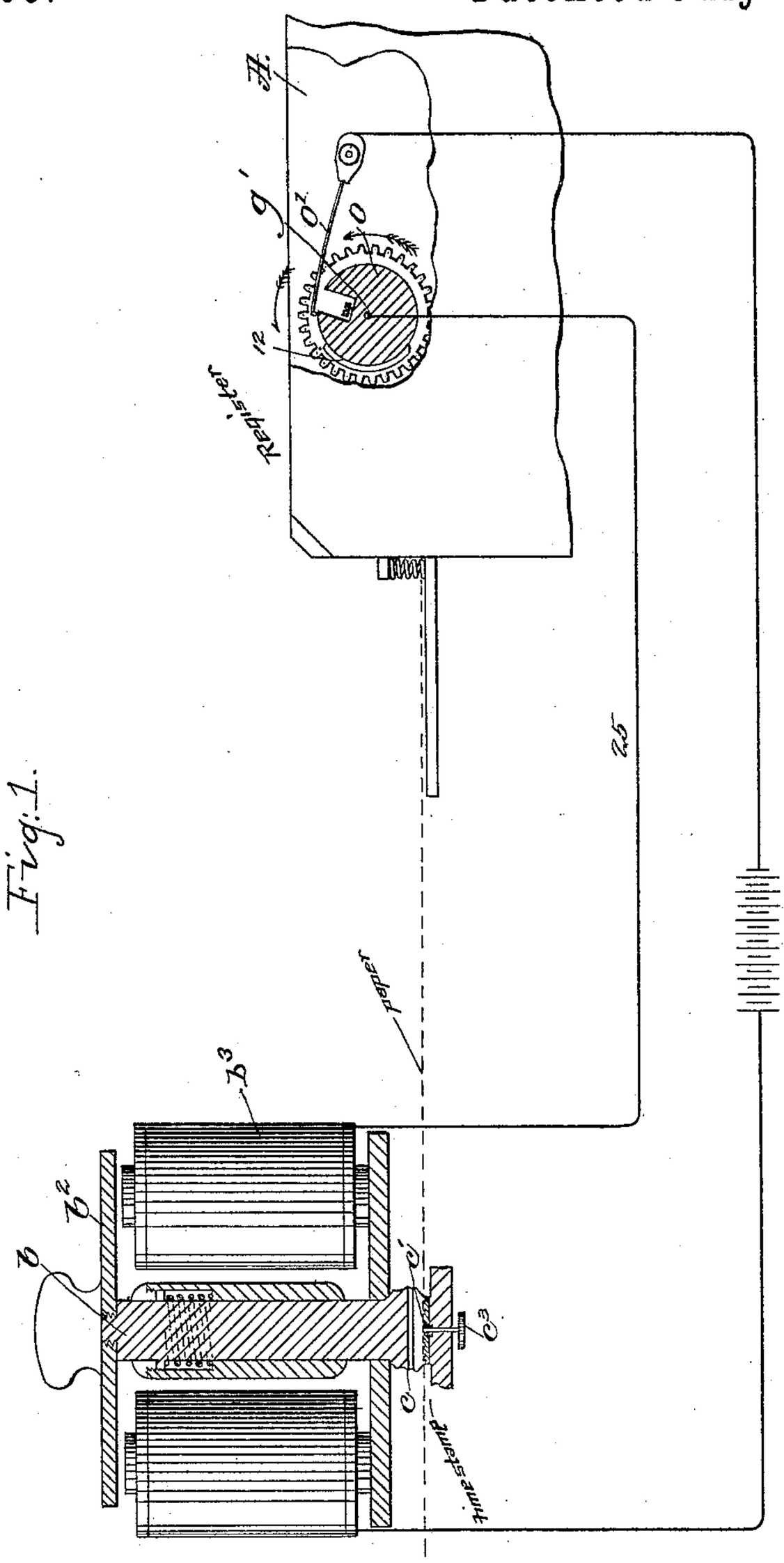
(No Model.) 2 Sheets—Sheet 1.

J. C. WILSON.

MESSAGE AND TIME RECORDER.

No. 406,809. Patented July 9, 1889.



Witnesses.
Fred. S. Greenleaf
Frederick L. Emery.

Inventor.
John C. Wilson
by Crosby & Gregory
Attys

(No Model.) 2 Sheets—Sheet 2.

J. C. WILSON.

MESSAGE AND TIME RECORDER.

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Fig. 2.

