

F. H. YOUNG.
Station-Indicator for Railroads.

No. 219,791.

Patented Sept. 16, 1879.

Fig: 1.

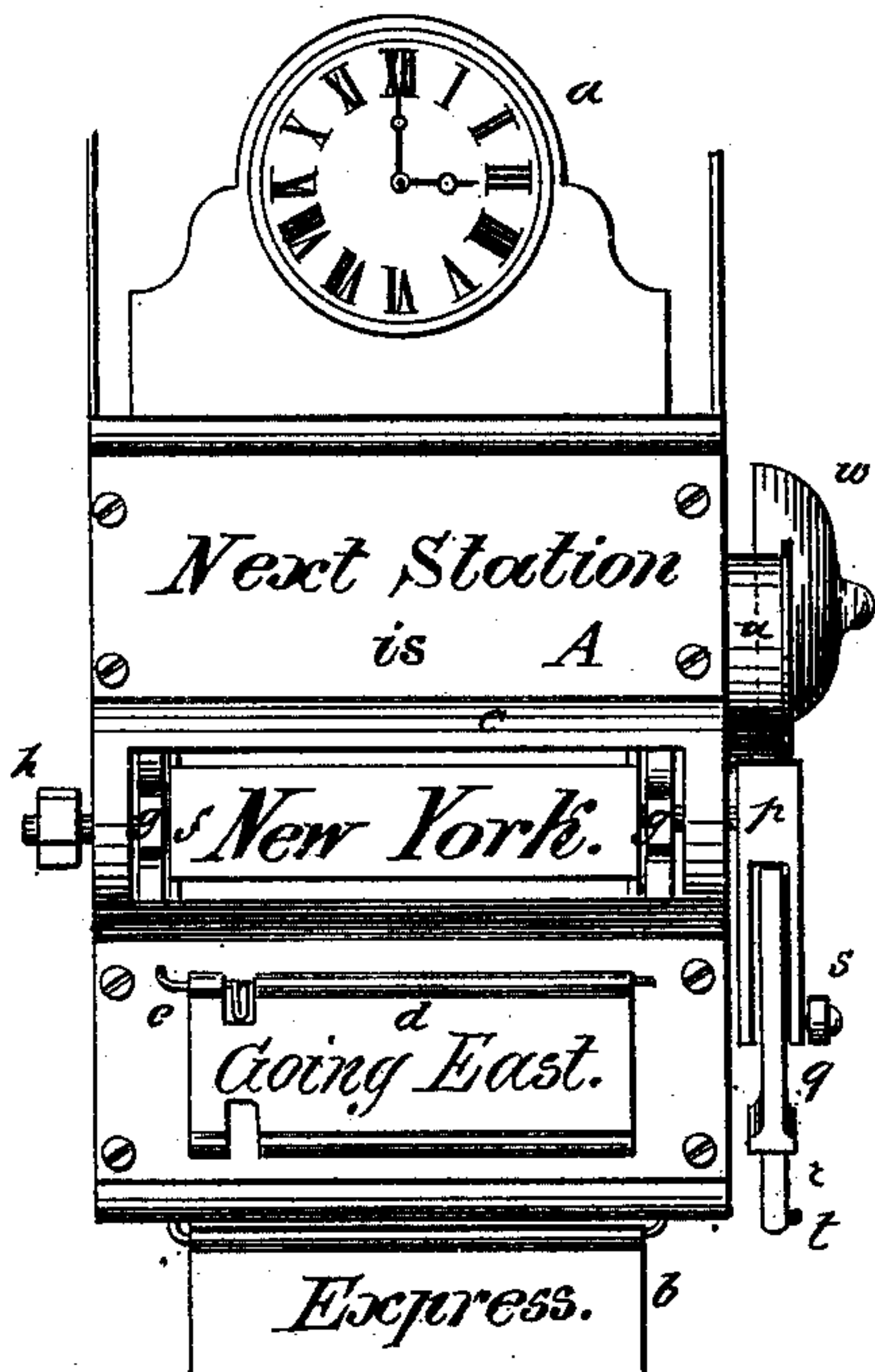


Fig: 2.

