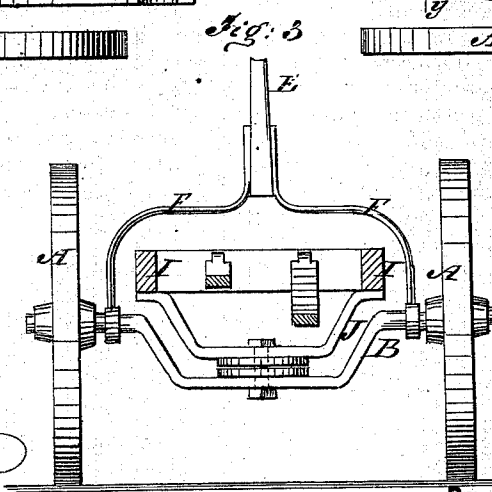
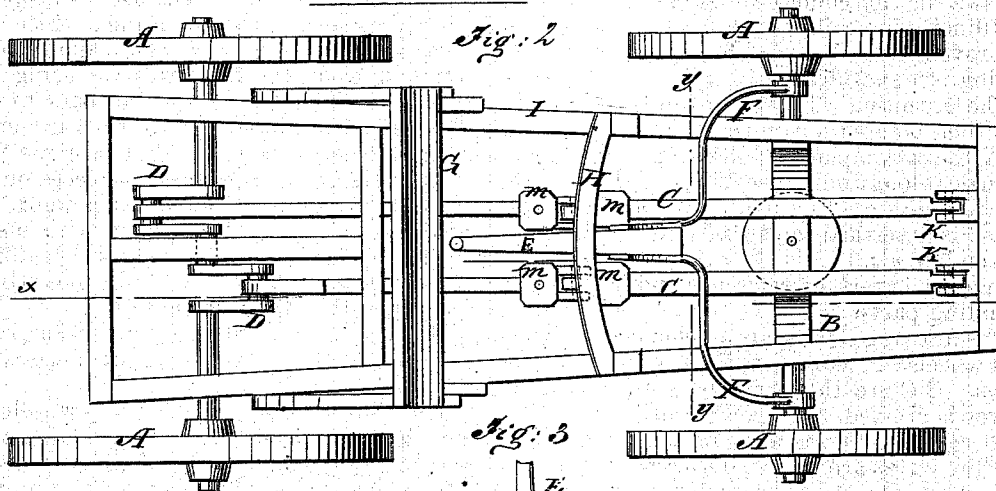
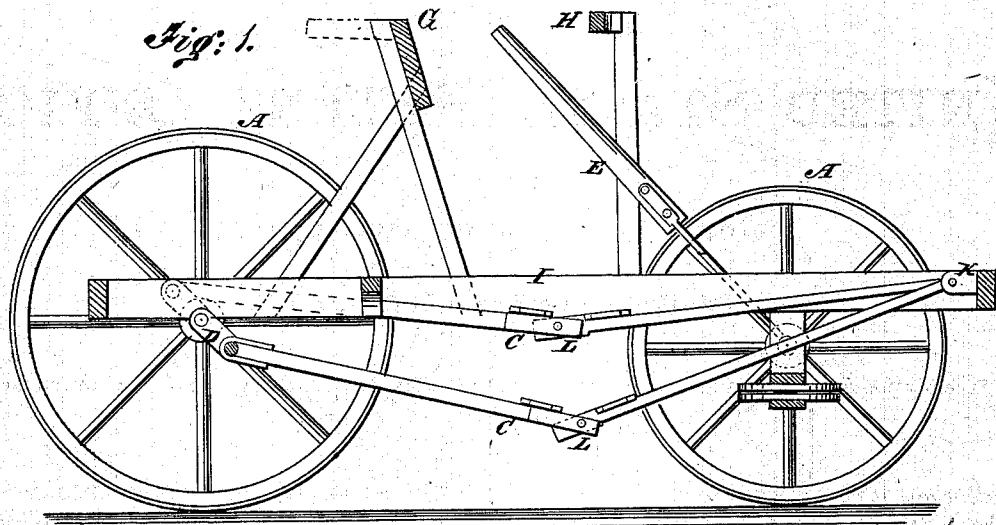


G. AVERY.
Velocipedes.

No. 146,159.

Patented Jan. 6, 1874.



Witnesses:

Chas. Nide
Edgworth

Inventor:

G. Avery

Per

Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE AVERY, OF OTTAWA, ILLINOIS.

IMPROVEMENT IN VELOCIPEDES.

Specification forming part of Letters Patent No. **146,159**, dated January 6, 1874; application filed June 28, 1873.

To all whom it may concern:

Be it known that I, GEORGE AVERY, of Ottawa, in the county of La Salle and State of Illinois, have invented a new and useful Improvement in Velocipedes, of which the following is a specification:

The invention will first be fully described, and then pointed out in the claim.

In the accompanying drawing, Figure 1 is a vertical longitudinal section of Fig. 2, taken on the line *x x*. Fig. 2 is a top or plan view. Fig. 3 is a vertical top section of Fig. 2, taken on the line *y y*.

Similar letters of reference indicate corresponding parts.

The drawing represents a velocipede having four wheels. A represents the wheels; B B, the axles. C C are the pedal-bars, to which the power is applied. The rear axle is provided with a crank, D, for each of the pedal-bars, and the latter are attached thereto with boxes and straps, in the manner usual in forming such connections. The cranks D D are so arranged that the bars are made to act alternately on the axles, the weight of the driver being first thrown upon one bar and then upon the other. The power is applied when the cranks are in a horizontal position, when the weight will have the greatest effect. E is the steering-lever, the arms F F of which are attached to the forward axle. G is the driver's

seat or back-rest, as he stands upon the operating-bars. By taking hold of the rail H, the driver may diminish or increase his propelling power. I represents the frame, which rests upon the axle at the rear, and upon the bolster J in front, the forward axle being bent, as seen in Fig. 3, to allow the bars to play. The bars are jointed to the forward end of frame I, as seen at K K. L L are the joints in the bars C C. *m m* are foot-pieces on each of the bars, one each side of each joint. The driver stands upon these bars, with his feet on the foot-pieces, and propels the machine by throwing his weight first upon one bar and then upon the other alternately.

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

The combination, with a four-wheeled vehicle having a frame, I, resting upon a crank-axle, D, and bent axle B, of the two pairs of toggle-bars C C, each two jointed and provided with foot-rests *m m* at their junction, pivoted in front to said frame, and in the rear to the opposite cranks of rear axle, as and for the purpose described.

GEORGE AVERY.

Witnesses:

T. B. MOSHER,
ALEX. F. ROBERTS.