

No. 692,733.

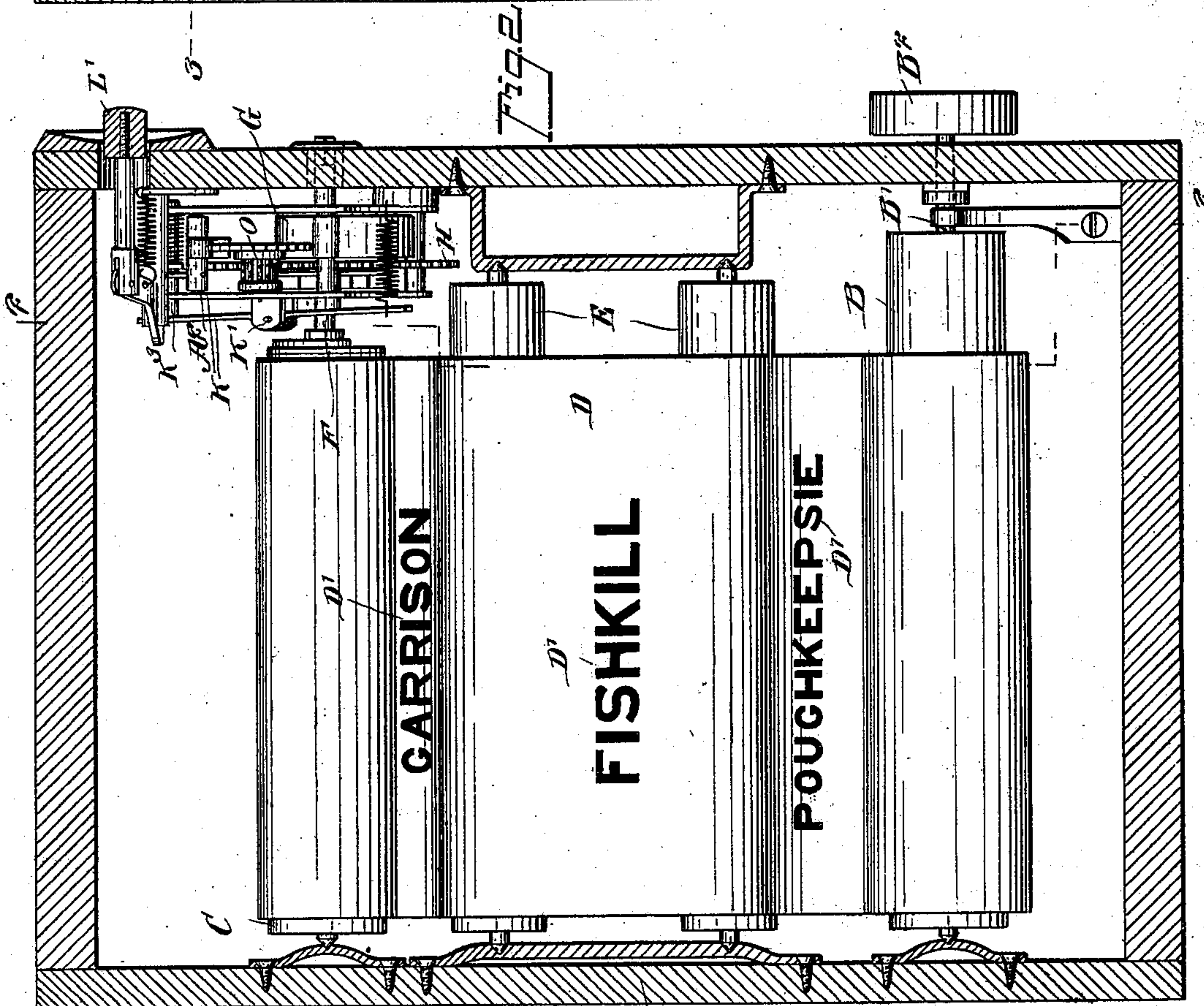
