

(No Model.)

J. ANDREWS.
Leveling Attachment for Earth Cars.

No. 232,224

Patented Sept. 14, 1880.

Fig: 1.

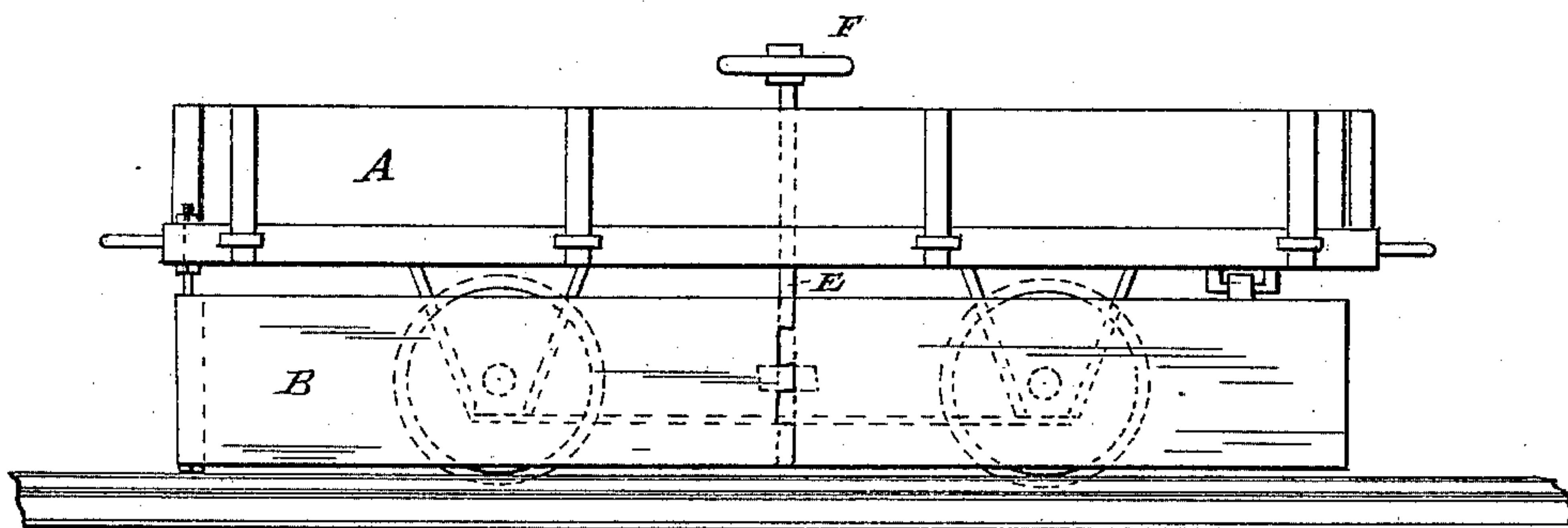
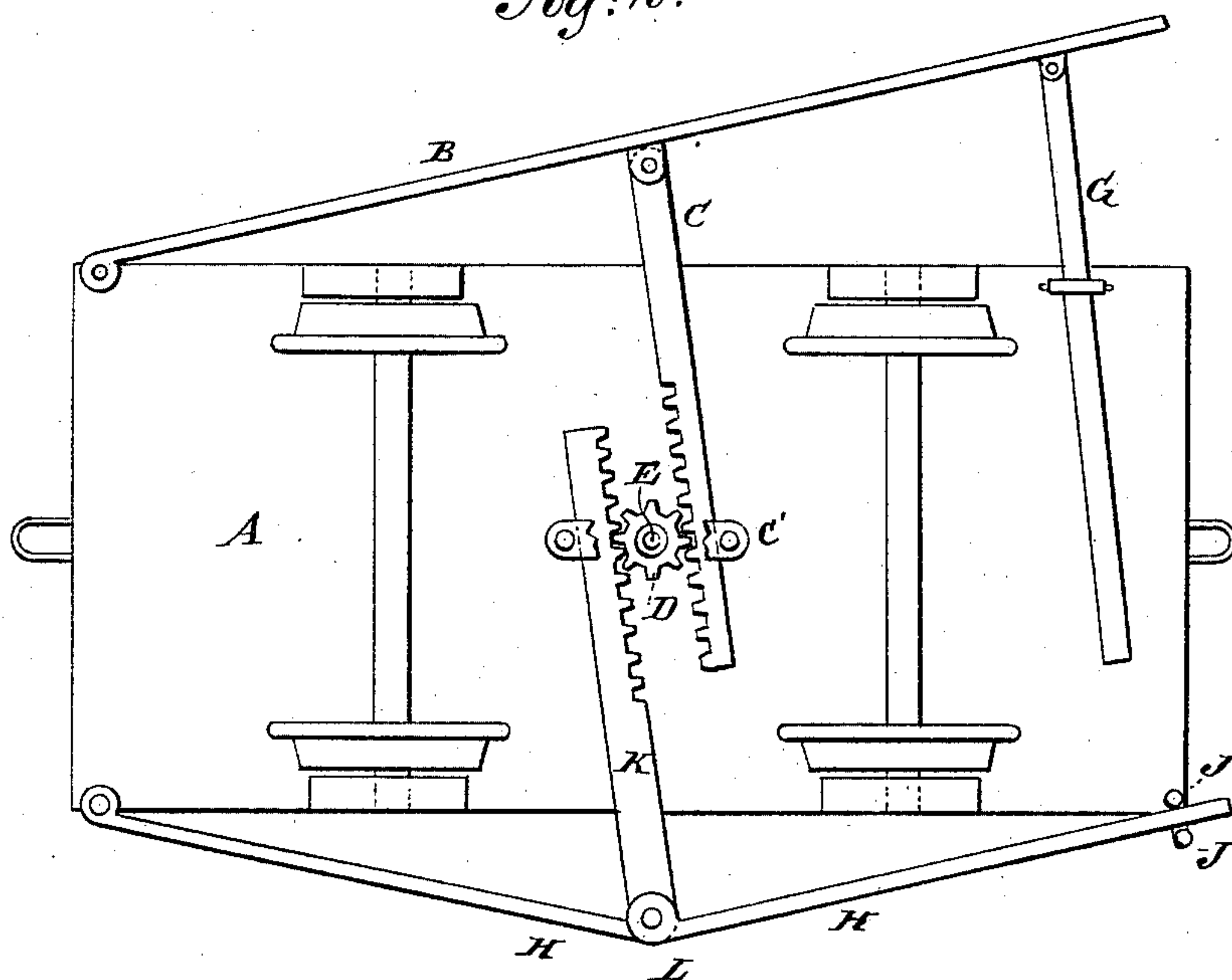


