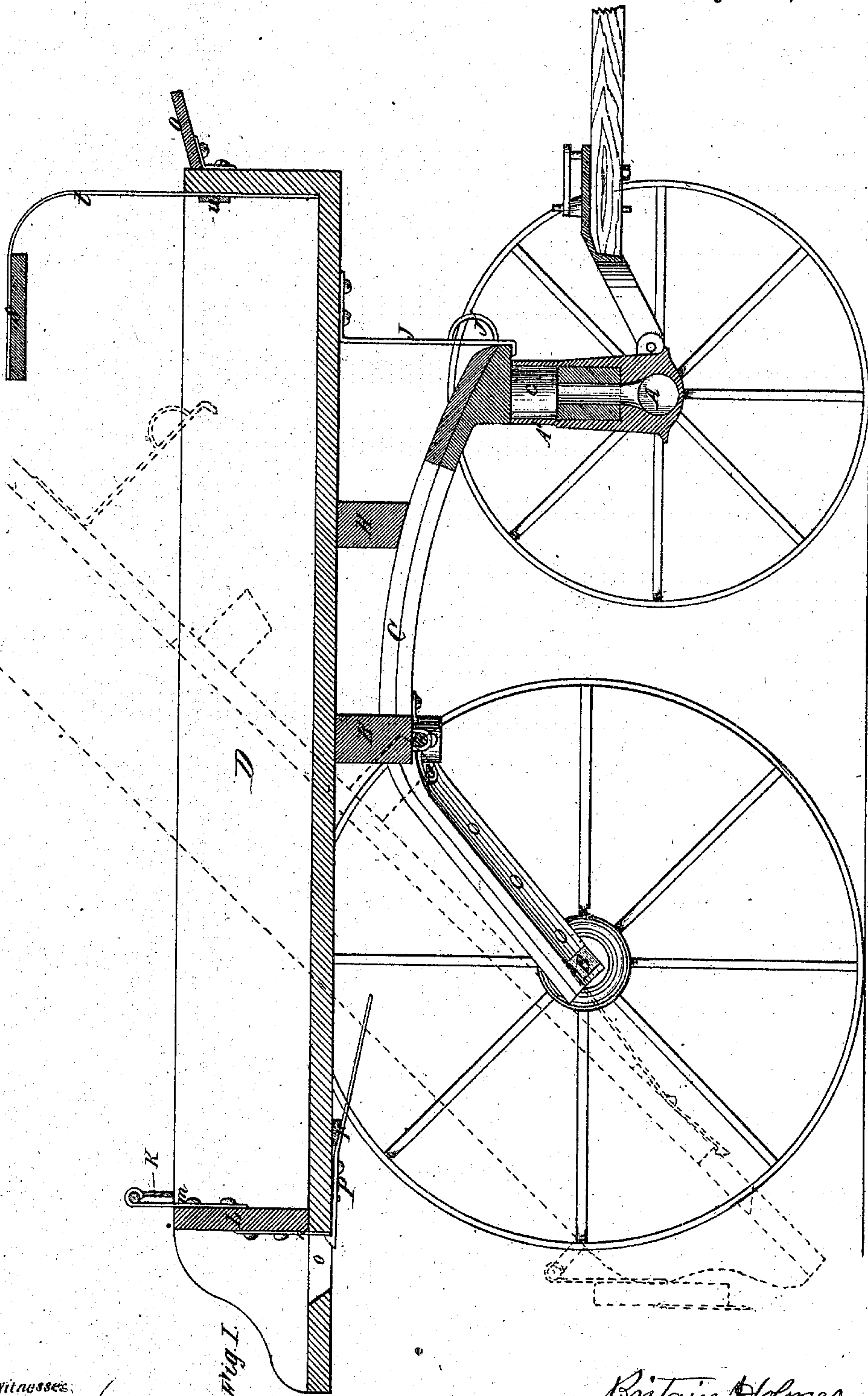


B. HOLMES.
Dumping Wagon.

No. 105,684.

Patented July 26, 1870.



Witnesses:

Victor H. Becker

Geo. J. Bonner

Britain Holmes
by Forbush & Shatt } *Inventor.*
Atty

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Fig. II.

