

(No Model.)

W. S. REED & H. N. PARKER.

TRICYCLE.

No. 245,656.

Patented Aug. 16, 1881.

Fig. 1.

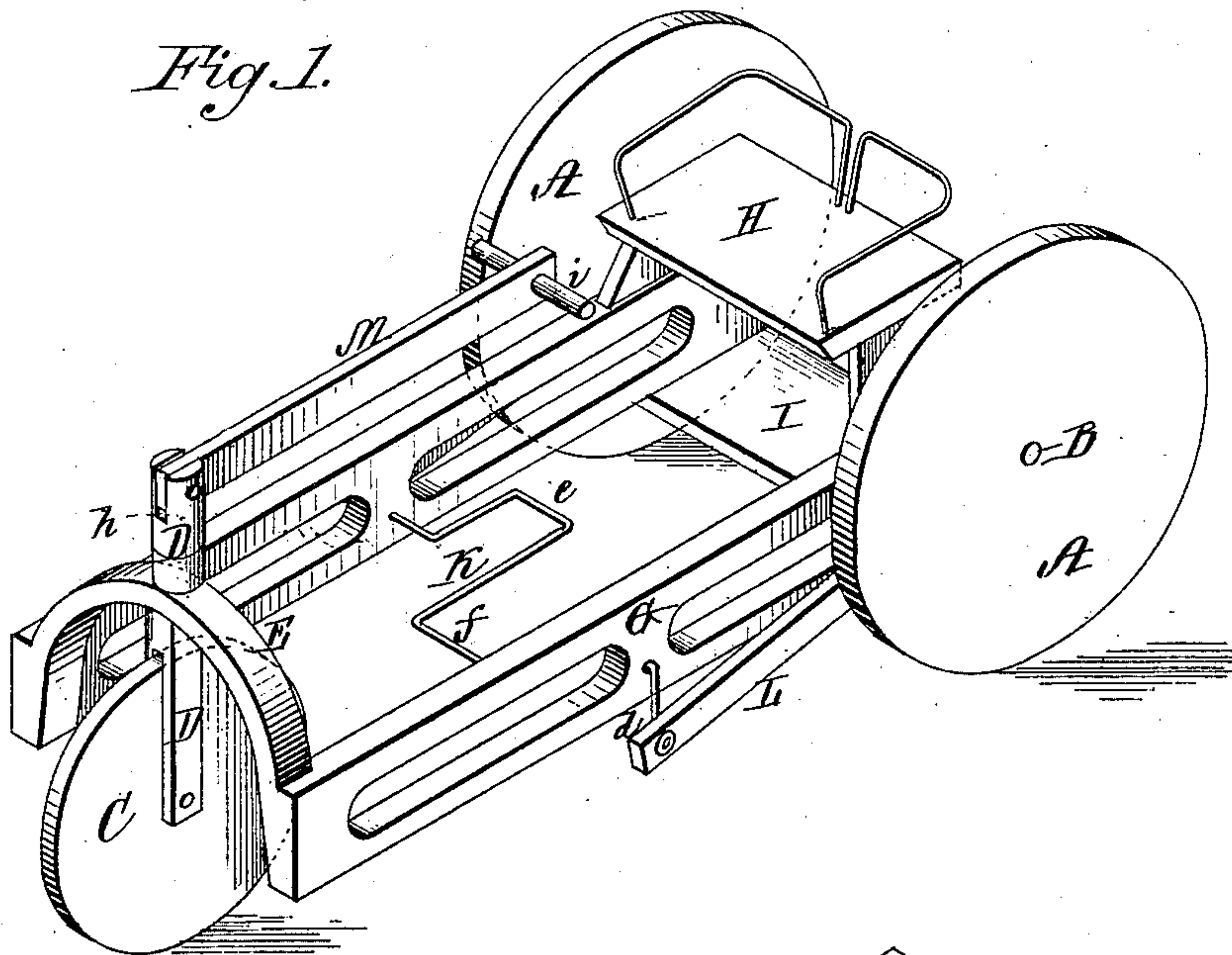


Fig. 3.

