(No Model.)

W. B. WOOD.

PRINTING TELEGRAPH.

No. 369,577. Patented Sept. 6, 1887.

Fig. 1,

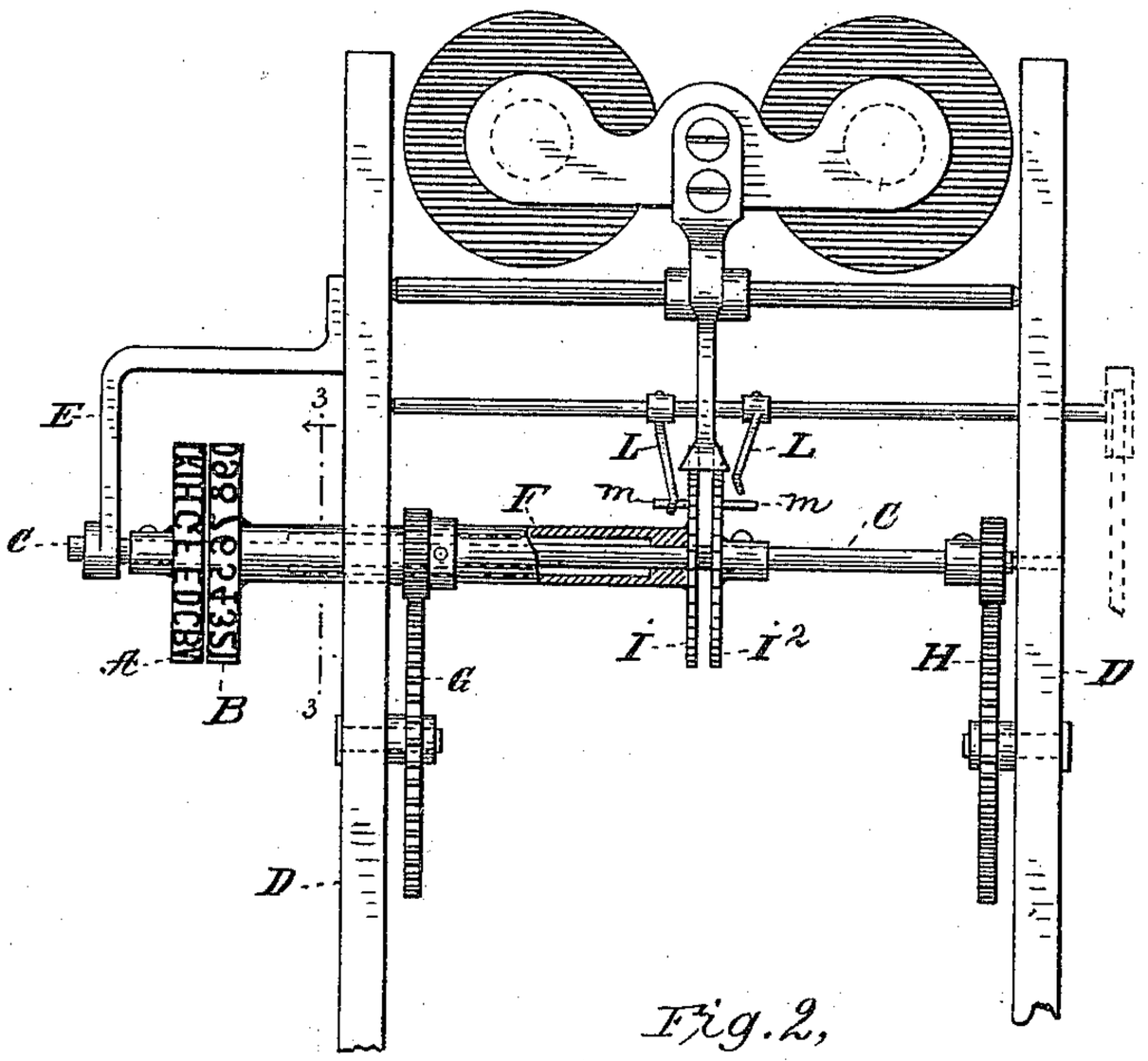
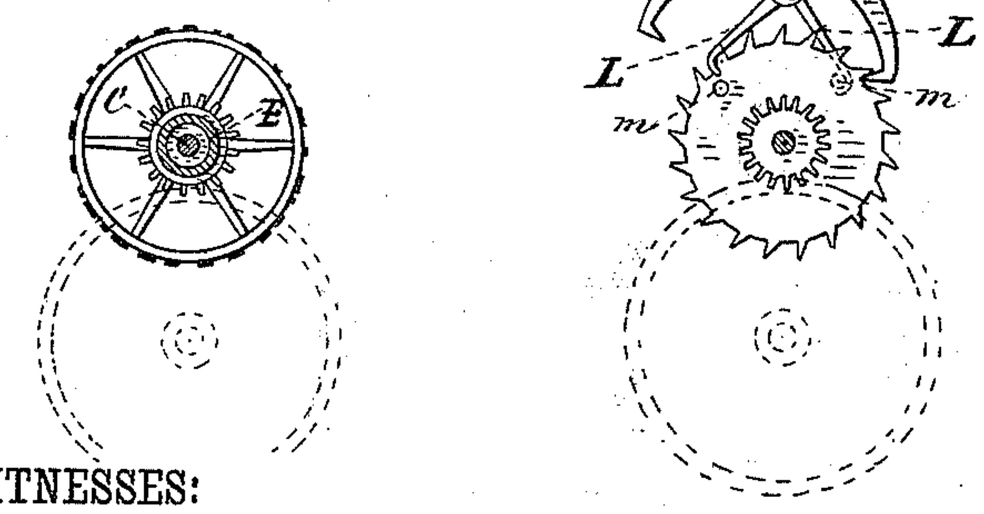


Fig. 2,

Fig. 3,



WITNESSES:

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WILLIAM B. WOOD, OF JERSEY CITY, NEW JERSEY.

