H. J. BALL & M. S. BREWER.

RAILROAD-GATE.

No. 177,453. Patented May 16, 1876.

Fig. 1.

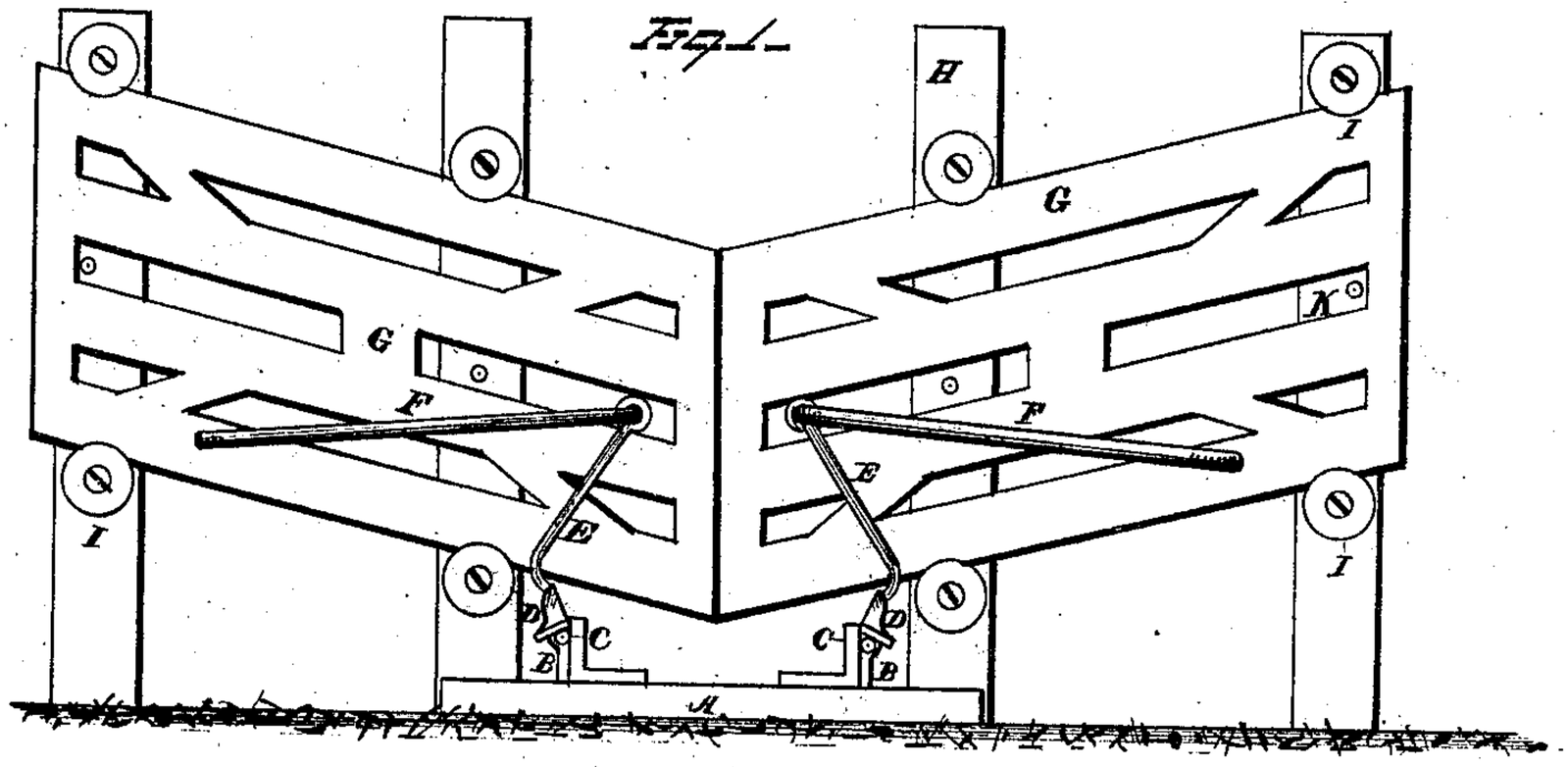
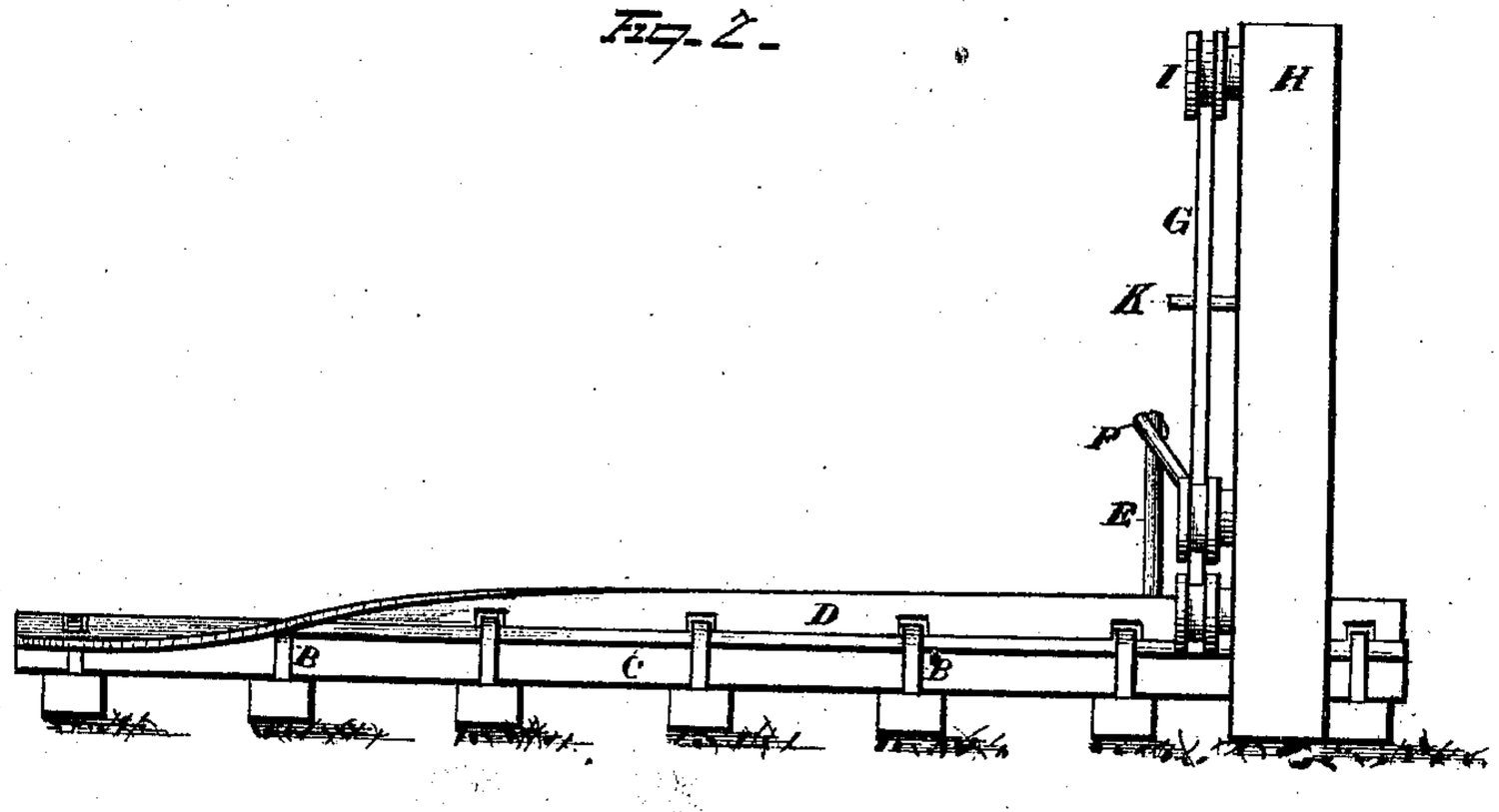


Fig. 2.



