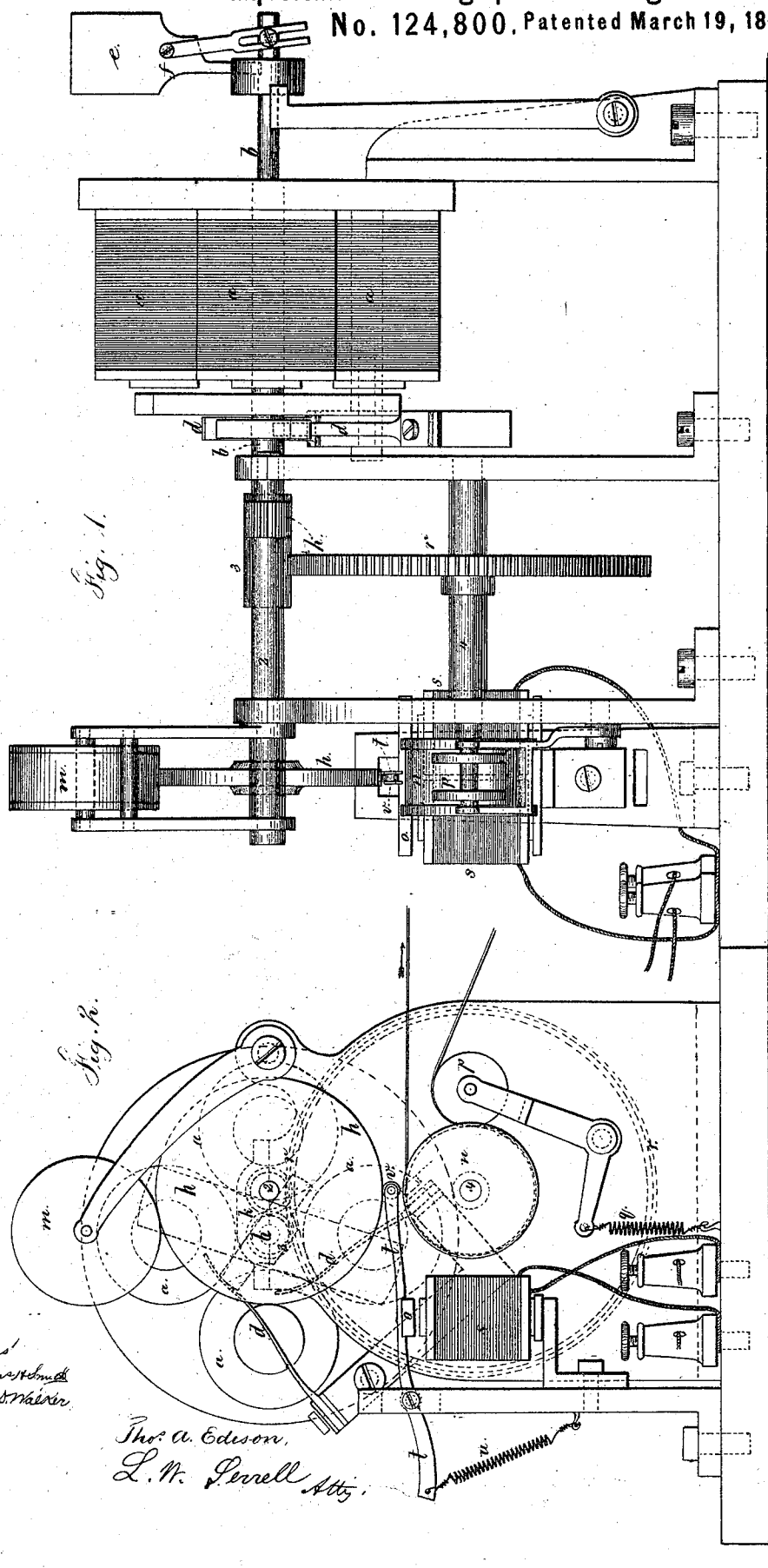


T. A. EDISON.

Improvement in Telegraphic Recording Instruments.

No. 124,800, Patented March 19, 1872.



UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF
AND GEORGE HARRINGTON, OF WASHINGTON, D. C.

IMPROVEMENT IN TELEGRAPHIC RECORDING INSTRUMENTS.

Specification forming part of Letters Patent No. 124,800, dated March 19, 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 an Improvement in Telegraphic Ink Recording Instruments; and the following is declared to be a correct description thereof.

This invention is made for marking upon a strip of paper in dots and dashes in ink at the receiving-station to correspond with the message composed in a strip of paper by perforations, and employed for producing pulsations at the transmitting-station. The present improvement relates to a roller vibrated by a magnet between the paper and an inking-wheel, said inking-wheel moving with sufficient velocity to apply ink to the periphery of said roller when in contact.

In the drawing, Figure 1 is a side view of the motor and the parts moving the inking apparatus, and Fig. 2 is an elevation of the ink recording device.

The motor which I prefer and employ consists of four helices, *a a*, acting upon a revolving armature sustained by the shaft *b*, the electrical pulsations to the magnets passing through the circuit-closing springs *d d* from a local battery, and the fan *e* and point *f* acting to regulate the speed, as in my patent No. 111,112, granted January 24, 1871.

The inking-wheel *h* is driven at a rapid speed by the gearing *k* to the shaft 2, and said wheel *h* is in contact with the inking-drum *m*, that has an elastic surface, saturated sufficiently with ink to keep the edge of the wheel *h* in proper condition. This wheel *h* is, by preference, made of hard rubber. The strip of paper passes around the roller *n*, being kept in contact by the pulley *p* and spring *q*, and the roller *n* is driven at a sufficiently slow speed by the pinion 3 gearing into the wheel *r* on the shaft 4 of said roller *n*. The pulsations of

electricity to be recorded pass through the electro-magnet *s*, either directly on the main line or through a branch circuit or local relay.

The armature *o* is upon the lever *t*, and the weight is balanced by a spring, *u*, or otherwise, and at the end of the lever *t* is the ink recording-roller *v*. In the normal position the spring *u* keeps this roller *v* in contact with the wheel *h*, but a pulsation of electricity in the magnet draws down the roller, making a mark upon the paper, and according to the duration of the pulsation so the ink-mark will be a dot or a dash. The periphery of the roller *v* should be of as great length as the longest dash, and the moment the magnetism ceases to hold down the roller *v* the same flies up into contact with the wheel *h* to receive more ink, and the speed of the wheel *h* should be such as to revolve the roller *v* once each time it comes in contact therewith, no matter how rapidly the pulsations are sent. An inking band might interpose between the roller *v* and paper, but I prefer the device shown.

I claim as my invention—

1. A roller raised and lowered by the action of an electro-magnet, and acting to impress ink upon a strip of paper in dots and dashes, substantially as set forth.

2. The inking-wheel *h*, in combination with the roller *v* and electro-magnet *s*, substantially as set forth.

3. The inking-wheel *h* and roller *v*, in combination with the electro-magnet *s*, for moving said roller *v*, and the magnetic motor for actuating the wheel *h* and paper-roller *n*, substantially as set forth.

Signed by me this 12th day of August, A. D. 1871.

T. A. EDISON.

Witnesses:

HAROLD SERRELL,
CHAS. H. SMITH.