(No Model.) 3 Sheets—Sheet 1.

J. E. VAN METER & B. F. HESSER.

VELOCIPEDE.

No. 261,411. Patented July 18, 1882.

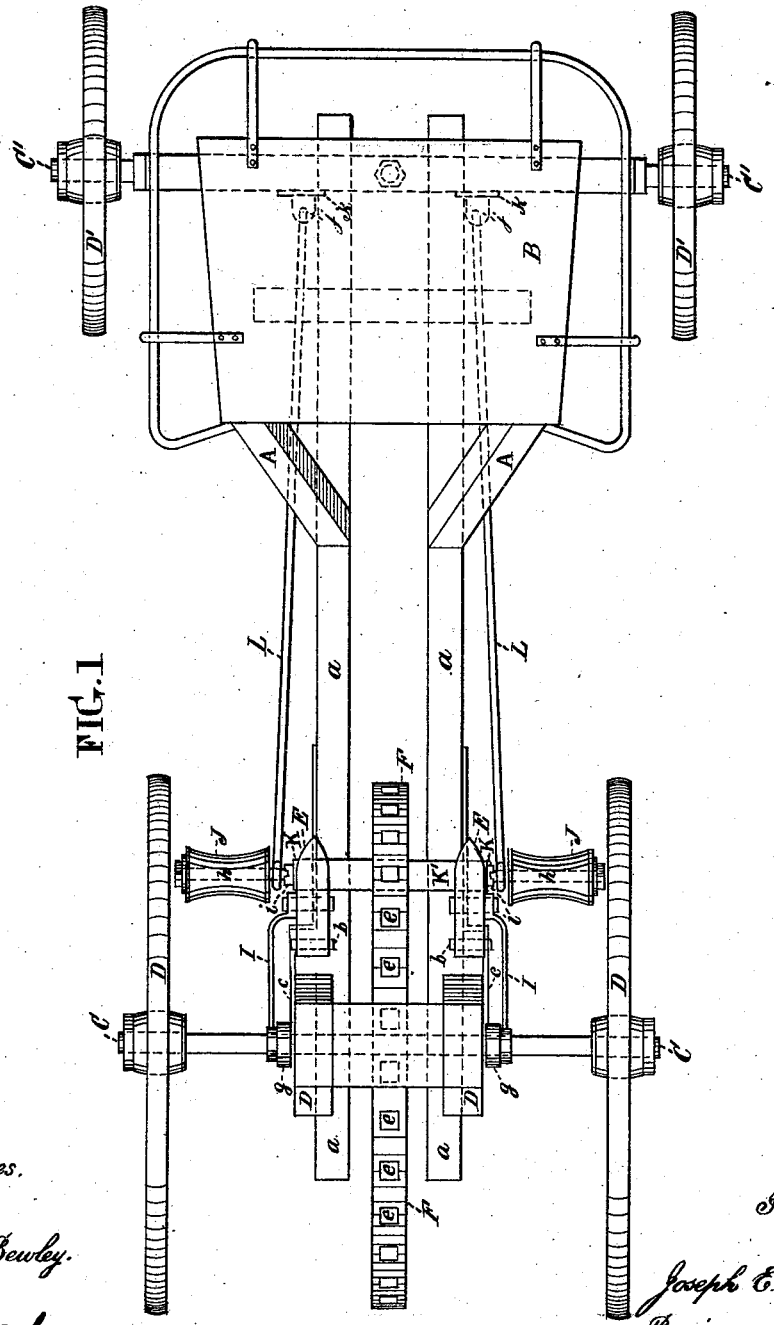

FIG. 1

Witnesses.

Thomas J. Bewley.

J. M. Richmond.

Inventors.

Joseph E. Van Meter

Benjamin F. Hesser.

per Stephen Ustick. atty

(No Model.) 3 Sheets—Sheet 2.