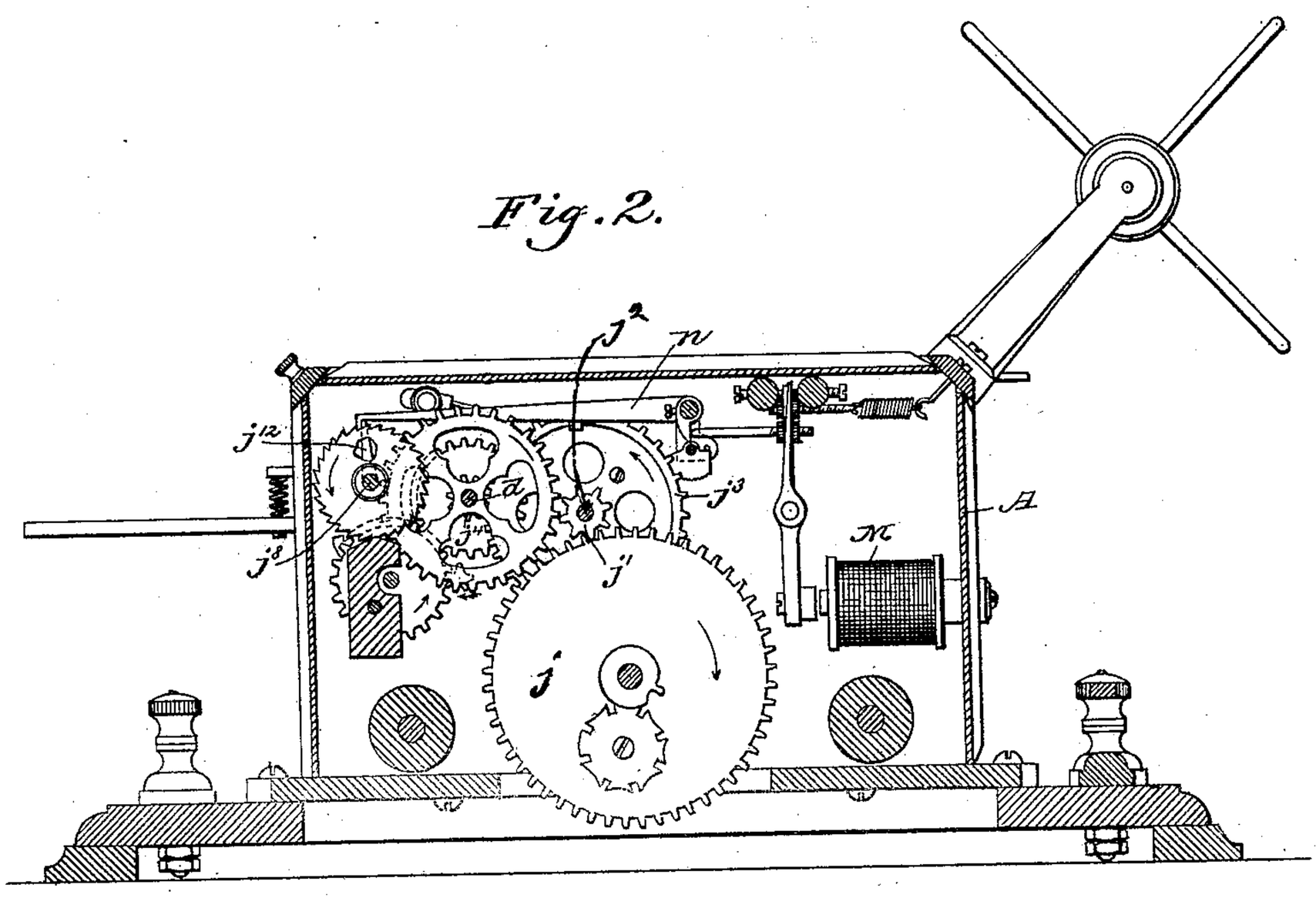
