

A. ORLICH.

Improvement in Combined Gate and Signal for Railroad-Crossings.
No. 128,649.

Patented July 2, 1872.

Fig. 1.

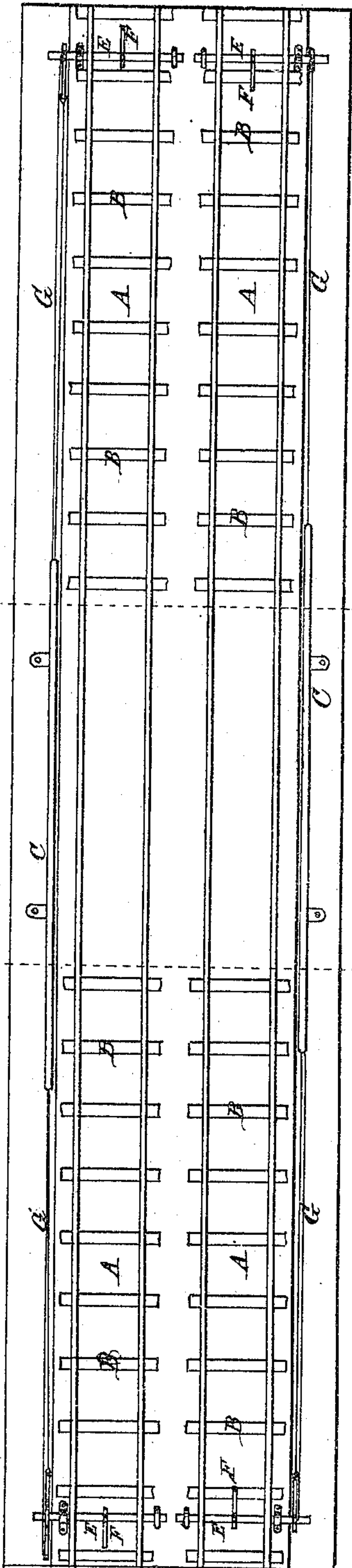
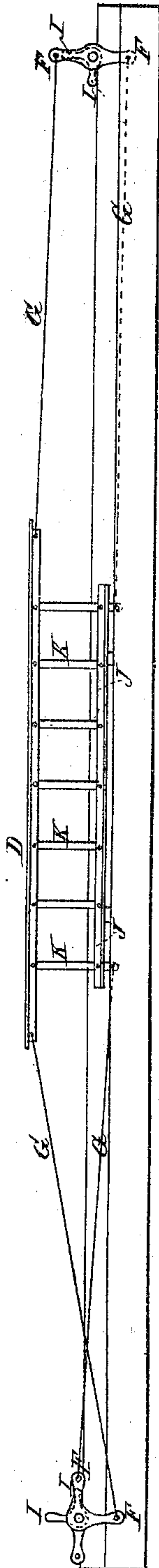


Fig. 2.



Witnesses:
Frank M. Ballantyne
Henry J. Jones

Inventor:
Adolph Orlach

A. ORLICH.

Improvement in Combined Gate and Signal for Railroad-Crossings.

No. 128,649.

Patented July 2, 1872.

Fig. 3.

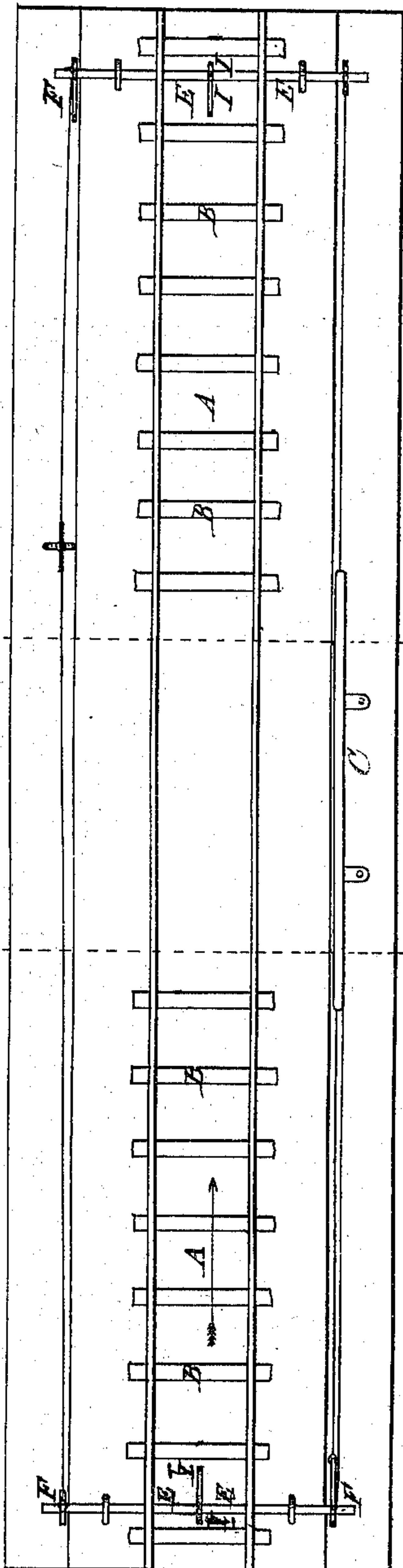


Fig. 4.