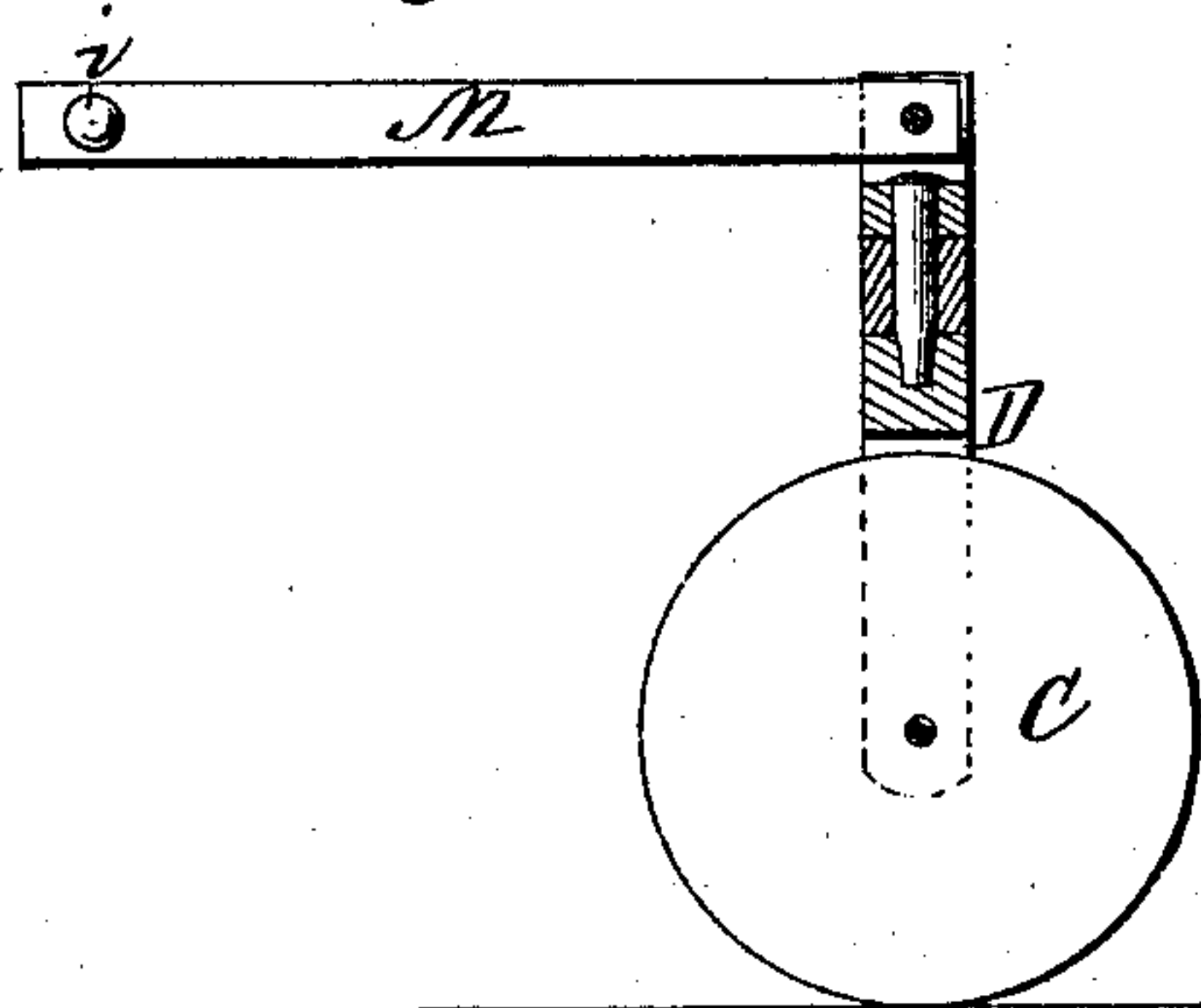


Fig. 2.