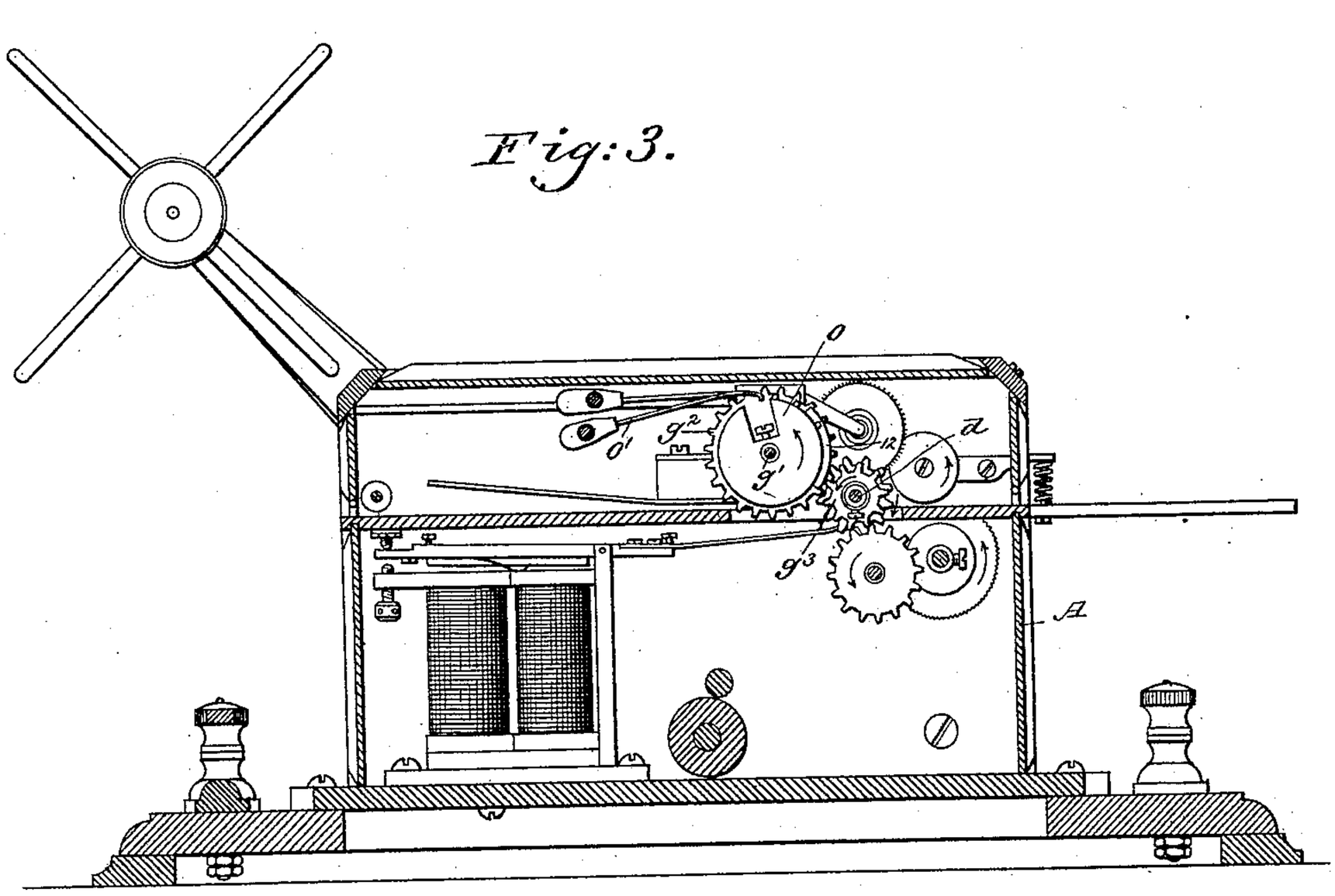


