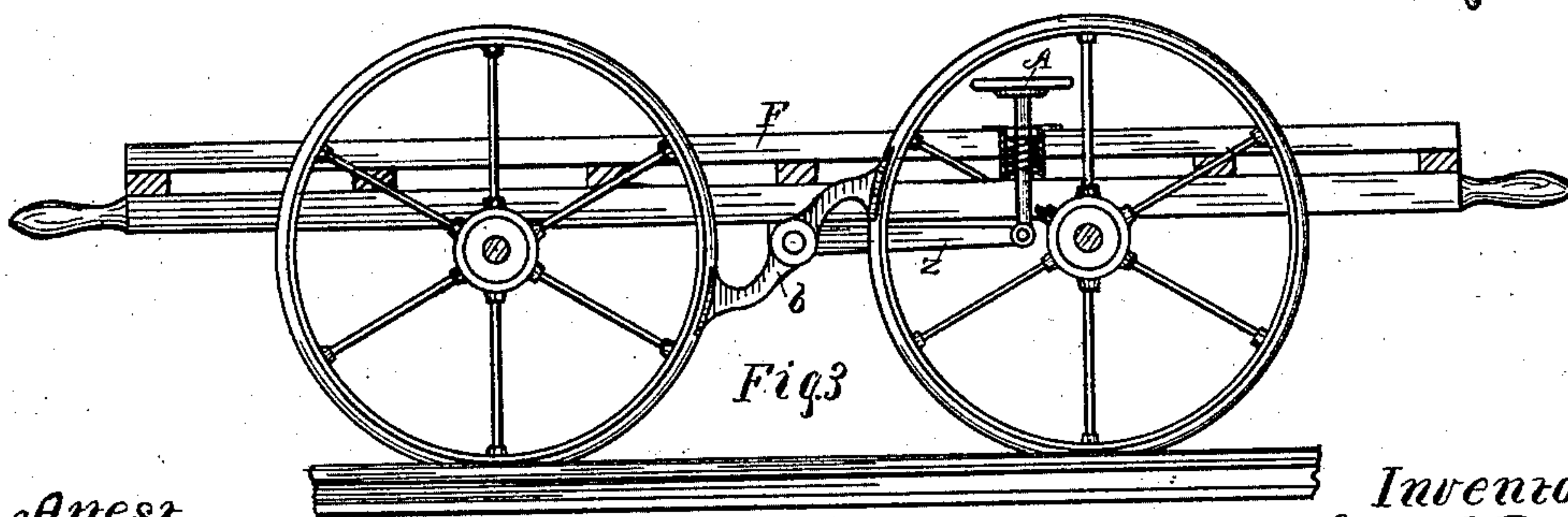
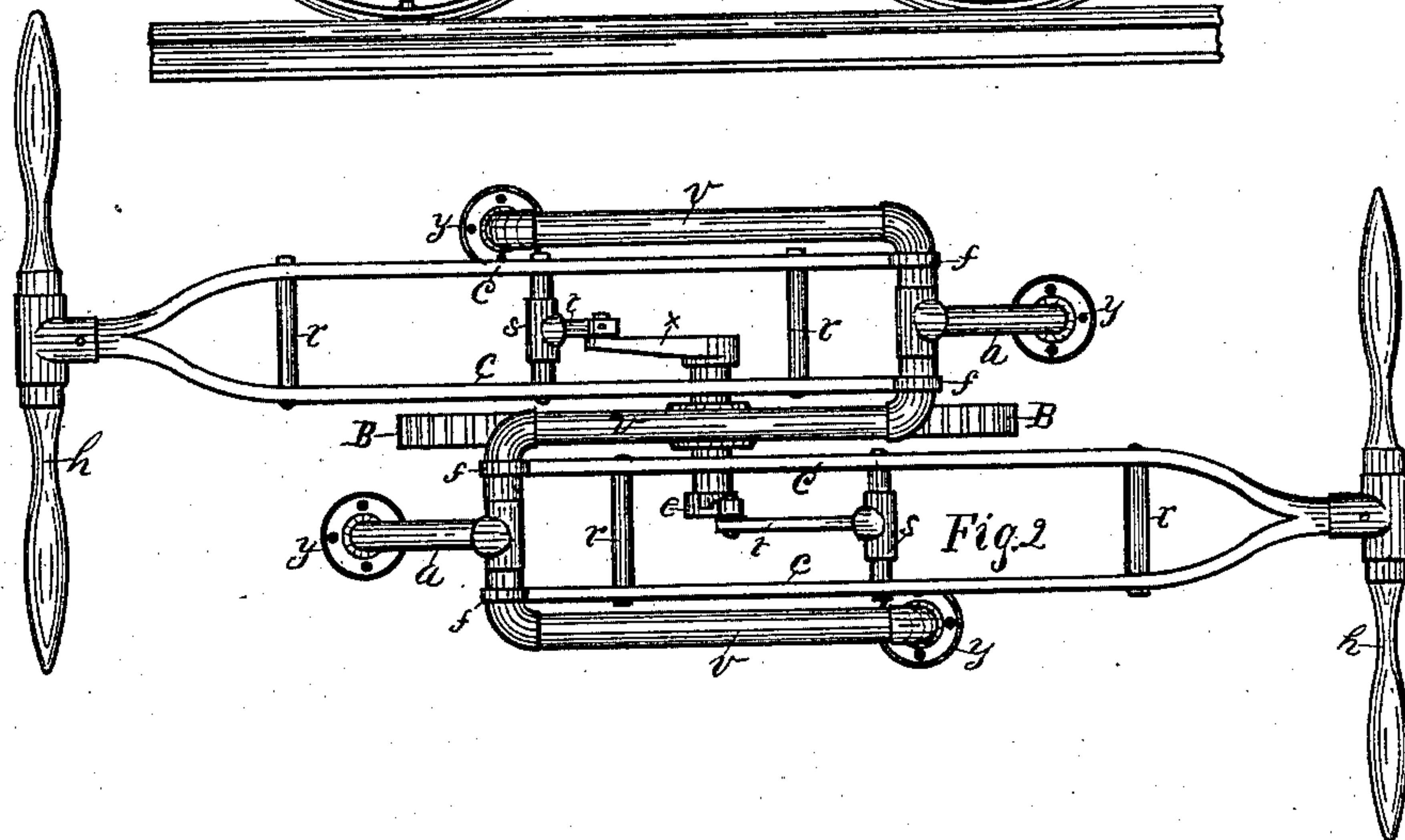
