

(No Model.)

2 Sheets—Sheet 1.

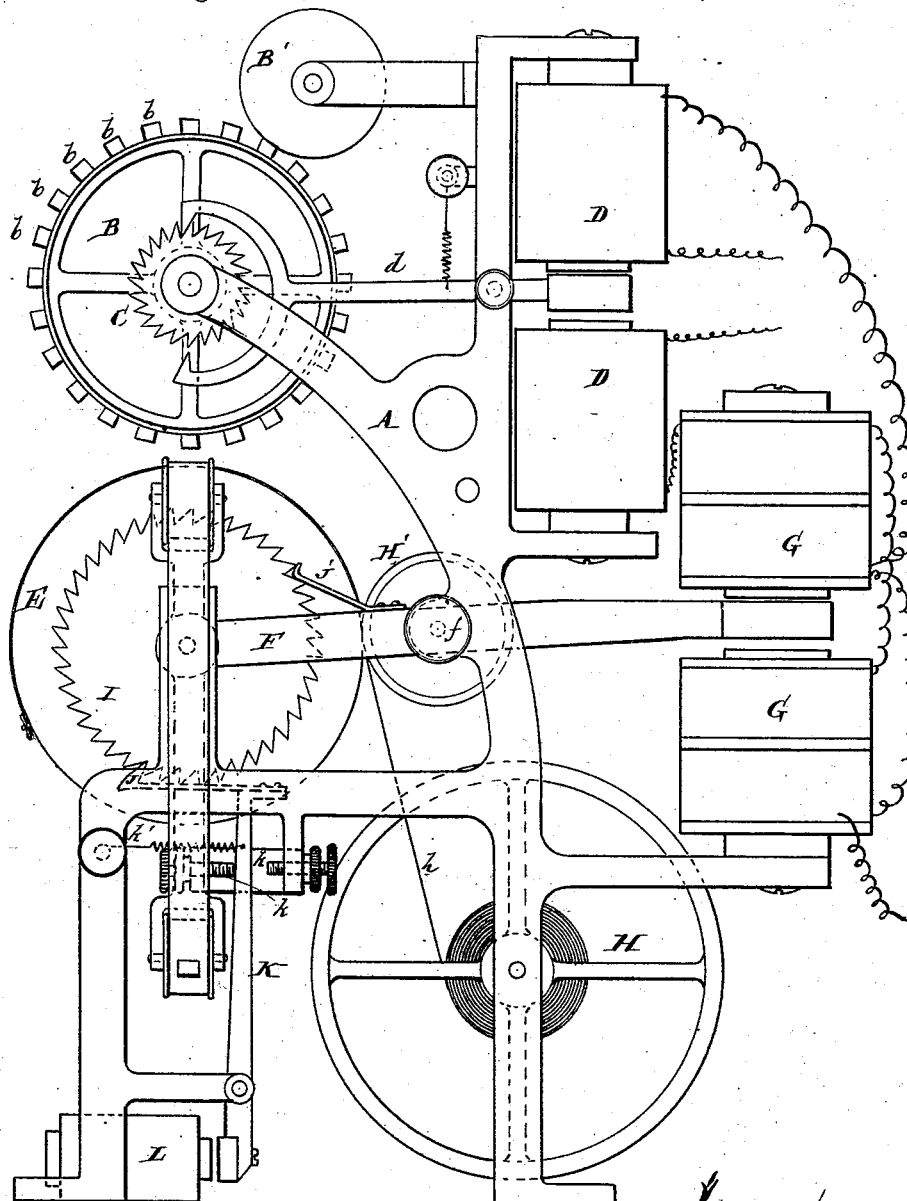
E. A. SCHOETTEL.

PRINTING TELEGRAPH.

No. 261,567.

Patented July 25, 1882.