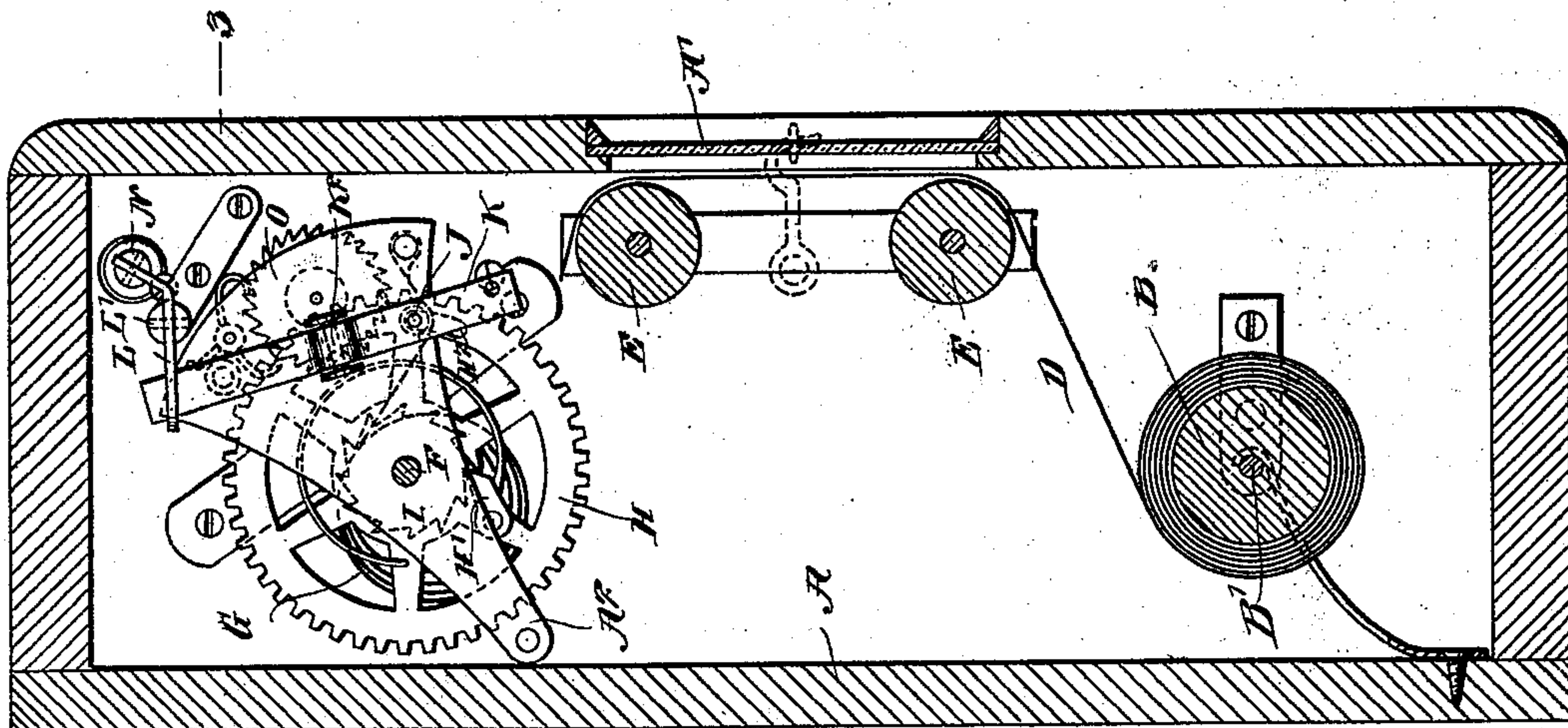
Patented Feb. 4, 1902.

