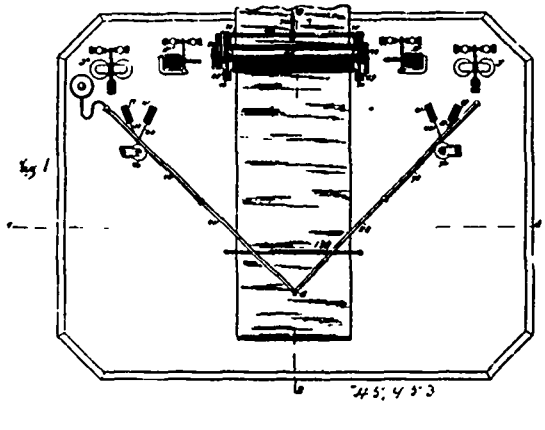
with the shoulders h, h, supporting the stub springs h^1, h^1, to which are secured the L-shaped levers i, i, working at their lower ends against the set screws H, H, the diaphragm springs K, K, provided with the carbon electrodes k, k, securing the free end of the tension springs D^1, D^1, and working upon the electrodes D, D, and the auxiliary induction coil F^1, F^1, each set of electrodes being within a separate electric circuit, to transmit and repeat the electric undulations, substantially as and for the purpose set forth.

No. 45,453. Telautograph. (*Télautographe.*)



Elisha Gray, Highland Park, Illinois, U.S.A. 3rd March, 1894; 6 years.

