of two electric circuits, two interrupters operated through the movements of said pen in two directions crosswise of each other and producing pulsations in said circuits of successively opposite polarity, a receiving-pen, a power mechanism moving the receiving-pen in two directions crosswise of each other, two escapements governing the power mechanism in the application of its power to the receiving-pen, one for each of the two crosswise directions of motion of the transmitting-pen, and polarized magnets controlling the escapements and operated by said pulsations, substantially as set forth. 30th. The combination, with a transmitting-pen, of an electric circuit, an interrupter operated through said pen, consisting of a series of contacts and a brush having a movement relatively to each other and producing pulsations in said circuit, a receiving pen, a power mechanism moving the receiving-pen, an escapement governing the power mechanism in the application of its power to the receiving-pen, and a magnet controlling the escapement and operated by said pulsations, substantially as set forth. 31st. The combination, with a transmitting-pen, of an electric circuit an interrupter consisting of a series of contacts, and a brush having a movement the one relatively to the other, operated through said pen and producing pulsations of successively opposite polarity in said circuit, a receiving-pen, means for giving movement to the receiving-pen in conformity with the pulsations reaching the receiving-instrument, a part of said means consisting of a step by step mechanism, whereby uniformity of movement between the transmitting-pen and the receiving-pen is secured, and a magnet controlling the step by step mechanism and operated by said pulsations, substantially as set forth. 32nd. The combination, with a transmitting-pen, of an electric circuit, an interrupter operated through said pen and producing electric pulsations, a power mechanism operated from a source of power independent of said pulsations, a receiving-pen moved by said power mechanism, and means whereby the application of the force of the power mechanism to the receiving-pen is controlled by said pulsations, substantially as set forth. 33rd. The combination, with a transmitting-pen, of an electric circuit, an interrupter operated through said pen, a receiving-pen, a power mechanism from which the receiving-pen is driven, the application of the power of the power mechanism to the receiving-pen being controlled by the said pulsations, and a unison device for bringing the position of the receiving-pen into correspondence with the position of the transmitting-pen, substantially as set forth. 34th. The combination, with a transmitting-pen, of two electric circuits, two interrupters operated, respectively, through the movement of said pen in two directions crosswise of each other and producing two series of electric pulsations in said circuits, power mechanism operated from a source of power independent of said pulsations, and a receiving-pen driven by said power mechanism, the application of the power of the power mechanism to the receiving-pen being in two directions crosswise of each other and controlled by the said pulsations, substantially as set forth. 35th. The combination, with a transmitting-pen, of an electric circuit, an interrupter operated through said pen and producing pulsations in said circuit, a receiving-pen, mechanism operated from a source of power independent of said pulsations for driving the same, mechanism for controlling the connection of the driving mechanism with the receiving-pen, said controlling mechanism being operated by said pulsations, and means controlled from the transmitting-station for suspending the operation of the controlling mechanism in order that the pen-driving mechanism at the receiving-station may run to unison with the transmitting mechanism, substantially as set forth. 36th. The combination, in telautographic system, of a transmitting-pen, a receiving-pen, mechanism for moving the receiving-pen caused to operate thereon through the movements of the movements of the transmitting-pen, a unison device for bringing the receiving-pen into unison with the transmitting-pen, a paper-shifting mechanism at the receiving station, means for operating the same from the transmitting-station, and a circuit-controller and electric connections whereby the unison device is brought into operation upon each shifting of the paper at the receiving station, substantially as described. 37th. The combination, in a telautographic system, of a paper-shifting mechanism forming part of the receiving-instrument, a receiving-pen and a unison device for bringing the receiving-pen into unison with the transmitting pen, the unison device being connected to the paper-shifting mechanism, so as to be brought into operation at each shifting of the paper, whereby the unison of the machine is effected at the commencement of each line of writing, substantially as described. 38th. The combination, with a transmitting pen, of an electric circuit, an interrupter operated through said pen and producing pulsations in said circuit, a receiving-pen, means for placing the receiving-pen under tension, means for reversing the direction of said tension to correspond with reversals in direction of motion of the transmitting-pen, and a reversible escapement holding said receiving pen in restraint as against said tension and operated through said pulsations to permit the receiving-pen to move in either direction step by step, substantially as set forth. 39th. The combination of an escapement in which the engaging teeth have their opposite faces of substantially the same shape, so that it will operate with equal facility in either direction if the strain which controls it be reversed, a power mechanism held in restraint by said escapement, means for reversing the direction of the strain of the power mechanism upon the escapement, and a magnet for controlling the escapement, substantially as set forth. 