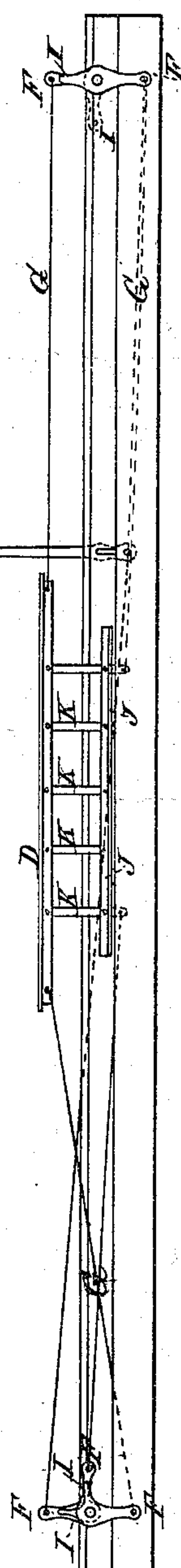


Fig. 5.



Witnesses:

Frank W. Ballam
Henry Goodrich

Inventor:

Adolph Orlich

UNITED STATES PATENT OFFICE.

ADOLPH ORLICH, OF SOUTH NORWALK, CONNECTICUT.

IMPROVEMENT IN COMBINED GATES AND SIGNALS FOR RAILROAD CROSSINGS.

Specification forming part of Letters Patent No. 128,649, dated July 2, 1872.

To all whom it may concern:

Be it known that I, ADOLPH ORLICH, of South Norwalk, in the county of Fairfield and State of Connecticut, have invented new and useful Means for Preventing Accidents at Railroad Crossings; and I hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing, which forms a part of this specification.

This invention has for its object to combine a signal and a railroad gate; and it consists in arranging at the crossing of a railroad a folding-gate and a signal, both of which are operated automatically by rods or chains connected with levers arranged upon a shaft journaled at a suitable distance from each end of the crossing. The shaft bears an arm or lever, upon which an approaching car, locomotive, or train acts, drawing the rods or chains, causing a signal to be displayed, by which means a warning is given and at the same time the gate elevated to prevent passage over the track. After the passage of the car, locomotive, or train a similarly-arranged shaft, as above described, is acted upon, causing the gate to close and the signal to be withdrawn. The signal apparatus will, in most instances, be made by a system of bars and levers, as shown in the accompanying drawing, so arranged that the approach of the train is first signaled, and then the gate closed, so as to prevent any person or animal from crossing the track; but it is difficult by these means to make the signal in sufficiently long time beforehand.

The following description will enable any one to make and use my invention:

Figure 1 is a plan view of my invention applied to a double track. Fig. 2 is a side view of the same. Fig. 3 is a plan view of the same invention applied to a single track, and Figs. 4 and 5 side views of the same.

A represents the railroad track; B, the ties. C is the safety-gate; D D, the top rails of the gate; E E, the shafts which cross each track under the rails. On the ends of these shafts are arms F, and the arms are connected with the rails D D of the gate and with the signal H by the rods G. On the shafts E E and between the rails of each track are other arms, I, so placed that the cow-catcher of the locomotive will strike them where they project

sufficiently above the track, which will give the shafts E a revolving or working motion. The gate C is composed of iron rails J J and joint-bars K, more or less in number of the latter. These bars K being pivoted to the rails at top and bottom allow the top rails to fold down below the level of the track to a level with the road, so that wheeled vehicles may pass over them and cross the track without obstruction. The rods G may be of any desired length. Now, we will suppose that a train is passing over the track in the direction indicated by the arrow A; the cow-catcher comes in contact with the arm I and forces it down, thereby turning the shafts E and the arm F, and raising the gate to the position shown. This may be done at a distance from the crossing, so that the gate, rising instantly upon the side of the track, will be an effectual barrier against the attempts of persons, animals, or vehicles to cross the track. When the locomotive has passed the gate and the entire train is over the crossing, the cow-catcher will strike the arm I at the other side of the crossing, which will return the gate to its former folded position, the action on the shaft being the same as that already described. In the drawing a double railroad track is shown with arms arranged on the shaft for trains to pass in opposite directions or return upon the same track, each raising and lowering the gate nearest its own track. On single-track railroads, where trains pass in either direction, the same arrangement of double arms on the shafts compels the raising and lowering of both gate and signal at the same moment. This arrangement is, of course, adjustable to a double track by making a single shaft cross both the tracks, and thus operate on both sides by a single locomotive's passage.

It will be seen from this arrangement that the gate and signal operates automatically, and that an effectual barrier is presented to the passage of wagons, carriages, animals, and persons, thereby preventing accidents which frequently occur at railroad crossings and draw-bridges.

From this description it will be seen that my invention is applicable to railroad crossings generally, and when properly applied will prevent the occurrence of accidents from persons or animals crossing the track.

To the visible signal may be connected a bell or other alarm. The electrical signal apparatus is preferred, for the reason that it is easy to make the alarm from one to five minutes before the approach of the train.

I do not claim an automatically-closing gate, as such is well known. My invention may be carried out by any equivalent devices to those shown.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The shafts E E, arms F, rods G, and in-

terior arms I, in combination with the folding-gate C, substantially as and for the purposes described.

2. The signal or alarm apparatus H, in combination with the said arms, shaft, and gate, to be operated in the manner described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ADOLPH ORLICH.

Witnesses:

FRANK W. BALLARD,
HENRY GOODSSELL.