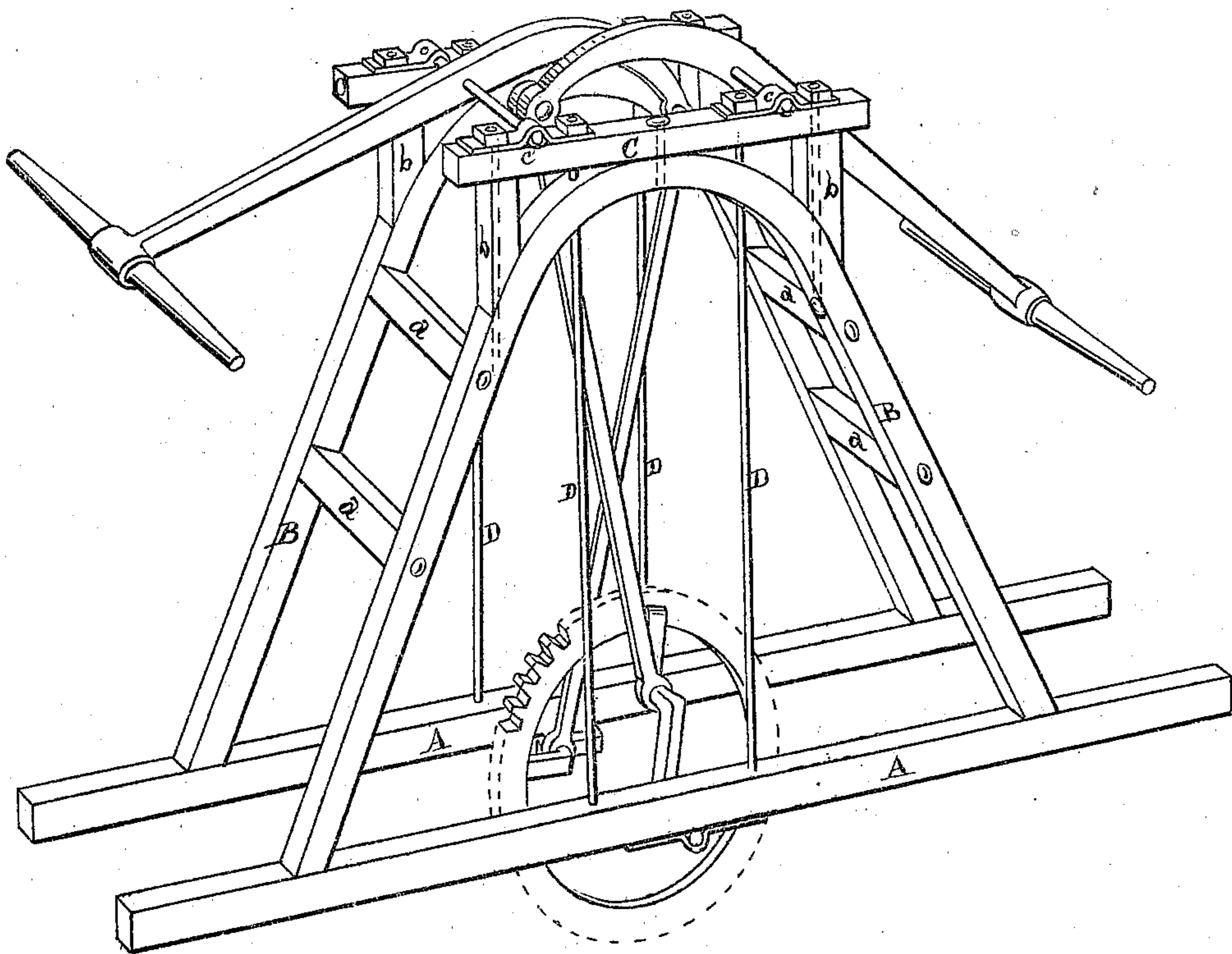


J. D. HINCKLEY.
Hand-Cars.

No. 140,039.

Patented June 17, 1873.



ATTEST

W. F. Everts.

H. J. Sprague

INVENTOR

James D. Hinckley
per attorney

H. J. Sprague

UNITED STATES PATENT OFFICE.

JAMES D. HINCKLEY, OF ADRIAN, MICHIGAN.

IMPROVEMENT IN HAND-CARS.

Specification forming part of Letters Patent No. 140,039, dated June 17, 1873; application filed April 8, 1873.

To all whom it may concern:

Be it known that I, JAMES D. HINCKLEY, of Adrian, in the county of Lenawee and State of Michigan, have invented a new and useful Improvement in Hand-Cars; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon and being a part of this specification, in which my improvement is shown in perspective.

The nature of this invention relates to an improvement in the construction of the gallows-frame of a hand-car, and in hand-cars of that class which are double-gearred, the method of journaling the rock-shafts of the pair of levers which actuate the driving-gear. Its object is to make a light, strong, and durable gallows-frame at a less cost than in the ordinary way of framing it together; and to this end it consists in constructing the frame-standards of two sticks of timber bent to an arch-shape, connected by mortised girts and provided at the top with a pair of plummer-beams, secured thereto and to the sills of the car by holding-down bolts, in the manner more fully hereinafter set forth.

In the drawing, A A represent the two central longitudinal sills of a hand-car, in which the ends of two wooden arches, B, are mortised; these arches are formed by steaming and bending two sticks of wood over a "former" and allowing them to season thereon in the ordinary way of bending. The arches are connected together by two pairs of girts, *a*, mortised in their inner sides. On the crown of each arch a plummer-beam, C, is bolted with a wooden strut, *b*, interposed between each end and the

side of the arch, and secured in place by an iron bolt passed through a hole bored through the beam-end, strut, and arch. Two holding-down rods, D, also pass down through each plummer-beam, arch, and sill with suitable nuts at their upper ends, by which the frame is rigidly secured to the sills. The frames for single-gearred cars have the rock-shaft journaled in boxes at the middle of the plummer-beams, which can be shortened up and the struts and end-bolts omitted; but with the doubled-gearred cars, in which two rock-shafts are used, the plummer-beams are extended, as shown, to receive the boxes *c* of the said shafts.

Besides being much cheaper to construct than the pyramidical gallows-frame heretofore used, this frame is lighter, much stronger, and more durable, as from its superior stiffness it is not racked loose in the joints from the strains and vibrations of the rocking-levers, as is the case with the old style of frame.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A hand-car gallows-frame constructed of two bent wooden arches, B, connected together by girts, *a*, substantially as described and shown.

2. The combination, with the bent wooden arches B B, of the plummer-beams C C, secured thereto and to the sills of the car by the rods D, substantially as and for the purpose set forth.

JAMES D. HINCKLEY.

Witnesses:

O. B. JOHNSON,
EDWIN HADLEY.