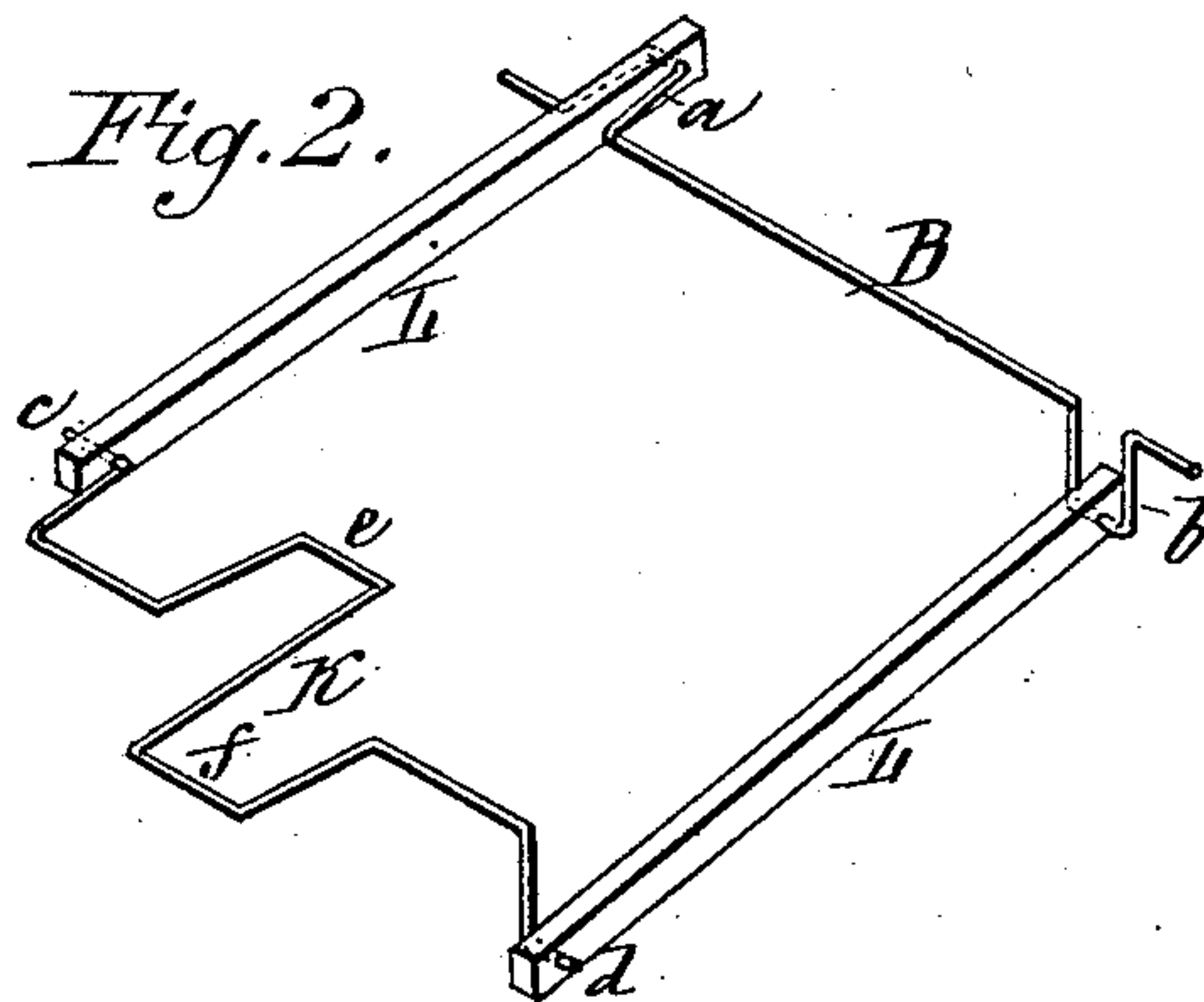
