(No Model.) 2 Sheets—Sheet 1.

J. B. ROBERTS.

STATION INDICATOR.

No. 251,463. Patented Dec. 27, 1881.

Fig. 1

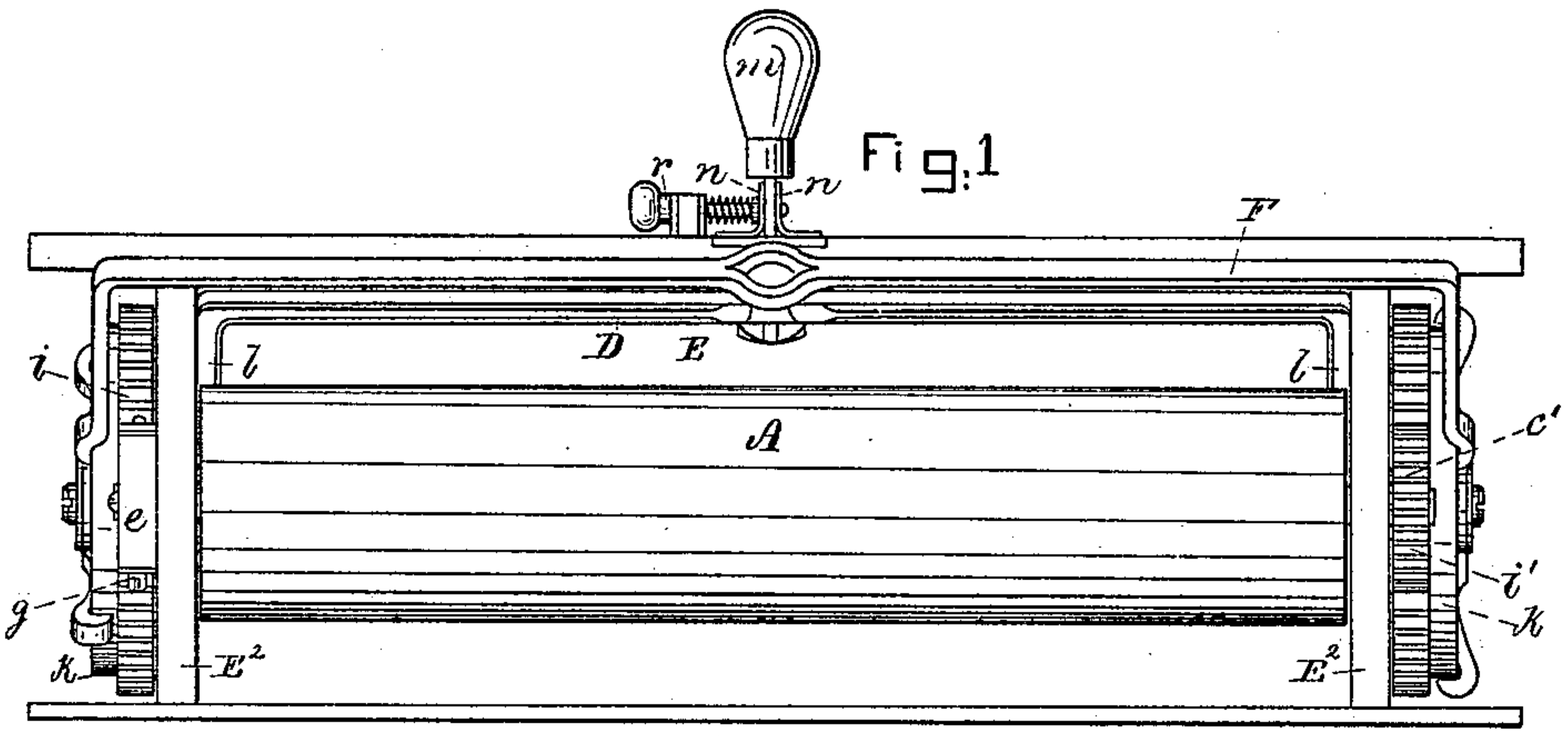


Fig. 6

