E. N. HUNTSMAN.

Velocipede.

No. 86,545. Patented Feb. 2, 1869.

Fig: 1.

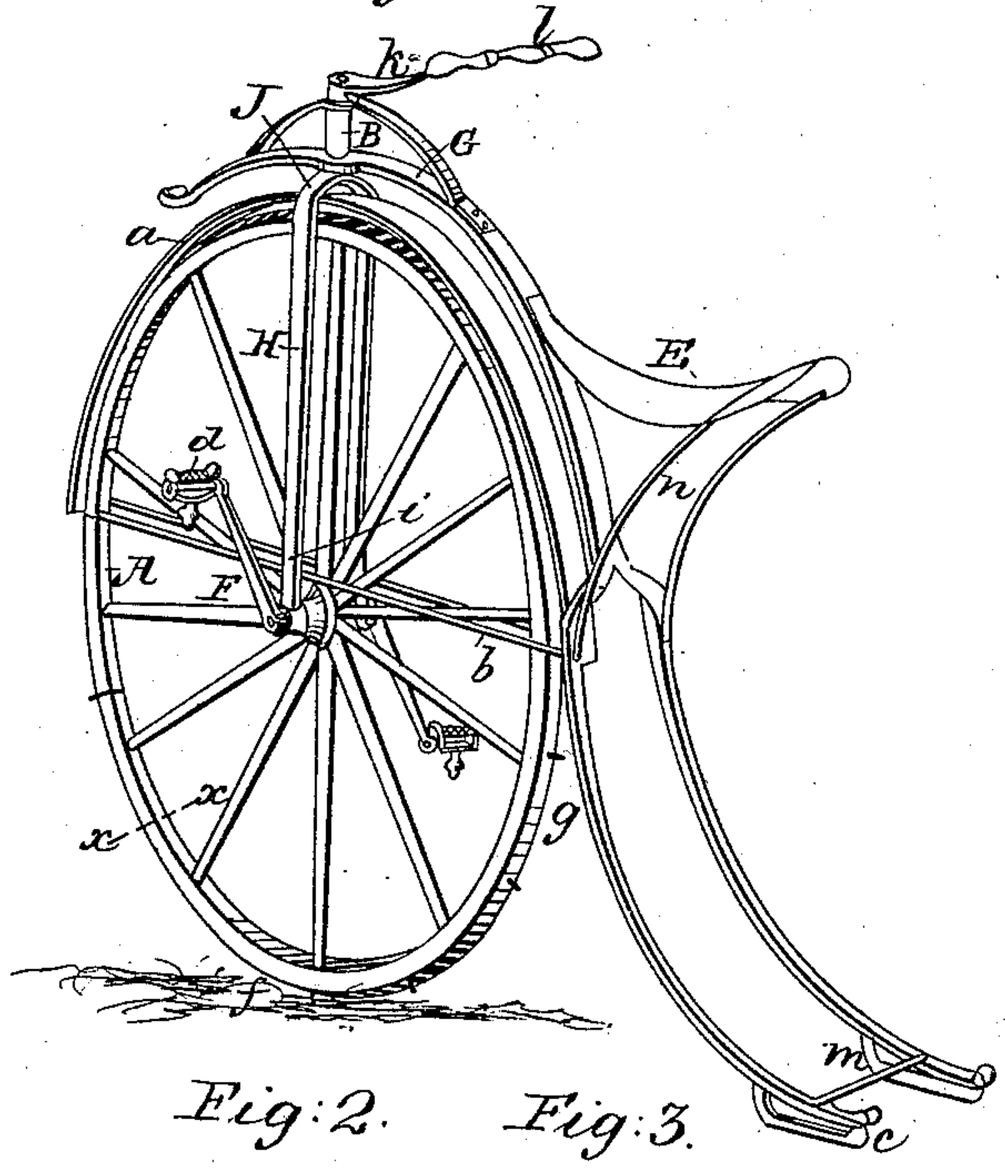

Fig: 2.

