A. C. BRAGONIER.

Station-Indicators.

No. 147,474. Patented Feb. 17, 1874.

Fig. 1.

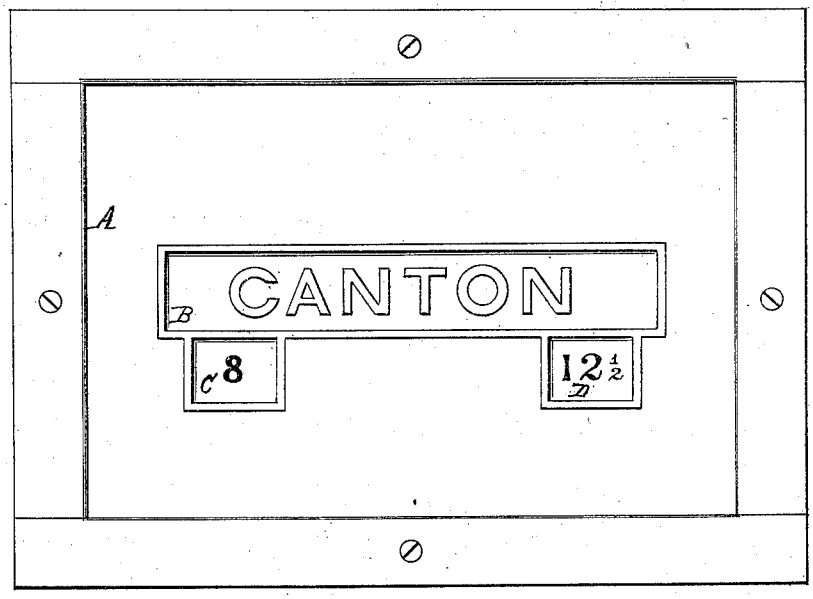


Fig. 2.

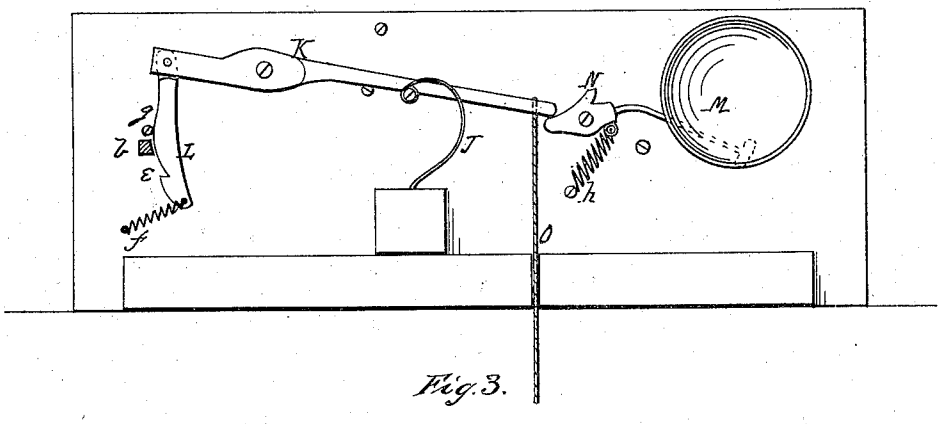
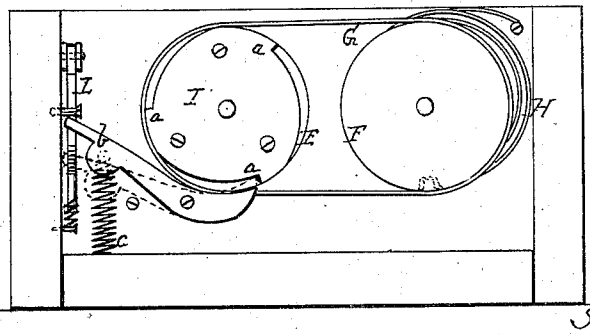


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALFRED C. BRAGONIER, OF MIDDLETOWN, MARYLAND.

IMPROVEMENT IN STATION-INDICATORS.

Specification forming part of Letters Patent No. **147,474**, dated February 17, 1874; application filed December 27, 1873.