A. M. TAYLOR.
STATION INDICATOR.

(Application filed Aug. 20, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

J. A. Prophy
Rev. J. Keister

Fig. 2

INVENTOR

Andrew M. Taylor

BY

Mumford

ATTORNEYS

No. 692,733.

Patented Feb. 4, 1902.

A. M. TAYLOR.
STATION INDICATOR.

(Application filed Aug. 20, 1901.)

(No Model.)

2 Sheets—Sheet 2.

Fig 3

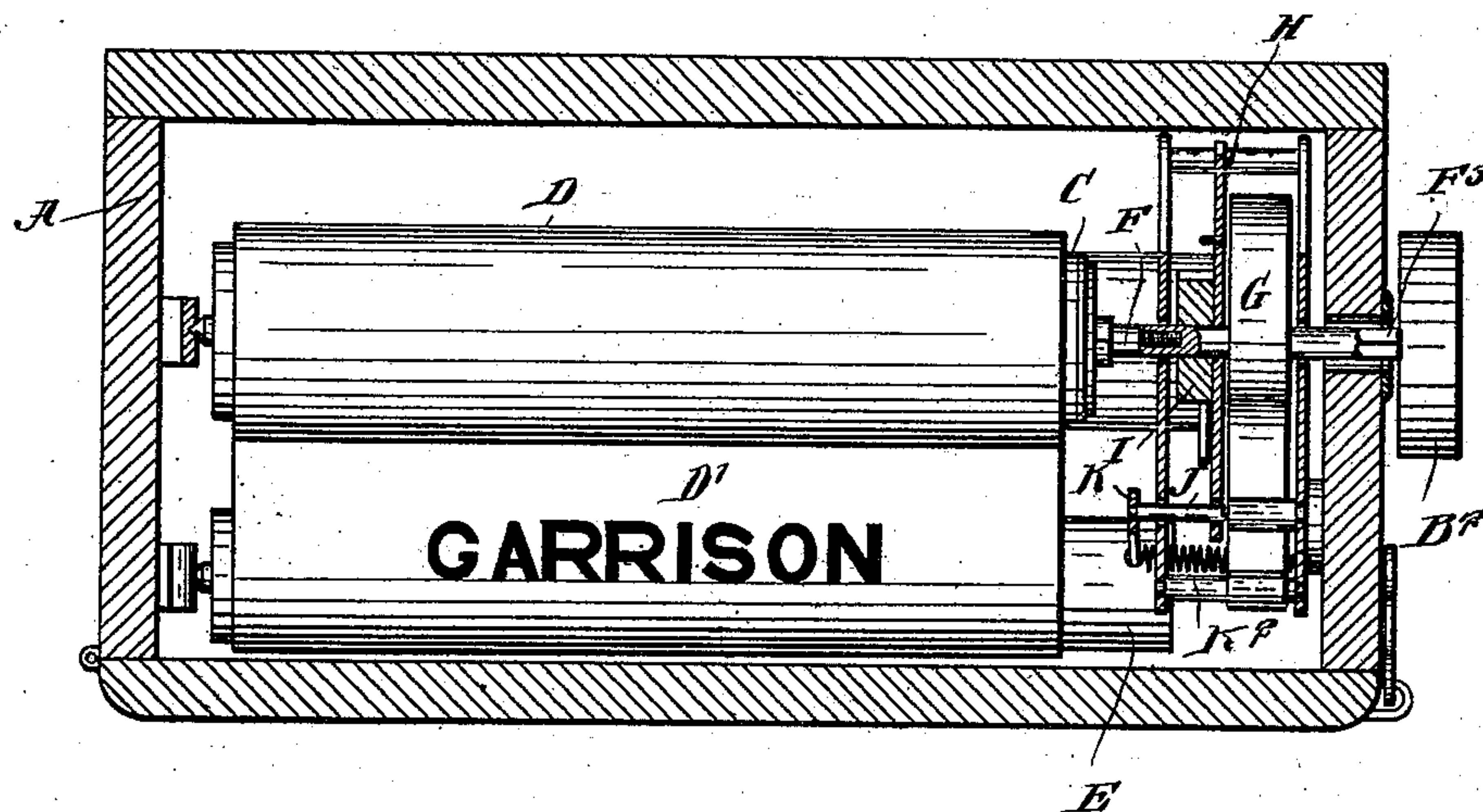


Fig 4

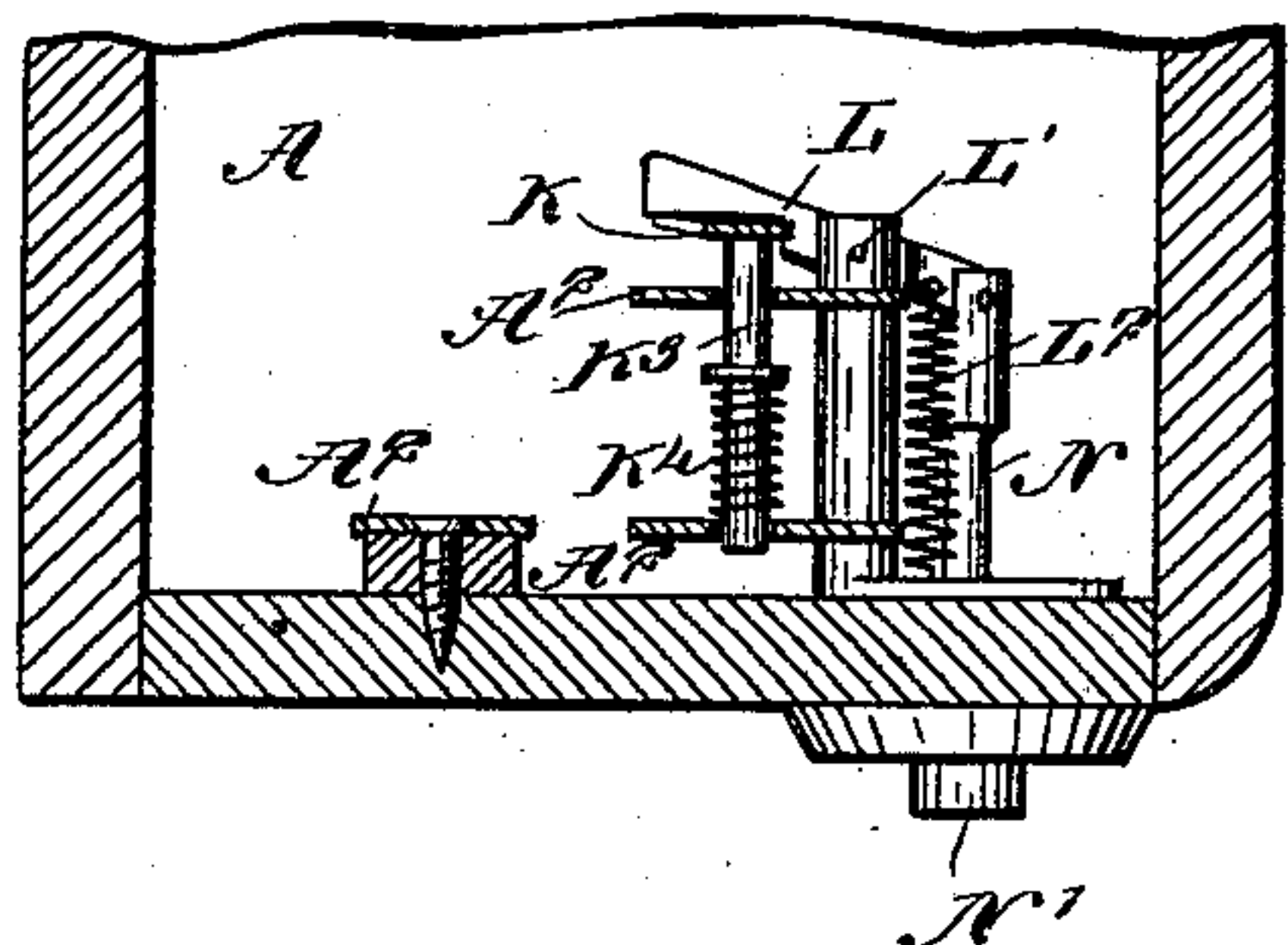
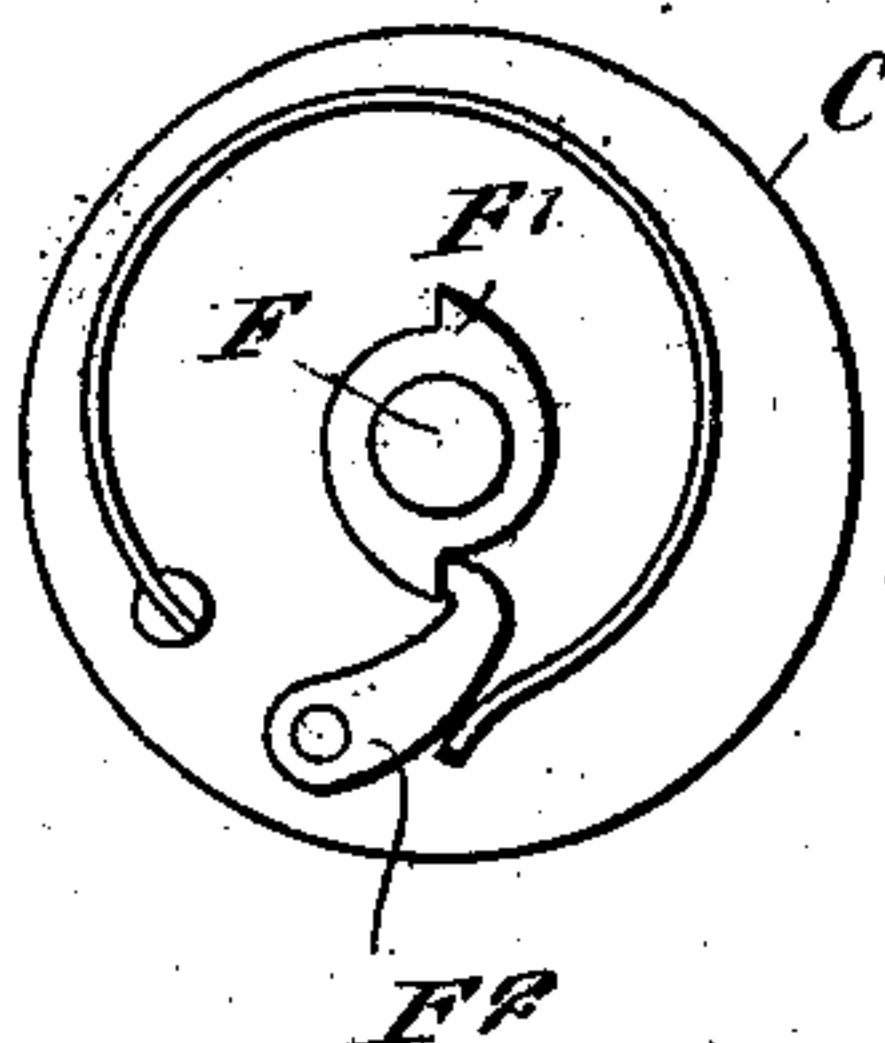


