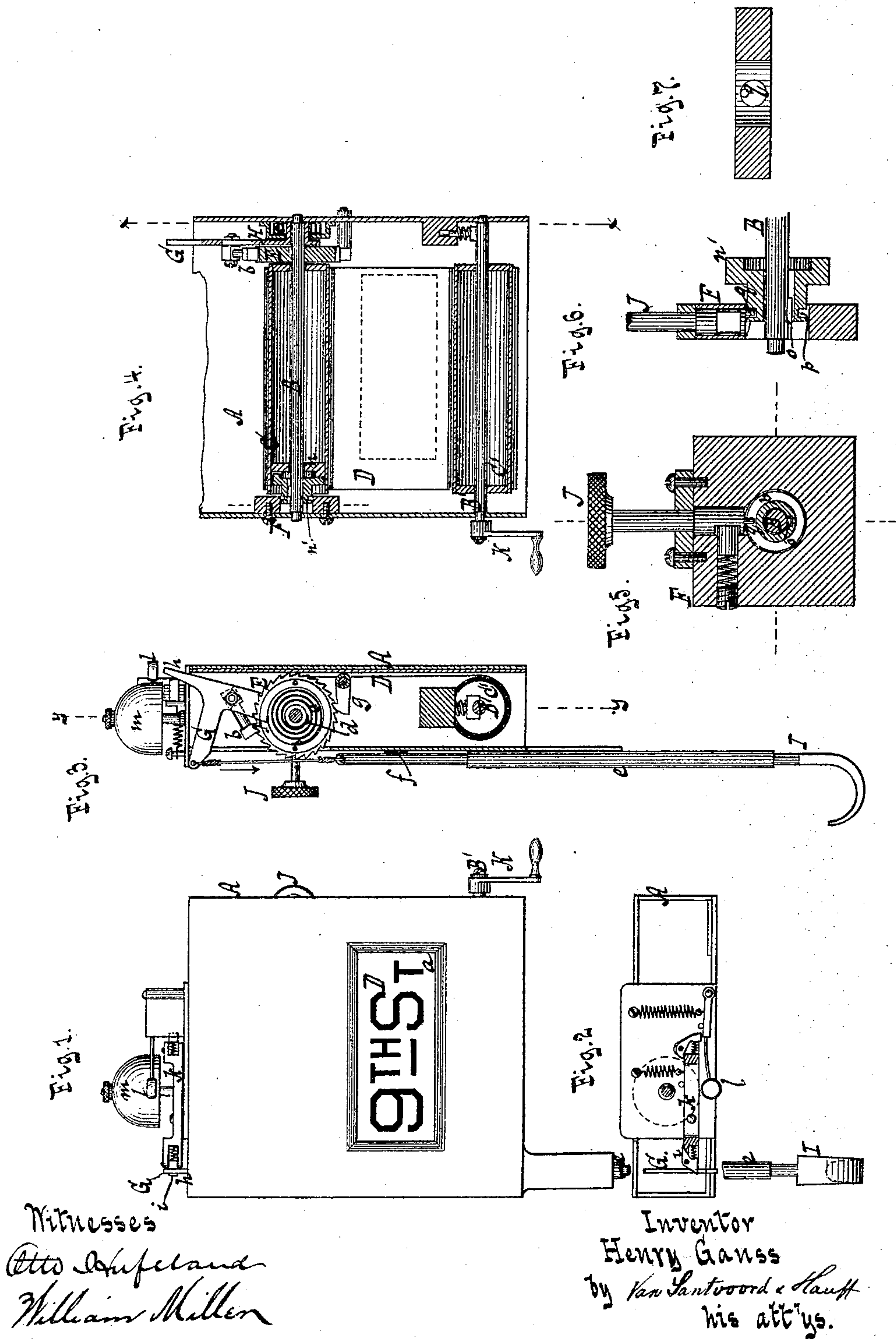


(No Model.)

H. GANSS.
STATION INDICATOR.

No. 249,033.

Patented Nov. 1, 1881.



UNITED STATES PATENT OFFICE.

HENRY GANSS, OF NEW YORK, N. Y.

STATION-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 249,033, dated November 1, 1881.

Application filed August 18, 1881. (No model.)

To all whom it may concern:

Be it known that I, HENRY GANSS, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Station-Indicators for Railroads, of which the following is a specification.

The object of this invention is a device for displaying the names of successive stations of a railroad and to call the attention of the passengers to any change which is made on the indicator, my device being so constructed that whenever the train leaves a station the brakeman or other attendant, by pulling a handle, brings the name of the next succeeding station in view, and at the same time causes the alarm to give a clear and distinct sound.

The peculiar construction of my device is fully pointed out in the following specification.

This invention is illustrated in the accompanying drawings, in which—

Figure 1 represents a front view. Fig. 2 is a top view. Fig. 3 is a transverse vertical section in the plane xx , Fig. 4. Fig. 4 is a longitudinal section in the plane yy , Fig. 3. The remaining figures, 5, 6, and 7, are details, which will be referred to as the description progresses.

