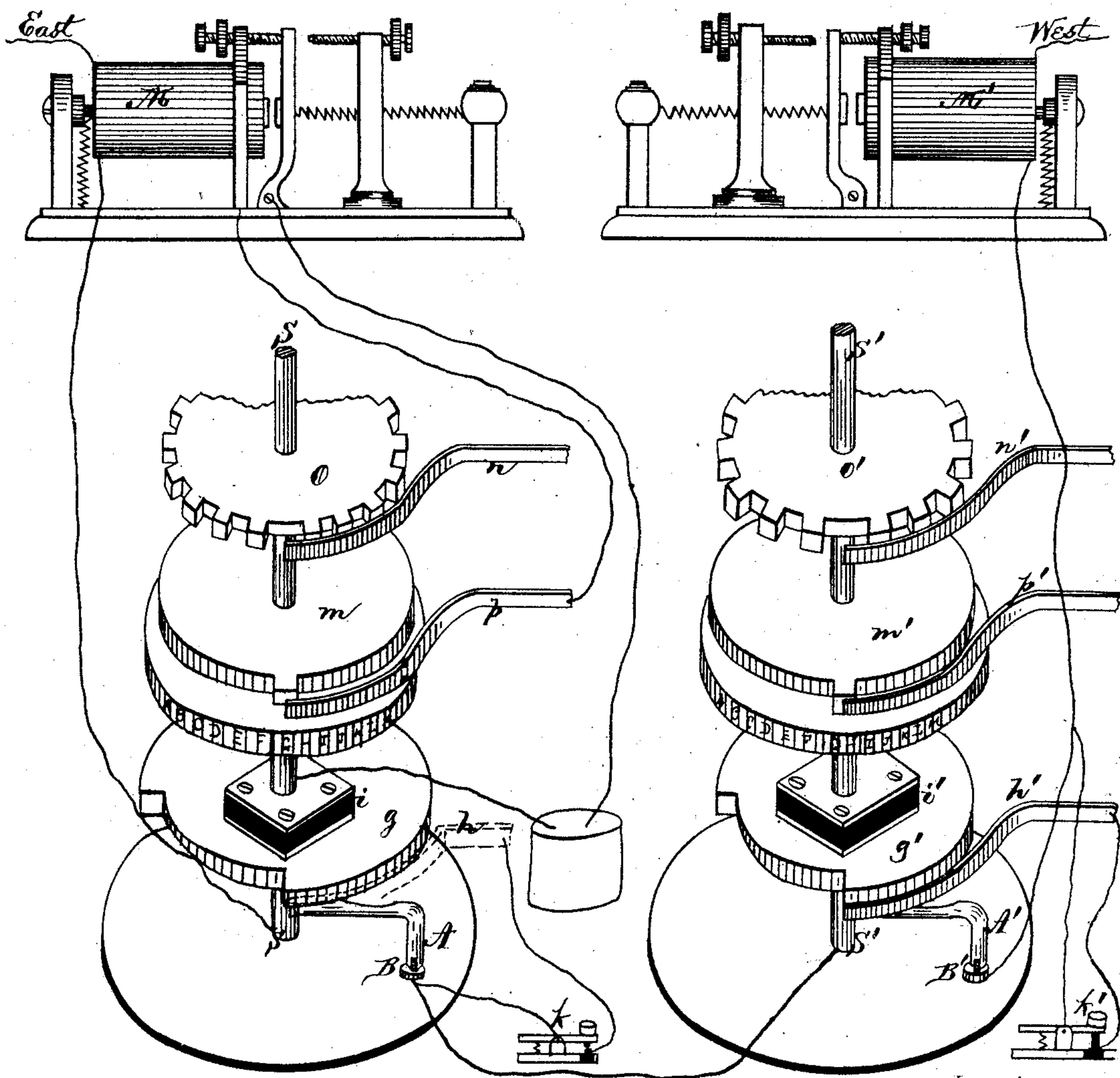


L. T. LINDSEY.

Regulators for Printing Telegraphs.

No. 143,701.

Patented Oct. 14, 1873.



Witnesses:
Frank L. Durand
C. L. Everett

Inventor.
L. T. Lindsey.
per
H. Mason
Attorneys.

UNITED STATES PATENT OFFICE.

LANDY T. LINDSEY, OF JACKSON, TENNESSEE.

