

(No Model.)

G. B. SCOTT.

ELECTRO MAGNETIC ESCAPEMENT APPARATUS FOR PRINTING TELEGRAPHS.

No. 320,975.

Patented June 30, 1885.

Fig. 2,

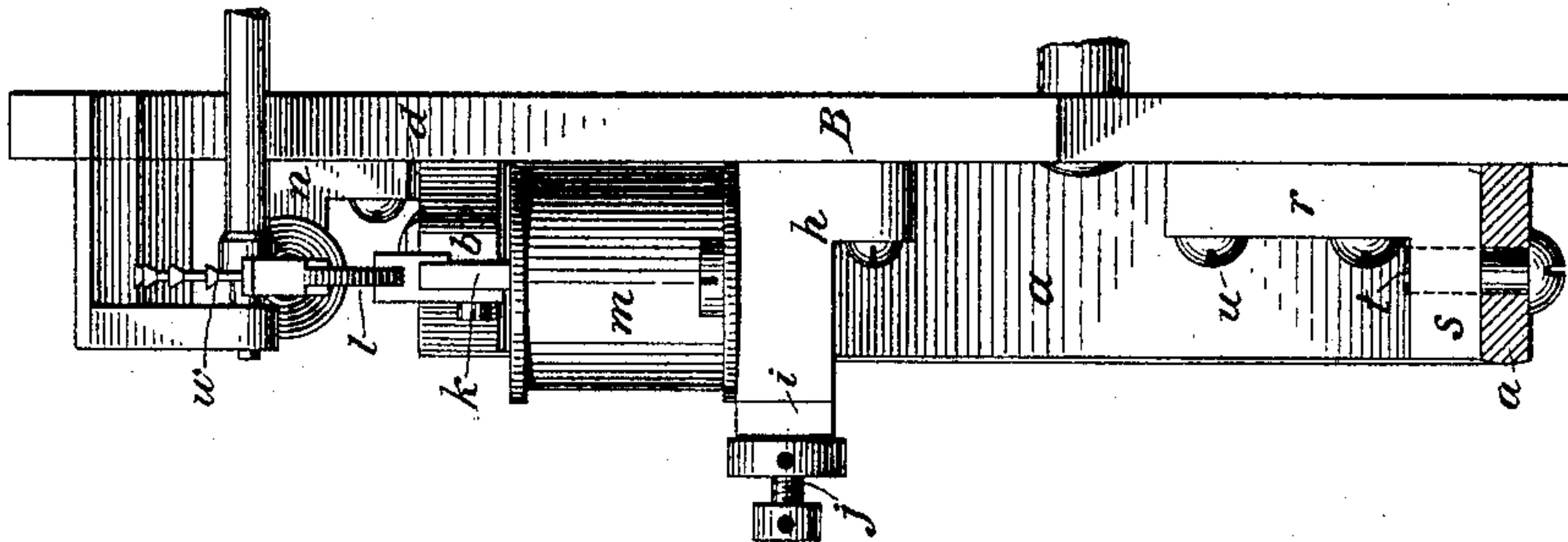
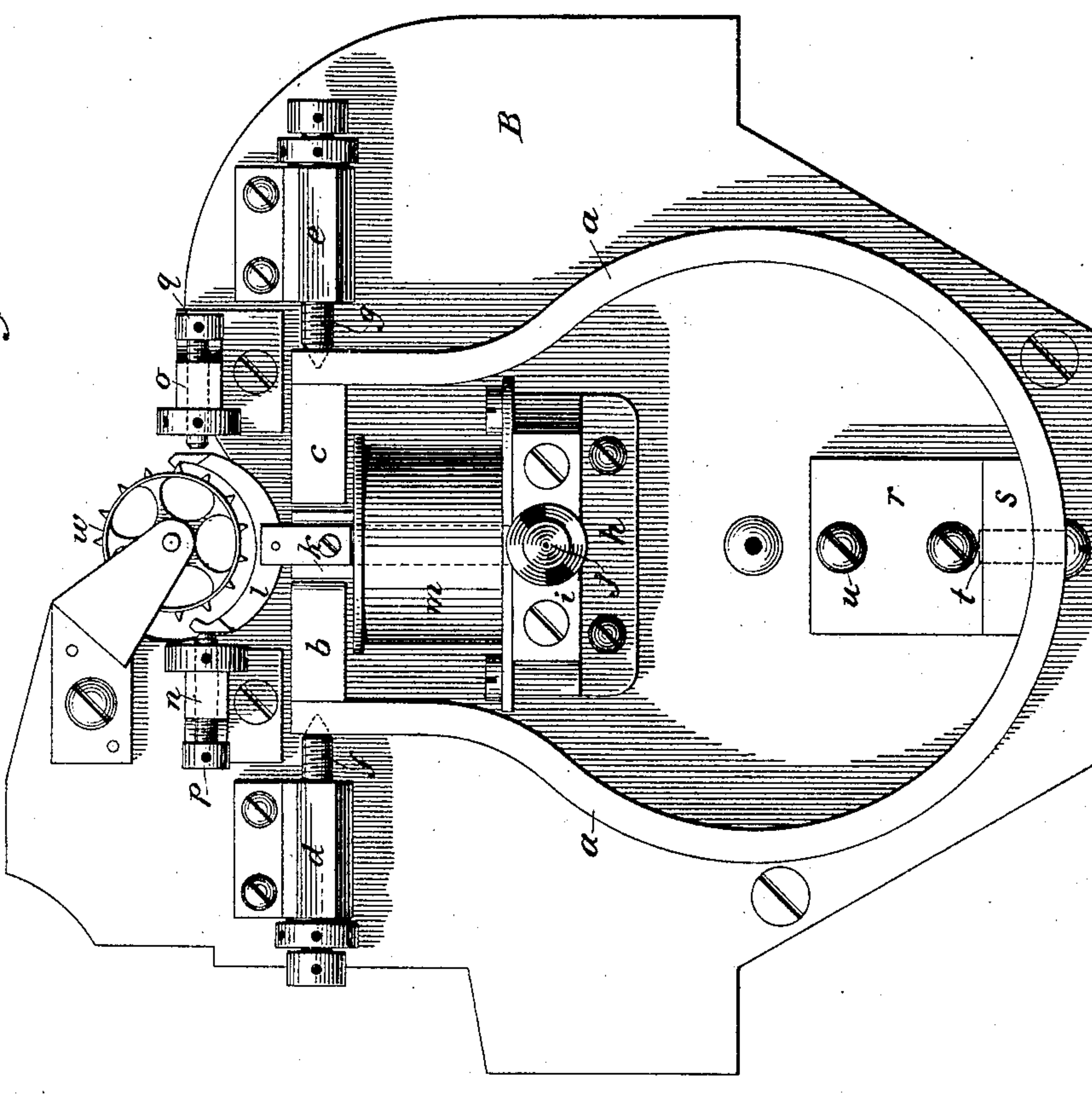