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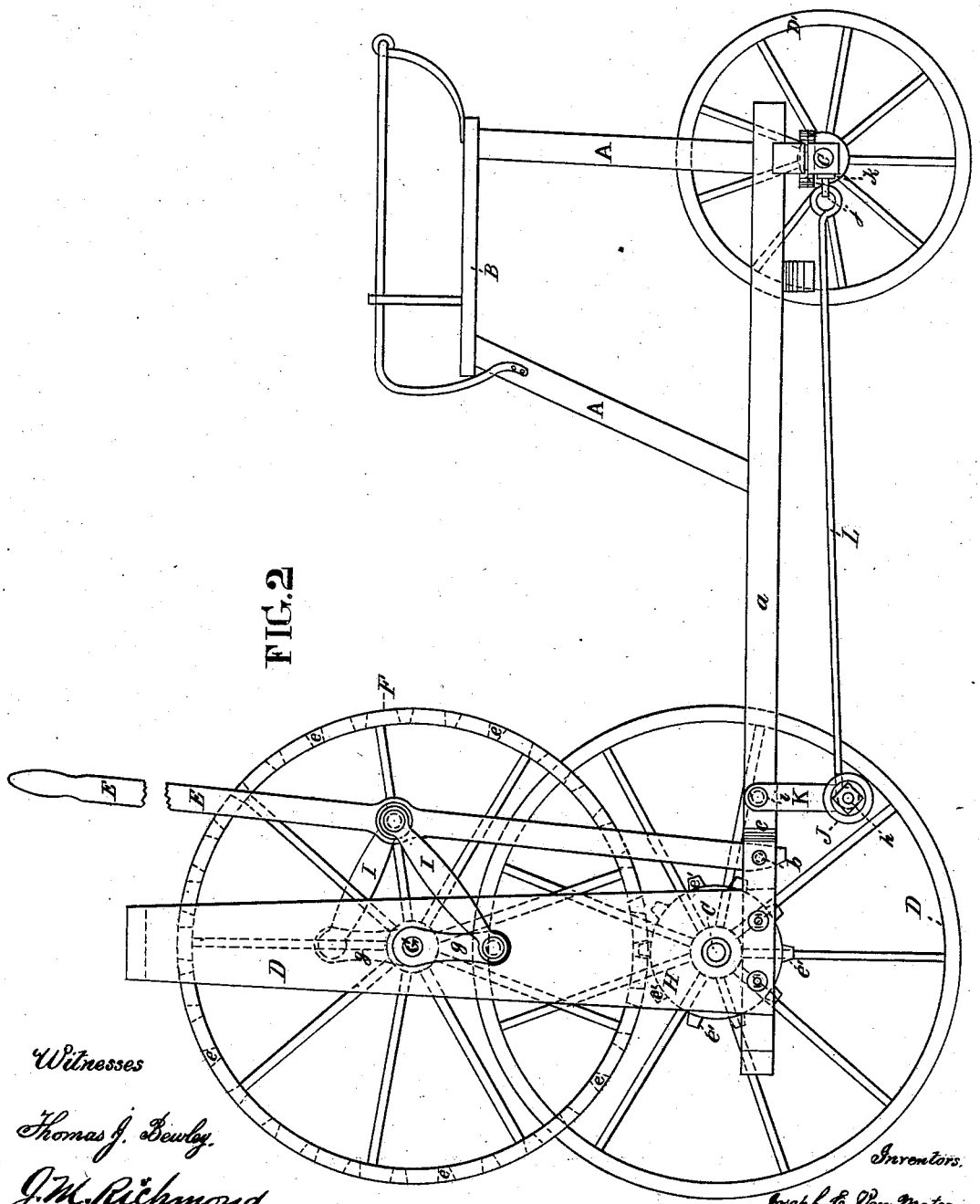

FIG. 2

Witnesses

Thomas J. Bewley.

J. M. Richmond

Inventors.

Joseph E. Van Meter.
Benjamin F. Hesser
per Stephen Ustick Atty.

(No Model.) 3 Sheets—Sheet 3.

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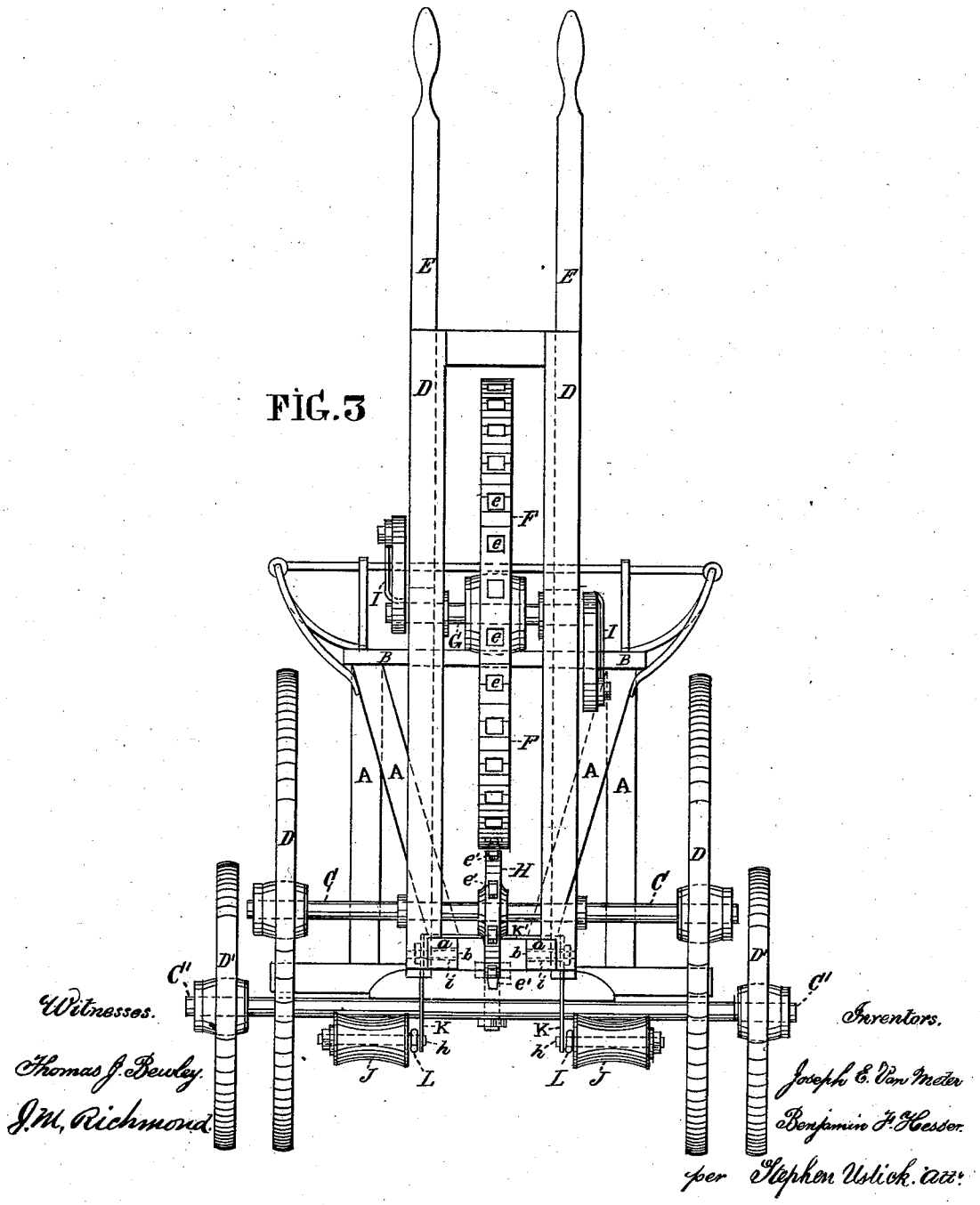
FIG. 3