Fig: 3.



Witnesses.
Howard F Eaton.
Frederick L. Emery.

Inventor.
John C Wilson
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UNITED STATES PATENT OFFICE.

JOHN C. WILSON, OF BOSTON, MASSACHUSETTS.

MESSAGE AND TIME RECORDER.

SPECIFICATION forming part of Letters Patent No. 406,809, dated July 9, 1889.

Application filed June 25, 1888. Serial No. 278,171. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. WILSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Message and Time Recorders, of which the following description in connection with the accompanying drawings is a specification, like letters on the drawings representing like parts.

This invention is an improvement upon the message and time recorder shown and described in application for Letters Patent Serial No. 225,434, filed January 25, 1887. In that application the recorder was operated by a motor mechanism in usual manner, and the operation of the time-stamp or indicating device was effected by another motor. Both motors employed were normally wound and were released or set free by electro-magnets. In this my present invention the recorder or register is operated by a motor in usual manner; but instead of employing a separate or independent motor for the time printer or stamp a circuit-changing device is designed to be operated by the said register, and the operation of the time stamp or printer to be effected by the said circuit-changing device.

In carrying out this invention I preferably place upon one of the shafts of the register or recorder a break-wheel, which, together with its pen, is included in a local circuit, which also contains the electro-magnet by which the time stamp or printer is operated. The register or recorder which I prefer to use is such as shown in application for Letters Patent Serial No. 278,170, filed by me June 25, 1888. The time stamp or printer employed is substantially the same as shown in application Serial No. 225,434, above referred to, which it is understood embodies the principle and essential features of United States Patent No. 265,808, granted to J. C. Hinchman October 22, 1882.

Figure 1 shows in side elevation a portion of the register or recorder shown in application Serial No. 278,170, and also in vertical section the time-printing devices of the time-stamp, its operating electro-magnet being in elevation; Figs. 2 and 3, opposite side views of the register, showing the starting and stopping devices and the circuit-wheel.

Referring to the drawings, the frame A of the register, the shaft g', the break-wheel o, mounted on said shaft, and the pen o' are all as in the application Serial No. 278,170, above referred to.

The shaft g' is designed to rotate in the direction designated by the arrow, and the break-wheel is provided with a projection 12, which moves beneath and makes contact with the pen o'. A toothed wheel g^2 is fixed to the shaft g', which is engaged by a toothed wheel g^3, fixed to the shaft d. A toothed wheel j^4 is fixed to the shaft d, which is engaged by a toothed wheel j^3, fixed to the shaft j^2, and a toothed wheel j' is fixed to the shaft j^2, which is engaged and driven by the toothed wheel j on the winding-shaft. The wheel j^3 has three notches, and the lever n has a detent which enters one of the notches, and the lever n also has a detent at its end which engages an arm j^{12}, secured to the shaft j^8. The lever n is lifted by the electro-magnet by intermediate connecting mechanism. By means of the lever n and the notched wheel j^3 the shaft j^2 will be permitted to make one-third of a revolution each time the lever n is lifted, and by the gearing, as shown, the shaft g' will make one complete revolution during each one-third revolution of the shaft j^2, and the break-wheel rotating in the direction shown by the arrow thereon, the break-wheel o and pen o' will cooperate to close the local circuit 25 during the latter part of its revolution.

The electro-magnet b^3 of the time-stamp is included in said local circuit 25. The time-printing indicators c c' and the driving-pinion c^3, the spring-controlled presser b, and the armature b^2, carried by the presser, are all substantially as in application Serial No. 225,434, above referred to.

The paper delivered from the register is fed forward between the presser and time-printing indicators. In operation the paper is fed forward by the feeding mechanism of the register in usual manner and the signal registered on the strip, and during such operation the break-wheel revolves, closing the local circuit, and thereby effecting the operation of the time-stamp.

The particular form of register herein shown is not herein claimed, as the same is made the

subject-matter of claim in another application, Serial No. 278,170, filed June 25, 1888.

I claim—

1. The combination, with a self-starting register, of a time-stamp comprising continuously-moving time-printing devices and a presser, the paper fed by the register and upon which the signal is recorded moving between the said time-printing devices and the presser, an electro-magnet controlling the presser for effecting the printing of the time on the paper, and a circuit-changing device controlled by the register for changing the condition of the circuit of the said electro-magnet, substantially as described.

2. The combination, with a self-starting register and a time-stamp comprising continuously-moving time-printing devices, a presser, and an operating electro-magnet, of a circuit-changer controlled directly by the said register for changing the condition of the circuit of said operating electro-magnet, substantially as described.

3. The combination, with a self-starting register, of a time-stamp comprising continuously-moving time-printing devices and an electro-magnetically-movable presser, the circuit of the presser-magnet being controlled by the motor mechanism of the register, the paper upon which the signal is recorded moving between the said time-printing devices and the said presser, substantially as described.

4. The combination, with a register comprising as a co-operative part of it a starting-lever and stop-wheel and motor mechanism and a circuit-changing device the circuit-wheel of which is moved by the said motor mechanism, and is formed to co-operate with its pen and change the condition of the circuit just before the stop-wheel is engaged by the starting-lever to stop the register, of a time-stamp, and an electro-magnet for said time-stamp included in the circuit controlled by said circuit-changing device, substantially as described.

5. The combination, with a register comprising as a co-operative part of it the starting-lever *n*, stop-wheel j^3, and motor mechanism, the circuit-wheel *o*, rotated by the said motor mechanism, making one complete rotation while the stop-wheel completes one-third of a rotation, the projection 12, formed on said circuit-wheel, and the pen *o'*, of the local circuit 25, the electro-magnet included in said circuit, and the time-stamp controlled by said electro-magnet, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN C. WILSON.

Witnesses:
BERNICE J. NOYES,
J. C. SEARS.