V. A. MENUEZ.

Ice-Velocipede.

No. 201,265. Patented March 12, 1878.

Fig. 1.

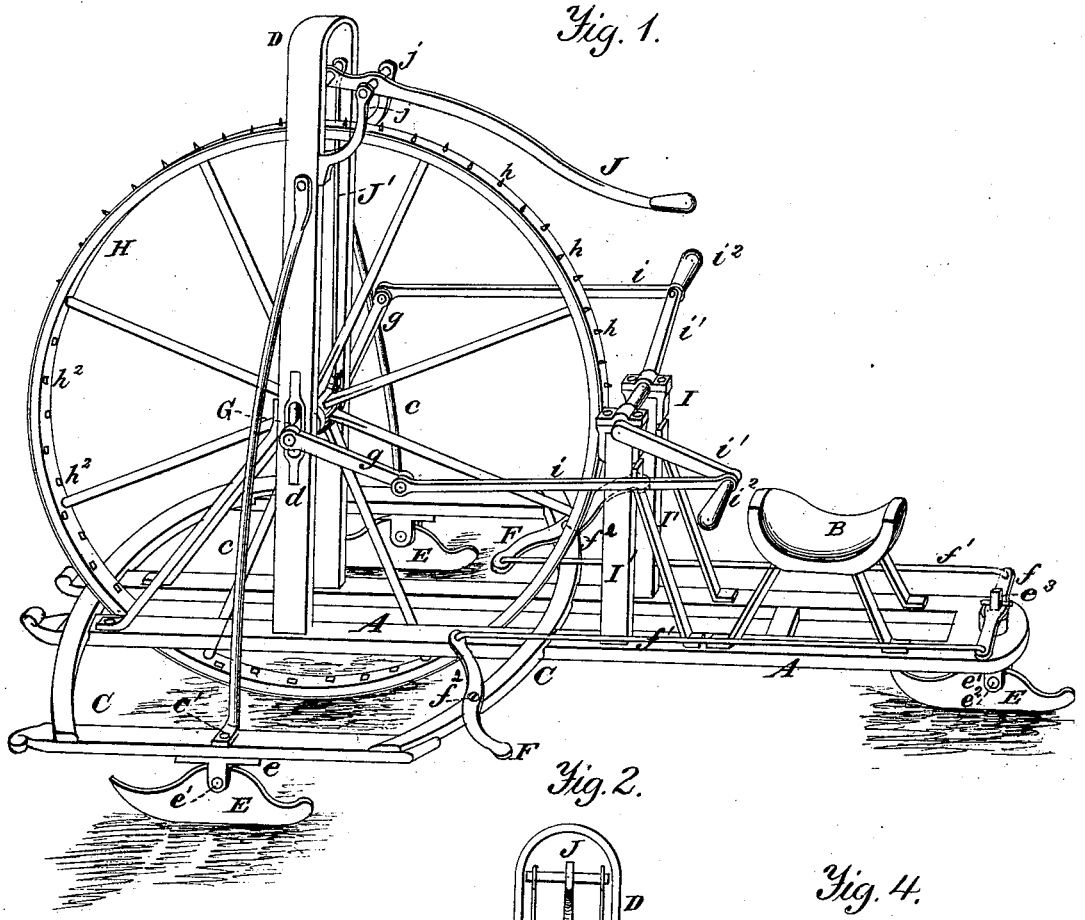


Fig. 2.

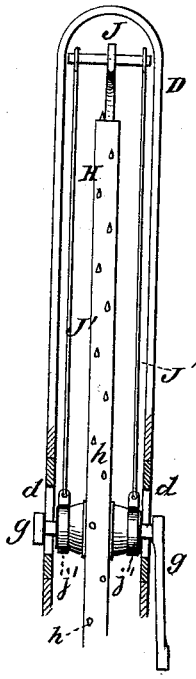


Fig. 3.

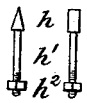
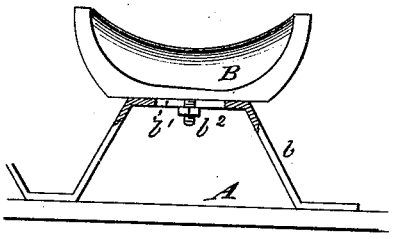


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

VINCENT A. MENUEZ, OF MICHIGAN CITY, INDIANA.

IMPROVEMENT IN ICE-VELOCIPEDES.

Specification forming part of Letters Patent No. **201,265**, dated March 12, 1878; application filed February 11, 1878.

To all whom it may concern:

Be it known that I, VINCENT A. MENUEZ, of Michigan City, in the county of La Porte and State of Indiana, have invented certain new and useful Improvements in Ice-Velocipedes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved ice-velocipede. Fig. 2 is a sectional detail of an elevating and depressing device of the propelling-wheel. Fig. 3 is a detail view of one of the pricks with which the propelling-wheel is provided to prevent its slipping upon the ice. Fig. 4 is a section through the seat and one of its supports.