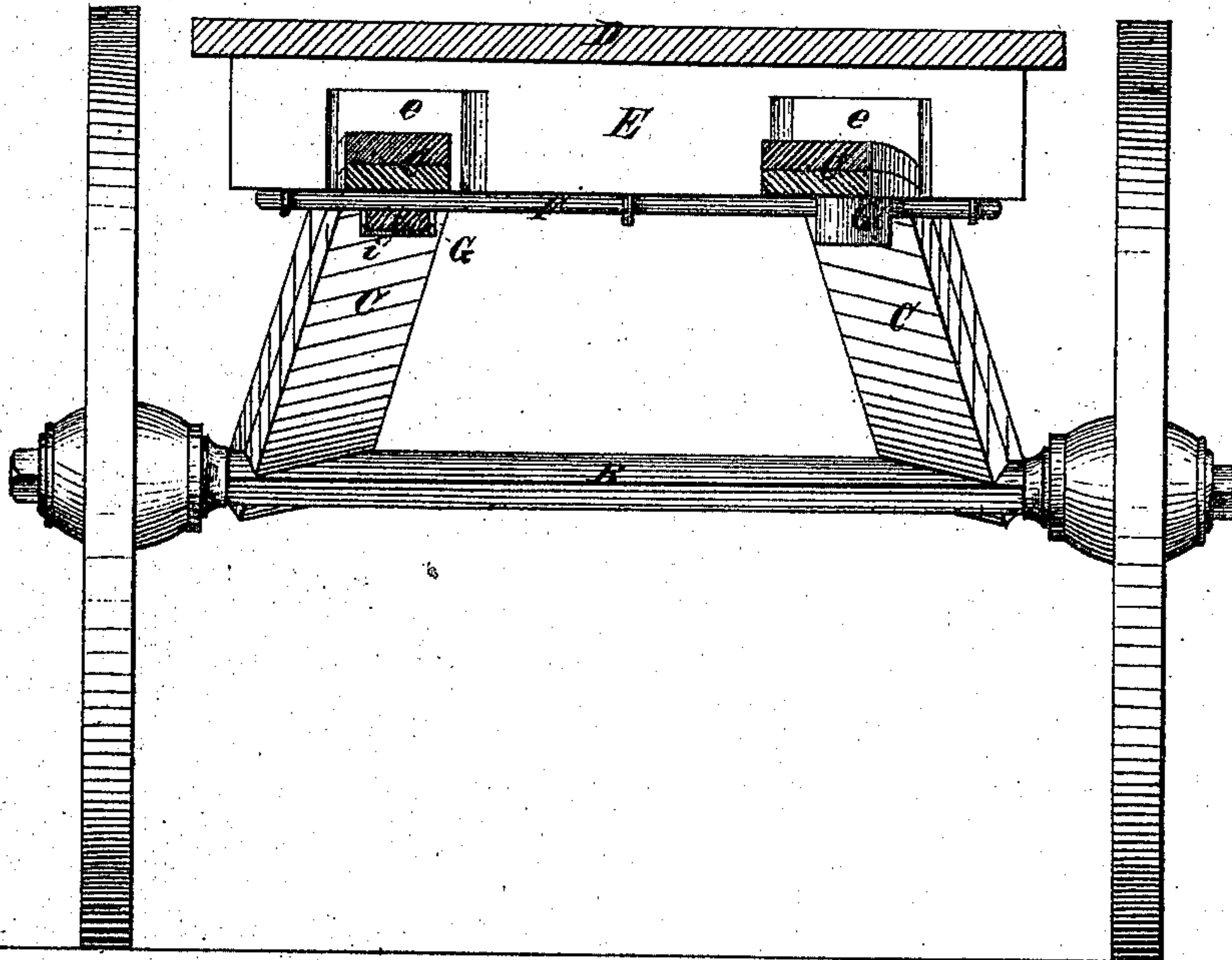