PRINTING-TELEGRAPH.

SPECIFICATION forming part of Letters Patent No. 369,577, dated September 6, 1887.

Application filed May 29, 1885. Serial No. 167,001. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. WOOD, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Printing-Telegraphs, of which the following is a specification.

My invention relates to the construction of printing-telegraph instruments; and it consists in certain improvements relating to the mounting and arrangement of the type-wheels—one an instrument provided with two independently-rotatable wheels in a letter and the other a number-wheel.

The object of my invention is to so construct a printing-telegraph in which the movements of two independently-rotating type-wheels are controlled by a single escapement-anchor that the type-wheels may be placed outside of the frame of the instrument. To this end I employ a sleeve and shaft, each being provided with a type-wheel and a driving-motor, and means whereby either type-wheel may be locked, while the other is free to rotate under control of a common escapement-anchor.

The constructions and combinations forming my invention will be first described in connection with the accompanying drawings, and then specifically stated in the claims.

Figure 1 is an elevation of a portion of a printing-telegraph instrument in which my invention is embodied. Fig. 2 is a side view of the escapement devices and stops. Fig. 3 is a cross-section on the line 3 3 of Fig. 1.

D D indicate a frame in which the parts are mounted, and C a shaft journaled in the frame and in a bracket, E, secured to the frame. Between the bracket and the frame are mounted, in suitable juxtaposition, the type-wheels A B, one of which, A, is secured to the shaft C, and the other to a sleeve, F, capable of independent rotation upon the shaft.

I I^2 are escapement-wheels, of any desired construction, placed beside one another and secured, respectively, to the shaft C and the sleeve F. These wheels are controlled or moved by the agency of an escapement-lever, K, common to said wheels, and having its pallets broadened, as shown, so as to engage with both of them. When either wheel is held from movement, the other is rotated, or permitted to rotate, in the ordinary way by the escapement-lever, which latter is vibrated by a polarized or other electro-magnet operated in a circuit of any kind.

Secured to the escapement-wheels are stops *m m*, with which the stop-arms L L, secured to a rock-shaft, engage in turn, according to the position given to the shaft, so as to hold either of the wheels from movement while the other is rotated. These stops and stop-arms may be constructed and operated after the manner shown in Patent No. 290,557, August 27, 1883, or in any other desired manner.

In instruments of this class as they have heretofore been constructed the locking-arms L L have been so formed as to give the escapement-wheels a slight backward movement upon shifting the operation of printing from one wheel to the other, thus moving the teeth of the locked escapement-wheel slightly out of the way of the pallets of the escapement-anchor, and permitting the pallets to vibrate out of contact with the teeth of the locked wheel. I do not desire to claim this feature as of my invention, although it is the form of locking device which I prefer to use with my improvement.

The printing-magnet and devices are omitted, as they form no part of my invention.

G indicates a wheel gearing with a wheel or pinion on the sleeve F, and H a wheel gearing with a separate wheel or pinion on the shaft C. These wheels are operated from any suitable power or powers in a well-known manner, and serve to rotate the type-wheels in the well-known way.

The construction herein shown and described is not confined to any particular arrangement of printing, type-wheel, and stop, magnets, and circuits. It may be used with advantage in instruments operated after the manner of the instruments shown in Patent No. 290,557, before referred to, as well as with other arrangement of operating and controlling magnets and circuits.

What I claim as my invention is—

1. The combination, substantially as described, of two independently-rotating type-wheels, one secured to a shaft and the other to a sleeve around said shaft, escapement-

wheels for the shaft and sleeve, and an escapement-lever, K, common to said escape-wheels.

2. The combination, substantially as described, of two type-wheels secured, respectively, to a shaft and to a sleeve upon said shaft, independent driving mechanisms for said shaft and sleeve, separate escapement-wheels, one secured to the shaft and the other to the sleeve, escapement devices for said escapement-wheels, and an armature common to the said wheels for operating the escapement devices.

3. The combination, substantially as described, of two type-wheels independently rotatable and secured, respectively, to a shaft and to a sleeve through which the shaft passes, an escapement-wheel for each type-wheel, stops for holding either type-wheel at rest while the other rotates, and an anchor-escapement device vibrating and engaging with both escape-wheels when one is held stationary to permit the independent rotation of the other.

4. The combination of a shaft carrying one type-wheel and provided with a gear wheel or pinion through which it may be driven, a sleeve upon the shaft carrying another type-wheel, and also provided with a wheel or pinion, and escapement-wheels secured, respectively, to the shaft and sleeve and placed in juxtaposition.

5. The combination of the shaft mounted at one end in the frame and at the other end in a bracket outside the frame, a type-wheel secured to said shaft, a sleeve on said shaft carrying a second type-wheel arranged beside the first and between the bracket and frame, a wheel, G, gearing with a wheel or pinion on the sleeve, a wheel, H, gearing with a separate wheel or pinion on the shaft, an anchor-escapement wheel on the sleeve, an anchor-escapement wheel on the shaft, and anchor-escapement devices for said wheels having a common actuating mechanism.

6. The combination, substantially as described, of two type-wheels secured, respectively, to a shaft and to a sleeve upon said shaft, independent driving-motors for said shaft and sleeve, stops for holding either type-wheel at rest while the other rotates, and an anchor-escapement common to both wheels.

Signed at New York, in the county of New York and State of New York, this 28th day of May, A. D. 1885.

WILLIAM B. WOOD.

Witnesses:
THOS. TOOMEY,
GEO. C. COFFIN.