THOMAS A. EDISON.

Improvement in Type-Wheels for Printing-Telegraphs.

No. 126,529. Patented May 7, 1872.

Fig. 2.

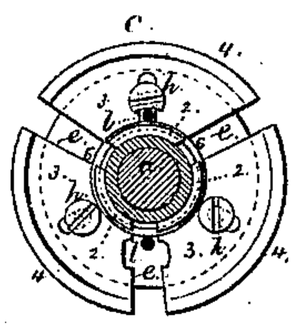


Fig. 1.

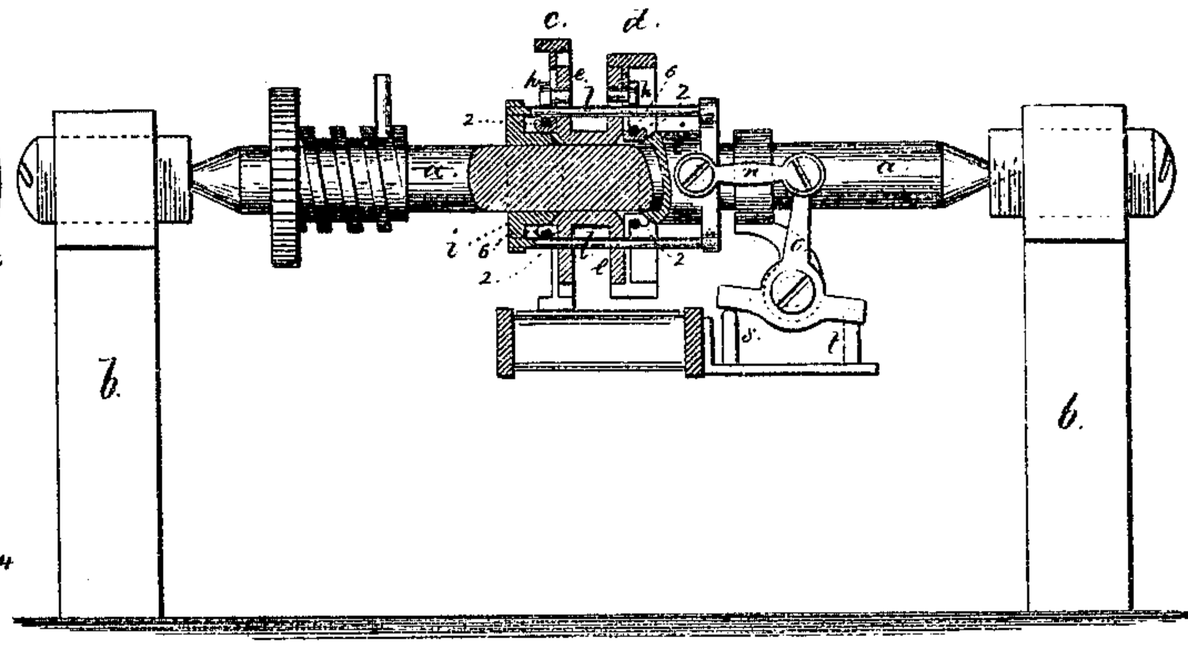
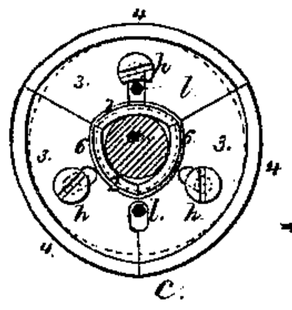


Fig. 3.



Witnesses

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126,529

UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF NEWARK, NEW JERSEY, ASSIGNOR TO GOLD AND STOCK TELEGRAPH COMPANY, OF NEW YORK CITY.

IMPROVEMENT IN TYPE-WHEELS FOR PRINTING-TELEGRAPHS.

Specification forming part of Letters Patent No. 126,529, dated May 7, 1872.

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, of Newark, in the county of Essex and State of New Jersey, have invented and made an Improvement in Printing-Telegraphs; and the following is declared to be a full and correct description of the same.

In Letters Patent heretofore granted to me printing-telegraph instruments are shown with two type-wheels upon a revolving shaft and fitted so that either of them may be printed from without impressing from the other type-wheel—shifting type-wheels and shields are employed for this purpose.

My present invention is to accomplish the same object by the use of different means. I employ two type-wheels, each divided radially into sections and each section connected by screws and slots to a disk secured upon the type-wheel shaft so that the sections can be moved away from or toward said shaft to increase or decrease the diameter of the wheel. For this purpose I employ sleeves sliding freely on the type-wheel shaft and provided with conical ends to enter the divided hubs of the wheels, and said sleeves are arranged so that when one sleeve enters the hub of its wheel the other sleeve will be withdrawn from the hub of its wheel, by which means the first wheel will be increased in diameter and its periphery be concentric with its shaft and may be printed from, but the second wheel will be contracted in diameter and cannot impress the paper while the other wheel is being printed from.

In the drawing, Figure 1 is an elevation of a type-wheel shaft with the type-wheels in section. Fig. 2 is an elevation of a type-wheel as expanded, and Fig. 3 is a similar view of the wheel contracted.

a represents the type-wheel shaft, supported in bearings in the side frames *b b*, and this shaft is to be revolved by a step-by-step motion, as usual. *c d* are the type-wheels, each divided radially, as seen in Figs. 2 and 3, so as to form a sectional hub, 2, disk 3, and flange 4, the latter being provided with letters or numbers upon its outer surfaces. I have shown the type-wheels as each divided into three sections, and the sections composing the wheel *c* or *d* are connected by slots and screws *h h* to disks *e e*, which are secured to the type-wheel shaft and revolve with the same. The slots are radial with the shaft *a*, and the screws *h h* guide and limit the sections in their movement. *i i* are sleeves, sliding freely upon the shaft *a* and connected to each other by the rods *l l*, which pass through openings in the disks 3 3 and *e e*. Each of these sleeves is made with a conical end to enter the hub of the type-wheel and move the sections away from the shaft *a*, so as to increase the diameter of the wheel and make its periphery concentric with the shaft *a* so that the same may be printed from. These sleeves *i i* are arranged, as shown in Fig. 1, so that one sleeve is within its hub 2 and the wheel expanded, while the other sleeve is out of its hub and the wheel contracted by the rubber spring 6, which encircles the divided hub 2 and draws the sections toward the shaft.

To move the sleeves *i i* so that either wheel may be increased in diameter and printed from, I make use of the link *n* connected to one of the sleeves *i* and to a T-lever, *o*, which latter is moved by the pin *s* or *t* upon the upward movement of the printing-lever when the type-wheel is at the blank point. The pin *s* is slightly in advance of the pin *t*, and the operation of these pins and T-lever is the same as in my previous patents where the type-wheel or pad is shifted.

With a type-wheel constructed in three sections there will be three openings between the said sections, but the types may be close to the edges of these sections so as to be equidistant when the type-wheel is expanded.

The wheels are to be placed so that the sleeves may be shifted when a blank space is over the impression-pad, so that an impression will not be made when the sleeves are shifted by the upward movement of the printing-lever.

I claim as my invention—

The type-wheels, each divided into sections and connected to the disk *e*, in combination with the sliding sleeves *i i* for expanding the wheel, or allowing of its being contracted, for the purposes, and substantially as set forth.

Signed by me this 23d day of January, A. D. 1872.

Witnesses: T. A. EDISON.

GEO. T. PINCKNEY,

CHAS. H. SMITH.