GEORGE H. ALDRICH.

Improvement in Passenger-Recorders.

No. 114,084. Patented April 25, 1871.

Fig. 1.

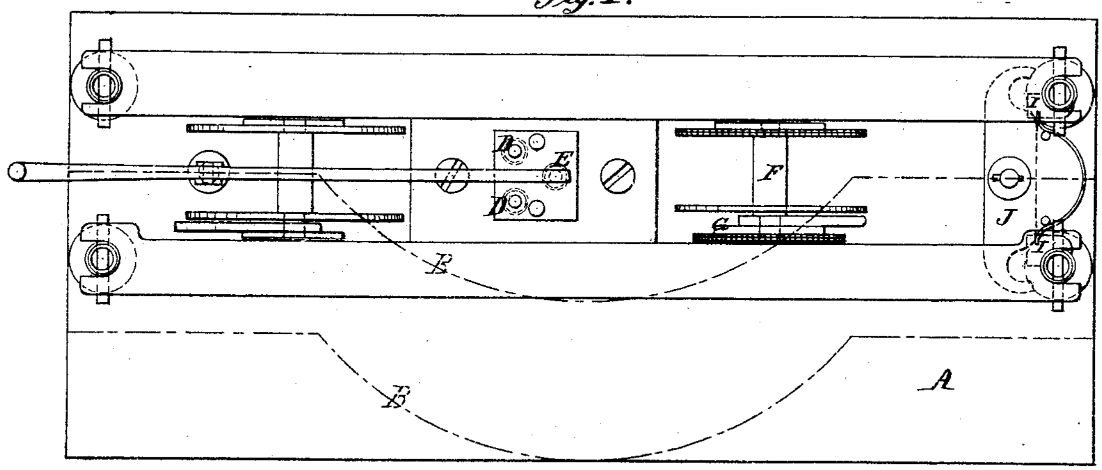


Fig. 2.

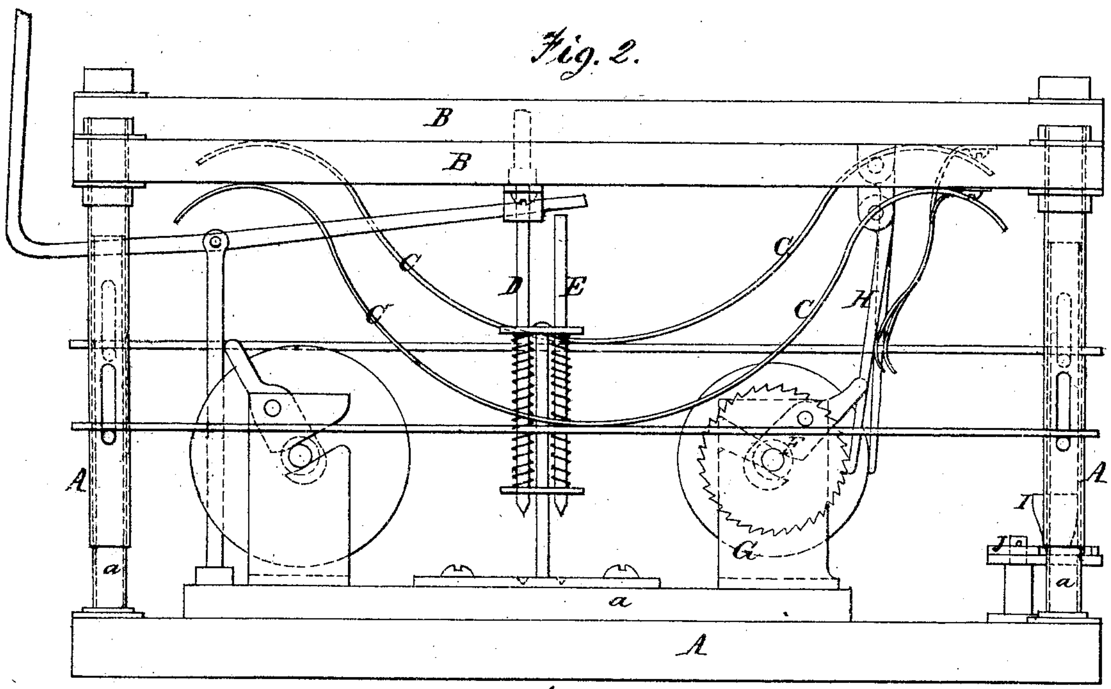
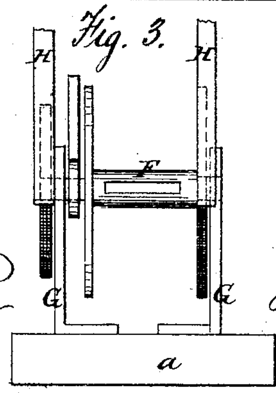


Fig. 3.



