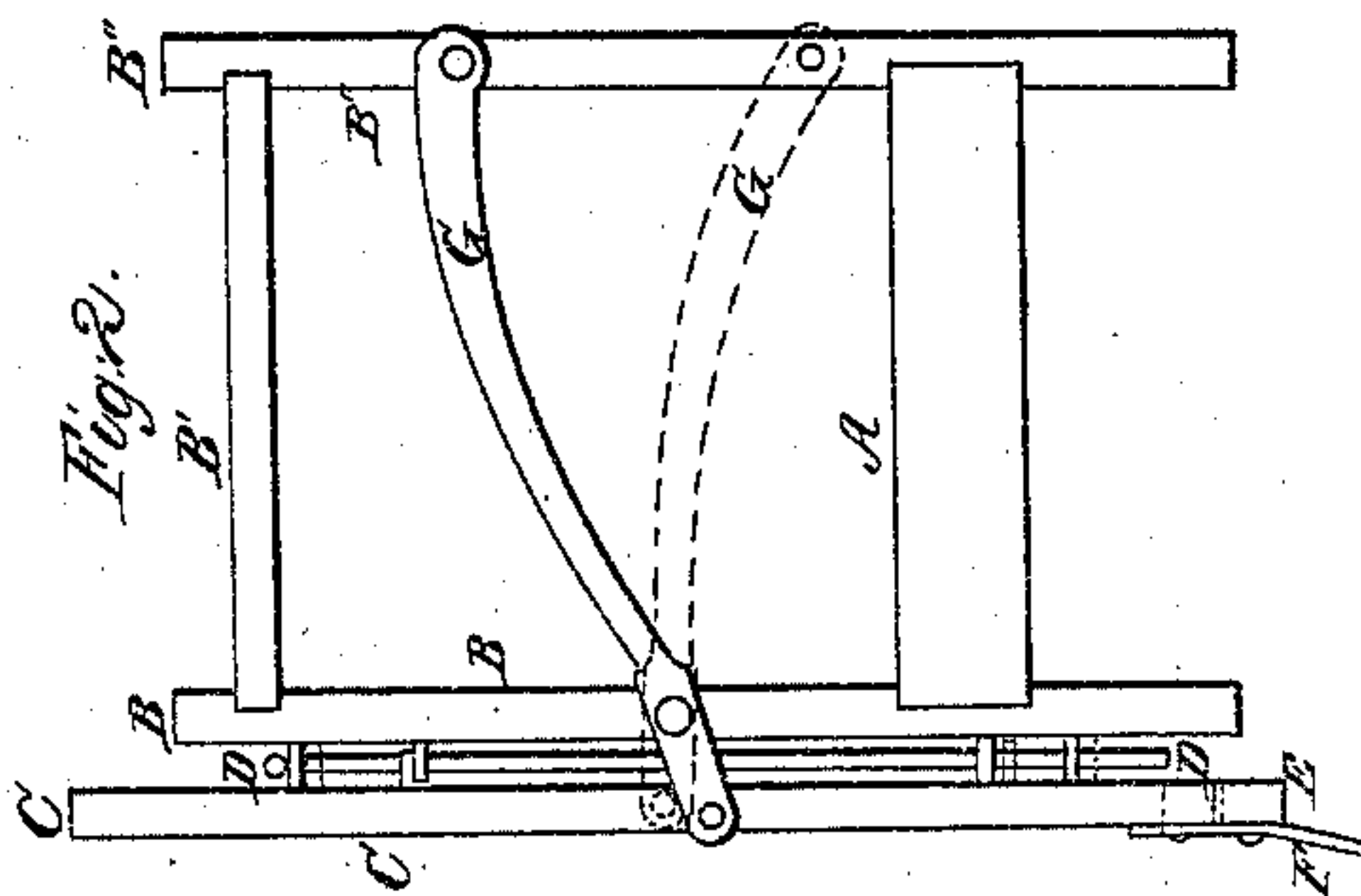
