(No Model.)

E. M. ASSELSTINE.

RECORDING DEVICE.

No. 275,454. Patented Apr. 10, 1883.

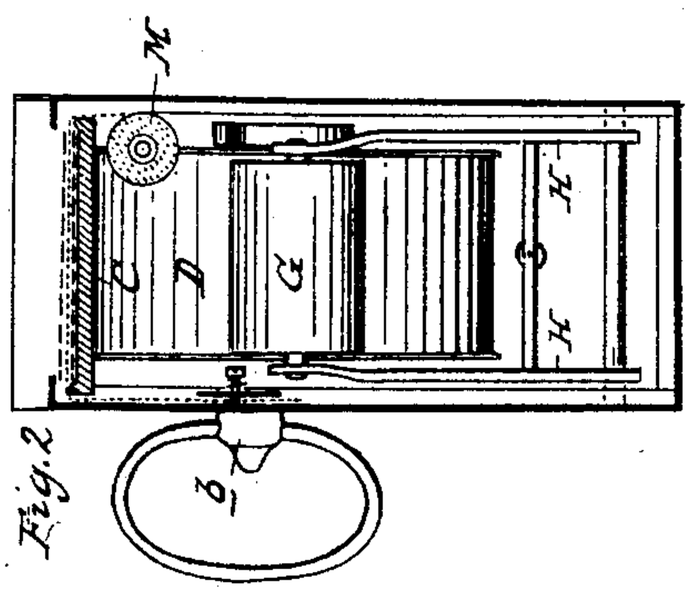

Fig. 2

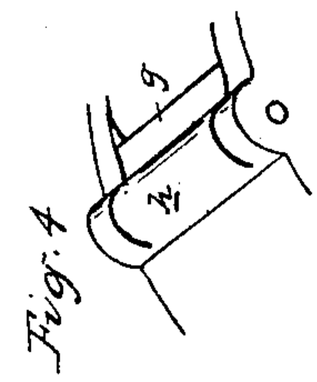

Fig. 4

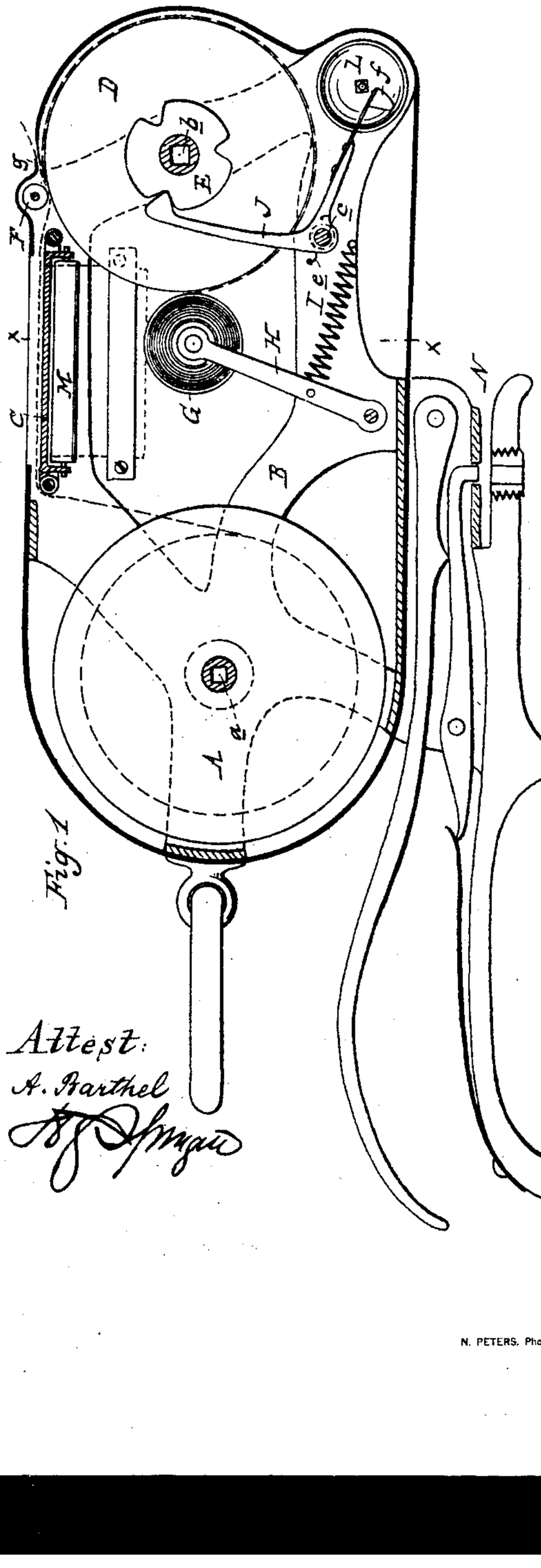

Fig. 1

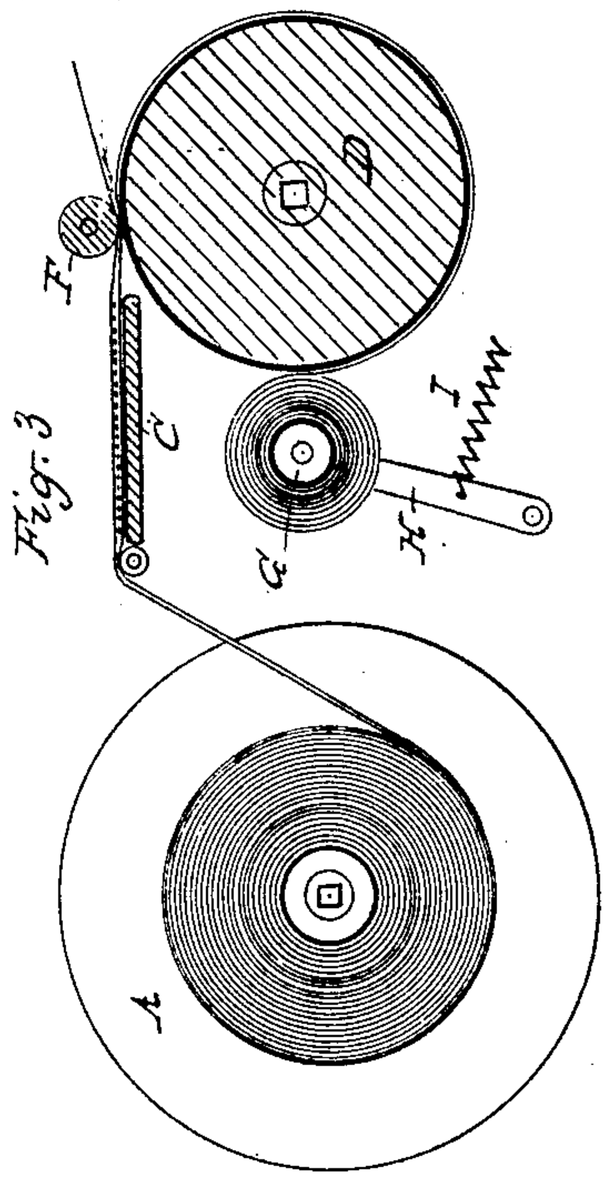

Fig. 3

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UNITED STATES PATENT OFFICE.

ELNATHAN M. ASSELSTINE, OF EAST SAGINAW, MICHIGAN.

RECORDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 275,454, dated April 10, 1883.

Application filed August 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, ELNATHAN M. ASSELSTINE, of East Saginaw, in the county of Saginaw and State of Michigan, have invented new and useful Improvements in Recording Devices; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

The nature of this invention relates to certain new and useful improvements in the construction of registering devices adapted especially for the use of conductors upon railways, by means of which a check is kept upon their receipts, and by its use a perfect return of such receipts can be made to headquarters, a record of the same being secreted within the implement.

The invention consists in the peculiar construction, combination, and operation of the parts, as more fully hereinafter described.

Figure 1 is an elevation with one side of the frame removed or broken out to show the arrangement of the interior devices. Fig. 2 is a cross-section on the line *x x* in Fig. 1. Fig. 3 is a detached section, showing the arrangements for carrying the recording-strips; and Fig. 4 is a detail showing the arrangement for tearing off the conductor's checks.

In the accompanying drawings, which form a part of this specification, A represents a drum upon which to wind two strips of paper, one strip overlying the other, and of the character usually employed in telegraphy. This drum is suitably journaled at each end in the sides of the frame B, and is so arranged, by means of a socket, *a*, in the shaft, that a key inserted through a coincident hole in the case may be employed to wind the paper upon said drum.

C is a table properly secured just below the upper side of the case B, which is cut away at that point to disclose the table.