40th. The combination, with a transmitting-pen, of an electric circuit, an interrupter operated through said pen and producing pulsations successively of opposite polarity upon line, a receiving-pen, a motor for driving the same, an escapement-magnet in the circuit for governing the application of the power of the motor to the receiving pen in accordance with the pulsations, and means controlled from the transmitting-station for causing the escapement to become inoperative for the purpose of permitting the pen-driving mechanism at the receiving station to run to unison with the transmitting mechanism, substantially as set forth. 41st. The combination, with a transmitting-pen, of an electric circuit, an interrupter operated through the transmitting pen for producing pulsations in the circuit, a receiving-pen, and mechanism operated through said pulsations for giving motion to the receiving-pen, the interrupter having a lost motion with respect to the transmitting-pen upon reversal in the direction of movement of the transmitting-pen, whereby the transmissions of pulsations is suspended at the moment of reversal in direction of movement of the transmitting-pen, substantially as set forth. 42nd. The combination with the transmitting and receiving pens, of a pen-rest for raising the pen from the paper, two electro-magnets, one for elevating and the other for depressing the pen-rest, electrical connections having a circuit-controller at the transmitter for energizing one or the other of said magnets to elevate or depress the pen-rest, and a movable table beneath the transmitting-pen for operating said circuit-controller, substantially as set forth. 43rd. The combination with the receiving-pen and the circuit through which it is operated, of a pen-rest, two magnets for controlling the position of the pen-rest, one for elevating and one for depressing the same, electrical connections for each magnet, and relays in said circuit, the armatures of which control the circuits of the pen-rest magnets, substantially as set forth. 44th. The combination with the receiving-pen and the line-circuits through which it is operated, of a recording-surface over which the pen moves to reproduce the message, a feeding mechanism for shifting the recording-surface at times when the writing is suspended, a consequent-pole electro-magnet for controlling said feeding mechanism, said magnet having two sets of oppositely wound coils, two local circuits for the coils of said electro-magnet, relays in said line circuits, and electrical connections for simultaneously making or breaking the two circuits of the consequent-pole electro-magnet, whereby the operator at the transmitting-station can control the shifting of the paper at the receiving-station, substantially as set forth. 45th. The combination with the receiving-pen, of a recording-surface over which the pen moves to reproduce the message, a feeding mechanism for shifting the recording-surface, a consequent-pole electro-magnet for controlling said feeding mechanism, said magnet being provided with sets of oppositely-wound coils, a pen-rest and two magnets, one for elevating and one for depressing the the same, the two pen-rest magnets being respectively in circuit with the two sets of coils of the paper-shifting magnet, and electrical connections having circuit makers and breakers at the transmitting-station, whereby the transmitting-operator can operate either the pen-raising magnet or the pen-depressing magnet or can operate simultaneously both of the circuits of these magnets, thereby operating the paper-shifting magnet, substantially as set forth. 46th. As a means for performing three operations at the receiving-station over two line-wires, the combination of two magnets acting oppositely upon an armature, two local circuits, one for each magnet, a magnet having separate coils in circuit, respectively, with the two first-named magnets, said coils being so arranged with reference to the magnet that the latter is affected to attract its armature only when both of its circuits are closed, and electrical connections controlled from the transmitting station, whereby the transmitting operator can make or break at will either of the local circuits at the receiving-station separately or both of the same simultaneously, substantially as set forth. 47th. In a telautograph system, the combination, with a receiving-pen, of a recording surface, a feeding mechanism for shifting the recording surface, an electro-magnet controlling said feeding mechanism, a power mechanism for giving motion to the receiving-pen, and a unison-circuit, and mechanism for bringing the transmitting and receiving-pens into unison with each other, said unison-circuit being controlled by the armature of the magnet for shifting the recording-surface, whereby the shifting of the paper and the bringing of the receiver into unison with the transmitter is simultaneously effected, substantially as set forth. 48th. In a telautograph system, the combination of a transmitting-pen, two electric circuits, two interrupters operated, respectively, through the movement of said pen in two directions crosswise of each other and producing two series of electric pulsations in said circuits, and means whereby the said pulsations are caused to control the movements of the receiving-pen, the transmitting-pen and the two interrupters being so placed with reference to the line of writing traversed by the transmitting-pen that the said two directions of movement shall be oblique to the said line of writing, whereby the pulsations caused by the perpendicular and those caused by the horizontal movements of the pen are divided between the two circuits, substantially as set forth. 49th. In a telautograph system, the combination of a transmitting and receiving instrument, each provided with a telautographic pen, located at the same station, the writing fields of the pens overlapping or a single writing-field serving for both pens, a recording-surface passing under the pens of both instruments, and electrical connections and circuit makers and breakers at the said station and also at the distant station, whereby the paper may at either station