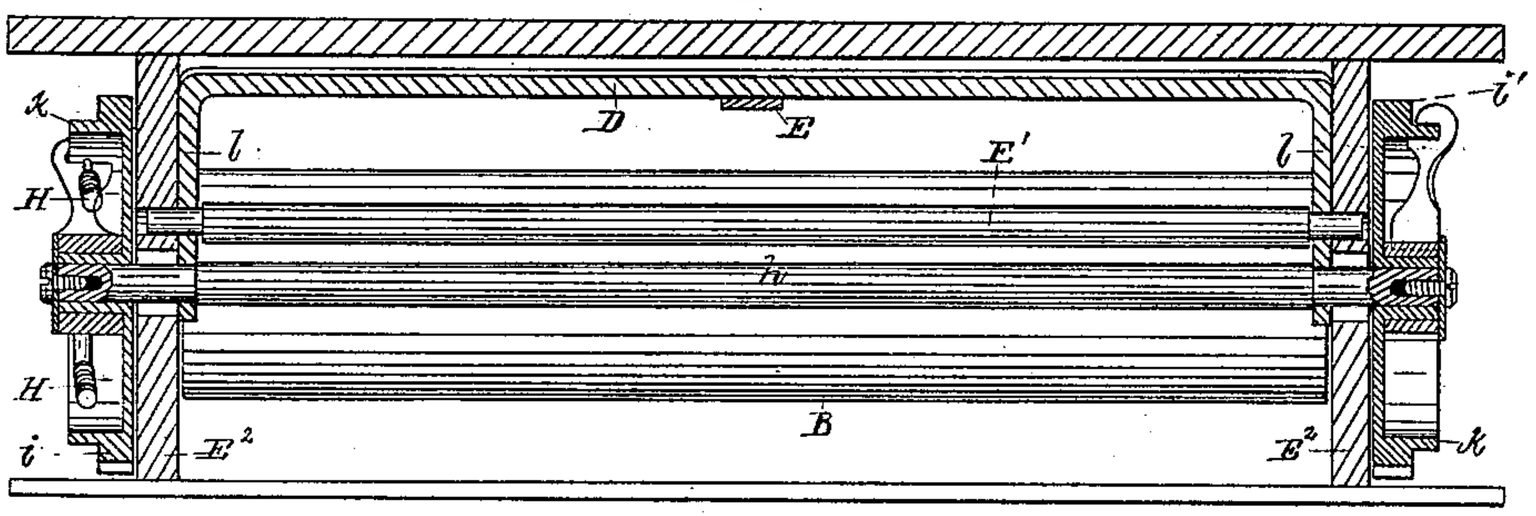


Fig. 3

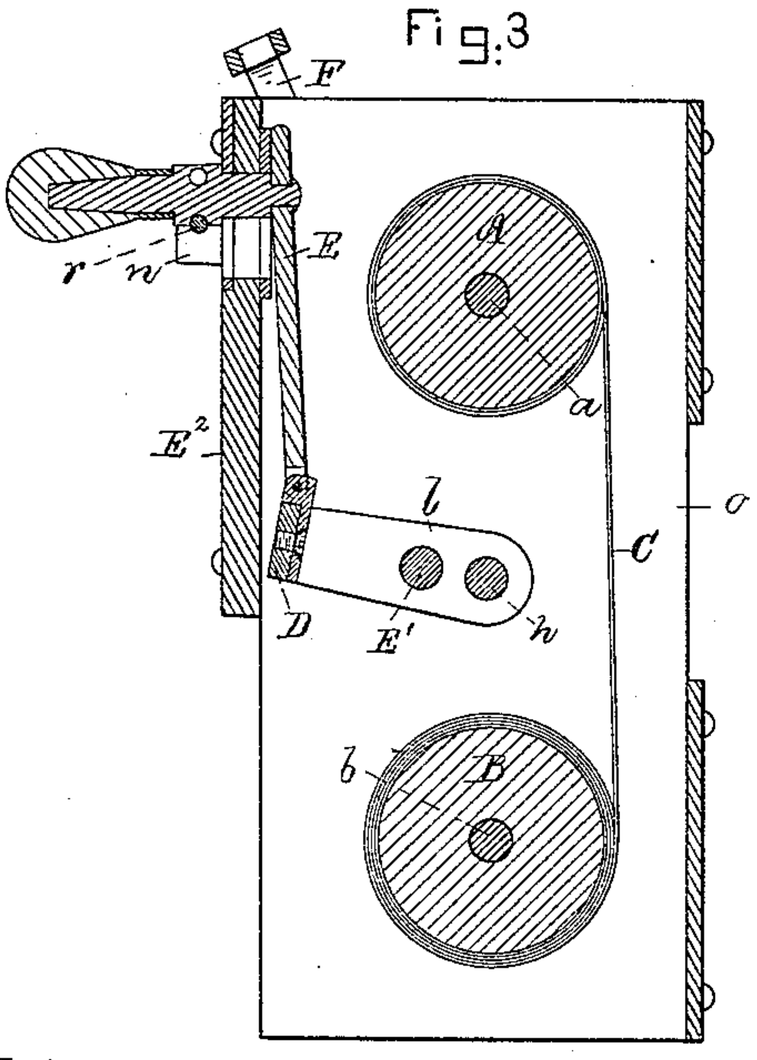
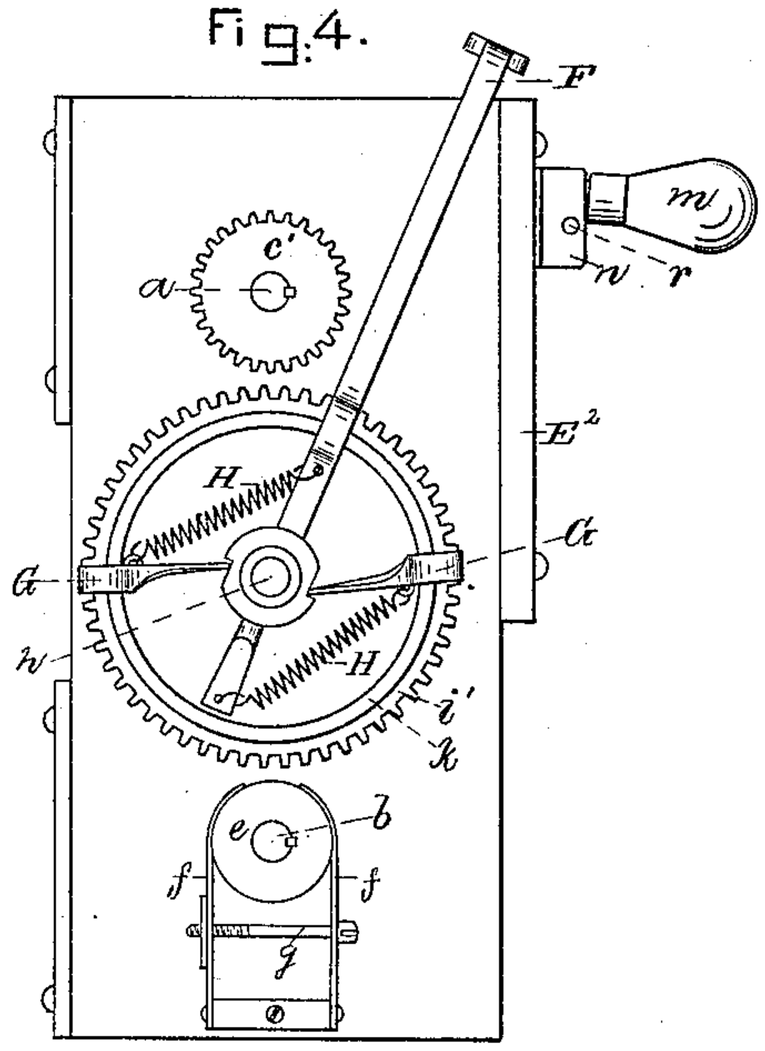


Fig. 4.



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N. PETERS. Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

J. B. ROBERTS.

STATION INDICATOR.

No. 251,463. Patented Dec. 27, 1881.

Fig. 2.

