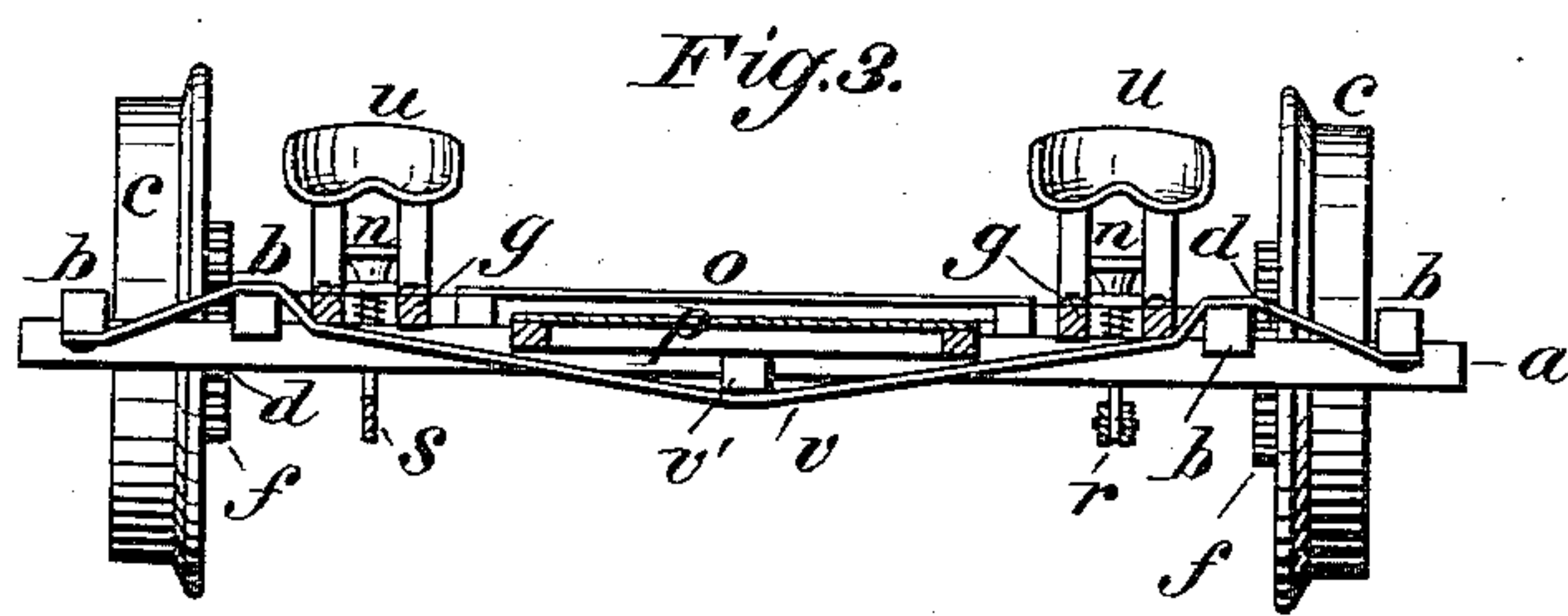
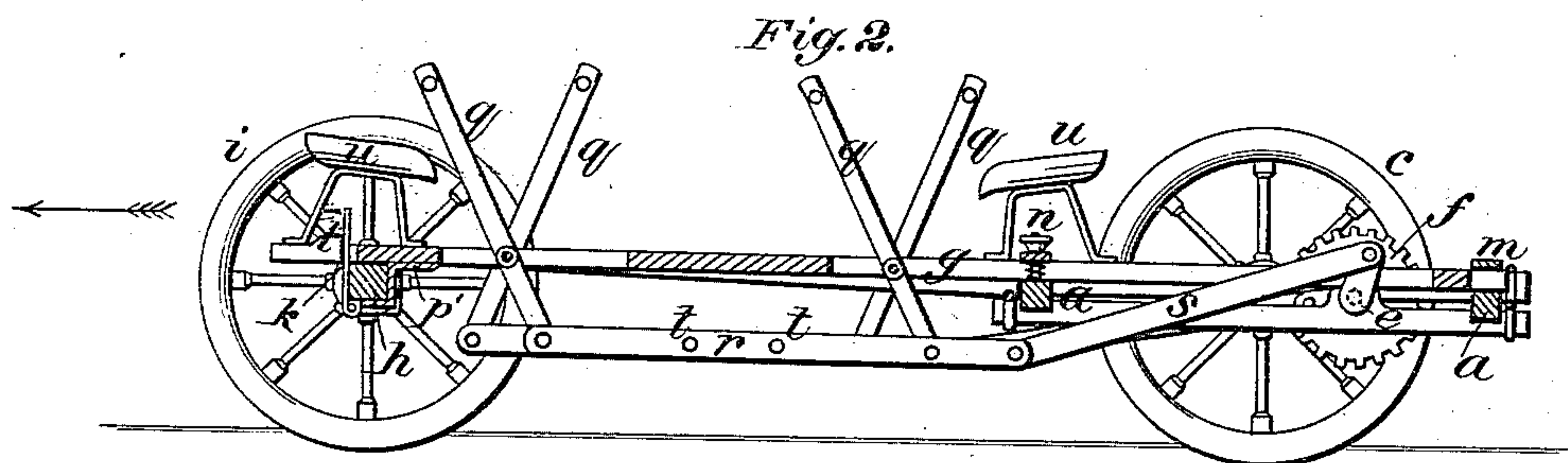