Fig. 1



Attest
J. M. Mator
W. A. Mator

Inventor
Edward A. Schoettel
By his atty.
W. A. Mator

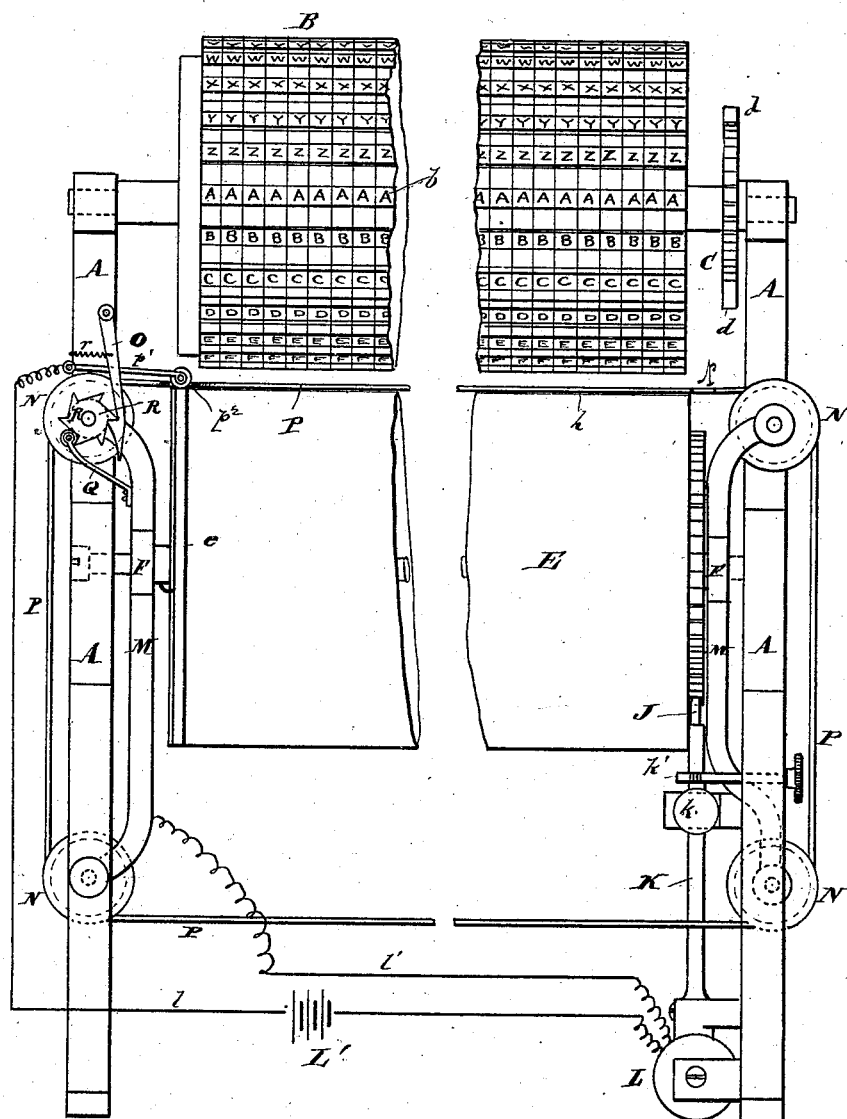
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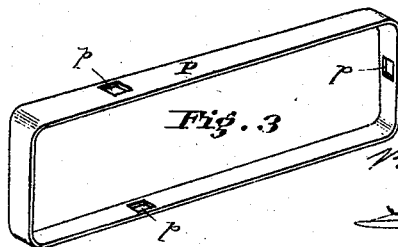
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Fig. 2



Attests
J. J. L. L.
Barrie



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UNITED STATES PATENT OFFICE.

EDWARD A. SCHOETTEL, OF BROOKLYN, NEW YORK.

PRINTING-TELEGRAPH.

SPECIFICATION forming part of Letters Patent No. 261,567, dated July 25, 1882.

Application filed March 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWARD A. SCHOETTEL, of the city of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Printing-Telegraphs, of which the following is a specification.

My invention has reference to printing-telegraphs; and it consists in mechanism by which telegraphic communications may be printed at the receiving-station upon a sheet of paper, one line above another, as in the case of the type-writer, which mechanism is more fully set forth in the following specification and shown in the accompanying drawings, which form part thereof.

The object of my invention is to construct a printing-telegraph which is adapted to print a communication or message upon a large sheet of paper, line above line, as in writing a letter or as printed on the mechanical type-writer.

In the drawings, Figure 1 is a side elevation of my improved type-printing telegraph. Fig. 2 is a front elevation of same with the middle broken away to indicate that it may be of any desired width; and Fig. 3 is a perspective view of the endless band which governs printing, as set forth hereinafter.

A is the frame of the machine.

B is the type-cylinder, which is provided with a series of rows of type, *b*, each row being of one letter or number, as shown; or, in other words, the cylinder is provided with a series of rings of type, each ring being similar to the type-wheels of the type printing telegraphs now in common use, but so arranged that the like letters are all in line. Each row of type *b* is as long as the paper to be printed is wide.

C is a ratchet-wheel secured to the shaft or axle of cylinder B, and when combined with the vibrating lever *d* constitutes the escapement, which may be of any of the well-known constructions.

B' is the inking-roller.

The printing-cylinder E is supported in the arms or levers F, pivoted at *f* to the frame A, and to one end of the cylinder E or its shaft is secured a ratchet-wheel, I, by which the said cylinder is intermittently rotated. This printing-cylinder E is vibrated vertically, so as to press the paper *h* against the type-cylinder B.