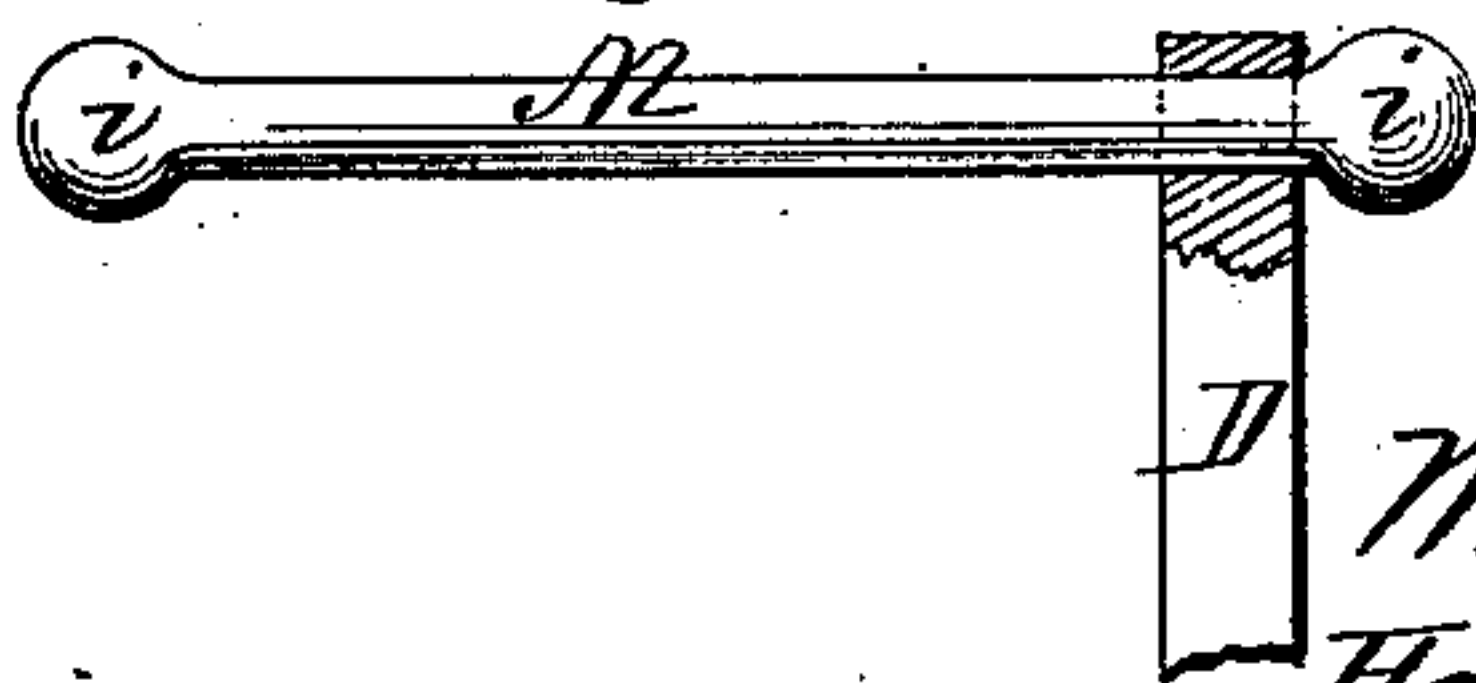