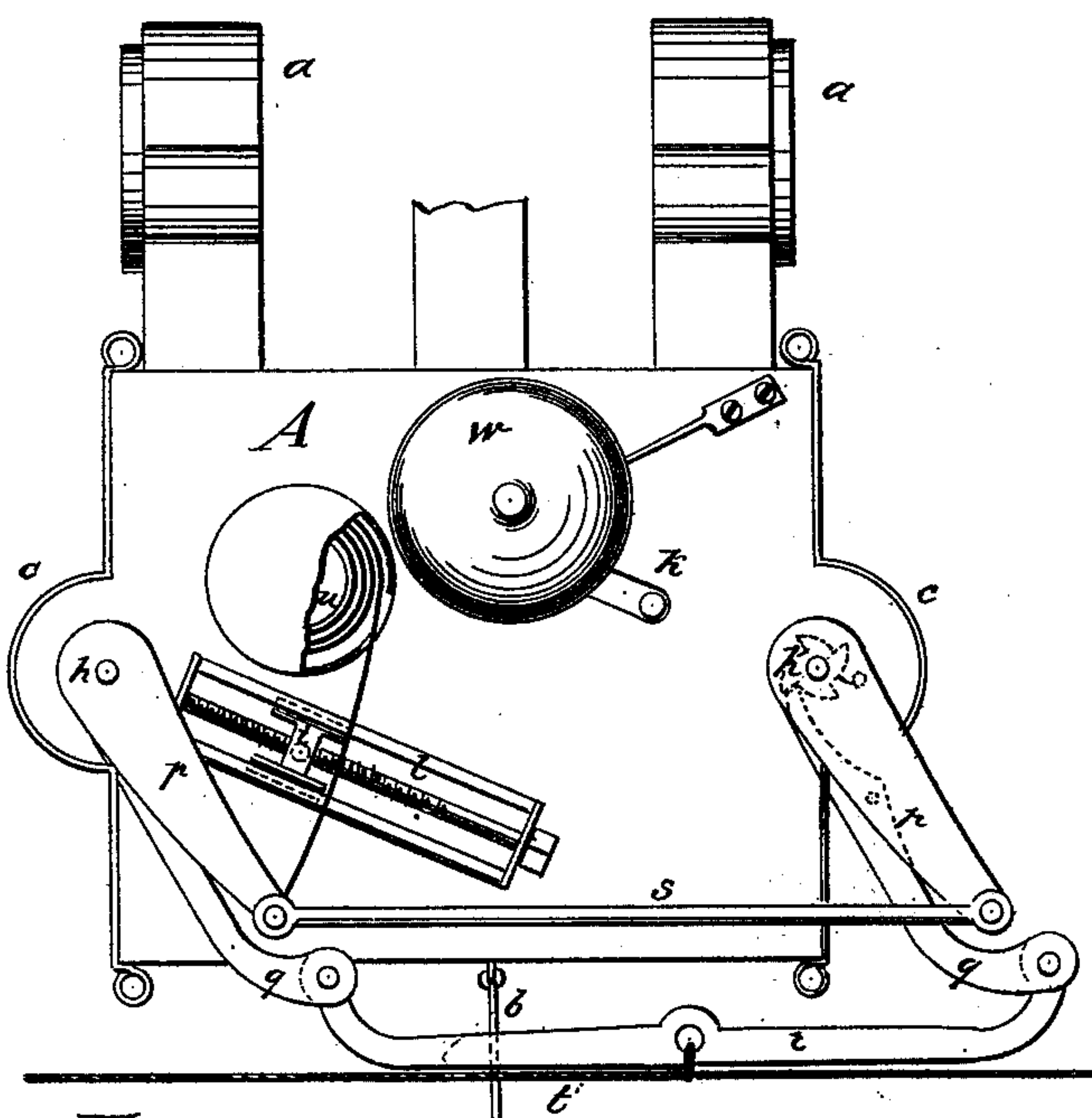


Fig: 3.