Fig 5



WITNESSES:

J. A. Proply
Rev. G. H. H. H.

INVENTOR

Andrew M. Taylor

BY

M. M. H. H.
ATTORNEYS

UNITED STATES PATENT OFFICE.

ANDREW M. TAYLOR, OF PORT EWEN, NEW YORK.

STATION-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 692,733, dated February 4, 1902.

Application filed August 20, 1901. Serial No. 72,659. (No model.)

To all whom it may concern:

Be it known that I, ANDREW M. TAYLOR, a citizen of the United States, and a resident of Port Ewen, in the county of Ulster and State

of New York, have invented a new and Improved Station-Indicator, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved station-indicator for use in railroad-cars, street-cars, and other vehicles, and which is simple and durable in construction and arranged to permit the attendant of the vehicle to quickly set the apparatus for prominently displaying in the vehicle the next station or street.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional front elevation of the improvement. Fig. 2 is a transverse section of the same on the line 2 2 of Fig. 1. Fig. 3 is a sectional plan view of the same on the line 3 3 of Fig. 2. Fig. 4 is an inverted sectional plan view showing more particularly parts of the releasing and locking device, and Fig. 5 is an enlarged face view of the connection between the winding-up roller and the spring-actuated shaft.

The station-indicator is mounted in a suitably-constructed casing A, preferably secured within the car or other vehicle at the ends thereof, so that the name of the next station or street can be readily seen by the occupants of the vehicle. Within the casing A are arranged two rollers B and C, located one above the other, and on the said rollers winds and unwinds a web D, having printed or otherwise arranged thereon legends D', indicating the names of the stations on a certain railway or the names of the streets intersecting a street-car line. The roller B is the unwinding-roller for the web D, and the roller C is the winding-roller and serves to wind up the web, as hereinafter more fully described. The web in its passage from one roller to the other passes over idlers E, and the portion of

the web between the said idlers appears in the rear of a window A', arranged in the front of the casing A, as plainly indicated in Fig. 2. The roller B is secured on a shaft B', journaled in suitable bearings in the casing, and one end of said shaft extends to the outside of the casing and carries at the outside of the casing a knob or handle B² for turning the shaft of the roller B when rewinding the web on the said roller B. The other roller C is mounted to rotate loosely on a shaft F, journaled in suitable bearings within the casing A, and on the said shaft F is fastened a ratchet-wheel F', adapted to be engaged by a spring-pressed pawl F², (see Fig. 5,) fulcrumed on one end of the roller C, so that when the shaft F is turned in one direction the pawl F² will glide over the ratchet-wheel F' and the roller C will remain at a standstill; but when the shaft F is turned in the opposite direction by a spring-motor then the roller C is caused to rotate with the shaft to wind up the web D on the said roller. On the shaft F is secured the inner end of a helical spring G, secured at its outer end on a bar forming part of an auxiliary frame A², attached to the inside of the casing A. On the shaft F is mounted to rotate loosely a gear-wheel H, carrying a spring-pressed pawl H', in mesh with a ratchet-wheel I, secured on the shaft F, so that when the latter is turned in one direction by a key applied to the outer square end F³ of the shaft then the pawl H' glides over the ratchet-wheel; but when the wheel H is released, as hereinafter more fully described, then the spring G rotates the shaft F and by the ratchet-wheel I and pawl H' causes rotation of the wheel H for winding up the web, as previously mentioned. The gear-wheel H is formed with an elongated slot H², (see Fig. 2,) adapted to be engaged by a pin J, held on one end of a lever K, fulcrumed at or near its middle at K' on the auxiliary frame A², and the other end of the said lever K is adapted to be engaged by one end of a second lever L, fulcrumed at L' on the auxiliary frame A². (See Figs. 2 and 4.) The lever L is pivotally connected with a rod N, extending through an opening in one side of the casing A and carrying at its outer end a button L', adapted to be pressed by the attendant of the car or other vehicle in which

