E. A. Davis.

Station Indicator.

No. 16,005. Patented Nov. 4, 1856.

Fig. 1.

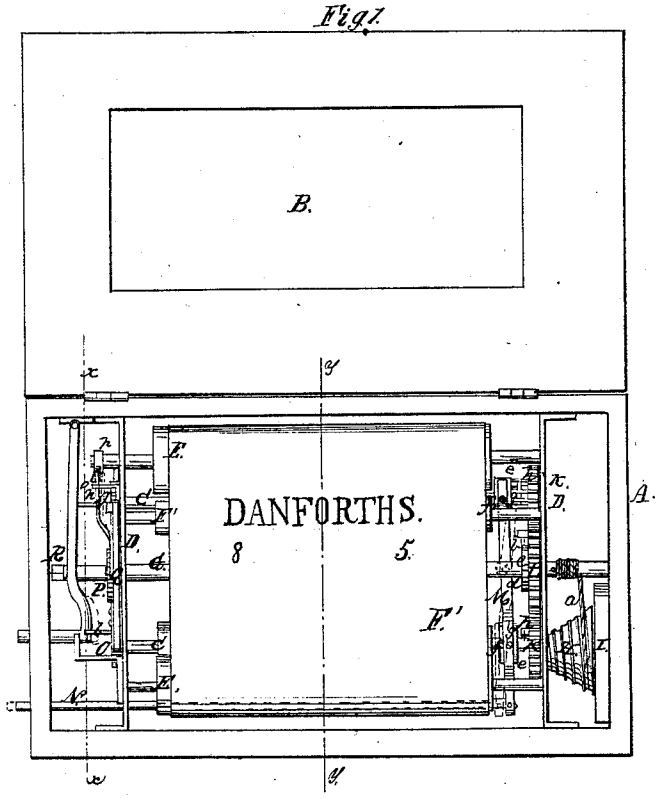

Fig. 2.

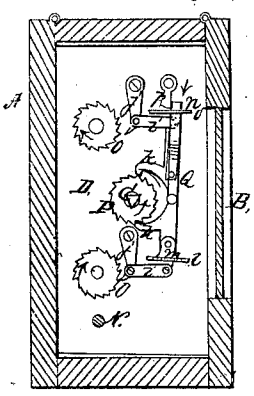

Fig. 3.

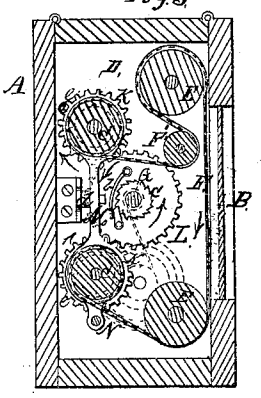

Fig. 4.

UNITED STATES PATENT OFFICE.

EDWIN A. DAVIS, OF CRAWFORDSVILLE, INDIANA.

RAILROAD-STATION INDICATOR.

Specification of Letters Patent No. 16,005, dated November 4, 1856.

To all whom it may concern:

Be it known that I, EDWIN A. DAVIS, of Crawfordsville, in the county of Montgomery and State of Indiana, have invented a new and Improved Railroad-Station Indicator; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a front view of my improvement. Fig. 2, is a transverse vertical section of ditto, (*x*), (*x*), Fig. 1 showing the plane of section. Fig. 3 is also a transverse vertical section of ditto (*y*), (*y*), Fig. 1, showing the plane of section. Fig. 4, is a detached view of the device by which the stop is free from the ratchet on the driving shaft.

Similar letters of reference indicate corresponding parts in the several figures.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents a box of rectangular form and of any proper dimensions. The front of this box has a glass B, inserted in it.

C, C, represent two reels or drums which are placed horizontally within the box A, the axes of the reels or drums being fitted in upright plates D, D, within the box. One of the drums is at the upper and the other at the lower part of the box A. E, E, are two cylinders also fitted within the box A, the axis of said cylinders having their bearings in the plates D, D, one cylinder being at the lower part of the box. To the drums C, C, an endless apron F, is attached one end of the apron being attached to the lower and the other end to the upper roller. The endless apron passes around the cylinders E, E, and also around a smaller cylinder F^1, which is merely used as a lightener.