Similar letters indicate corresponding parts.

In these drawings, the letter A designates a case which forms the bearings for two shafts, B B', on each of which is mounted a roller, C C', respectively, the upper roller, C, being mounted loosely on its shaft B, while the lower roller, C', is mounted firmly on its shaft B'. These rollers carry an apron, D, one end of which is attached to the upper roller, C, while its other end is secured to the lower roller, C'. On this apron are marked the names of the successive stations on a railroad, and in the face of the case A is an opening, a , covered by a pane of glass, through which said names become visible as the apron is gradually wound up on the upper roller, C. On the shaft B of this roller is firmly mounted a ratchet-wheel, E, while the roller can be connected to its shaft by a clutch mechanism, F, so that it will be compelled to turn with said shaft. The required motion is imparted to this shaft by a bell-crank lever, G, which swings freely on the shaft, and carries a spring-pawl, b , that en-

gages with the ratchet-wheel E. The shaft B extends through a drum, H, which is secured to the case A and incloses a coiled spring, c , the outer end of which is fastened to the drum, while the inner end is fastened to a pin, d , projecting from the bell-crank lever G, so that when this lever is drawn down in the direction of the arrow marked on it in Fig. 3 the spring c is wound up, and when the bell-crank lever is released it returns to its original position by the action of said spring. The bell-crank lever is actuated by a handle, I, which slides in a tubular guide, e , secured to the case A, and on the case is secured a stop, f , which limits the downward motion of the bell-crank lever, and which is so placed that whenever the handle I is drawn clear down so as to cause the bell-crank lever to strike the stop f the apron D is moved to display a new name through the opening a . A stop-pawl, g , prevents the ratchet-wheel E from moving in the wrong direction. From the top of the bell-crank lever projects a lip, h , which acts upon a toe, i , secured in the alarm-lever k , said toe being rigid in one and yielding in the opposite direction. When the bell-crank lever is carried up by the action of the coiled spring c the toe i yields and the lip h catches behind it, so that when the bell-crank lever is drawn down an oscillating motion is imparted to the alarm-lever k . This lever serves to actuate a hammer, l , which strikes a bell, m , whenever the bell-crank lever G is drawn down, so as to call the attention of the passengers to the fact that a new name is being displayed on the indicator.

The clutch mechanism F consists of two toothed disks, $n n'$, one of which is secured to the end of the upper roller, C, while the other is mounted on the shaft B and connected to the same by a feather-key, o . In the hub of the disk n' is a circular groove, p , and with this groove engages a pin, q , which projects from the shank of a button, J, so that by turning this button the disk n' can be thrown in or out of gear with the disk n . If the two disks are in gear, the roller C turns with its shaft B; but if the two disks are out of gear the roller C turns loosely on its shaft, so that the apron can be unwound from the same. For this purpose a hand-crank, K, is secured on the shaft B of the lower roller, and by turning this crank in

the proper direction the apron is unwound from the upper roller, C, and wound on the lower roller, C'.

5 The indicator is intended to be secured in a conspicuous place in each railroad-car, and whenever the train has passed a station the handle I is pulled so as to display the name of the next succeeding station, while at the same time the alarm is sounded and the attention of
10 the passengers is called to the change of the indicator.

What I claim as new, and desire to secure by Letters Patent, is—

15 1. The combination, substantially as hereinbefore described, of the apron containing the names of the successive stations, the two rollers to which the ends of said apron are secured, the ratchet-wheel mounted on the shaft of the upper roller, the clutch mechanism for connect-
20 ing the upper roller to or releasing it from its shaft, the bell-crank lever mounted loosely on said shaft, the spring-pawl attached to said bell-crank lever and engaging with the ratchet-wheel, the coiled spring, the drum to which the
25 outer end of said spring is fastened, the pin projecting from the bell-crank lever and se-

cured to the inner end of the coiled spring, the handle secured to the bell-crank lever, the alarm, the lip projecting from the bell-crank lever, and the spring-toe on the alarm-lever. 30

2. The combination, substantially as hereinbefore described, of the apron containing the names of the successive stations, the two rollers to which the ends of said apron are secured, the ratchet-wheel mounted on the shaft of the
35 upper roller, the clutch mechanism for connecting the upper roller to or releasing it from its shaft, the finger button for adjusting the clutch mechanism, the bell-crank lever for imparting motion to the upper roller in one direction to
40 wind up the apron on said roller, and the hand-crank on the shaft of the lower roller for unwinding the apron from the upper roller and winding it up on the lower roller.

In testimony whereof I have hereunto set my
45 hand and seal in the presence of two subscribing witnesses.

HENRY GANSS. [L. S.]

Witnesses:

W. HAUFF,
E. F. KASTENHUBER.