WITNESSES
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UNITED STATES PATENT OFFICE.

HOWARD J. BALL AND MICHAEL S. BREWER, OF PARIS, ILLINOIS.

IMPROVEMENT IN RAILROAD-GATES.

Specification forming part of Letters Patent No. **177,453**, dated May 16, 1876; application filed April 24, 1876.

To all whom it may concern:

Be it known that we, HOWARD J. BALL and MICHAEL SNODEN BREWER, of Paris, in the county of Edgar, and State of Illinois, have invented certain new and useful Improvements in Railway-Gate; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to a railway-gate which serves the usual purpose of a removable barrier, and also is especially designed to act as a cattle-guard.

Our invention consists in the combination with a spiral flange, pivoted to the outer sides of the rails, and provided with a rigid arm, of two gates, sliding on inclined ways, and connecting-rods, secured to the lower portion of the gates, whereby the power is exerted nearly in line with the travel of the gates.

In the drawings, Figure 1 is a front elevation of my gate and operating mechanism, and Fig. 2 a side-elevation view.

A is the bed-road of any railway, to the ties of which are secured eyebolts B, projecting up approximately to the tread-level of the T-rails, and on the outer sides of said latter, and engaging with its eyes is the rock-shaft C, running parallel with either rail. To this shaft is connected rigidly and by any suitable means the spiral flange D, which is the actuating part of the mechanism, and forms, as it were, the same piece with the rock-shaft. The free and working end of the flange is always in a plane, as to which, and that of the outer surface of the rail, the plane of the secured end of the flange is intermediate, and the outward throw or reciprocation of the flange serves to impart active force to the apparatus. At a suitable point on said flanged roller, so as to operate the gate in question, a rigid arm, E, is attached, which, as the gate is closed, stands angularly inclined from the vertical, and engages with the connecting-rod F at right angles thereto by a loose joint, so as to allow of the necessary horizontal and vertical action on part of both. This rod F is secured to the gate at its opposite extremity at such a point as will cause its line of action, as imparted, to be inclined to the horizontal, and nearly in line of travel with the gate; hence, as shown in the drawings, same is connected to the lower section or bar of the gate. The gate G is of double construction, whose half-sections meet in the center of the intervening rail-space distance, and are hung so as to be inclined strongly enough to the vertical as will cause the natural gravity of their frames to automatically close the sections when freed from an opposing force. Suitable posts H support the gate-sections, and are provided with grooved friction-rollers I, forming an embracing system of supports, which carries the sections securely in position, and preserves them from any lateral play. Stops K may be placed on said posts to regulate, respectively, the outward and inward throw or thrust of the gate.

The apparatus is operated as follows: The gate being shut, as shown in the drawing, an approaching train depresses the spiral flange by the tread of its wheels, causing the shaft C to rock outward and from the track. This carries with it the rigid arm E, which latter connects with the pitman F, and each section of the gate is correspondingly shot backward, leaving the track clear of barrier. Upon the passage of the train, the rock-shaft, relieved of its outward-actuating force, no longer tends to hold the gates in a posture opposed to their gravitating force, and consequently they slide down into their former place, closing the track and carrying with them the rock-shaft and connecting mechanism, now ready for a second similar operation.

It is understood that the other side of the gate is provided with the same means and parts as shown in the front view, so that a train from the opposite direction duplicates the above-described operation, only acting independently of the apparatus on the other side of the gate.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination, with a spiral flange, piv-

oted to the outer sides of the rails, and provided with a rigid arm, of two gates, sliding on inclined ways, and connecting-rods, secured to the lower portion of the gates, whereby the power is exerted nearly in line with the travel of the gates, substantially as and for the purpose described.

In testimony that we claim the foregoing, we have hereunto set our hands.

HOWARD J. BALL.
MICHAEL SNODEN BREWER.

Witnesses:

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WILLIAM ABNER GRAHAM.