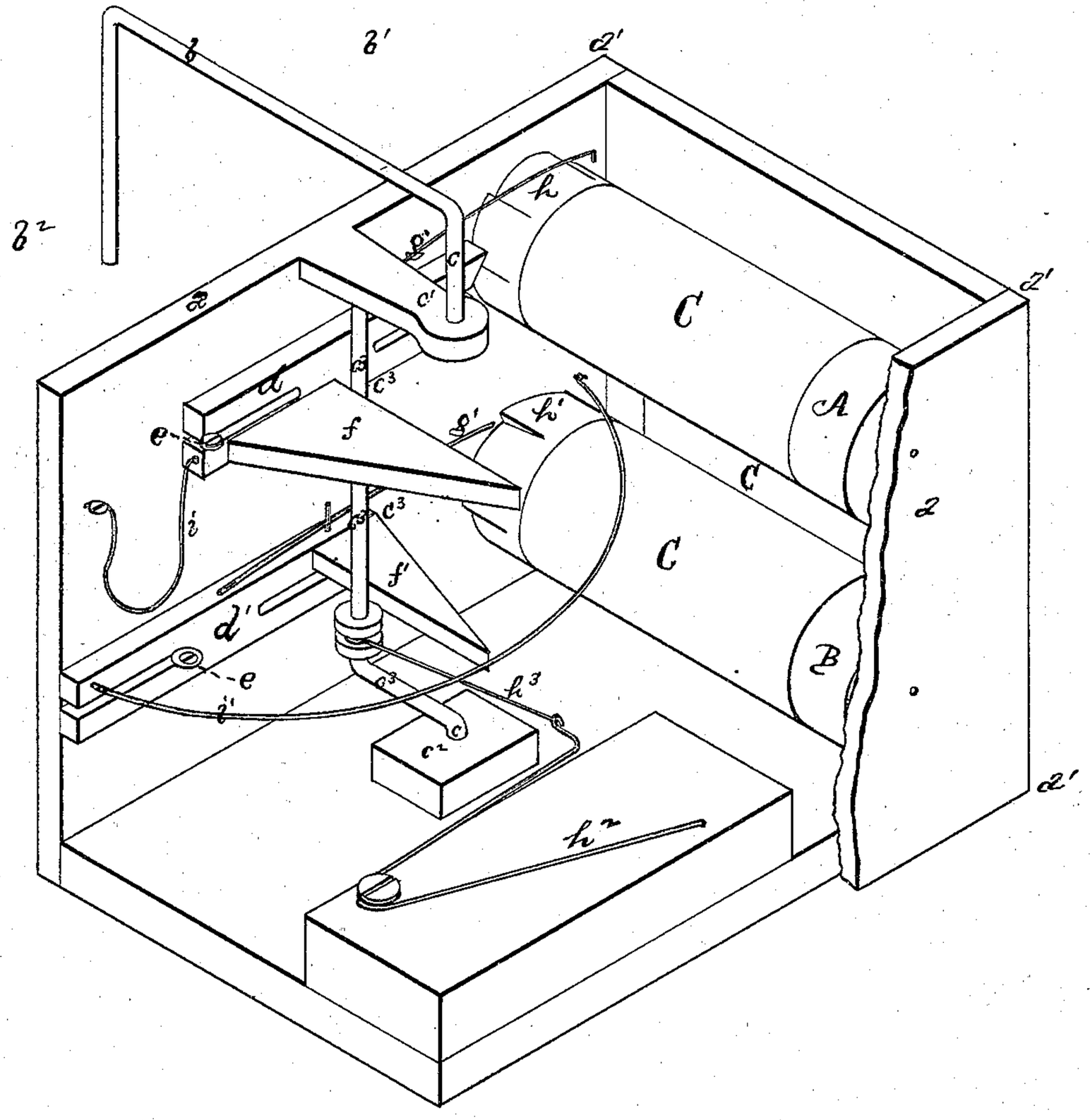
O. B. GRIGGS

# Station-Indicators.

No. 138,496. Patented May 6, 1873.