D is another drum or roller, journaled in the opposite sides of the frame, and this is in like manner provided with a key, *b*, by means of which to rotate it. Upon the shaft of the roller D is the notched pinion E. One of the strips of paper above referred to is laid over the face of the table, as shown in Fig. 3, underneath the small wheel F, around the wheel D, and its end secured to the wheel or drum G, suitably journaled at each end to two arms, H, the lower ends of which are journaled also to the opposite sides of the frame, and the spring or springs I compel such drum G to be rotated by the frictional contact and the motion of the wheel D, which motion is obtained by the operator turning the key *b* as occasion requires.

J is a bell-crank pawl journaled at *c*, and the pivot or shaft of this bell-crank is provided with a spring, *e*, adapted to hold the pawl in engagement with the pinion, except when it is disengaged by the forcible rotation of the wheel D. The other arm, K, of this bell-crank is a spring-arm provided with a hammer, *f*, which strikes the gong or bell L whenever the wheel D is rotated from one notch to the next on the pinion. A strip of carbon paper is so secured as to overlie the strip of paper already described, passing laterally over the face of the table and secured at each end by being wound around the drum M, with its free end carried laterally across the strip of paper running in the opposite direction upon the table, and then secured upon the opposite side in any suitable way that will secure the proper tension, and at the same time allow it to be wound as a fresh surface is needed. The second strip of paper from the drum A passes over the table overlying the carbon paper and under the wheel F, its free end terminating just beyond the face of the guard *g*, which is secured to the two sides of the frame by means of the spring *h*.

In practice, the device being ready for use, the conductor of the train collects fare from the passsenger from station 1 to station 2, and with his pencil writes the name of the station to which fare is paid upon the top or upper strip of paper presented through the opening in the top of the frame. He then with a quick movement turns the wheel D until the pawl engages with the succeeding notch in the pinion, and as the pawl engages with this notch the spring-arm of the pawl rings the bell, while the rotation of the wheel L carries the written part of the ticket or the written part of the strip of paper beyond the edge of the guard *g*, when the conductor, pressing down the guard with one hand, tears off the written ticket against the edge of the guard, the act of writing such ticket having also, by means of the carbon paper, recorded such

ticket on the strip below. The latter is wound over the wheel D onto the small wheel G, where it furnishes a record of the transaction, and on being returned to headquarters discloses the operations of the conductor on his trip.

In order to facilitate the cancellation of tickets taken up by the conductor which have been purchased before the passenger starts upon his travel, there is secured to any convenient part of the frame of the register a ticket-punch, N, which may be of any of the known constructions.

I am aware of Patents Nos. 180,516, of 1876, and 262,357, and the constructions set forth therein are not sought to be covered in this application. In my device it will be observed that I dispense with the use of gearing, and that the record-roll is operated by its frictional contact with the roll D, induced by the spring I, and that the paper strips are the only connections between the rolls D and A.

I attach especial importance to the construction which provides a single roller to store and give off both strips, and which feeds a carbon strip between both strips at right angles to their travel. It insures a certain action of the carbon in the latter instance, and decreases the amount of friction to be overcome in the other, as when two such rolls have to be rotated in connection with a third roll, to which the power is applied. It allows, also, less space and a cheaper and more compact construction.

What I claim as my invention is—

1. The combination, in a ticket-recorder, of a single receiving-roll constructed and arranged to receive two strips of paper and deliver the same across a table, and on opposite sides of a carbon ribbon arranged above said table, with a winding apparatus for drawing both of said strips of paper off the roll, and winding one strip inside the case and delivering the other outside thereof, substantially as described.

2. In a ticket-register in which a single roll stores and delivers two strips of paper across a table, the combination of such single-roll and table with a roll, M, arranged to feed a carbon slip between and at right angles with the line of travel of both paper strips, as set forth.

3. In a ticket-register, the combination of the single roll A, the roll D, and the record-roll G with the hinged arms H, the transverse carbon roll M, and the spring I, as and for the purpose set forth.

4. A registering device provided with a single drum carrying two strips of paper, a table over which both strips are carried, and separated by a single strip of carbon paper fed from a roll transversely across such table, means for diverting one of such strips of paper outside the case to be severed into pieces of equal lengths, and means for conducting and winding the other strips upon a record-roll, as set forth.

5. The combination of the roll A *a*, roll D, and table with the transverse roll M, roll F, friction-roll G, and spring I, and with the operating-keys, whereby both strips are wound upon and fed from a single roll A, as set forth.

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