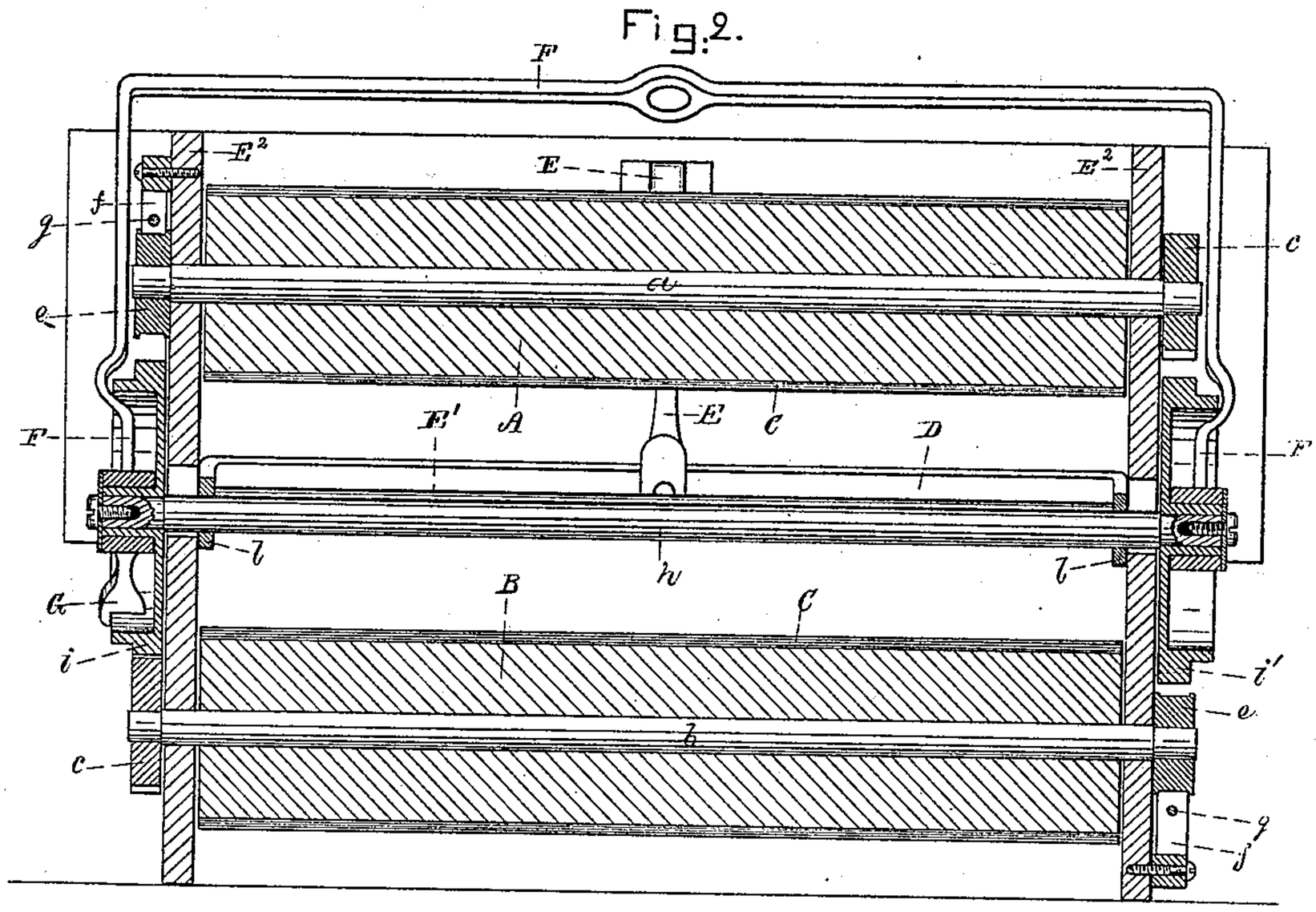