Witnesses.

Edward Goepper
Timothy E. Steele

Inventor.

Oliver B. Griggs
By W. E. Simonds
Atty.

# UNITED STATES PATENT OFFICE.

OLIVER B. GRIGGS, OF MANSFIELD CENTRE, CONNECTICUT.

## IMPROVEMENT IN STATION-INDICATORS.

Specification forming part of Letters Patent No. **138,496**, dated May 6, 1873; application filed October 23, 1872.

*To all whom it may concern:*

Be it known that I, OLIVER B. GRIGGS, of Mansfield Centre, in the county of Tolland and State of Connecticut, have invented certain new and useful Improvements in Station-Indicators, of which the following is a specification, reference being had to the accompanying drawing, in which—

Figure 1 is an isometric view of the same.

This apparatus is more especially designed to indicate, automatically, to the passengers in a steam railway car the stations to which they successively approach.

The apparatus is represented in the drawing as contained in a box, *a*, which may be fixed to one end of the inside of the car, preferably near the roof, and with the side *a' a' a'* facing the passengers. There should be one in each end of the car, or matters may be so arranged that the box *a* containing the mechanism may be changed from one end of the car to the other, so that the passengers may always face the indicator.

The letter *b* indicates an arm, extending, by preference, from the top of the car, and so extended as to strike at its end a double inclined plane, appropriately set by the side of the railway, so as to cause the arm to move either forward, toward $b^1$, or backward, toward $b^2$, according to the direction in which the train is moving. This arm *b* is attached, either permanently or otherwise, to the shaft *c*. In practice one of these arms will probably be set at each end of the car, and attachment made to the shaft *c* when the box is changed from one end of the car to the other. The shaft *c* turns in the bearings $c^1$ $c^2$, and between these points becomes the bell-crank $c^3$. The letters *d d'* indicate two slides, which may move back and forth on the pins *e*. From the slide *d* projects the arm *f*, and from the slide *d'* the arm *f'*. When the arm *b* is moved forward, the crank $c^3$ will move the arm *f'* and its slide *d'* forward, causing the spring-arm *g'* to catch in the teeth of the ratchet $h^1$ on the end of the roll B, and thus partially rotate the roll. After the arm *b* leaves the double inclined plane it is returned to the position shown in the drawing by the spring $h^2$ and link $h^3$, and this, whichever way the arm *b* is moved, successive forward movements of the arm *b* will cause the continuous step-by-step rotation of the roller B.

When the arm *b* is moved backward the crank $c^3$ will move the arm *f* and its slide *d* backward, causing the spring-hook *g* to catch in the teeth of the ratchet *h* on the roll A, and thus rotate the roll backward; and continuous backward movements of the arm *b* will cause the continuous backward step-by-step rotation of the roll A. The spring *i* returns the slide *d* to its place after each of the backward movements of the arm *b*, and the spring *i'* returns the slide *d'* to its place after each of the forward movements of the arm *b*.

An apron, C, of cloth or the like, runs from the roll A to the roll B, on which are the names of the stations in proper succession just the distance apart that the rolls are rotated by the movement of the arm *b*. The double inclined planes upon which the arm *b* strikes are placed, by preference, midway between the stations, and after the car passes one of these the apron C will present, through a proper slot in the face *a' a' a'*, the name of the next station. When the end of the route is reached, the apron is properly rolled to commence its return journey.

Each movement of the arm *b* can be made to strike a bell, to compel attention.

I claim as my invention—

The combination of the arm *b*, shaft *c*, cranked, as described, arms *f* and *f'*, slides *d d'*, springs *i i'*, spring-hook and spring-arm *g g'*, rolls A B provided with ratches *h* $h^1$, apron C, and spring $h^2$, constructed and operated substantially as described, for the purpose set forth.

OLIVER B. GRIGGS.

Witnesses:

JAMES WALDEN,

T. N. GRIGGS.