the station-indicator is used. A spring K^2 presses the end of the lever K having the pin J , and on the other end of the said lever is held a pin K^3 , pressed on by a spring K^4 . (See Fig. 4.) The tendency of the spring K^2 and the said spring-pressed pin K^3 is to hold the lever K in such position that the pin J engages the slot H^2 whenever the attendant releases the pressure on the button L' . A spring L^2 is connected with the lever L , so as to return the said lever L , the rod N , and the button L' back to a normal position as soon as the attendant releases the pressure on the button L' . A suitable escapement O is preferably connected with the wheels H to insure a uniform turning of the said wheel when released.

The operation is as follows: When the several parts are in the positions as illustrated in the drawings, then a station on the road is displayed through the window A' , and when the train leaves the station the attendant of the car in which the apparatus is located presses and releases the button L' , so that the pin J is temporarily thrown out of the slot H^2 to unlock the wheel H , so that the spring G can now rotate the shaft F and the roller C to wind up the web D such distance that the next station appears behind the window A' . When this takes place, the wheel H has made one revolution, and as the button L' is released by the operator it is evident that the pin J immediately snaps into the slot H^2 , owing to the action of the spring-pressed lever K . Thus further turning of the main wheel H , shaft F , and roller C is arrested until the attendant of the car again successively presses and releases the button L' to repeat the above-described operation.

The lever K , which carries the locking-pin J , is controlled normally by the spring K^2 and by the spring K^4 on the guide-pin K^3 , so as to hold the pin J in locking engagement with the slotted wheel H on the motor-driven shaft F , whereby the shaft is held at rest by the locking mechanism. The lever L , which is connected at one end with the push-pin N , having the button L' , is held normally in operative engagement with the free end of the locking-lever K by means of the spring L^2 , thus disposing the two levers L K in position for service. The spring L^2 of the intermediate lever L also acts to hold the push-pin in a position where its knob L' is exposed beyond the casing of the indicator. The spring G tends to normally impel the shaft in one direction, but it is restrained by the slotted wheel and the locking devices which are associated therewith. The take-up roller C , which is mounted loosely on the motor-driven shaft, is clutched to the shaft to rotate therewith when impelled by the motor-spring.

The slotted wheel H is also fitted loosely on the motor-driven shaft F , but it is clutched thereto by the pawl and ratchet, so that it will rotate with the shaft and the take-up roller when the parts are impelled by the motor-spring. It is therefore evident that the take-up roller and the locking-wheel will rotate with the shaft when it is driven in one direction, but said roller and the wheel are made free from the shaft by the action of their clutch devices when said shaft is turned in an opposite direction—as, for example, by means of a key or crank applied to the squared end of the shaft—whereby the shaft F may be actuated to wind up the spring G without affecting the locking mechanism or the take-up roller.

It is to be understood that the legends D' on the web D are so spaced apart that each revolution of the wheel H and roller C brings a succeeding legend to view behind the window.

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

1. In a station-indicator, the combination with a movable apron, a motor-driven shaft, and a take-up roller mounted on said shaft and adapted to have said apron wound thereon, of a slotted wheel mounted on said shaft, a locking-lever provided with a locking projection, means acting on said lever to normally hold the projection in locking engagement with the slotted wheel and thereby arresting said shaft, a manually-operative push-pin, and a spring-repressed lever in operative relation to the locking-lever and connected with said push-pin to normally hold the latter in an exposed operative position.

2. In a station-indicator, the combination with a movable apron, and a roller-shaft, of a take-up roller for said apron and having clutch connection with the shaft to be driven thereby when the shaft rotates in one direction, means for impelling said shaft in one direction, a slotted wheel loosely fitted on the shaft and having clutch connection thereto so as to rotate therewith when driven by the impelling means, whereby the roller-shaft is adapted to be turned in a backward direction without affecting the take-up roller or the slotted wheel, and a manually-operative locking and releasing mechanism normally engaged with the slotted wheel.

In testimony whereof I have signed my name to this specification in the presence of two witnesses.

ANDREW M. TAYLOR.

Witnesses:

ABNER WELLS,
GEORGE W. ROSS.