Witnesses.
Thomas J. Bewley.
J. M. Richmond.

Inventors.
Joseph E. Van Meter
Benjamin F. Hesser.
per Stephen Ustick. Att'y.

UNITED STATES PATENT OFFICE.

JOSEPH E. VAN METER AND BENJAMIN F. HESSER, OF PHILADELPHIA, PA.

VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 261,411, dated July 18, 1882.

Application filed May 27, 1882. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH E. VAN METER and BENJAMIN F. HESSER, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Velocipedes, of which the following is a specification.

The nature of our invention will be understood by the following specification and claim.

In the accompanying drawings, which make a part of this specification, Figure 1 is a plan view of the velocipede. Fig. 2 is a side elevation of the same on Sheet No. 2. Fig. 3 is a front elevation on Sheet No. 3.

Like letters of reference in all the figures indicate the same parts.

A represents the frame of the velocipede, to which the seat B and other parts are connected.

C and C′ are respectively the front and rear axles.

D D are the traction-wheels on the front axle, and D′ D′ the traction-wheels on the rear axle.

E E are vertical levers at the opposite sides of the frame A, connected to the longitudinal bars *a a* of the frame by means of the fulcrum-pins *b b*, the ends of the pins having a permanent connection with said bars and the straps *c c*, which are fastened to the bars by means of screws, as shown, and to the uprights *d d* of the frame.

F is a mortise-wheel on the revolving shaft G, and H a pinion on the front axle, C, connected with said wheel F. The latter wheel has a smooth tire provided with slots *e*, which form the outer parts of the mortises, so as to provide against any injury to the rider, such as might occur by the use of cogs on the periphery of the wheel.

The pinion H on the front axle, C, has teeth *e′* of the same pitch as the slots *e* of the wheel F and gear into them.

The levers E E are connected with the cranks *g g* of the shaft G by means of the connecting-rods I I, whereby as the levers are operated and revolve the said wheel F, which is of much larger diameter than the pinion H, and said pinion H on the axle of the traction-wheels D D, a very high velocity is given to the latter and a correspondingly high speed to the velocipede with a moderate movement of the levers E E.

J J are pedals on which the feet of the rider rest. They are adapted to turn on the stud-pins *h h*, which project from the straps K K, that are hung on the pins *i i* of the strap K′, confined to the longitudinal bars *a a* above described.

L L are connecting-rods, the front ends of which are adapted to have a partial turn on the pedal-pins *h h*, and their rear ends have a joint-connection with the eyes *j j* of the plates *k k*, which are secured to the rear axle, C′, and hence by the forward movement of the left foot of the rider upon the pedal J at that side of the velocipede the end of the rear axle at the same side is inclined forward, and the opposite end consequently backward, to give the requisite turn of the velocipede to the right; or by a like forward pressure of the right foot upon the right pedal the opposite movement is given to the velocipede.

As the handles of the levers E E have a short reciprocating movement they are always held in the hands of the rider very conveniently when the velocipede is running.

We claim as our invention—

The mortise-wheel F on the shaft G, having cranks *g g*, in combination with the pinion H, axle C, levers E E, and connecting-rods I I, for the propulsion of the velocipede, substantially as decribed.

JOSEPH E. VAN METER.
BENJAMIN F. HESSER.

Witnesses:
THOMAS J. BEWLEY,
STEPHEN USTICK.