A spring-pawl, J', presses into the teeth of

the ratchet-wheel I and prevents it from moving at the wrong time.

A spring pawl or catch, J, secured to the end of a lever, K, is operated by the magnet L, and its movement is limited by screws *k*, and a spring, *k'*, holds it back ready for action. Secured to or forming part of arms F are arms M, which carry upon their ends band-pulleys N, over which a band, P, travels. This band is provided with apertures *p*, arranged therein at distances apart equal to the width of the paper to be printed. Therefore the total length of the band should be a multiple of the width of the printed part of the paper.

One of the pulleys N is provided with a ratchet, R, which is held from rotating, except at the proper time, by spring-arm Q, but is rotated when the cylinder E is moving down by the pawl or catch O, held against it by spring *r*.

On one end of the cylinder E is a metallic band, *e*, which is electrically connected with one end of the coil of the electro-magnet L by wire *l'*, the other end of said coil being connected to the end of lever *p'*, carrying on its end a roller, *p*², which lies over the band *e* on cylinder E, but is kept from becoming electrically connected with it, except at intervals, by the band P, which travels between them.

The wire *l*, which connects the electro-magnet L with the lever *p'*, is provided with a local battery.

The paper *h* is wound upon a reel or wheel, H, supported in frame A, and passes up between roller H' and cylinder E, and then under the band P.

The escapement to the printing type cylinder may be operated by any of the well-known devices, as may also the printing levers or arms F. In the drawings I have shown magnets D D and G G as performing these functions, the said magnets being similar to those used on the Phelps printing-telegraphs. Therefore I do not claim these specifically.

The operation is as follows: The sheet of paper being in position and one of the holes *p* in the band P being just past roller *p*², the escapement to the printing type wheel B is rotated until the proper letter comes into position. Then the printing-cylinder E is raised and the paper *h* is printed with the required letter through the hole *p* in the band P. Now, as the

cylinder E, rollers N, and band P move down the pawl O catches the ratchet-wheel R and rotates it slightly, bringing the hole *p* in band P directly under the next ring of type. The escapement is again operated, and when the desired letter is in position the paper is printed as before. This operation goes on until the sheet is printed all the way across, and then the next hole *p* passes under the roller *p*², which roller then rests upon the band *c*, completing an electrical circuit through the electro-magnet L. This draws up the armature of the lever K and rotates the cylinder the width of a line by the pawl J and ratchet-wheel I, and the same operation takes place again. The band P prevents all of the type from printing except the desired one, which prints through the holes *p*.

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

1. In a printing-telegraph, a type-cylinder having its surface covered with type arranged in longitudinal rows, each row of said type being adapted to print only one letter or symbol, in combination with an escapement to rotate and control said type-cylinder, and mechanism to press the paper toward the type-cylinder and against a traveling band provided with one or more apertures to prevent printing of the paper at more than one place at one time.

2. In a printing-telegraph, a type-cylinder having its surface provided with type arranged in longitudinal rows, each row of said type being adapted to print only one kind of letter or symbol, in combination with means to intermittently rotate said type-cylinder, a printing-cylinder of uniform diameter, means to press the said type and printing cylinders together, and means to prevent said type printing in more than one place at one time.

3. In a printing-telegraph, a type-cylinder

having its surface provided with type arranged in longitudinal rows, each row of said type being adapted to print only one kind of letter or symbol, in combination with means to rotate said cylinder, a printing-cylinder adapted to be moved to or from said type-cylinder, means to move it, and a band located between said type and printing cylinders, said band being provided with one or more apertures through which only one type may print at a time.

4. In a printing-telegraph, a series of rows of type, each row being of one kind, in combination with an escapement to bring any desired row into printing position, and means to press the paper sheet toward said type-wheel along its entire length, and against a traveling band provided with an aperture to prevent the said type from printing at more than one place at a time.

5. In a printing-telegraph, a type-cylinder having its surface provided with type arranged in longitudinal rows, each row of said type being adapted to print only one kind of letter or symbol, in combination with means to rotate said type-cylinder, a printing or press cylinder adapted to rotate and move to or from said type-cylinder, means to move said press-cylinder toward the type-cylinder, means to cause the type to print in lines across the paper, but at a place corresponding to one letter at a time, and means to rotate said press-cylinder upon the completion of each printed line to bring a fresh part of the paper into position to be printed to form another printed line immediately below.

In testimony of which invention I hereunto set my hand.

EDWARD A. SCHOETTEL.

Witnesses:

J. MILTON STEARNS, Jr.,
GEO. R. ALEXANDER.