

(No Model.)

2 Sheets—Sheet 1.

J. W. & C. F. POST.

VELOCIPÈDE.

No. 285,513.

Patented Sept. 25, 1883.

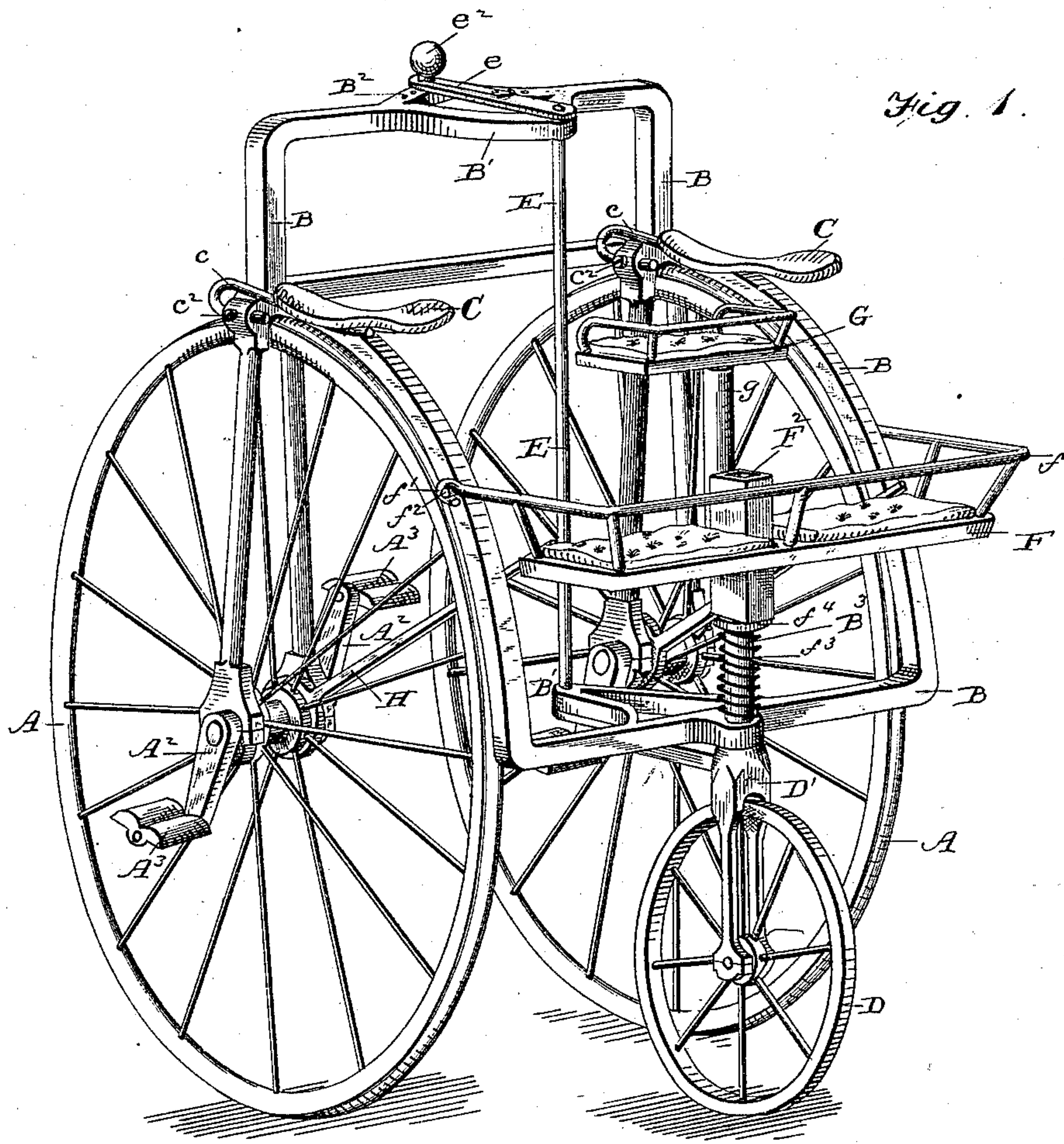
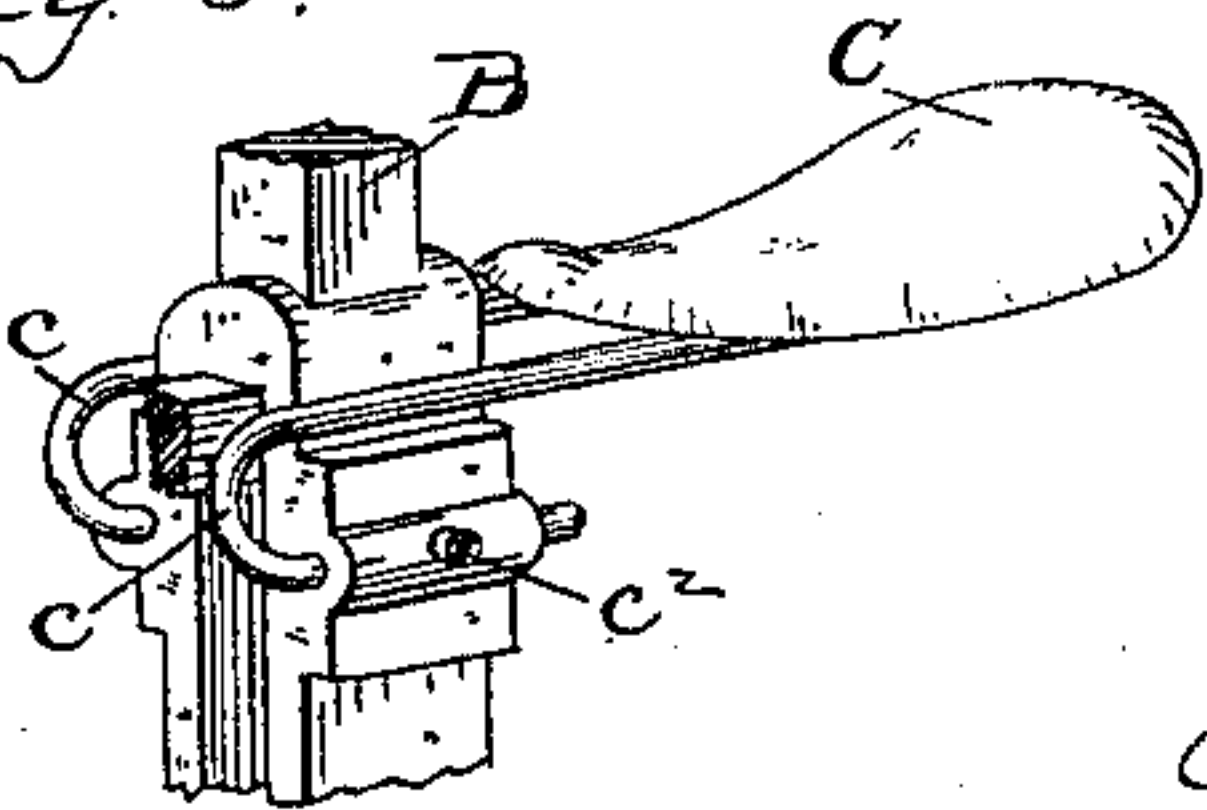