Fig: 3.

Witnesses.
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E. N. HUNTSMAN, OF ALLEGHENY, PENNSYLVANIA.

Letters Patent No. 86,545, *dated February* 2, 1869.

IMPROVED VELOCIPEDE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, E. N. HUNTSMAN, of Allegheny, in the county of Allegheny, and State of Pennsylvania, have invented certain new and useful Improvements in Velocipedes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

My invention relates to velocipedes, and consists in a certain novel construction and arrangement of the wheel, and the frame in which it is mounted, in connection with a reach, terminating in a runner or runners, by which it is made suitable for use upon the ice.

In the drawings—

Figure 1 is a perspective view of my ice-velocipede, showing all its parts;

Figure 2 is a sectional view on the line *x–x* of fig. 1; and

Figure 3 is a sectional view of a modification of the form of the tire of wheel.

Velocipeding, especially on comparatively smooth surfaces, whether in large cities or elsewhere, has of late become extremely popular.

The admitted utility of velocipedes, in enabling the rider to move with great ease and rapidity from place to place on land, suggested the idea of their peculiar fitness for use upon the hard, smooth surface of ice, provided they were constructed with special reference to that purpose.

The construction of a velocipede for use upon the ice is the object of my invention

In constructing it, I mount a wheel, A, of any size desired, in a suitable frame, H.

This frame should be simple, strong, and light, and, as constructed by me, consists of a semicircular piece or guard, *a*, with its ends connected by the cross-rods *b* and the steering-post B, the semicircular piece *a* and cross-rods *b* being connected rigidly to the steering-post B at *i* and *j*, as shown in fig. 1.

The steering-post B is forked, and straddles the wheel A, and has its lower ends provided with journals, through which the axle of the wheel A passes.

To the ends of the axle are attached the cranks F, which have foot-rests or stirrups *d*, so weighted and hung as always to present the flat surface to the foot.

The upper end of the steering-post B has a tiller, *k*, attached, with its handle *l*, as shown in the same fig. 1.

To the shank of the steering-post B, I connect a reach, G, curved as shown in fig. 1, and with its end forked.

The extremities of each of the forks I provide with a skate-runner, C, and connect the forks by a cross-bar, *m*.

The shank of the post B passes through and turns easily in the reach G, which is made of the requisite length to permit the post B to stand perpendicular to the surface of the ice, and the skate-runners C to be parallel with the surface.

On the reach G, I mount the saddle E, connecting its fore end directly to the reach, and supporting its rear end on the supporting-rods *n*, which may be made of spring-steel, if desired.

The tire *g*, upon the wheel A, I make of the form shown in fig. 2, or in the form shown in fig. 3, and insert in the rim of the wheel a series of adjustable pins, *f*, as shown in fig. 1.

The object of making the outer surface of the tire wedge-shaped, as shown in fig. 2, or grooved, as shown in fig. 3, and of inserting the adjustable pins *f*, is to enable the wheel to grasp or catch the ice with certainty, and to prevent slipping or sliding, and also ease and security in turning.

The pins *f* may be constructed with threads on them, and screw into the rim of the wheel A. When made in this way, they can always be readily and conveniently adjusted.

The reach G, instead of being forked as shown, and provided with two runners, may be constructed without being forked, in which case only one runner will be required.

The single runner is intended for skilled velocipedists, while the double runner will be suitable for beginners.

It is obvious that the reach G may serve as the runner without the attachment of a skate, *c*.

In my velocipede no brake is needed, as the motion of it can be arrested or retarded by stopping or reversing the movement of the wheel, when the points or pins *f* will catch in the ice, and thus serve all the purposes of a brake.

Having thus described my invention,

What I claim, is—

An ice-velocipede, consisting of the wheel A, frame H, and reach or runner G, all arranged and constructed substantially as herein described.

Witnesses:

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