

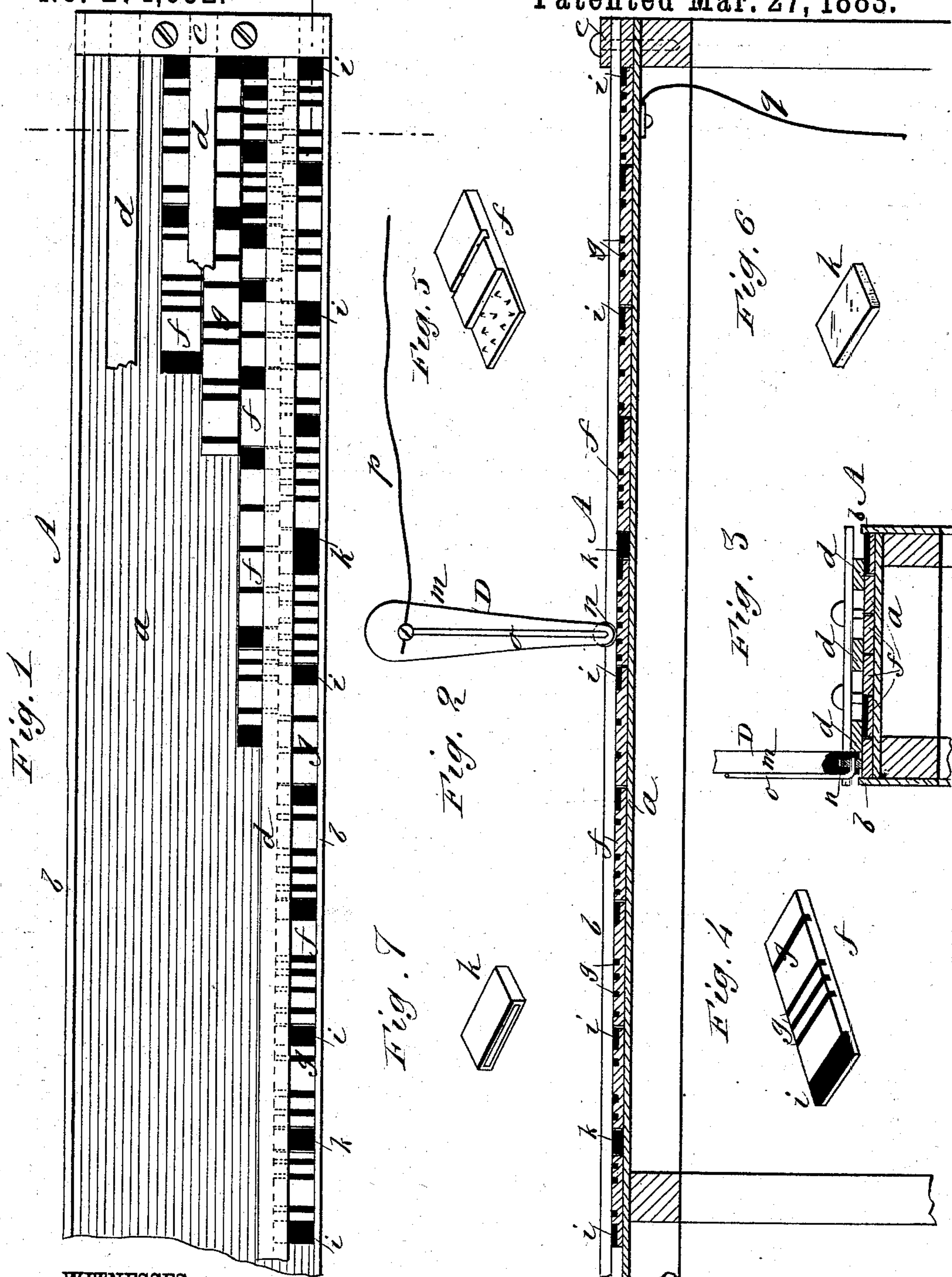
(No Model.)

P. E. PEREZ.

APPARATUS FOR ELECTRIC TELEGRAPHY.

No. 274,652.

Patented Mar. 27, 1883.



WITNESSES :

C. Neveu
C. Sedgwick

INVENTOR:

BY *P. E. Perez*
Munroe & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

PEDRO ENRIQUE PEREZ, OF NEW YORK, N. Y.

APPARATUS FOR ELECTRIC TELEGRAPHY.

SPECIFICATION forming part of Letters Patent No. 274,652, dated March 27, 1883.

Application filed September 15, 1882. (No model.)

To all whom it may concern :

Be it known that I, PEDRO E. PEREZ, of the city, county, and State of New York, have invented a new and Improved Method of and Apparatus for Electric Telegraphing, of which the following is a full, clear, and exact description.

The object of my invention is to provide means for the correct transmission of telegraph-messages by persons unskilled in the use of ordinary transmitters, and also to provide for the transmission of messages more rapidly than can be done with the instruments now in use.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the transmitting-table with plates shown as arranged for transmission of a message. Fig. 2 is a longitudinal section of the same. Fig. 3 is a cross-section of the table. Figs. 4 and 5 represent the movable signaling-plates. Figs. 6 and 7 represent insulating-plates used for the forming of spaces between the words or sentences.