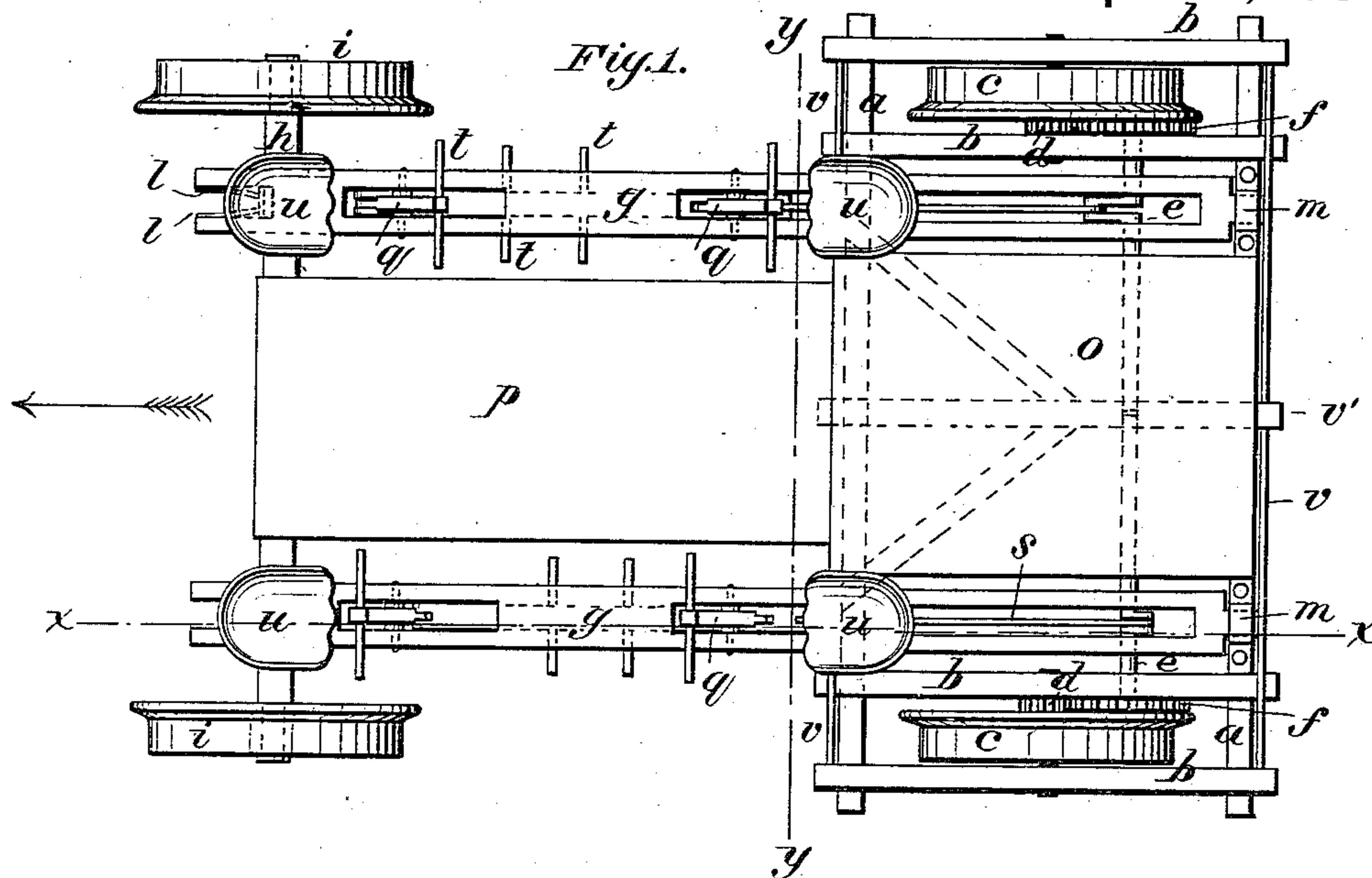