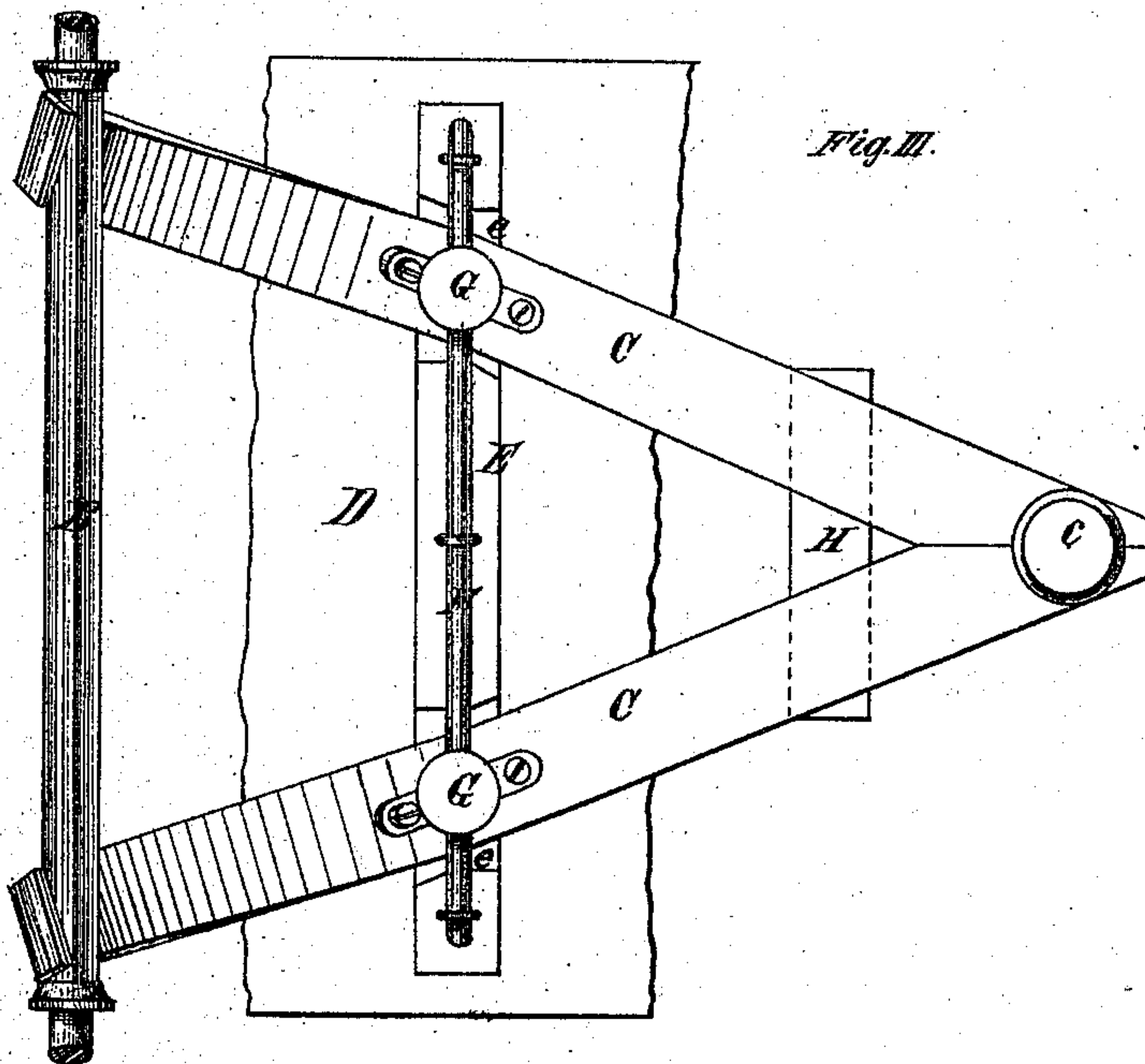