Fig. 1.

Fig. 5.



Attest,

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(No Model.)

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2 Sheets—Sheet 2

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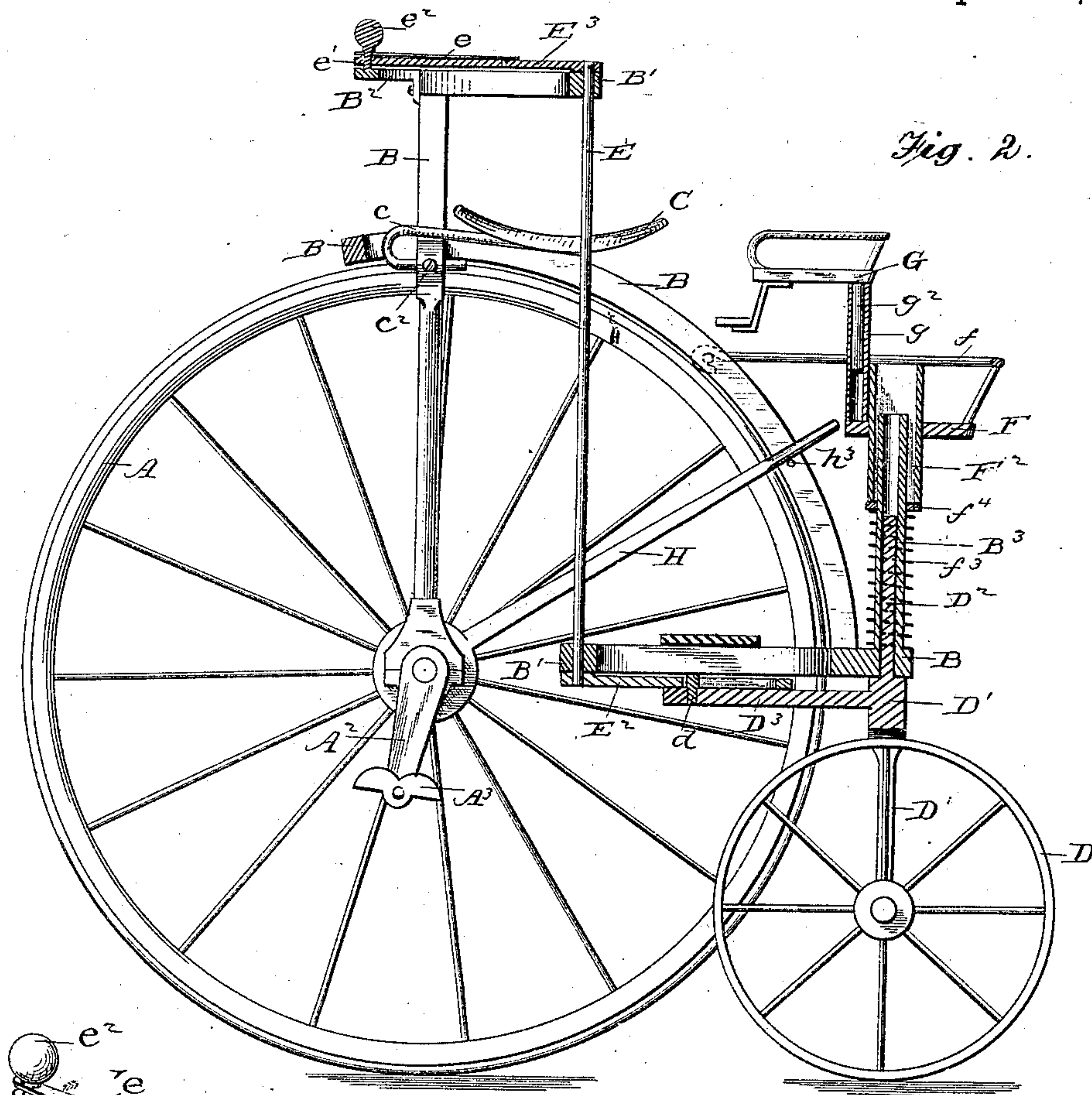


Fig. 2.