T. G. GLOVER, Jr.  
Hand-Car.

**No. 226,304.**

**Patented April 6, 1880.**



WITNESSES :

Donn P. Twitchell  
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INVENTOR:

INVENTION  
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# UNITED STATES PATENT OFFICE.

THOMAS G. GLOVER, JR., OF BEDFORD, INDIANA.

## HAND-CAR.

SPECIFICATION forming part of Letters Patent No. 226,304, dated April 6, 1880.

Application filed January 13, 1880.

*To all whom it may concern:*

Be it known that I, THOMAS G. GLOVER, Jr., of Bedford, in the county of Lawrence and State of Indiana, have invented a new and useful Improvement in Hand-Cars, of which the following is a specification.

The object of my invention is to construct a light-running hand-car that may be easily handled, for the use of section-men and other employees of railroads.

My invention consists in a hand-car having certain novel features of construction, which will be particularly explained with reference to the accompanying drawings, forming part of this specification.

In the drawings, Figure 1 is a plan view of my improved car. Fig. 2 is a vertical longitudinal section on line *x x* of Fig. 1. Fig. 3 is a vertical transverse section on line *y y* of Fig. 1.

Similar letters of reference indicate corresponding parts.

The rear portion of the car consists of a frame made of cross-bars *a a*, united at their ends by side bars, *b b*. Between and upon the side bars, *b b*, the rear driving-wheels, *c c*, are journaled on short axles, which axles also carry pinions *d d*. Upon this frame are also journaled two crank-shafts, *e e*, which carry at their opposite ends gear-wheels *f f*, that mesh with pinions *d*.

The forward portion of the car is formed by two slotted side rails, *g g*, that are attached upon cross-bars *a*, and extend forward and are fitted with the forward axle, *h*, that carries loosely two track-wheels, *i i*. The front axle, *h*, is connected to the rails *g* by hangers having one side, *k*, hinged and kept in place by springs *l*, so that the axle may be readily detached.

The side rails, *g*, enter by their rear ends into socket-plates *m* on rear bar, *a*, and are attached to the forward cross-bar, *a*, by set-screws *n*, by which construction the front and rear portion may be disconnected.

The rear frame is fitted with a fixed platform, *o*, and the front frame with a platform, *p*, that rests at one end on the forward cross-bar, *a*, and at its other end on the forward axle, *h*, and is held down by hooked lugs *p'*, that pass beneath the axle.

In each side rail, *g*, are hung two hand-levers, *q*, which connect at their lower end with connecting-rods *r*, one at each side of the car, and from each rod *r* a pitman, *s*, passes to one crank of shaft *e*. Upon each rod *r* are fitted foot-pieces or stirrups *t t*.

The side rails are fitted with seats *u*, so that the operators may sit two at each side, facing each other, and operate the car with hands and feet by means of levers *q* and foot-pieces *t t*.

To strengthen the car transversely I apply truss-rods *v* to the side bars, *b*, of the rear frame, extending from side to side and beneath a center bar, *v'*. These stringers may be stretched by means of the set-screws *n*.

This construction furnishes a light and substantial car that can be easily propelled and readily handled.

When the car is to be transported it can be readily taken apart, as described, into four pieces, that can be handled by one man and packed on a railroad-car.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In hand-cars, the rear driving-wheels, *c*, journaled on short axles, the two crank-driving shafts *e e*, and gear-wheels *d f*, combined for operation substantially as shown and described.

2. The screws *n* and socket-plates *m*, combined with the side rails, *g*, and bars *a*, as and for the purpose set forth.

3. The combination of the slotted rails *g g*, the axle *h*, the hinged hanger *k*, and the springs *l*, as and for the purpose specified.

4. The rods *r*, having foot-pieces *t*, and the side rails, *g*, having seats *u*, said rods and rails being connected by hand-levers *q*, in combination with mechanism connecting with the drive-shaft, for the purpose specified.

5. A hand-car having its forward and rear portions formed of separate frames, connected together by devices permitting their separation, substantially as shown and described.

THOMAS GADDIS GLOVER, JR.

Witnesses:

GEO. P. PARKS,

JACOB W. MARTIN.