its construction is fully illustrated.

My invention consists of a compound metal-incased telegraph-wire composed as follows: I first take a central strand or cord, *a*, of cotton, or of any good fibrous insulating material, and assemble around it the desired number of conducting-wires *c c c c*, (four, for example,) and between each of these wires I interpose a separate cord, *b*, of cotton or other fibrous insulating material. Having thus brought the wires and insulating-cords together in the relation aforesaid, I wrap them together with a strand, *d*, of cotton yarn or other suitable fibrous material. Having the cords and wires thus wrapped together, I saturate and cover the fibrous wrapping of the cable thus composed with any good plastic insulating material or compound, after which I pass it through the tubular core of a lead-pipe press adapted to the purpose, and inclose it in a metal covering, *e*.

In the manufacture of this wire I use any suitable machinery or means that may be well adapted to produce the wire in the cheapest and best manner; but the invention is in the compound wire itself, and does not partake of any particular way of making it, nor of any especial machinery used in producing it.

In concluding this specification, it is proper that I should recognize the state of the art as disclosed in the English patent to Clark, No. 2,177 of 1869; but the cable of Clark is essentially different from mine. Thus in Clark's cable the wires are twisted around the central cord; in mine they are laid parallel with it. In Clark's the insulating-cords are twisted between the wires; in mine the cords and wires run straight and parallel with each other and the central cord. In Clark's the fibrous wrapping is put on to insulate and protect the wires and cords; in mine the spiral wrapper is put on to hold the wires together and insulate it from the metal casing, which is necessary to hold the cable together, and is an essential part of it, and is wholly wanting in Clark's cable. My cable consists of wires and insulating-cords put together in a certain way and inclosed in a metal casing, without which it would be of no value.

I claim, therefore, as my invention—

A compound telegraph wire or cable, consisting of a series of conducting-wires assembled around and upon a central insulating-cord, and having a separate insulating cord or strand interposed between the several wires, so that each wire is insulated from all the rest by a separate cord, said wires and cords being laid straight and parallel with each other and held together by a metal casing inclosing an insulating wrapping or covering, substantially as described.

ASAHEL K. EATON.

Witnesses:
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