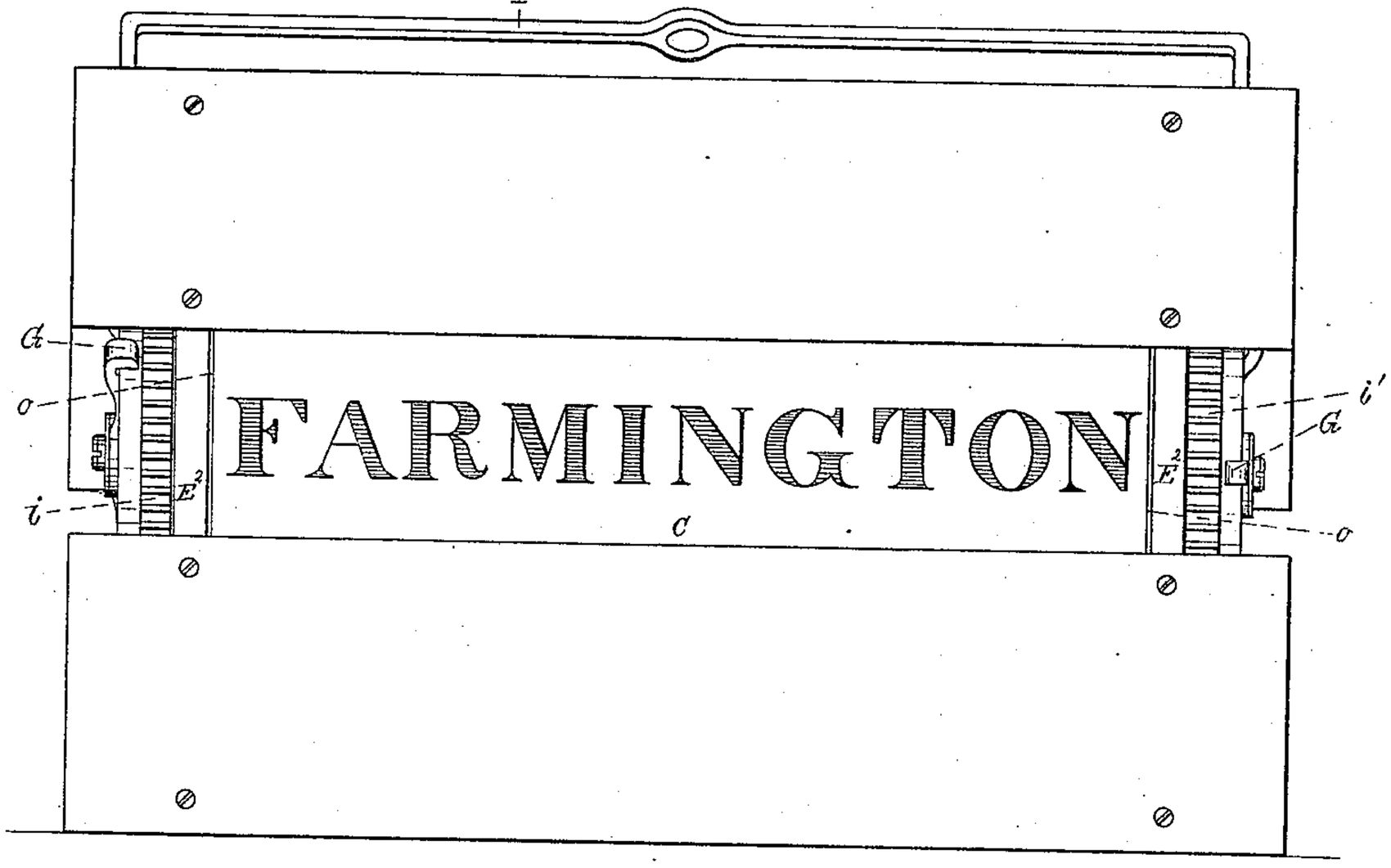


