

J. H. ROGERS & J. W. ROGERS.

Improvement in Embossed Telegraph Messages for Automatic Transmission.

No. 130,662.

Patented Aug 20, 1872.

Fig. 1.

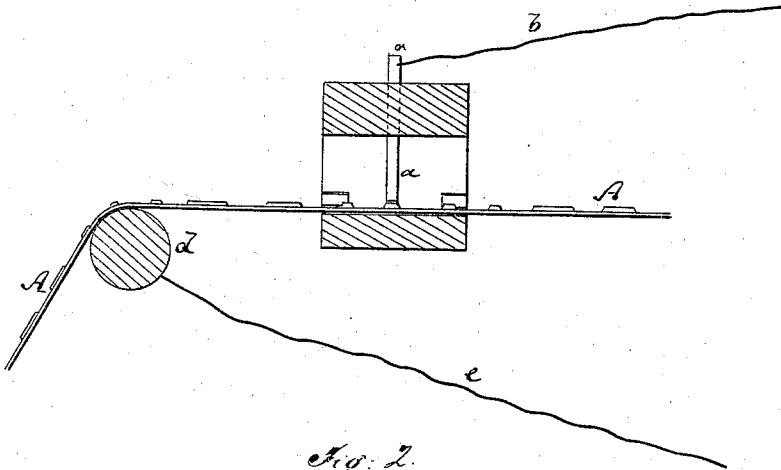


Fig. 2.

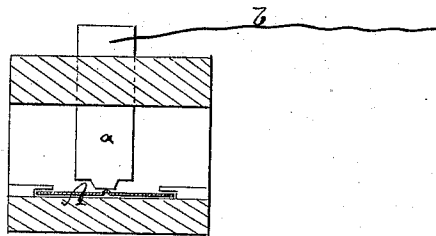
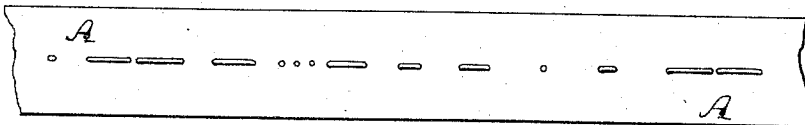


Fig. 3.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JAMES H. ROGERS AND JOHN W. ROGERS, OF PEEKSKILL, NEW YORK.

IMPROVEMENT IN EMBOSSED TELEGRAPH MESSAGES FOR AUTOMATIC TRANSMISSION.

Specification forming part of Letters Patent No. 130,662, dated August 20, 1872.

Specification describing a new and useful Improvement in Printing and Transmitting Telegraph Messages, invented by J. HARRIS ROGERS and J. WHITSON ROGERS, of Peekskill, in the county of Westchester and State of New York.

Figure 1 represents a vertical longitudinal section of our invention. Fig. 2 is a vertical transverse section thereof, and Fig. 3 a face view of the conducting tape.

Similar letters of reference indicate corresponding parts.

This invention has for its object to facilitate the printing of telegraphic messages, and also their subsequent transmission when once printed; and it consists in forming raised letters or characters on a tape made of sheet metal or other material, or fabric made of good conducting material. We use or transmit the letters thus raised by the aid of a transmitter placed stationary over the sliding tape, or made to slide over the stationary tape. In this manner the transmission can be effected with very great rapidity, which is only limited by the inertia of the parts in motion.

A in the drawing represents the strip or tape on which the message is to be printed. This strip or tape is made of soft thin sheet metal or other material which is a good conductor of electricity. The Morse characters are imprinted thereon so as to be raised, and can be read by observing their projection from the plain surface of the strip. A conducting strip or tape, A, thus provided with raised letters, is specially adapted to electric transmission. For when moved close under a transmitting-stem, *a*, which connects with one of the wires *b*, and over a roller, *d*, of conducting material which is connected with the other wire, *e*, the transmission will take place whenever one of the raised letters or characters is in contact with the transmitter *a*, and a circuit established, while, when no raised portion is under the transmitter, no circuit is established. Thus the tape can be rapidly, very rapidly indeed, drawn through the transmitting apparatus, and its message nevertheless exactly conveyed over the wire *b* or *e*. The letters or characters which are raised on the strip or tape A take the place of types thereon, by the means of which, with the aid of the stationary transmitter, the message is conveyed along the wires. It is evidently in the same line of thought instead of moving

the embossed metallic tape under the stationary transmitter, to move the transmitter over them. By the means herein specified the transmission of messages once formed can be much more rapidly effected than heretofore.

The means for forming the raised letters on the conducting tape are or may be substantially the same as those now employed in printing telegraphic messages on the Morse system—that is to say, by the ordinary needle or recording-pin of the register. The forming of the raised letters can consequently be effected at any suitable distance by the ordinary telegraphic appliances, and thus supply the place of repeaters. If, for example, in sending a message to California from New York, the wire beyond Chicago should be engaged, then (assuming the wire to be disengaged from New York to Chicago) the automatic repeater is of no use until the wire beyond Chicago can transmit its message; but our improved tape catches and holds the message at Chicago until the wire beyond may be used, and thus from fresh batteries repeats the messages from New York on to California at least ten times as rapidly as an automatic repeater could, leaving the wire from Chicago back to New York free for other messages to New York, which the ordinary automatic repeater cannot do, acting simultaneously, as it must with the New York manipulations.

Again, to say nothing of the automatic "repeaters," all the messages arriving at a central office—as, for example, the Western Union in New York—may be delivered there on our tape by each distant manipulation of other offices, instantaneously, and all these may be transmitted on to their destinations by turning a wheel; whereas now, an expert must forward each message to which the wires beyond New York were not opened.

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

The sheet-metal tape A, provided with raised letters or characters applied, as and for the purpose described.

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Witnesses:

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