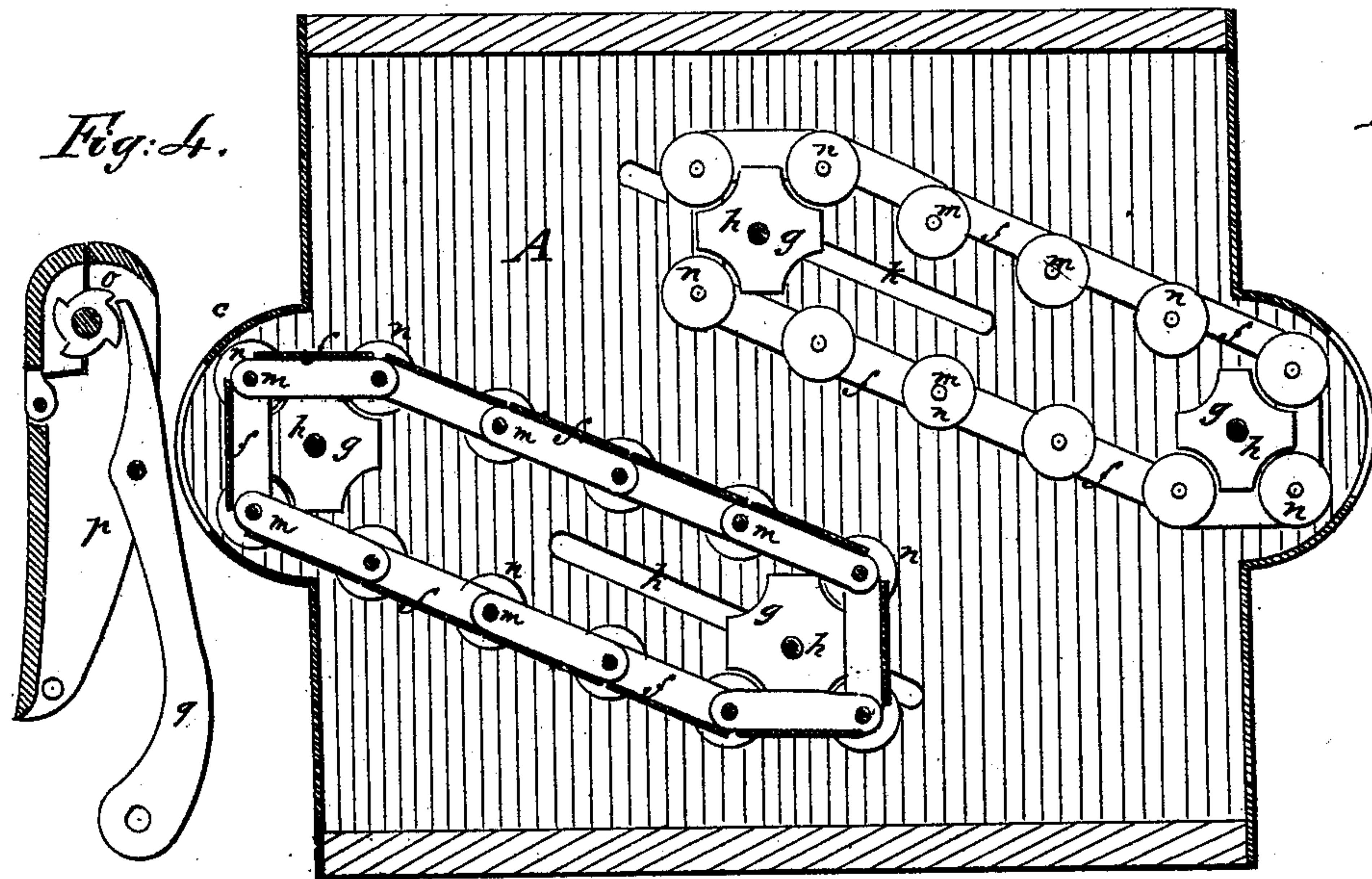


Fig: 5.