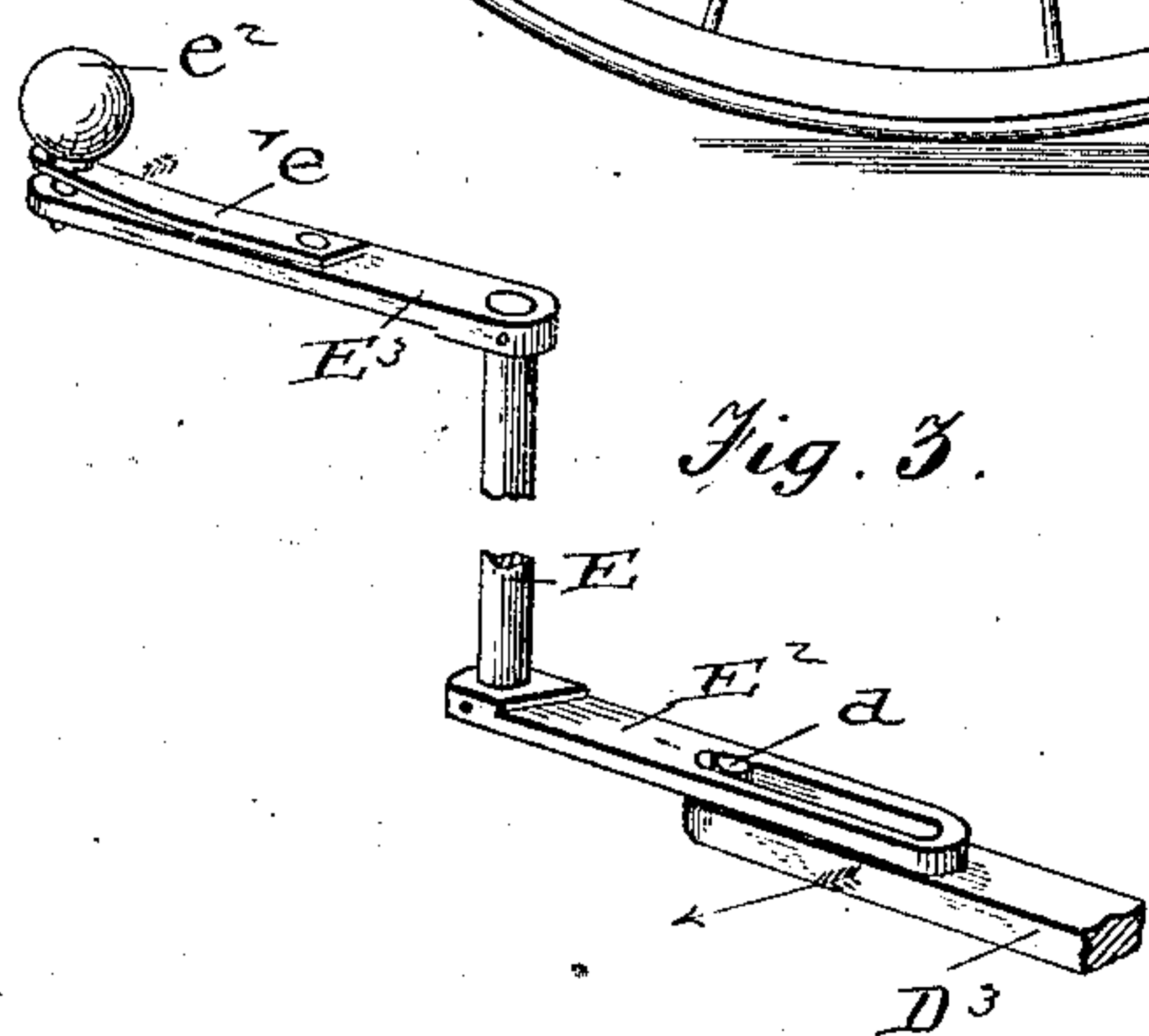


Fig. 3.