My invention relates to vehicles moved on runners upon the ice by means of a propelling-wheel turned by the hands of the operator.

The nature of my invention consists, first, in a frame supported by three rocking runners, two of which are in front, and have a propelling-wheel between them, and one of which is in the rear, and swings on a vertical pivot, for the purpose of steering the velocipede; second, in a device of two coupled double cranks, whereby the propelling-wheel is conveniently operated by hand; third, in a device for elevating and depressing the propelling-wheel, whereby it is moved out of operation or into operation upon the ice; and, fourth, an adjustable seat, to suit the convenience of the operator.

In the drawings, A represents an oblong frame, and B a suitable seat, attached to its rear part by means of two pairs of united legs, *b*, having slots b^1 in their horizontal connections, and set-screws b^2 passing through the seat and the slots, so that the seat B may be fastened at any convenient place upon its supports. C is a frame, transversely attached to the front part of the frame A, and extending beyond the sides of the same.

About the center of the frames A and C an upright yoke, D, is fastened to the frame A, and its upper parts are braced to the extremities of the frame C by means of stiff rods *c*.

The frame C is provided with slotted stands *e*, into which steel runners E are inserted, and fastened by means of pivots e^1, in order to permit the runners to run smoothly over occasional uneven portions of the ice. The stands *e* and the lower ends of the braces *c* are fastened to the frame C by bolts or rivets c^1.

The rear runner E is pivoted at e^1 to a stand, e^2, similar to those previously described; but the stand has a vertical pivot, e^3, fitted into the frame A, and provided with a lever, *f*, which is connected by means of rods f^1 to two foot-levers, F F. The said foot-levers are pivoted at f^2 f^2 to frame C, and are of a curved shape, in order to prevent the operator's feet from slipping off while he steers the vehicle with them.

The yoke D is provided with slots *d*, through which the axle G of the wheel H passes, and in which it may occupy a higher or lower position, according to circumstances, hereinafter explained.

In practice, the axle G will be provided with suitable bearings, which are fitted into the slots *d*.

At either side of the yoke D a crank, *g*, is attached to the shaft G, and the two cranks *g* are, by means of two connecting-rods, *i*, operated by two similar cranks, i^1, on a shaft, I. The shaft I is properly supported by a pair of stands, I′, on the frame A, and the cranks i^1 are provided with handles i^2, to facilitate their operation by hand.

The periphery of the wheel H is provided with pricks *h*, which have shanks h^1 and nuts h^2. The shanks h^1 are passed through the hoop and felly of the wheel, and fastened at the inner side of the felly by the nuts h^2, thus serving the double purpose of hoop-nails and propelling-pricks.

The yoke D is provided with fulcrum-arms *j*, whereby an elevating-lever, J, is supported, to the short arm of which two connecting-rods, J′, are attached. The lower ends of the connecting-rods J′ contain bearings j^1 for the wheel-axle G, and thus the wheel H may be elevated by depressing the free end of the lever J, while the wheel H is caused to descend by its own weight when the lever J is left to itself.

Operation: After the seat B is adjusted, as described, the operator occupies it, and places his feet upon the levers F. He then turns the handles i^2 around, whereby the operating-wheel H is revolved upon the ice, and, by means of the pricks h, moves the vehicle along. If the course of the vehicle is to be changed, the operator moves the levers F with his feet, whereby the rear runner E is turned on its pivot e^3, with the same effect upon the vehicle as the turning of the rudder has upon a ship.

When the vehicle is to be stopped, the operator stops the wheel H by checking the motion of the handles i^2. When the operation of the wheel H is not desired, it is lifted from the surface of the ice by keeping the free end of the lever J down.

Having thus described my invention, what I claim, and wish to secure by Letters Patent, is—

1. The combination of the frames A C, having the two vertically-rocking front runners on opposite sides of the central propelling-wheel H, and a vertically-rocking and horizontally-swinging rear runner, substantially as and for the purpose set forth.

2. In the described ice-velocipede, the combination of the wheel H, shaft G, having cranks g, connecting-rods i, and shaft I, having cranks i^1 and handles i^2, substantially as and for the purpose set forth.

3. In the described ice-velocipede, the combination of the yoke D, having slots d, the propelling-wheel H, having crank-shaft G, and the elevating-lever J, having connecting-rods J′, substantially as set forth.

4. In the described ice-velocipede, the combination of the foot-levers F, the revolving handles i^2, and the horizontally-adjustable seat B, whereby the operator may place himself in the most convenient position opposite the said foot-levers and handles, substantially as set forth.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

VINCENT A. MENUEZ.

Witnesses:
J. J. GRIFFITH,
FRANK STULL.