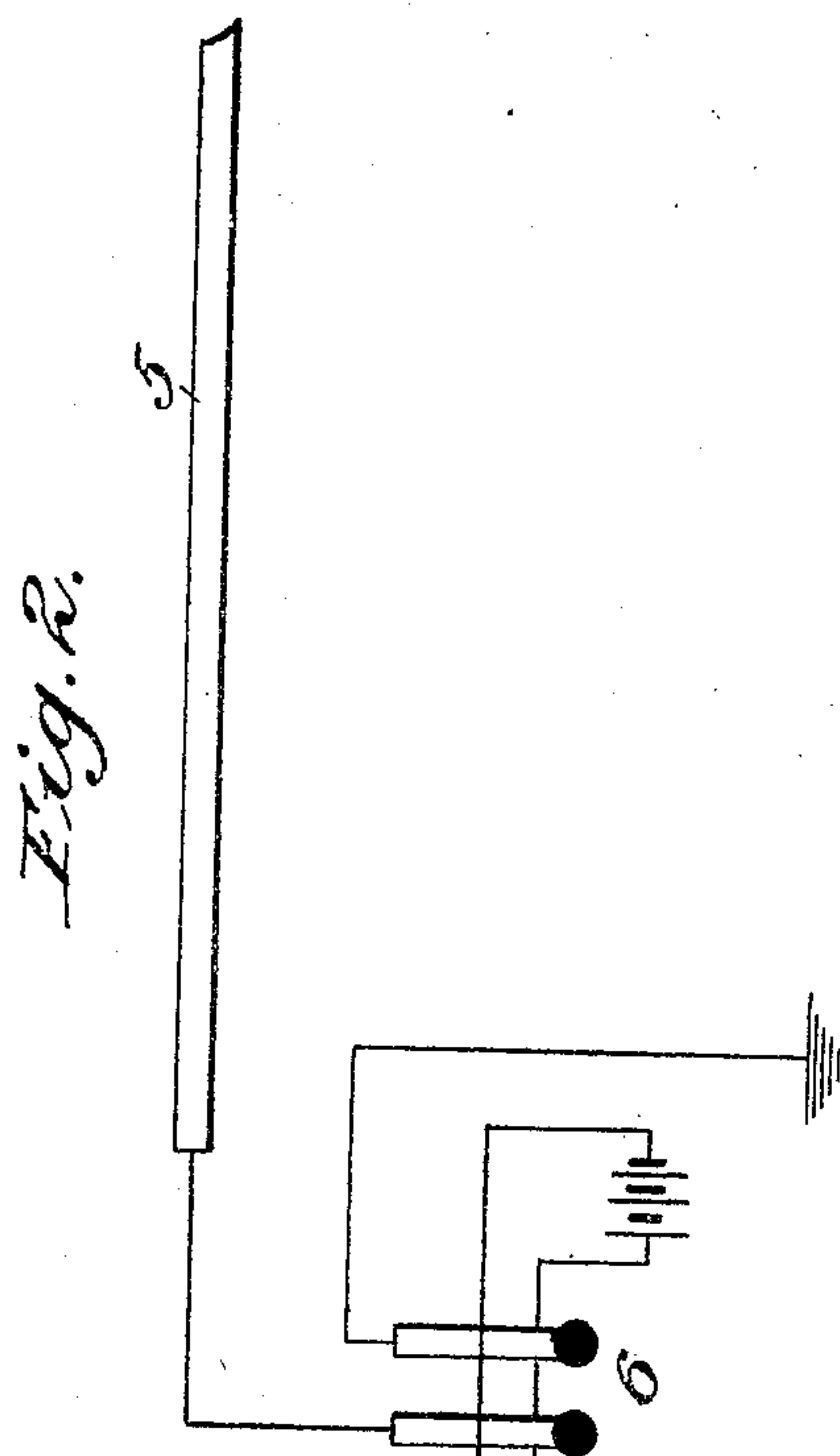
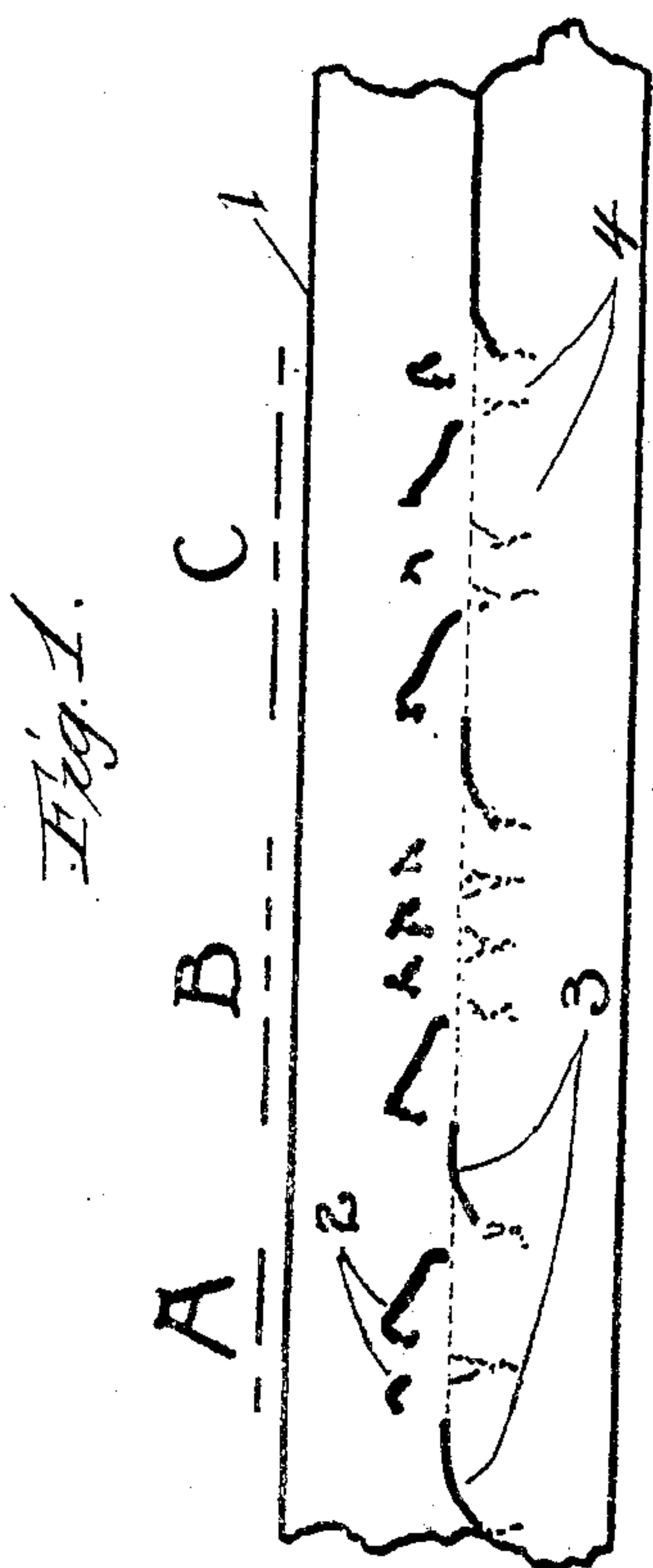