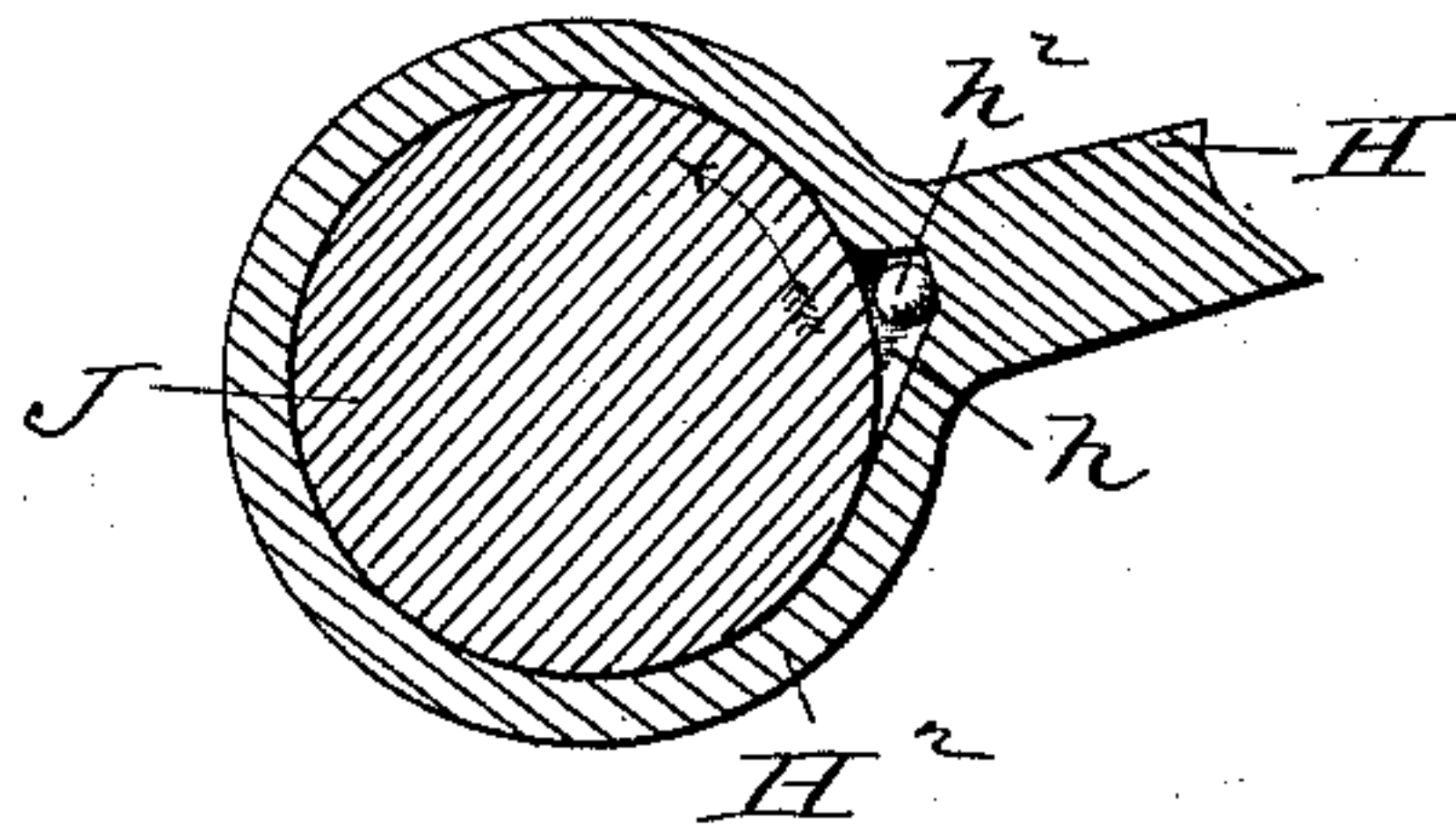


Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN W. POST AND CHARLES F. POST, OF NEW YORK, N. Y.

VELOCIPEDÉ.

SPECIFICATION forming part of Letters Patent No. 285,513, dated September 25, 1883.

Application filed June 13, 1883. (No model.)

To all whom it may concern:

Be it known that we, JOHN W. POST and CHARLES F. POST, citizens of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Velocipedes, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to that class of velocipedes adapted to carry several persons, and as it will accommodate some who can ride as passengers, while others drive the machine, it may very properly be termed a "family velocipede."

In the accompanying drawings, in which like letters refer to similar parts in the different figures, Figure 1 is a perspective view of a velocipede constructed according to our invention. Fig. 2 is a sectional view of the same. Fig. 3 is a detail of the steering mechanism. Fig. 4 is a sectional detail of the hub of one of the driving-wheels and a portion of a clutch-lever for assisting in the propulsion of the machine; and Fig. 5 is a perspective detail, showing the means for attaching the saddles to the frame.