The table A is to be of any suitable length and width. Its top portion is formed by a metal plate, *a*, which is to be supported upon suitable legs or otherwise. On the sides of the plate are raised rims *b b*, and at the ends are cross-plates *c*, attached by screws.

d d are strips of metal, or other suitable material, which are used for holding the signaling-plates down upon the table, these strips *d* passing beneath the end plates, *c*, for that purpose.

f f are the movable signaling-plates, consisting of small metal plates or blocks, provided with transverse grooves that are filled with non-conducting material, as shown at *g*, so that the surface of each plate consists of alternate strips of metal and insulating material, those on each plate being arranged to correspond with a letter of the Morse alphabet. At the end of each plate is a recess, *i*, fitted with non-conducting material to form the proper space between the letters. These spaces *i* correspond in width in all the plates.

For forming spaces between words or sentences I provide smaller plates *k*, which may be of glass or rubber, as shown in Fig. 6, or

of metal covered with non-conducting material, as shown in Fig. 7.

The stylus or transmitter (shown at D) may be of any suitable character, and, as shown, consists of a handle portion, *m*, of non-conducting material, fitted at one end with a metal roller, *n*, to which is connected a spring, *o*, that receives the wire from end pole of the electric-telegraph circuit. (Shown at *p*) The other end of the line-wire or telegraph-circuit is connected to the metal top of the table, as shown at *q*, Fig. 2.

The apparatus is to be used as follows: The signaling-plates *f* will be contained in a suitable receptacle, each letter by itself in the same manner as a printer's case. The strips *d* being removed, the operator, standing before the table, takes the plates one by one and places them in the proper order upon the table, commencing at one end and working toward the other end, and thus forming two or more rows of the plates, as may be required for the message. The strips *d* are then put in place with their ends beneath the cross-plates *c*, each plate *d* resting upon the adjacent edges of the two rows of the plates, and the plates *c* then being screwed down the plates *f* will be held securely. To transmit the message, the operator takes the stylus D in his hand, and, placing its lower end upon a plate at the end of the first row, draws the stylus over the whole row. In this operation the circuit is alternately opened and closed by the alternate conducting and non-conducting surfaces of the plates *f*, and the signals are thus properly transmitted to form the message, as set up. The edges of the plates *d* serve as guides, against which the stylus may be moved. It will be seen that this operation of transmitting by use of the stylus passing over the plates can be done very rapidly, and for receiving the message at the other end of the line an ordinary Morse register can be used, the mechanism being speeded up in order to give the required rapidity of movement to the paper; or, if desired, the message may be received upon chemically-prepared paper, as in the automatic system of telegraphy. It is to be observed that the time during which the line is occupied for transmission of the message is comparatively little, so that a number of mes-

sages can be first set up or prepared for transmission, and then all run off at once in a short space of time; or a number of persons can be employed in the work of setting up messages while only one will be required for their transmission. The work of setting up or composing the messages can readily be performed by persons unskilled in the use of ordinary telegraphic instruments, as it requires but a small amount of practice to become proficient in the selection and placing of the plates. Neither is a skilled operator required for the transmission of the messages. By these means the work of transmitting messages by the electric telegraph can be done more cheaply than heretofore.

I do not limit myself to any special construction of the transmitting-table, nor to any special form of movable plates. It is evident that in place of filling the grooves of the plates with non-conducting material the grooves may be of sufficient depth and width to serve the same purpose of breaking the circuit.

I am aware that movable type have been used for mechanically moving a circuit-closer to transmit electric signals, the type not forming part of the electric circuit; also, that a stylus has been used with fixed alphabet-plates and the message spelled out by passing the stylus over the required letters. I am also aware that in chemical telegraphs it has been proposed to use the type with a brush-stylus for producing a fac-simile of the type upon chemically-prepared paper. All of these devices I disclaim.

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

1. The combination, in an electric telegraphing apparatus, of the metallic plate connected with one pole of a line-wire or electric-telegraph circuit, a stylus connected with the other pole of said electric-telegraph circuit, and signaling-blocks having their faces divided into alternate conducting and non-conducting strips of surface, whereby the sweeping of the stylus across said blocks will open and close the circuit, as described.

2. A telegraphing stylus, *D*, having the non-conducting handle *m*, the metallic end roll, *n*, and a spring, *o*, adapted to be connected with a line-wire, whereby it may be conveniently used with the hand to open and close a circuit, as described.

3. In a telegraphic apparatus, the combination of the removable cross-plates *c* and strips *d* with the metal signaling-blocks and flat table, said strips resting on adjacent edges of the blocks, as shown and described, and for the purpose specified.

4. The combination, with the table *a* and the metal signaling-blocks *f*, of the strips *d*, arranged crosswise of the latter, as shown and described, whereby said blocks will be held in place and the stylus will be guided when drawn across the faces of the blocks, as specified.

PEDRO ENRIQUE PEREZ.

Witnesses:

EDWD. M. CLARK,
DAVID M. HOLDREDGE.