Fig. III.



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United States Patent Office.

BRITAIN HOLMES, OF BUFFALO, NEW YORK.

Letters Patent No. 105,684, dated July 26, 1870.

IMPROVEMENT IN DUMPING-WAGONS.

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

I, BRITAIN HOLMES, of the city of Buffalo, in the county of Erie and State of New York, have invented an Improved Dumping-Wagon, of which the following is a specification.

My invention consists—

First, of a reach, cast or otherwise, formed of two pieces, which unite at the turn table in front and diverge toward the rear axle, to which they are attached, in combination with the dumping-box and axis which are supported thereby.

Second, in arranging and attaching to the under side of the curved reach the spring boxes which support the dumping-axis.

Third, of a tail-board, hinged at its upper edge, and fastened by a spring catch or its equivalent at its lower edge.

Fourth, of a seat, attached to the bent upper ends of two spring standards, which are supported in suitable guide-bearings to the inside of the end board, so as to be readily detachable therefrom, as required.

In the accompanying drawing, which consists of two sheets—

Figure I is a longitudinal section of my improved wagon.

Figure II is a cross-section, looking toward the rear, in line of the dumping-axis.

Figure III is a fragmentary view, showing a plan of the under side of the reach, and the manner of attaching the spring boxes thereto.

Like letters of reference designate like parts in each of the figures.

A is the front, and

B, the rear axle.

CC are the two bars or pieces forming the reach.

The front axle I prefer to make hollow, of cast-iron, with an elevated socketed portion, A', at the center, in the socket of which fits a post or pivot, c, which is formed so as to project downward from the front end or apex of the reach. A rubber block may be arranged in the base of this socket of the bearing A', so as to form a spring support for the pivot-post. These parts may be secured together, if required, by a bolt passing through the end of the reach, pivot-post, and axle. The rear end of the reach-bars may be attached to the rear axle in any firm and suitable manner.

D is the box, which can be made of a width to just clear the inside of the wheels, and may be of any ordinary construction.

E is a cross-piece, firmly secured to the under side of the box, at a point a little back of the center, and is provided with notches e e to receive the bars of the reach, over which it fits, and by which it is supported.

The dumping-axis F is fastened by staples, or otherwise, to the under side of this cross-piece, and passes under the reach, which is curved upward, as shown

in fig. I, where it is secured in place by the boxes G, which are firmly bolted to the reach-bar in the arch of the curve.

These boxes are formed so as to receive a block of India rubber, i, which forms a spring for the axis resting thereon, the boxes being formed with vertical slots g, or otherwise, to permit of the requisite play of the axis.

Any other suitable pendent support for the spring i may be employed.

H is a stop-block, attached to the under side of the box, in front of the cross-piece E, so as to rest upon the reach when the box has assumed a horizontal position, and prevent it tilting forward, the box resting, when in a normal position, on this block, and on the dumping-axis.

A spring catch, J, or other device, is attached to the bottom of the box near the front, so as to automatically or otherwise engage with the end of the reach, and hold the box down in place.

The box is released preparatory to dumping, by simply springing forward the catch, which is provided with a hand-loop j for the purpose.

K is a cross-rod, attached at each end to the sides of the box, and extending across it above the tail-board, L, to which is hinged thereto by two straps, m m, so as to swing outward, as clearly shown. The lower edge of the board is fastened in place by a short arm, n, attached thereto, which projects downward through a longitudinal slot, o, in the bottom of the box, and engages with a spring catch-lever, P, p representing a rubber block, arranged to form the spring therefor. The board is released, in an obvious manner, by pressing on the long arm of this catch-lever.

Q is an ordinary foot-rest, projecting forward from the front end board R of the box.

S is a seat, secured to the bent ends of two spring standards, t t, which fit in guides formed by straps u u secured to the inner side of the end board, the ends of the standards resting on the bottom of the box. This construction and arrangement form a cheap and easy seat, and one which is readily detachable.

Supporting the box on a curved reach and dispensing with the use of bolsters, enable the box to be made of a width that will just clear the wheels, and to be readily tilted sufficiently to cause a free discharge of the load, as there is nothing to obstruct the movement until the box strikes the rear axle or the ends of the reach attached thereto. The upwardly-curved form of the reach is the best calculated to enable it to perform the function of supporting the load in addition to the ordinary one of coupling together the two axles.

The arrangement of the spring boxes on the under side of the curved reach enables the box to be brought

closer to the top of the reach, while they also serve as a tie and brace to stiffen the reach at the crown of its arch.

What I claim as my invention is—

1. A reach, composed of the two pieces, CC, united in front at the turn-table, and diverging toward the rear axle, with which they connect, in combination with a dumping-axis and box supported thereby, substantially as hereinbefore set forth.

2. The springs *i* and supports G, for the dumping-axis, arranged on the under side of the curved reach C, substantially as and for the purpose hereinbefore set forth.

3. The tail-board L, hinged at its upper edge to the cross-rod K, and locked at its lower edge by the arm *n* and a spring-catch P, substantially as hereinbefore set forth.

4. The seat S, spring standards *t t*, guides *u u*, and end board R, constructed arranged, and operating as hereinbefore set forth.

BRITAIN HOLMES.

Witnesses:

JNO J. BONNER,
VICTOR H. BECKER.