To all whom it may concern:

Be it known that I, ALFRED C. BRAGONIER, of Middletown, Frederick county, Maryland, have invented a Station-Indicator; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a front view of the case. Fig. 2 is a plan view of the mechanical devices on the under side of the top of the case; and Fig. 3 is a plan view of the connecting mechanical devices in the end of the case, and an end view of the cylindrical rollers, the end of the case being removed.

The invention consists in the novel construction and arrangement of certain mechanical devices to operate the cylindrical rollers and apron thereon of an ordinary railway-station indicator.

In a rectangular case, A, made of any suitable material, and provided on its front side with openings B, C, and D, as shown in Fig. 1, are mounted two cylindrical rollers, E F, with an apron, G, arranged about them, having the names of the different railway-stations, and the distances of the same from the end of the road, thereon, the rollers and apron being so arranged that, at each movement of the former, the names of the stations and numbers indicating the distances will appear in regular order, as shown in the same figure, and as has heretofore been done in many patented devices. The under roller, F, has a coiled spring, H, so connected to it and to the case that it may be wound up for the purpose of operating the indicator, as shown in Fig. 3. The upper roller, E, has attached on one end a ratchet-plate, I, provided with a series of catches or stops, *a*, just far enough apart to permit the apron to move successively the requisite distance to show the name and distance of each station. The catches *a* engage with a pawl, *b*, pivoted to the end of the case, and which is held in place by a spring, *c*, as shown in the same figure. The opposite end of the pawl is arranged to engage with a notch, *e*, of a trigger-arm, I, pivoted to the end of a lever, K, which is pivoted to the under side of the top of the case, as shown in Fig. 2. The trigger-arm L has its notched side curved, and its lower end connected to the case by means of a spiral spring, *f*, which causes its curved side to bear against a stud, *g*, as shown in the same figure, so that in its downward motion it will engage with the end of the pawl, and in its upward be released from it. Its downward motion is caused by the movement of the lever K, which is produced by means of a spring, J, arranged as shown in Fig. 2. The end of the lever K opposite that to which the trigger is connected is arranged to engage with a trip bell-clapper, N, which in turn strikes an alarm-bell, M, and is drawn back and held in position for another stroke by means of a spiral spring, *h*, as shown in said Fig. 2.

The case or box A having the mechanical devices, rollers, and apron arranged therein, as above described, is placed in some conspicuous place in the car, and wound up by a key or other suitable instrument, the apron being so arranged that the different stations and distances marked thereon will appear in the proper order. On approaching a station the lever K is suddenly moved by means of a cord, O, which passes outside of the case, as shown in Fig. 2. This movement causes the trigger L to release the pawl *b* from the ratchet-plate I, when the rollers turn far enough to show the name of the station through the opening in the case on the apron, which has moved with them. As the projecting curved side of the trigger in its upward movement bears against the stud *g*, the trigger is thrown out of connection with the pawl *b*, which, by the pressure of the spring *c*, is made to engage with the next notch on the ratchet-plate, and thus keep the rollers and apron stationary as the name of the station comes into view. At the same instant the lever strikes the trip-clapper, which strikes the bell, and thus calls the attention of the passengers to the name of the station thus exhibited. As soon as the cord O is released, the springs J and *f* cause the connection between the trigger L and the pawl *b* to be renewed and ready to be operated when the next station is approached.

It is obvious that one of these indicators may be placed in each car of the train, and the whole be connected by a cord or wire, and

the whole operated at the same instant by the engineer or other employé.

Having thus described my invention, what I claim is—

In combination with the rollers E and F, provided with an apron having the names and distances of the railway-stations thereon, the coiled spring H, ratchet-plate I, pawl *b*, trigger L, and lever K, with the springs J and *f* connected thereto, when constructed to operate substantially as and for the purpose set forth.

The above specification of my said invention signed and witnessed, at Middletown, this 15th day of December, A. D. 1873.

ALFRED C. BRAGONIER.

Witnesses:
D. C. SPRINGER,
GEO. CHAMBERLIN.