Fig. 5.



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UNITED STATES PATENT OFFICE.

JEREMIAH B. ROBERTS, OF FARMINGTON, NEW HAMPSHIRE, ASSIGNOR TO HIMSELF AND GEORGE A. JONES, CHAS. E. NEWMAN, AND ALONZO I. NUTE, OF SAME PLACE.

STATION-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 251,463, dated December 27, 1881.

Application filed October 8, 1881. (No model.)

To all whom it may concern:

Be it known that I, JEREMIAH B. ROBERTS, of Farmington, of the county of Strafford and State of New Hampshire, have invented a new and useful Improvement in Station-Indicators for Railway Passenger-Cars; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a longitudinal and vertical section, Fig. 3 a vertical and transverse section, Fig. 4 an end view, Fig. 5 a front elevation, and Fig. 6 a horizontal section, of a station-indicator embodying my invention, the nature of which is defined in the claims hereinafter made.

In such drawings, A and B are two drums or rollers mounted on two horizontal or parallel shafts, *a b*, and having a band or apron, C, fastened at its ends to them and extending around them, in manner as shown. On the band are to be printed or marked the names of the several stations of the line of a railroad, they being arranged on it at the required distances apart and in their proper order. There are fixed on the two shafts *a b* two spur-gears, *c c'*, one of which is at the right end of one shaft and the other at the left end of the other shaft. Furthermore, fastened on the shafts *a b* at their other ends are two wheels, *e*, each of which is embraced by two friction-springs *f*, arranged with it, as represented. A headed screw, *g*, going through one of the springs and screwed into the other, serves to vary the pressure of the springs on the periphery of the wheel. The friction apparatus to each of the drum-shafts is to hold the shaft and its roller from being accidentally revolved or turned by the jar of the car while it (the said car) may be in motion on the railway.

Between the shafts *a* and *b* is another horizontal shaft, *h*, having upon it two spur-gears, *i i'*, adapted to engage with one of the gears *c c'*. Each of the gears *i i'* has projecting from its outer side an annular flange, *k*. These gears *i i'* revolve freely on the shaft *h*, which is supported in bearings in the arms *l l* of a vibrator, D, pivoted on a shaft, E', arranged as shown.

A lifter, E, is jointed to the vibrator, and provided with a handle, *m*, the said lifter being extended between stationary parallel plates *n n*, projecting in manner as shown from the frame E^2 of the indicator, such frame having at its front an opening, *o*, of sufficient width to show the name of a station on the apron, when such name is directly in rear of such opening. By either raising or depressing the lifter, one of the gears *i i'* will be thrown into engagement with the gear *c* or *c'* next to it. A bolt, *r*, arranged as shown, when forced into the lifter, serves to hold it in its higher position.

The shaft *h* of the two gears *i i'* is connected to a brake, F, and there are to each of the said gears two clutch-arms, G G, formed and arranged as represented, such arms being pivoted upon the shaft. Fastened to each of the said arms and to the brake, and arranged therewith, as shown, is a spring, H. The brake is movable from one side to the other of the frame E^2. On such brake being so moved one way, the clutch-arms will be caused to bind on the gear-flanges in a manner to cause, with the brake, the two gears *i i'* to be partially revolved; and as one of them will be in engagement with one of the gears *c c'*, such gear will be revolved, and will turn its shaft, whereby motion will be imparted to the apron or band C to cause it to be wound upon one and unwound from the other of the two rollers A B the necessary amount to move one station-name away from the frame-opening and carry to it the next station-name on the apron.

Prior to reaching each station on the line of the railway, the brake is to be moved forward and next backward, the clutch-arms during the return movement of the brake not acting upon the flanges of the gears in a manner to cause the gears to be revolved. After the apron may have become unwound from one roller during the trip of the car, it may be rewound upon it during the return trip, in order for it to indicate at the opening *o*, and in due

order, the names of the stations of the line. Prior to the return trip being commenced the lifter should be moved in a manner to move into engagement with the gear of the winding-roller one of the gears *i i'*.

I contemplate connecting the several brakes F of all the station-indicators used in a train of cars with some suitable device or mechanism by which they may all be simultaneously moved in the same direction, in order that the conductor or some other suitable person of the train may be able to properly actuate all the brakes at once, in the proper manner, as occasion may require.

The lifter and its bolt is a convenient addition to the mechanism, though by no means an essential part thereof, as the vibrator may be moved up and down by manual or other proper power suitably applied to it.

What I claim as my invention in the herein-before-described station-indicator is—

1. The combination, substantially as specified, for operating, as explained, the two rollers A B of the name-band C, such consisting in the gears *c c'*, the shaft *h*, flanged gears *i i'*, vibrator D, shaft E', brake F, the clutch-arms G, and spring H, all being arranged and adapted essentially in manner as set forth.

2. The combination of the wheels *e* and their friction-springs *f* with the two rollers A B, the name-band C, gears *c c'*, shaft *h*, flanged gears *i i'*, vibrators D, shaft E', brake F, clutch-arms G, and spring H, all being arranged and adapted substantially in manner and to operate as and for the purpose set forth.

JEREMIAH B. ROBERTS.

Witnesses:
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WALTER E. DARLING.