A A indicate the driving or traction wheels, to the hubs or shafts of which are secured cranks A², provided with treadles A³, which are or may be of ordinary construction. The driving-wheels A are connected by and have bearings in a frame, B, to which are secured the saddles C for the riders who will drive the vehicle. These saddles are placed nearly over the centers of the driving-wheels, as is common. A steering-wheel, D, having bearings in a forked post, D', pivoted in the lower rear portion of the frame B, by means of a vertical spindle, D², serves to steady said frame and to receive a portion of the weight of the riders and passengers.

Formed integral with or rigidly secured to the forked post D' is an arm, D³, provided with a pin, d. The frame B is provided with horizontal projections B', affording pivotal bearings for a vertical rod or shaft, E, having rigidly secured to its lower end a slotted arm, E², and to its upper end a steering-arm, E³. The pin d of the arm D³ is arranged in the slot

of the arm E², thus making a loose connection between said arms. If desired, this construction may be reversed by slotting the arm D³ and securing the pin to the arm E². The arm E³ is provided with a spring, e, carrying a pin, e', having a knob, e². Said spring has a tendency to depress said pin into any one of a series of recesses, formed in a segmental or semicircular projecting portion, B², of the frame B, over which said pin may be placed. By means of the knob e² the pin e may be raised from the recess in which it is held by the spring e, when the arm E³ will be free to be turned in any desired direction to steer the vehicle. Owing to the above-described connections between the arm E³ and the post D', the wheel D will be turned, so as to cause the vehicle to incline to the right or left, according as the arm E³ is moved to the right or the left. In other words, the vehicle will be steered in the direction in which the arm E³ is turned, thus avoiding the confusion incidental to reverse movements.

To accommodate the passengers a seat, F, is arranged above the wheel D. The back of said seat preferably consists of a bent rod, f, the extremities of which are formed into hooks f', engaging pins f² on the frame B. A hollow post, F², rigidly secured to the seat F, fits over a hollow rod, B³, made fast to the frame B, the spindle D² of the post D' projecting upward within the hollow rod B³. Beneath the post F², and surrounding the rod B³, is a spiral spring, f³, said spring bearing at its lower end on the frame B. A washer, f⁴, which is loose on the rod B³ is preferably arranged between the spring f³ and the post F². Said washer may, however, be dispensed with, if desired, in which case the spring f³ will bear directly against the post F².

It is obvious that the construction just above described will constitute an elastic or spring support for the seat F, which can swing on the pins f² as pivots as it rises and falls under the influence of the jar of the moving vehicle.

The seat F supports a smaller seat, G, the latter being arranged above and partly in front of the former. The seat G is intended to accommodate but one person, who will thus be placed between the two persons for whom the

seat F is provided. In the construction shown the seat G is supported by a hollow post or upright, g , secured to the seat F, into which a rod, g^2 , secured to the seat G, extends.

5 The seat G, being supported by the seat F, will be rendered easy by the spring-supports of the latter. We do not, however, wish to confine ourselves to the precise construction herein shown and described for supporting
10 and arranging these seats, as such construction may be varied considerably without departing from the spirit of this part of our invention. For example, two or more spring-supports may be provided for the seat F, and
15 the seat G may be connected with the seat F by two or more supports, or it may be sustained by a cross-bar secured to the frame B, in which case it will preferably have elastic or spring connections with such cross-bar.

20 By arranging the passenger-seats one above the other, or at different levels or elevations, as just above described, it is obvious that greater compactness is obtained, enabling a larger number of passengers to be comfortably
25 accommodated within the same space measured horizontally than would be possible if the seats were all on one level.