G, represents a driving shaft which is parallel with the cylinders E, E. One end of this shaft passes through one end of the box A, and has a square upon it to receive a key. The opposite end of the shaft G, has a cord (*a*), passing around it, which cord is attached to a fusee H, which has a coil spring I, connected with its axis.

On the axes of the reels or drums C, C, there are placed loosely toothed wheels K, one of each, and both of the wheels K, gear into a wheel L, on the driving shaft G, said wheel L, being connected with the shaft G, by a pawl (*b*), and ratchet (*c*), so that it may turn with the shaft in one direction and remain stationary while the shaft is turning in the opposite direction.

M, represents a bar which is pivoted at its center to an arm (*d*), attached to one of the plates D. The ends of this bar have loops or circular eyes formed on it, one on each end, and a circular hub (*e*), is fitted within each loop. These hubs are attached to the axes of the reels or drums C, C, by feathers and grooves so that the hubs turn with the drums, but are allowed to slide thereon. The hubs are connected to the hoops or eyes by pivots (*f*). Each hub has a pin or projection (*g*), upon it, and the toothed wheels K, have similar pins or projections (*h*), upon them. The bar M, has a rod N, connected with its lower end, and by moving this rod N, either of the hubs (*e*), may be thrown in gear with the wheel K, on its shaft, while the other hub is thrown out of gear with the wheel on its shaft. By this means the apron F, may be moved in either direction as desired. It will be seen therefore that the bar M, with hubs (*e*), attached is merely a clutch to throw either of the reels or drums in gear with the driving device.

The ends of the axes of the reels or drum C, C, opposite to the ends on which the wheels K, are placed, have ratchets O, O, upon them, one on each. These ratchets are on the outer side of one of the plates D, as shown more particularly in Fig. 2. The driving shaft G, also has a ratchet P, upon it at the outer side of said plate.

Q, is a bar which is pivoted at its center to the outer side of the plate D. Both ends of this bar are connected by links (*i*), with pawls (*j*), which are pivoted to said plate D, a pawl being by the side of each of the ratchets O, O, see Fig. 2. The center portion of the bar Q, has two pawls (*k*), (*k*), attached to both, which catch into the ratchet P, but only one at a time. The same may be said of the pawls (*j*), with respect to their catching into the ratchets O, O.

To the lower end of the bar Q′ a horizontal plate (*l*), is attached, said plate having a V-shaped recess (*m*), cut in it as shown in Fig. 4, and R, is a lever, the upper end of which is fitted or secured within the box A, the lower end being bent horizontally and passing through one end of the box A. The

lower end of this lever fits in the recess (*m*), in the plate (*l*).

The bar Q, has a spring (*n*), attached to it, the upper end of said spring working in a loop or guide (*o*). This spring prevents the casual movement of the bar Q.

The endless apron F, has the name of the several stations painted upon it at equal distances apart, and the time of stoppage at each station may also be painted upon it. The spring I, is wound up by turning the shaft G, by means of a key placed on the square at one end of it.

The axis of one of the cylinders E, has a small crank (*p*), upon it as shown clearly in Figs. 1, and 2.

The operation will be readily seen. Before the train starts, the apron F, is wound up on one of the reels or drums C, and as the train stops at each station the lever R, is pressed inward by hand or comes in contact with any proper projection which may be placed at each station, the lever R, projecting through the side of the car so that it may come in contact with said projection, when the lever R is pressed inward the bar Q, will be moved in consequence of the bar pressing against one side of the recess (*m*), in the plate (*l*), and one of each of the pawls (*k*), (*j*), will be thrown free from their respective shafts and the apron F, will be moved by the coil spring I, the cylinders E, rotating one revolution and bringing the name of the station directly opposite the glass B, in the part of the box A, when the cylinders have made revolution the crank (*p*), strikes against the spring (*n*), and moves the bar Q, so that the pawls (*k*), (*j*), again catch into their respective ratchets and stop the motion of the apron. The operation is the same at each station. As the cars return the motion of the apron is reversed by moving the rod N.

I do not claim the endless apron F, operated by a spring for that has been previously used for the same purpose, but—

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

The bar Q, connected with the pawls (*j*), (*j*), (*k*), (*k*), and operated by the lever R, and crank (*p*), arranged specifically as herein shown and described for the purpose set forth.

EDWIN A. DAVIS.

Witnesses:

SAMUEL BINFORD,

WILLIAM BEALE.