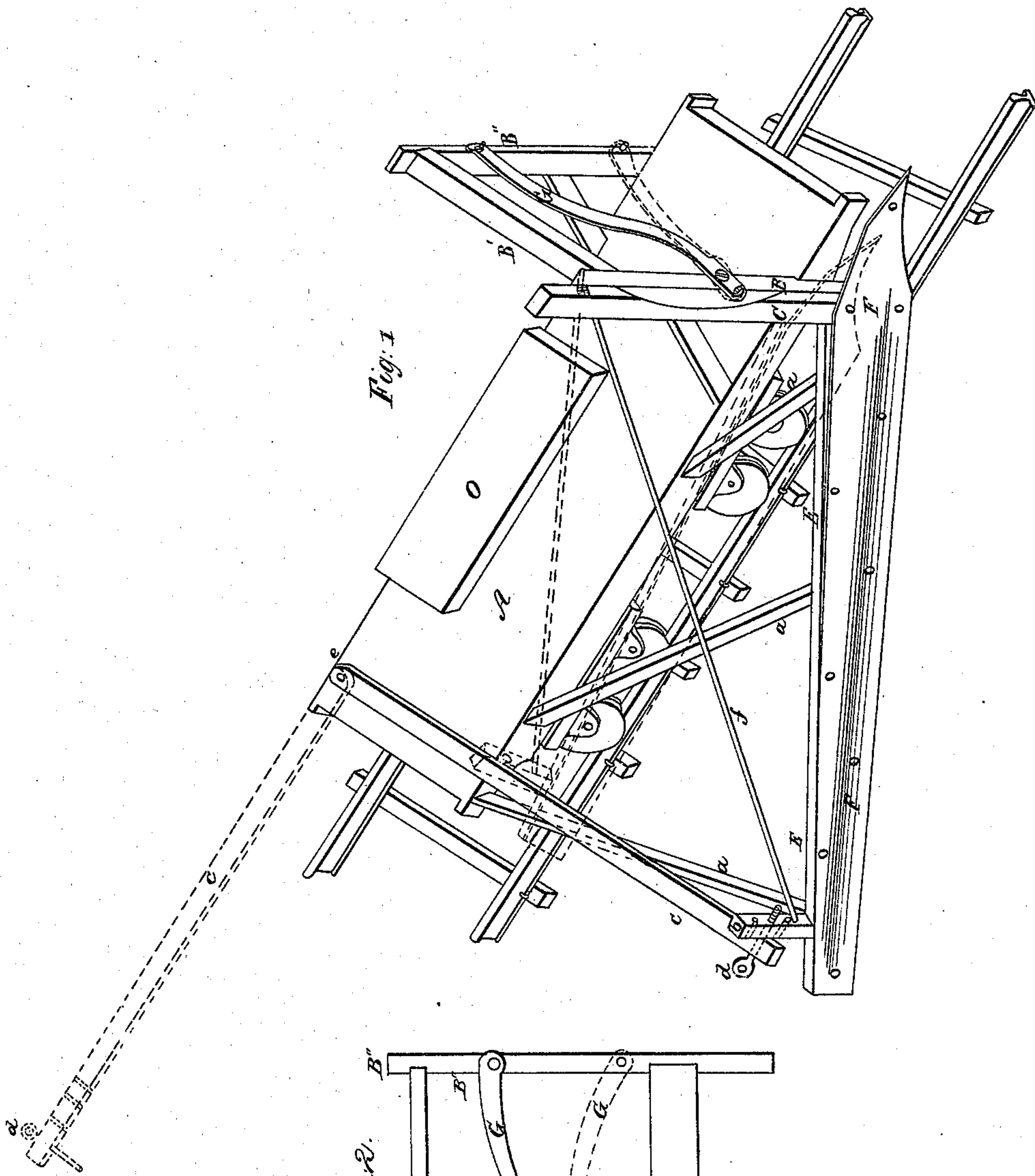