Claim.—1st. The combination of a motor, a telautographic receiving-pen driven thereby, and a magnetic-clutch through which the power of the motor is transmitted to the driven mechanism, said clutch consisting of two members each of magnetizable material, one having a rotatory and the other a rectilinear motion, substantially as set forth. 2nd. The combination of telautographic receiving-pen, a motor or other power mechanism for driving the receiving-pen, and a magnetic-clutch for transmitting power from the motor to the pen, said clutch consisting of two members, each of magnetizable material, one caused to rotate by the power mechanism and the other receiving a rectilinear movement therefrom, substantially as described. 3rd. As a means for controlling the application of power, a disc or discs of magnetizable material mounted upon the power shaft, a plate or bar of like material located in proximity thereto, and having a sliding motion on guides and means for magnetically exciting the disc and plate when it is desired to transmit power, substantially as described. 4th. As a means for controlling the application of power, a disc or discs of magnetizable material mounted upon the power shaft, a plate or bar of like material located in proximity and tangentially to the disc and receiving motion therefrom, and means for magnetically exciting the disc and plate when it is desired to transmit power, substantially as described 5th. As a means for transmitting power, a rotating disc or discs of magnetizable material and a plate or bar of like material having a sliding motion on guides, and a reciprocating plate or bar of like material, in such magnetic condition that they are attracted to each other and the one caused to move by movement of the other, substantially as described. 6th. The combination of a telautographic transmitting-pen, a receiving-pen, a motor or other power mechanism for driving the receiving-pen, power transmitting mechanism for conveying power to the receiving-pen, consisting in part of a magnetic-clutch, one member of which is a disc of magnetizable material rotated by the power mechanism, and the other member is a plate or bar of like material located in proximity of the exterior of the disc and connected with the receiving-pen, and means operated through the movement of the transmitting-pen for magnetically exciting said disc and plate to cause movement of the receiving-pen, substantially as described. 7th. As a means for transmitting power to drive the drum of a receiving-pen alternately in opposite directions two pairs of rotating discs of magnetizable material, two reciprocating plates or bars of like material, one placed in proximity to each pairs of discs, connections between the plates and drum whereby the plates may be caused to drive the drum respectively in opposite directions, and means for alternately exciting each pair of discs to cause the power to be transmitted through the corresponding plate, substantially as described. 8th. The combination of a telautographic transmitting pen, a receiving pen, a motor or other power mechanism for driving the receiving pen, power transmitting mechanism for conveying power to the receiving pen consisting in part of two magnetic clutches, one member of each of which is a pair of magnetizable discs rotated from the source of power, and the other mem- a magnetizable reciprocating plate or bar located in proximity to the pair of discs and connected to the receiving pen, and means operated through the movement of the transmitting pen, for alternately) agnetically exciting each pair of discs and its plate for causing the direction of the movement of the receiving pen to be reversed in accordance with reversal in direction of movement of the transmitting pen, substantially as described. 9th. The combination of a telautographic transmitting pen at a transmitting station, a receiving pen at a receiving station, electrical connections between the two stations, mechanism for driving the receiving pen, a part of said mechanism consisting of a magnetic clutch provided with a rotating disc or discs and a reciprocating plate or bar both of magnetizable material, a magnet for controlling the magnetic condition of said clutch, and means whereby the electrical condition of said magnet is controlled from the transmitting station and the movements of the receiving pen thereby effected, substantially as described. 10th. The combination of a motor or other power mechanism, a telautographic receiving pen or other mechanism driven thereby, and a magnetic clutch through which the power of the motor is transmitted to the driven mechanism said clutch consisting of two members, each of magnetizable material, one having a rotary motion and the other reciprocating in the plane of rotatory motion and in a direction perpendicular to a radius of the rotary member, substantially as described. 11. The combination of a telautographic receiving pen, a motor or other power mechanism for driving the receiving pen a reversing mechanism consisting of two magnetically controlled clutches one or the other of which is put into operation according to the direction of motion desired for the receiving pen and an additional mechanism for regulating and limiting the amount of power transmitted to the receiving pen, substantially as described. 12th. The combination of a telautographic receiving pen, a motor or other source of power for driving the receiving pen, a reversing mechanism for reversing the direction of movement imparted to the receiving pen to follow similar changes in the movement of the transmitting pen, and additional mechanism for regulating and limiting the amount of power transmitted to the receiving pen, substantially as described. 13th. The combination of a telautographic receiving pen, a motor or other power mechanism for driving it, and a frictional power regulator between the power mechanism and the receiving pen, substantially as set forth. 14th. The combination of a telautographic receiving pen, a motor or other source of power for putting the same under tension to move in a given direction, an escapement for holding the receiving pen in restraint as against said tension, and a mechanically acting friction clutch for limiting the amount of power applied to the receiving pen, substantially as described. 15th. The combination of a telautographic receiving pen, a motor or other source of power for putting the same under tension to move in a given direction, an escapement for holding the receiving pen in restraint as against said tension, and a frictional power regulator for regulating the amount of power applied to the receiving pen, substantially as described. 16th. The combination of a telautographic receiving pen, a motor or other power mechanism for driving the same, and a regulator for regulating the amount of power applied to the receiving pen consisting of two surfaces in frictional contact, by means of the friction between which the power is transmitted, substantially as described. 17th. In combination with a receiving pen and a motor or other power mechanism for driving the same, a power regulator, the members of which are a plate and cushion in frictional contact, one of said members being driven from the power mechanism and the other connected to the receiving pen to drive the same, and means for holding the plate and cushion one against the other, so that the power is transmitted to the receiving pen by reason of said friction, substantially as described. 18th. The combination of a telautographic transmitting pen at a transmitting station, a receiving pen at a receiving station, electrical connections between the two stations, a motor for driving the receiving pen, means operated through the transmitting pen for sending electrical impulses in line to control the movement of the receiving pen, and two frictional power regulators one for each of two crosswise directions of movement of the receiving pen, whereby a uniform and precisely adjusted application of the power to the receiving-pen is secured, substantially as described. 19th. In a telautograph, the combination of a motor or other source of power, a paper feeding mechanism driven thereby, a magnetic-clutch for transmitting the power of the motor to the feed mechanism, said clutch consisting of two pieces of magnetizable material receiving motion one from the other when magnetically excited, and means for controlling the magnetic condition of the clutch, and thereby the feed of the paper, substantially as described. 20th. The combination of a telautographic receiving-pen, a motor or other power mechanism for driving the same, a paper feeding mechanism, and a magnetically controlled clutch through which the power of the mechanism is transmitted to the paper feeding mechanism, said clutch having two members each of magnetizable material, one member receiving motion from the other by reason of their mutual magnetic attraction, substantially as described. 21st. The combination of a telautographic receiving-pen, a motor or other power mechanism for driving the same, a magnetic-clutch for transmitting power from the power mechanism to the paper feeding mechanism, said clutch consisting of two members each of magnetizable material one being rotated by the power mechanism and the other receiving motion therefrom, and means for controlling the magnetic condition of the clutch from the distant station, and thereby the feed of the papers, substantially as described. 22nd. The combination in a telautograph of a paper shifting mechanism, an electric magnet for controlling the operation thereof, and a circuit breaker for breaking the magnet circuit when