Witnesses.

[signatures]

Inventor:

George H. Aldrich

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

GEORGE H. ALDRICH, OF NEW YORK, N. Y.

IMPROVEMENT IN PASSENGER-RECORDERS.

Specification forming part of Letters Patent No. **114,084**, dated April 25, 1871.

I, GEORGE H. ALDRICH, of the city and county of New York, State of New York, have invented certain Improvements in Double-Action Flexible Step for Passenger-Car Indicators, of which the following is a specification:

Nature and Objects of the Invention.

The first part of my invention relates to the application of two or more steps to certain springs, punches, cams, and lever in such a manner as to produce a yielding surface under a weight, and return again to its former position on the removal of the weight again; that, in the application of a weight to a part of the step, the other part or parts are simultaneously chocked by the action of cam, lever, or straight rod in such a manner as to be immovable until after the return of the lever to its original position; also, the step, in being depressed by the weight, acts upon the punches, in a manner more fully described in the accompanying drawing, and forces them to leave an impression upon a yielding substance.

The second part of my invention relates to the application of straight pieces of wire, acting as punches, to this mode of indicating, showing, by this means, the stations or stopping-places of the car or vehicle, by which means the place where the persons got on and off is determined.

The third part of my invention relates to a mode of causing the step to act on a shaft or drum, upon which the yielding substance which is acted on by the punches (and which is more fully described hereafter) is placed.

Description of the Accompanying Drawing.

Figure 1 is a view of the relative positions of the several parts of the indicator, with the exception of the step, as seen from the top. Fig. 2 is a plan of the same with the steps attached, and shows how the steps rest and act on the other parts. Fig. 3 is a view of a shaft or drum, upon which a yielding substance is wound, together with the manner of communicating action to the same from the steps, which is, by the action of the lever, connected with the step to a rough-surface feed.

General Description.

A is the frame of the machine, which should be substantially constructed to resist the vibrations of the operating parts. The upright portion of the frame consists of a pipe sliding over the shaft *a*, which holds it in a true vertical position.

B B are the steps, which, resting on the upright portion of the frame, (the one step occupying a relatively higher position than the other assists in preventing the weight from acting on both at one and the same time, while the central projection completes and makes secure that safeguard,) derive their support from it, and are so connected with it that they have a sliding motion.

C C are two elliptic springs, and are so placed under the steps as to communicate an elastic motion to the steps, and thereby hold them in their natural position, except when the weight is placed upon them.

D D are two straight pieces of wire, which are held in position by a spiral spring, and which are forced down onto a yielding substance by the depression of the steps, being one piece of wire to each step.

E is a station-punch, acting the same as the above, except that, instead of being operated on by the step, it acts in combination with and upon the same material as the two pieces of wire D D, and is moved by an individual through the use of a lever connected with the same.

F is the shaft or drum upon which the yielding substance is placed, and is worked by the following mechanism: The drum F rests upon the pillow-blocks G, which are fastened to the movable frame A, and motion given to the same by the application of the levers H, which hang from the steps and are held up against the rough feed-surface I by the means of an elliptic spring, so as, when the steps are depressed, the lever moves down on the rough surface, and when the step again rises the lever also rises, and by this action causes the drum to move forward under the punches as much material as is required for the purpose of indicating.

I I are cams, which are attached to the movable part of the frame A, and are of a wedge shape, so that when the movable part of the frame A is forced down by the step B it acts upon a lever, J, causing it to be thrown against the other cam, connected with the other step, thereby holding the step in a fixed position.

In practical use this invention occupies the

position of the lower step, and is held in that place by iron fastenings connected with the platform or body of the car or vehicle.

Claims.

I claim—

1. The independent alternately-acting spring-steps, in combination with a feed-motion carrying a recording-fillet and the independent recording-punches, substantially as herein described.

2. In combination with the above, the reciprocating locking-lever, or its equivalent, arranged so as to lock and securely hold in a fixed position either one of the independent steps by the action of the other step.

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Witnesses:
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