Fig: 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES ANDREWS, OF BIDDEFORD, MAINE.

LEVELING ATTACHMENT FOR EARTH-CARS.

SPECIFICATION forming part of Letters Patent No. 232,224, dated September 14, 1880.

Application filed May 31, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES ANDREWS, of Biddeford, in the county of York and State of Maine, have invented a new and Improved
5 Leveling Attachment for Earth-Cars, of which the following is a specification.

The object of my invention is to provide a new and improved leveling attachment for earth or other cars which is so constructed
10 that it levels the earth dumped from the cars of a construction-train when said train leaves the place where the earth has been deposited.

In the accompanying drawings, Figure 1 is a side elevation of an earth or platform car provided with my improved leveling attachment.
15 Fig. 2 is a plan view of the under side of the same.

Similar letters of reference indicate corresponding parts.

20 The earth or other car A is provided with a wing, B, which is hinged or pivoted under the end of the car in such a manner that it can swing in or outward on its pivot in the horizontal plane. A ratchet-bar, C, is pivoted to
25 the inner side of the wing, preferably near its center, and engages with a pinion, D, on a vertical shaft, E, provided with a hand-wheel, F, for the purpose of swinging the wing in or out, as may be necessary. Preferably a guide-bar,
30 G, is pivoted to the rear end of the wing and passes through suitable guides on the bottom of the car.

The wing B has been heretofore employed, and, as an improvement on this, I use a double
35 wing, H, jointed at or near the center and having one end pivoted under the end of the car and the other held between two guide-rods, J J, or like device. A ratchet-bar, K, is pivoted to the double wing H at its central point, L,
40 and also engages with the pinion D. The rack-bars C K are held to the pinion by a guide-yoke, C', through which they pass.

By turning the pinion D the wings B and H may be moved inward or outward, as may be desired.

A wing, H, may be pivoted to each side of
45 the car, and both may be operated by the same or separate pinions or by a worm and worm-wheel, screw, or any other similar device. Both wings must be pivoted at the same end
50 of the car, and the end of the car to which the wings are pivoted must always be the front of the car.

The car provided with the leveling attachment must always be the last to leave the place
55 where the earth has been deposited, so that the extended wings H can push aside the mounds of earth dumped or thrown from the cars, thus leveling all the deposited earth in a simple and effective manner and without any
60 loss of time.

The wings are drawn closely against the car as soon as the leveling is completed, so as not to strike against telegraph-poles, station-plat-
65 forms, &c., on the completed road.

The wings may be straight or curved like the furrow-board of a plow.

Having thus described my invention, I claim as new and desire to secure by Letters Pat-
70 ent—

1. The combination, with the car A, of the wings H, provided with a joint, L, of the rack K, pinion E, and guide-bars J J, as set forth.

2. In earth-cars, the side wings of the leveler, made each in two parts, H H, jointed together
75 at their meeting ends, one part H being hinged under one end of the car, while the other part works loosely between guide-rods J J, as shown and described.

JAMES ANDREWS.

Witnesses:

CHAS. A. MOODY,
R. H. INGERSOLL.