In order to assist in the propulsion of the vehicles when ascending steep grades, one or
30 more clutch-levers, H, arranged within easy reach of the passengers, are provided. In the form shown these levers are constructed with annular portions H^2 , surrounding the hubs J of the wheel A. Within wedge-shaped
35 recesses h , formed in the levers H, are arranged balls h^2 , this construction affording a clutch-connection with the hubs J when the levers are moved in one direction, while permitting their free movement on said hubs
40 when moved in the opposite direction, in a well-known manner. Instead of this clutch-connection, pawl-and-ratchet constructions might be employed for operatively connecting these assisting-levers with the driving-
45 wheels. When not in use, the assisting-levers are supported by pins h^3 on the frame B, or in any other suitable manner.

The seats F and G are so attached that they may be easily removed from the vehicle when
50 desired. The seat G can be removed by lifting it from its support in the seat F, and the latter can be raised, and then quickly unhooked from the pins f^2 , by which it is attached to the frame B. The removal of the seats will,
55 of course, lighten the vehicle when only the persons who occupy the saddles C are to ride. The saddles C are elastically supported by spring-rods c , adjustably secured to the frame B in front of said saddles, said spring-rods
60 being preferably merely the opposite ends of a single rod bent around beneath each saddle, thus constituting the frame to which canvas, leather, or perforated sheet-metal may be secured to form a proper seat. By securing the
65 spring-rods c to the frame B in front of the saddles the space beneath the latter is left en-

tirely unobstructed, so that the saddles need only to be raised a sufficient distance above that portion of the supporting-frame B directly
70 over the wheels to enable said saddles to have a proper vertical play during the movement of the vehicle. In other words, by securing the spring-rods to the frame B in front of the saddles the springs usually placed under the saddles and between the latter and the support-
75 ing-frame are dispensed with, thus permitting the saddles to be placed directly over and closer to the wheels than is possible with the constructions heretofore usually employed. The set-screws c^2 , which serve to fasten the
80 spring-rods c to the frame B, may be loosened when it is desired to adjust the saddles backward or forward, after which the screws will again be tightened to secure the saddles. Thus the latter may be quickly and easily adjusted
85 to suit the riders.

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

1. The combination of the driving-wheels A, steering-wheel D, frame B, saddles C, seats F
90 and G, and means for elastically supporting said seats on said frame, substantially as described.

2. The combination of the frame B, the steering-wheel D, the post D' , pivoted in said
95 frame and provided with the arm D^3 , having pin d , the rod E, having the slotted arm E^2 and steering-arm E^3 , and means for securing the steering-arm in any position to which it
100 may be adjusted, substantially as described.

3. The combination of the frame B, steering-wheel D, the post D' , pivoted in said frame and provided with the arm D^3 , having pin d , the rod E, having slotted arm E^2 and steering-
105 arm E^3 , the spring e , the pin e' , having knob e^2 , and the segmental projection B^2 , provided with a series of recesses adapted to receive said pin, substantially as set forth.

4. The combination, in a velocipede, of a plurality of driving-wheels, a frame connect-
110 ing said wheels and provided with pins, and a seat for passengers having hooks, whereby said seat may be removably attached to said frame, substantially as described.
115

5. The combination, with the driving-wheels A, of the frame B, the seat F, removably attached to said frame, and the seat G, remova-
120 bly attached to the seat F, substantially as described.

6. The combination, with the driving-wheels A, of the frame B, provided with the rod B^3 and pins f^2 , and the seat F, having the hollow post F^2 and the back rod, f , formed at its ends into hooks f' , adapted to engage the pins f^2 ,
125 substantially as described.

7. The combination, with the frame B and the seat F, removably secured thereto and provided with the hollow post g of the seat G, having the rod g^2 , adapted to enter said post,
130 substantially as described.

8. The combination, with the frame B and

saddles C, of the spring-rods e, secured to said frame in front of said saddle, and the set-screws c², for securing said rods when properly adjusted, substantially as described.

5 9. The combination, in a velocipede, of a plurality of traction or driving wheels, a seat for passengers, and one or more assisting-levers having clutch or equivalent connections, as described, with the hubs of said wheels, and
10 conveniently arranged to be operated by the

passengers for assisting in the propulsion of the vehicle, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN W. POST.
CHARLES F. POST.

Witnesses:

W. M. GLEDHILL,
N. L. DAVISON.