962,709.

I. KITSEE.
TELEGRAPHY.

APPLICATION FILED JULY 9, 1908.

Patented June 28, 1910.



Witnesses

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TELEGRAPHY.

962,709.

Specification of Letters Patent. Patented June 28, 1910.

Application filed July 9, 1906. Serial No. 325,324.

To all whom it may concern:

Be it known that I, ISIDOR KITSEE, citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Telegraphy, of which the following is a specification.

My invention relates to an improvement in telegraphy and has more special reference to telegraphy on lines with great capacity, such for instance as submarine cables. I have in Letters Patent No. 823,176 described the method of receiving readable characters with the aid of true reversals and illustrated the recorded characters.

In practice, I have found that cases may arise where it is advantageous to send for the clearing current an impulse of an electro-motive force less than the electro-motive force which symbolizes the characters or spaces; and cases arise where the time-period between one character and the character following is so short that the recording device is not able to produce a connected line.

In experiments made over a submarine cable, it was found that in cases, as outlined above, the record does not present a continuous line, but the marks representing the characters and spaces are disconnected from each other and the clearing lines are fainter and consist of series of irregular dots. The characters forming the alphabet are above the imaginary zero line, the characters forming the spaces are partially below and partially at the zero line and the characters symbolizing the clearing are all below the imaginary zero line. To make readable and produce a somewhat even record, it is best to have recourse to sources of current oppositely connected in the line, one source of a somewhat higher potential than the other and then to shunt one of said sources. It is also preferred to have between the sources or near the same a static device, such as a condenser, so as to automatically limit the duration of the impulse produced either by a key manually operated or by an automatic transmitting device, but the above preferred arrangement is not necessary for the production of this

alphabet, as the usual arrangement of telegraphing with the double key will also produce the transmitting effect.

In the drawing, I have illustrated in Figure 1, a diagrammatic view of a part of an alphabet in accordance with this my invention, and in Fig. 2 a diagrammatic view of the usual arrangement of transmitting impulses over the cable.

In Fig. 1, 1 is the tape on which the characters are recorded; 2, are the marks symbolizing the characters of the alphabet; 3, are the marks symbolizing the spaces; and 4, are the marks indicating the clearing record. In this figure, I have illustrated the characters as representing the three letters of the alphabet A, B, and C, Continental code, and I have illustrated this code in the usual dots and dashes. It is obvious, that in practical telegraphing, especially if a great speed should be attained, the characters are of smaller dimensions than illustrated.

In Fig. 2, 5 is the cable and 6 is the transmitting device.

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

1. In a telegraphic alphabet three elements, one element symbolizing the character of the message, said element consisting of heavy lines above an imaginary zero line, a second element symbolizing the space consisting of a heavy line partially below and partially at the zero line and a third element comprising unconnected lines below an imaginary zero line.

2. A record for telegraphic messages comprising a short curve for one character of the message, a long diagonal line for the second character of the message, both above an imaginary zero line, comprising also a curve or diagonal line partially below and partially at the zero line symbolizing space and comprising unconnected short lines below the zero line symbolizing the clearing impulse.

In testimony whereof I affix my signature in presence of two witnesses.

ISIDOR KITSEE.

Witnesses:

ALVAH RITTENHOUSE,
MARY C. SMITH.