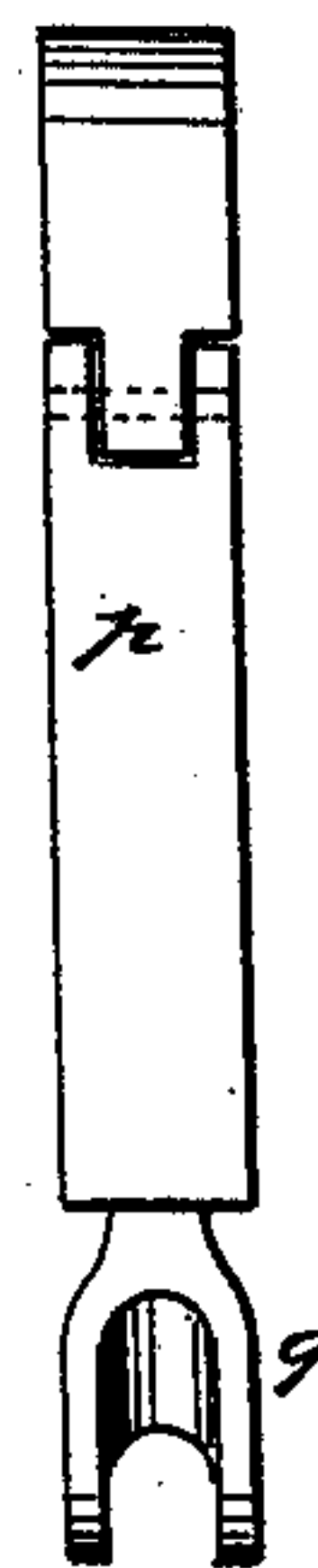
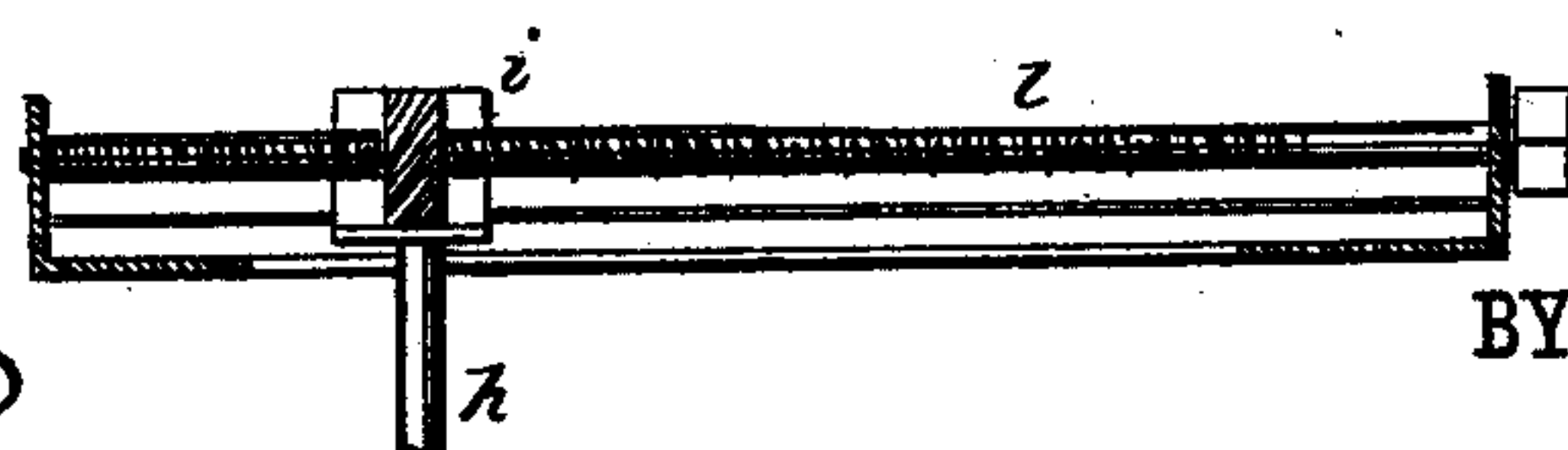


Fig: 6.



WITNESSES:

Chas. Nida
C. Sedgwick

INVENTOR:

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UNITED STATES PATENT OFFICE.

FRANCIS H. YOUNG, OF STANHOPE, NEW JERSEY, ASSIGNOR TO HIMSELF
AND COOK CONKLING, OF SAME PLACE.

IMPROVEMENT IN STATION-INDICATORS FOR RAILROADS.

Specification forming part of Letters Patent No. **219,791**, dated September 16, 1879; application filed
February 21, 1879.

To all whom it may concern:

Be it known that I, FRANCIS H. YOUNG, of Stanhope, in the county of Sussex and State of New Jersey, have invented a new and Improved Station-Indicator for Railroads, of which the following is a specification.

My invention relates to an apparatus to be placed on the cars of steam or horse railroads for use as an indicator of stations or streets for the information of passengers.

The invention consists in certain novel features of construction and combinations, as set forth hereinafter, and shown in the accompanying drawings, wherein—

Figure 1 is a front elevation of the indicator. Figure 2 is an elevation at one side, showing the operating levers and cords. Fig. 3 is a vertical longitudinal section. Figs. 4, 5, and 6 are detail views.