Casement & Elliott.

Gravel Spreader.

N^o 87,542.

Patented Mar. 9, 1869.



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United States Patent Office.

JOHN S. CASEMENT, OF CLEVELAND, OHIO, AND JOHN ELLIOTT, OF
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Letters Patent No. 87,542, dated March 9, 1869.

RAILWAY GRAVEL-SPREADER

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, JOHN S. CASEMENT, of Cleveland, in the county of Cuyahoga, and State of Ohio, and JOHN ELLIOTT, of Erie, in the county of Erie, and State of Pennsylvania, have invented a new and improved Machine for Spreading Gravel, and levelling of ballast on the graded surface of a second railroad-track; and we hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The invention consists in the construction of the machine which spreads the gravel, and its attachment to a common platform-car, which is drawn upon the track of a railroad by a locomotive.

To enable others skilled in the art to make and use our invention, we describe its construction and operation as follows:

Figure 1 is a perspective view of the spreader, and its attachment to and adjustment upon a common platform railroad-car, and in position for operation.

Figure 2 is a cross-section, or end view of the same, but not showing the rail, track, or wheels of the car; with the spreader swung or closed against the car; for transportation when not in operation.

In the drawings—

A represents the platform-car standing upon the track already laid.

B, B', and B'', represent the frame upon the car, and to which the spreader is attached.

C is the main upright standard of the frame of the spreader, and is hinged to post B by the hinges D D.

D D are hinges, which connect the standard of the spreader with post B, and allow the spreader to be adjusted to any desired angle or width of wing at its heel.

E is the frame of the spreader, and is plated on the outside with a metal plate, F, plate-steel being preferable for the purpose.

a a a are strengthening-braces, placed at a proper angle between the frame of the spreader and the sills of the car, which can be longer or shorter, in order to adjust the heel of the spreader to the desired width to which the gravel is to be spread, and which can be determined by the bar c, which is pivoted to the top of the car A, as shown at e, and can be adjusted to different width of wing by means of the pin d, passing through a series of graduated holes in bar c, and into post b of the spreader-frame.

f is an iron brace, passing from the top of the standard C to post b of the spreader, and serves to keep the heel of the spreader firmly in its proper relative position.

The spreader is graduated in height by means of lever G, which is pivoted to post B on the car, and to standard C of the spreader, and when thrown down, as shown in red lines in fig. 2, the spreader will be raised, freely sliding on hinges D D, for that purpose, and in connection with the bar c, bolt d, and different bolt-holes in post b.

Whenever the spreader is to be closed, or swung around to the car, the braces a a a are removed, and disengaged from post b, by drawing bolt d, when the bar c and spreader E are swung around to the car, as seen in red lines, fig. 1.

Q is a heavy weight, of any substance, placed upon the car, to prevent the tendency of the car to be thrown from the track by the pressure of the spreader upon the car, when forcing the gravel at an inclination to such track, and should be heavy enough to insure safety at all times.

This machine has been found to be valuable in practice, doing the work of scores of men in spreading and grading the gravel upon a second track of a railroad, for the gravel lies in heaps, as left, by being dumped along the side of the track.

When the spreader is brought in operation to act upon the gravel, the oblique position of the scraper or spreader moves the gravel forward and outward from the track, and at the same time levelling the gravel to the proper grade, ready for putting down the ties of the second or new track.

The simplicity of construction, and application to the purposes designed, together with its adaptability to be operated by the means described, to wit, attaching it to a car, and that car propelled by a locomotive-engine, both already at hand, and on the track, makes it an invaluable machine for the purposes intended.

Having thus described our invention,

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The gravel-spreader E, when constructed, arranged, and adapted to be connected to a platform or other car, and to operate in the manner and by the means substantially as described.

2. Adjusting the spreader E to different widths of grade, by means of the braces a a a and bar c, having pin-holes, post b, and pin d, substantially as set forth.

3. Adjusting the spreader E to different heights of grade, by means of lever G, standard C, and hinges D D, substantially in the manner described.

J. S. CASEMENT.

J. ELLIOTT.

Witnesses:

WILLIAM ABBEY,
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