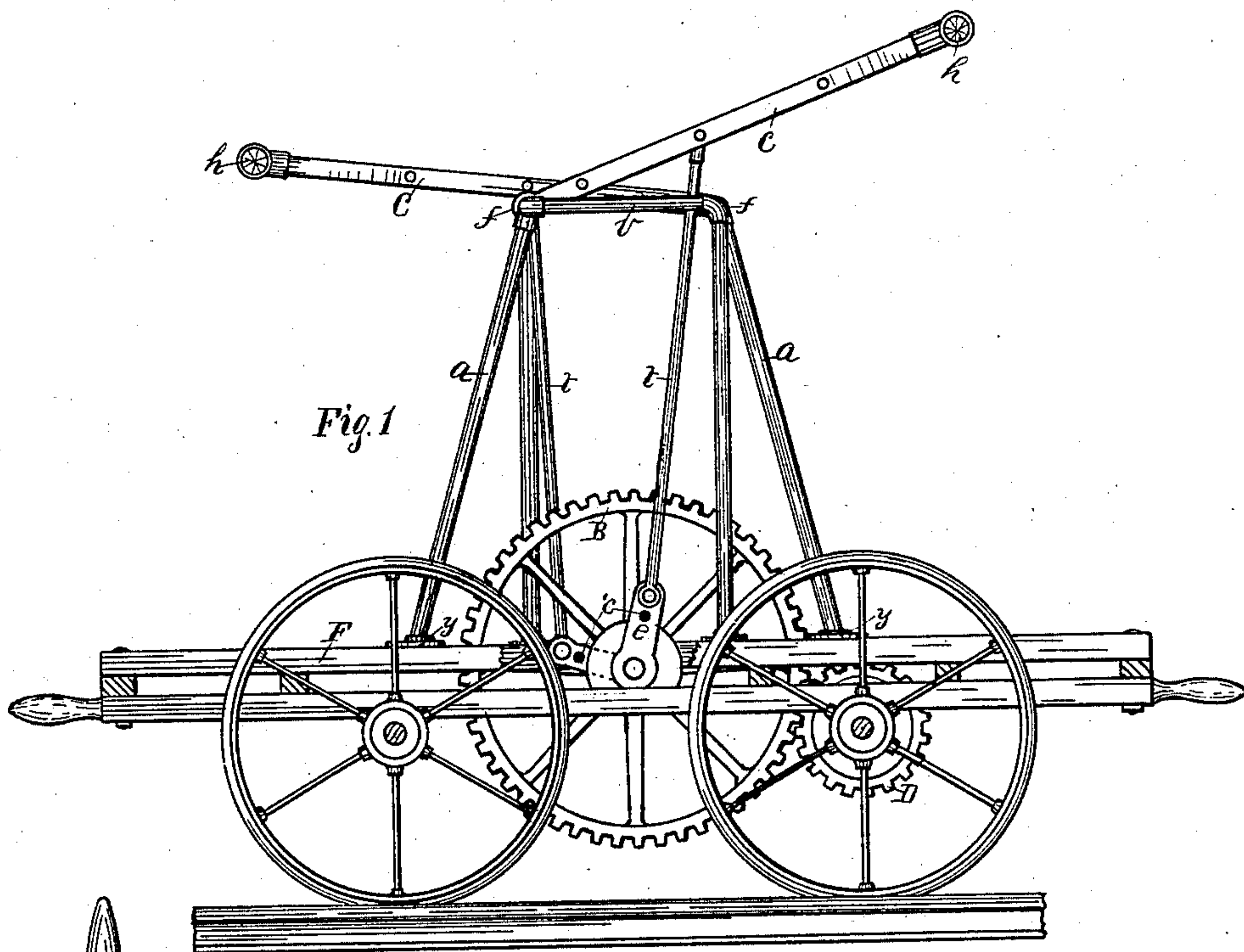


