(No Model.)

M. FARLEY.

STATION INDICATOR.

No. 257,306. Patented May 2, 1882.

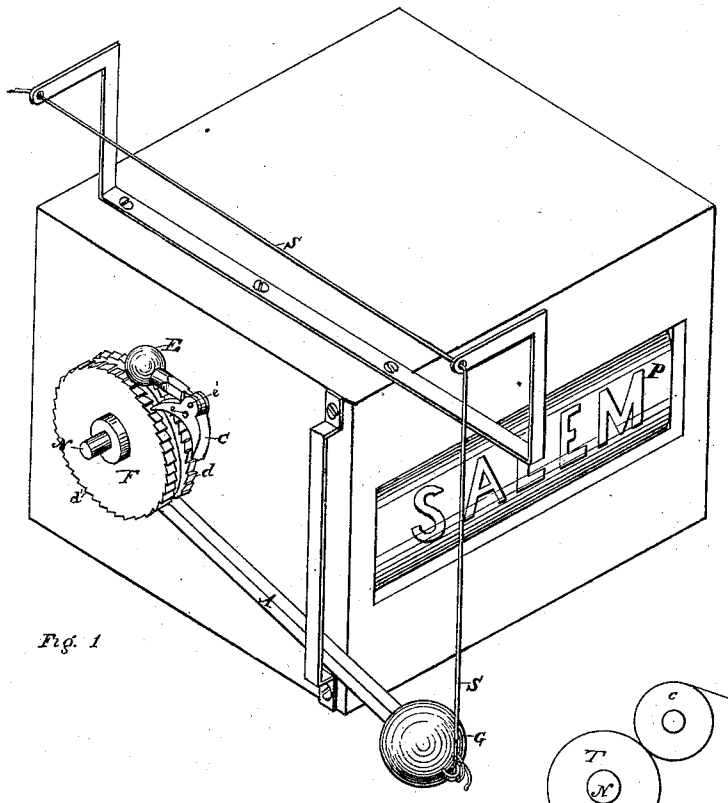


Fig. 1

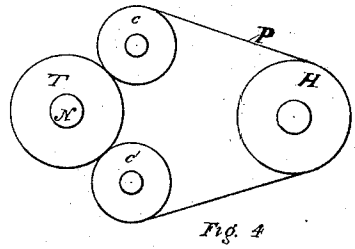


Fig. 4

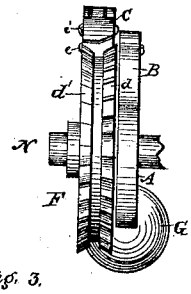


Fig. 3.

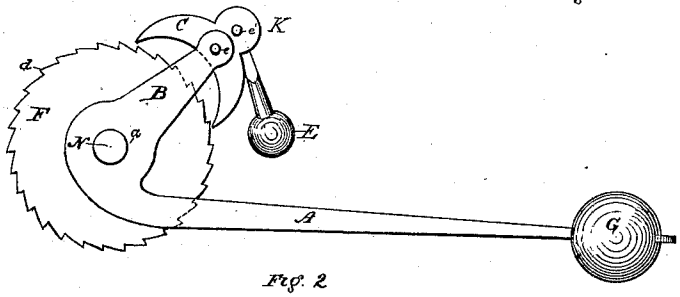


Fig. 2

WITNESSES.

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UNITED STATES PATENT OFFICE.

MICHAEL FARLEY, OF PORTLAND, OREGON, ASSIGNOR TO L. D. BROWN AND H. BURBANK, OF SAME PLACE.

STATION-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 257,306, dated May 2, 1882.

Application filed April 22, 1881. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL FARLEY, a resident of the city of Portland, Multnomah county, State of Oregon, have invented certain new and useful Improvements in Mechanism for Operating Station-Indicators, of which the following is a specification.

My invention relates to that class of station-indicators which are operated by means of a suitable cord arranged similar to and alongside of the usual bell-cord running through the upper part of a train of cars.

The object of my invention is to operate the indicators in a train of cars by one and the same operation. This result I attain by the arrangement of a double ratchet-wheel, an oscillating double pawl, a hinged or swinging weight, and stroke-lever, arranged together and self-adjusting.

In the accompanying drawings, forming part of this specification, Figure 1 is a view in perspective of an indicator arranged for operation with bell-cord. Fig. 2 is a view in detail, showing the stroke and short levers, the double pawl and hinged or swinging weight, lever-weight, and ratchet-wheel. Fig. 3 is a view in vertical section of the double ratchet-wheel, levers, weights, and shaft; and Fig. 4 is a sectional view of the rollers for revolving and stretching the canvas strip, and shows the canvas arranged thereon.

A represents the stroke-lever, constructed, as shown herein, with one end bent round, so as to form a short lever, B. It is perforated, as shown at *a*, and fits loosely onto the projecting end of the shaft N of main roller T, which runs through the frame of the machine.

C is the double pawl, and is attached to the outer end of the short lever B by a bolt, *e*, upon which bolt *e* the pawl oscillates. The double pawl C has formed upon its upper part two vertical projections or hinges, K, with perforations therein to receive a hinge-bolt. Into these hinges the vertically-swinging weight E is hinged, so that it can be thrown over to either side of the double pawl C when necessary to reverse the motion of the canvas and rollers *c c'* and H. This weight holds the double pawl down upon the teeth of a ratchet-wheel and operates the same.

F is the double ratchet-wheel, having on its periphery two rows of cogs or ratchet-teeth, *d' d''*. These two rows of teeth are the opposite of each other, the teeth of one row inclining toward the right and the teeth of the other toward the left. These are for the purpose of reversing the motion of the canvas P, rollers *c c'*, and roller H, according to the direction in which the cars may be running. The double ratchet-wheel F fits upon the projecting shaft N and against levers A and B, and is attached to and made permanent upon the projecting shaft by either a key or a sleeve and screw, and holds levers A and B in position.

G is the adjusting-weight on lever A.

P is the canvas permanently attached to rollers *c c'*. H is the roller over which the name of station is displayed, and S is the bell-cord.

The operation of my indicator is as follows: When it is desired to indicate to the passengers in the cars, when approaching a station, the name, the operating-cord is pulled with one pull, sufficient to give lever A a full stroke, which operation lifts the lever A, and at the same time the short lever B is moved, as it were, backward, and the pawl C, being attached thereto and held down upon the ratchet-wheel F, turns said ratchet-wheel and main roller T, which impinges against and revolves rollers *c c'*, and the canvas strip P is wound upon or unwound from either roller *c* or roller *c'*, according to the direction, right or left, and over roller H, thereby displaying the name of the station to the occupants of the car. This operation is all performed while the lever A makes its full stroke. When the operating-cord is relinquished by the operator the levers instantly drop down again automatically through the agency of weight G, and the indicator is again ready for the next station. On the return trip of a train of cars the hinged or swinging weight E is swung over on the opposite side of the double pawl, and the operation will be performed in the reverse order, the canvas turning the opposite way to that of the outward trip. The indicator may be operated by the engineer.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a station-indicator, the combination, sub-

stantially as before set forth, of the canvas rolls, the main roll for driving them, the double ratchet mounted on the shaft of the main roll, the elbow-lever fulcrumed on the shaft of the main roll, and carrying on its short arm a double pawl to actuate the double ratchet in either direction and on its long arm a weight, the cord, and a bracket provided directly above the free end of the lever with an eye through which the cord is run.

MICHAEL FARLEY.

Witnesses:
HARRY HOLMES,
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