Fig. 4.



Attest:

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UNITED STATES PATENT OFFICE.

WILLIAM S. REED AND HOMER N. PARKER, OF LEOMINSTER, MASSACHUSETTS, ASSIGNORS TO THE W. S. REED TOY COMPANY, OF SAME PLACE.

TRICYCLE.

SPECIFICATION forming part of Letters Patent No. 245,656, dated August 16, 1881.

Application filed June 3, 1881. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM S. REED and HOMER N. PARKER, both citizens of the United States, and residing at Leominster, in the county of Worcester and State of Massachusetts, have invented certain Improvements in Tricycles, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of a three-wheeled vehicle with our improvements applied thereto, the handle of the guide-wheel being in a position within reach of the passenger when occupying the seat in order to steer the vehicle. Fig. 2 represents the form and relative position of the pedal or hand cranks and those of the driving-wheel cranks, with their connecting-rods or pitmen. Fig. 3 is a vertical section through the guiding-wheel and its handle or steering-bar when thrown forward to serve as a draft-bar. Fig. 4 represents another way of reversing the steering-bar.

Our invention consists in a reversible handle, in combination with the ordinary guide-wheel which gives direction to a tricycle or other vehicle when propelled by the feet or hands of the occupant or passenger, said handle being so pivoted or arranged in or upon the upright in which the guide-wheel is hung that the same may be instantly reversed from one position to another to enable it to perform two separate and independent offices—viz., the handle may extend within reach of the occupant of the seat to give direction to the vehicle while he is propelling the same, or the handle may be thrown forward to serve as a draft-bar for pulling the vehicle along when not employed in carrying the passenger; and our invention also consists in a propelling-axle and a driving-axle, with their interposed pitmen or other mechanical connections, the cranks of both of said axles on one side of the vehicle being at right angles to their respective opposite cranks, whereby the necessity of straddling the seat is avoided, and the occupant is enabled to have free and unrestrained action of the limbs, which, being applied to the best advantage, results in attaining great speed.

To enable others skilled in the art to understand and apply our invention, we will proceed to describe the manner in which we have carried it out.

In the said drawings, A A are two driving-wheels rigidly secured to an axle, B, the cranks *a b* at opposite ends of which are located in planes at right angles to each other.

C is an ordinary guide-wheel, having its bearings in a bifurcated upright post, D, passing through and capable of being rotated in a bridge-piece, E, rising from the forward end of the reach or frame-work G, upon the rear end of which is located the seat H. The lower end of the rear of the frame-work is connected by a cross-piece, I, immediately over which the axle B has its bearings in and projects out through the frame.

K is also a bent axle for propelling the vehicle. It has its bearings in the frame-work at a short distance from the seat, within convenient reach of the feet of the occupant, the ends of the axle K outside the frame terminating in two cranks, *c d*, located in planes at right angles to each other, and similar in length and inclination to the cranks *a b* of the axle B.

Outside the frame, and on opposite sides thereof, are two pitmen or rods, L L, connecting the cranks of the propelling-axle K with the corresponding cranks of the driving-axle B. At two points inside the frame-work the axle is so shaped as to form two pedal-rests, *e f*, (or cranks,) upon which the occupant of the seat may conveniently apply the pressure of the feet alternately in advancing the vehicle, without the necessity of straddling the seat, thus adapting it for the use of girls as well as boys.

Within the top of the post D of the guide-wheel C is formed a slot or recess, *h*, for the reception of the pivoted end of a rectangular bar, M, having a cross-piece, *i*, passing through its opposite end for the application of the hands thereto, the bar being of such length that when thrown back it will extend within convenient reach of the occupant of the seat and serve as a guiding-handle or steerer for giving direction to the vehicle.

When the seat is not occupied, and the tri-

cycle is to be set aside temporarily, the guiding-handle M may be swung over forward on its pivot into the position seen in Fig. 3, to serve as a draft-bar for pulling the tricycle along behind the attendant, his hand being applied to the cross-piece *i*.

Instead of pivoting the guiding-handle M to the post D the former may slide in a socket in the top of the post, the parts being fitted with the proper degree of friction to hold the said handle in either of its working positions, and when so constructed both its ends would be provided with a cross-piece or knob, *i*, for the hand to grasp. (See Fig. 4.)

Instead of revolving the propelling-cranks by the feet they may be operated by hand-levers projecting up on opposite sides of the seat, in positions conveniently accessible to the hands of the occupant.

We claim—

1. The guiding-handle M, in combination with and pivoted to the post D, in which the

guide-wheel C is hung, to admit of its instant reversal for use as a draft-bar, substantially as set forth.

2. The guiding-handle M, in combination with and sliding in a socket formed in the top of the post in which the guide-wheel is hung, as and for the purpose specified.

3. The driving-axle B, with its cranks *a b* at right angles to each other, and the propelling-axle K, with its corresponding cranks *c d*, also at right angles to each other, in combination with rods L L or other devices connecting the respective cranks of the two axles, substantially as and for the purpose described.

Witness our hands this 31st day of May, 1881.

WILLIAM S. REED.
HOMER N. PARKER.

In presence of—

A. L. BURDETT,
C. E. DRESSER.