Similar letters of reference indicate corresponding parts.

The mechanism of the indicator is carried in and by a box, A, that will be made of ornamental shape and placed in a convenient place in the car. The indicator shown is double or two faced, having duplicate mechanism that displays the name of the station at both ends of box A, both signals being given by one operation.

A description of one set of devices will apply to both: Upon the top of box A is fitted a clock, as at *a*, and from the bottom of the box is hung a placard, *b*, having upon it the name of the train—"Express," "Mail," or other name.

The opening for the indication of the station is at the end of the box. The box is formed with a semicircular projection, *c*, across the end, in which is the horizontal aperture for display of the names, so that the name may be more distinctly seen than when the aperture is in a plane surface.

Beneath the projection *c* is hung a slat, *d*, that indicates the direction in which the train is moving—north, south, east, or west. The slat *d* is hung by a wire pin, *e*, so as to be changed when required.

The names of the stations are indicated by an endless belt of jointed slats, *f*, carried by sprocket-wheels *g*, that are fixed on cross-shafts

h. One shaft, *h*, is fitted in fixed bearings contiguous to the projection *c*, while the other shaft, *h*, is carried in bearing-blocks *i*, that are fitted to slide in the inclined slots *k* cut in the sides of box A. The blocks *i* carry nuts that engage with a screw-rod, *l*, (see detail, Fig. 6,) attached upon the outside of box A, so that the slides *i* may be adjusted and will be held in place by the screw. By this construction the shaft *h* can be set according to the number of slats in the belt when the slats are changed to suit the train.

The slots *k* are cut at an incline, and the endless belts run in the same direction, so as to give more room for lengthening the belts when two are used in the same box.

The slats *f* are metal, and are bent down at the ends to form lugs for their joint-rods *m*. The rods *m* carry on their ends rollers *n*, that engage with sprocket-wheels *g*. Each slat *f* has affixed upon it the name of a station, and by turning shaft *h* the wheels *g* cause the belt to move around and present the slats in succession squarely behind the opening.

The parts as shown are arranged for presenting a slat at every quarter-revolution of shaft *h*.

The levers for operating the belts are arranged at the side of box A, and operate upon the shaft *h* that is in fixed bearings, as described. Fig. 2 shows these levers and connections.

Upon the end of shaft *h* is a ratchet-wheel, *o*, (see Fig. 4,) having four teeth, and hung loosely upon *h* is an arm, *p*, upon which is hung the pawl-lever *q*. The shorter end of *q* engages with ratchet-wheel *o*, and is kept in contact therewith by gravity. The levers *q*, there being one for each belt, are connected together by a link-bar, *r*, and the outer ends of arms *p* are similarly connected by rod *s*. To the bar *r* is connected a cord, *t*, that will pass to a convenient place, and serves as a means for changing the indicator.

The normal position of arm *p* and lever *q* should be about half way between a vertical and a horizontal position, and they will be retained in that position by a coiled spring, *u*, that is attached to box A and connected to one arm, *p*.

When the cord *t* is pulled in a horizontal direction, the arms *p* and levers *q* will be brought first to a vertical position, and then to an inclined position on the opposite side of the vertical line, by which movement lever *q* acts upon ratchet-wheel *o* to give shaft *h* a quarter-turn and change the slat *f* at the opening in each end of box *A*.

I provide a bell, *w*, that will be struck by one lever, *q*, every time the levers are moved. The parts are returned to their position by spring *u*.

The above-described indicating apparatus is compact and durable in construction, and will furnish to railway-passengers all the information usually required.

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

1. In a station-indicator, an endless belt of slats jointed by rods *m*, the rollers *n*, and wheels *g*, combined and arranged substantially as described and shown.

2. The combination, in a station-indicator, of the case *A*, the wheels *g*, the shafts *h*, the ratchet-wheel *o*, the arm *p*, the pawl-lever *q*, and the bell *w*, substantially as and for the purpose set forth.

3. The combination, with the shafts *h*, wheels *g*, and endless belt of slats, of the arm *p*, pawl-lever *q*, spring *u*, and ratchet-wheel *o*, arranged for operation substantially as and for the purposes set forth.

FRANCIS HENRY YOUNG.

Witnesses:

SAMUEL RICHARD,
ALFRED YOUNG.