IMPROVEMENT IN REGULATORS FOR PRINTING-TELEGRAPHS.

Specification forming part of Letters Patent No. **143,701**, dated October 14, 1873; application filed March 28, 1873.

To all whom it may concern:

Be it known that I, LANDY T. LINDSEY, of Jackson, in the county of Madison and in the State of Tennessee, have invented certain new and useful Improvements in Governor for Printing-Telegraphs; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

In my Letters Patent, No. 136,329, for electro-magnetic motor for printing-telegraphs, &c., dated February 25, 1873, provision was made for governing two or more printing-telegraph instruments by the adaptation of the same means therein described for governing two or more motors, as will be found more fully described by reference thereto. In the application of the same means, however, to establish synchronism between two or more printing-telegraph instruments, a difficulty arises from the fact that at the transmitting-station the main-line circuit, which includes the governing mechanism, is open or broken, and only closed momentarily at such time as it is desired to print a letter. The success of the governing arrangement, as described in my patent above referred to, required all the correcting-wheels to re-establish contact with their respective springs before the circuit of which they formed a part, and which had been broken, as therein described, could be restored. None of the machines could begin another revolution until the circuit had been closed sufficiently long to give an extra impulse, by its action in connection with a single-toothed wheel and spring, therein described, which would overcome an interruption in the local circuit caused by one of the teeth of a toothed wheel, also therein described, having been removed. The difficulty which presents itself in its adaptation as a governor for printing-telegraphs arises from the fact that at any transmitting-station the main-line circuit is continually open, only being closed momentarily when it is desired to print a letter. The wheel and spring at that point which should take part in closing it are, therefore, of no effect, and the extra impulse just referred to cannot be given, causing the instruments therefore to remain halted.

The present invention contemplates removing this difficulty by the addition of a metallic revolving arm, A, and stationary metal point B, which, when in contact, will close the main line momentarily once in each revolution at any station where the circuit is open for the purpose of transmitting, said revolving arm being provided with a friction-roller to mount the stationary metal point; or, if a prolonged contact is desired, more than one roller may be used—one to mount the stationary point just before the preceding one passes off.

In the drawing, M is a relay-magnet; *o*, the toothed wheel, having a tooth removed therefrom; *n*, the spring which operates thereon. *m* is the single-toothed wheel; *p*, the spring, which operates thereon. *g* is the correcting-wheel, and *h* the spring operating thereon. The correcting-wheel *g* being in the main-line circuit, it is insulated on its shaft from the wheels above (which are in a local circuit) by dividing the shaft *s* and inserting some non-conducting substance at *i*. The revolving arm A and stationary metal point B, being in connection with the main line, are placed on that portion of the shaft S which holds the correcting-wheel *g*.

Let the magnet M, and the wheels, shaft, and metallic point enumerated, represent one station, and the corresponding parts opposite another station. If, now, the first-mentioned set be regarded as a transmitting-station, by following the course of the main line it will be found to proceed from the relay-magnet M to the shaft S below the insulation *i*; thence, via the arm A, metal point B, to the shaft S' below the insulation *i'*; thence, via spring *h'*, through the key *k'*, to the relay-magnet M'. As the key *k* is represented as open, the circuit being opened there for transmitting purposes, it will be seen the circuit does not pass through the correcting-wheel *g* and spring *h* to the key *k*, and thence to the other station, as is the case in the illustration opposite, but requires to pass via the arm A and metal point B to reach the opposite instrument.

It is to be understood that the revolving arm A and metal point B have permanent connections with the main line, and in their operation, should the circuit be opened for the transmission of messages, their effect when in con-

tact will be to close the circuit once in every revolution, the circuit being closed at other times for printing in such manner as the particular device used as a transmitter may act.

When the circuit is not open, as at a receiving-station, the office of the arm A and point B is annulled, the route of the circuit being via the correcting-wheel, spring resting thereon, and closed key. It is only when the key is open, and this route for the circuit is destroyed, that the improvements contemplated in this application come into effect, and close the circuit of the main line momentarily once during each revolution.

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

In combination with the correcting-wheel *g*, operating as described, the revolving arm A and point B, or their equivalents, for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of March, 1873.

L. T. LINDSEY.

Witnesses:

C. L. EVERT,
A. N. MARR.