(No Model.)

J. C. PERKINS.
RAILWAY HAND CAR.

No. 290,703.

Patented Dec. 25, 1883.



Attest.
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Charles O. Johnson

Inventor.
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Atty.

UNITED STATES PATENT OFFICE.

JOHN C. PERKINS, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO GEORGE W. MILLER AND HORACE G. HAINES, BOTH OF SAME PLACE.

RAILWAY HAND-CAR.

SPECIFICATION forming part of Letters Patent No. 290,703, dated December 25, 1883.

Application filed October 25, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. PERKINS, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented a new and useful Railway Hand-Car, of which the following is a specification.

My invention consists in certain improvements hereinafter described and claimed.

In the drawings forming a part of this specification, Figure 1 is a side elevation of the hand-car; Fig. 2, a top view of the same; and Fig. 3 is an elevation showing a brake device.

The frame F, rectangular in form, is provided with four running or traction wheels, two of which are shown in Figs. 1 and 3, located on a rail of the track. Two like wheels run on the opposite rail of the track, as in the common style of four-wheeled hand-cars. The axles of these wheels are revoluble and said wheels rigidly secured at each end of said axles. The driving-gear B D is of a style commonly used, and will be readily understood by a reference to Fig. 1.

The frame for supporting the propelling-levers *h h* is an important and novel feature of my device. Said frame *v v* is made from hollow pipe in the form of a letter S, and supported above the frame F by four hollow standards, *a a*, one at each terminus and one at each bow of the S-frame. The propelling-levers consist of handles *h h* and double-truss bars *c c*. Said bars are securely held in a square parallel position to each other by brace-rods *r r*, thus preventing the levers from twisting and causing any binding of the pivoted parts. The levers are located in the U portions of the S-frame *v v*, and pivotally connected with the bows of said frame at *f f*. At each end of the axle of the gear B is connected a crank, *e*. These cranks radiate from said axle at different angles to each other, Fig.

1. The truss-levers are pivotally connected with said cranks *e e* by rods *t t*, Figs. 1 and 2. Said levers may be centrally fulcrumed and rods *t t* pivotally connected with the ends, if preferred. Such a construction is light, simple, and occupies but a small portion of the space usually devoted to such parts, and the ease and speed in running the device are greatly facilitated. The cranks *e e* are provided with extra adjusting-holes *e'*, to control the sweep of the truss-levers. The brake in Fig. 3 consists of an S-shaped casting, *b*, terminating at each end in oppositely-angled brake-shoes adapted to engage two wheels at one time by a single effort of the operator in stepping on the treadle A. Said treadle has a downwardly-extending spring-actuated pintle, said pintle being pivotally connected with lever *z*. The other end of the lever *z* is secured to the brake-casting *b*, or to an axle with which said casting may be connected.

Having thus described my invention, what I claim as new is—

1. The combination, with the hollow S-shaped lever-frame having suitable supports, of the propelling-levers and running-gear of a hand-car, said parts being constructed and arranged substantially as set forth.

2. In a hand-car or other lever-propelled vehicle, the S-shaped lever-frame and supports, adapted for the purpose set forth.

3. The combination, with the S-shaped frame, of the double-bar levers having the truss-braces and the rods connecting said levers with the running-gear cranks.

In testimony of the foregoing I have hereunto subscribed my name in the presence of two witnesses.

JOHN C. PERKINS.

Witnesses:

ARTHUR CAMERON,
CHARLES O. JOHNSON.