Fig. 1,



Witnesses

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ELECTRO-MAGNETIC ESCAPEMENT APPARATUS FOR PRINTING-TELEGRAPHS.

SPECIFICATION forming part of Letters Patent No. 320,975, dated June 30, 1885.

Application filed January 2, 1885. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. SCOTT, of the city of Brooklyn, county of Kings, State of New York, a citizen of the United States of America, have made a new and useful Improvement in Escapement Apparatus for Controlling the Rotation of Type-Wheels in Printing-Telegraphs, of which the following is a specification.

10 My invention relates to that class of printing-telegraphs in which the type-wheel is rotated step by step through the combined agency of a motor and an escapement device whose to-and-fro movement permits an intermittent
15 step-by-step movement.

In the accompanying drawings, Figure 1 is a front view of an escapement apparatus. Fig. 2 is a side view of portions of said escapement apparatus.

20 B is one of the brass side plates forming a part of the frame of a printing-telegraph instrument.

r is a bracket-plate having a right-angular extension, s, fastened to the base-plate B by means of screws u, and to the lower side of extension s is rigidly fastened a permanent electric horseshoe-magnet, a, by a rivet or screw, t. The permanent magnet rests with its inner face next to the base-plate B, but is
30 rigidly connected therewith only by rivet t. The upper and free ends of the limbs of the horseshoe-magnet a are respectively provided with pole-pieces b c. The arms of the permanent magnet are flexible and elastic, and
35 their pole-pieces are respectively adjusted by set-screws f g, by means of which varying pressure may be applied and the arms of the permanent magnet bent to a greater or less degree, as may be required. The adjusting
40 set-screws f g are respectively mounted in screw-brackets d e, which are also fastened by screws to the base-plate B.

m is an electro-magnet having an axial opening, mounted upon a shelf, h. Shelf h is provided with two arms extending backward therefrom, over the ends of which and parallel with plate B is secured a plate, i. Plate i and plate h form bearings for the journal j, which supports armature k, pivoted thereon.
50 To the upper end of armature k are attached escapement-pallets l, the amplitude of whose movement is limited by adjustable set-screws p q, respectively mounted in brackets n o, which are also secured to the base-plate B.

55 w is the escapement-wheel mounted upon

the type-wheel shaft, and the end of said shaft near the escapement-wheel is mounted in a bracket, which is also secured to the base-plate B.

I do not desire to herein broadly claim the combination of a coil, a permanent magnet embracing the core, and a core movable therein and pivoted at or near the neutral point of the permanent magnet, as such matter forms a part of another application filed by me for
65 the purpose of an interference with the patent of S. D. Field, No. 291,705, dated January 8, 1884.

What I claim, and desire to secure by Letters Patent, is—

1. The combination of base-plate B, permanent flexible magnet a, rigidly fixed to said base-plate at one point, adjusting-screws f g, electro-magnet m, and armature k, substantially as described. 75

2. The combination of electro-magnet m, axial armature-lever k, adjustable pole-pieces b c, and permanent magnet a, having flexible arms rigidly fixed to its support at or near its neutral point. 80

3. The combination of electro-magnet m, axial armature k, escapement-pallets l, escapement-wheel w, limiting-stops p q, flexible permanent magnet a, rigidly connected to a base-plate, B, at one point, adjusting-screws f g, brackets d e, for supporting said adjusting-screws, and brackets n o, for adjusting the limiting-stops p q, as described. 85

4. The combination of plate B, bracket h, secured thereto, electro-magnet m, supported by said bracket, plate i, journal j, armature k, permanent magnet a, having flexible arms, bracket r, for connecting the permanent magnet to the base-plate, and adjusting-screws f g. 95

5. The combination of a vertical plate, B, having brackets h r d e n o, permanent flexible magnet a, electro-magnet m, axial armature k, adjusting-screws f g, and adjustable stops p q, substantially as described. 100

6. The combination of a vertical plate, B, brackets h r, flexible permanent magnet a, electro-magnet m, axial armature k, pole-pieces b c, and adjusting-screws f g.

7. The combination of a base-plate, B, bracket r, flexible permanent magnet a, pole-pieces b c, and adjusting-screws f g. 105

Witnesses: GEO. B. SCOTT.

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