

(No Model.)

T. H. PAULSON.  
ICE VELOCIPED.

No. 559,202.

Patented Apr. 28, 1896.

Fig. 1.

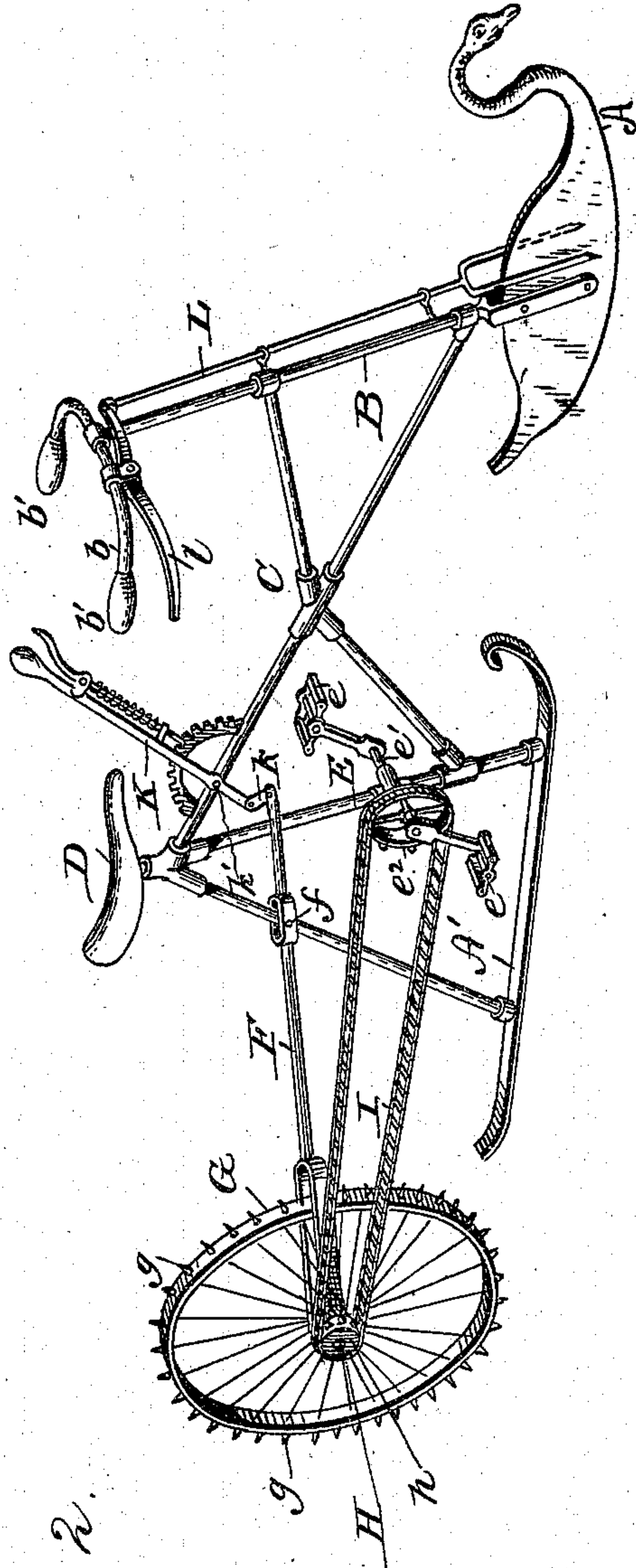
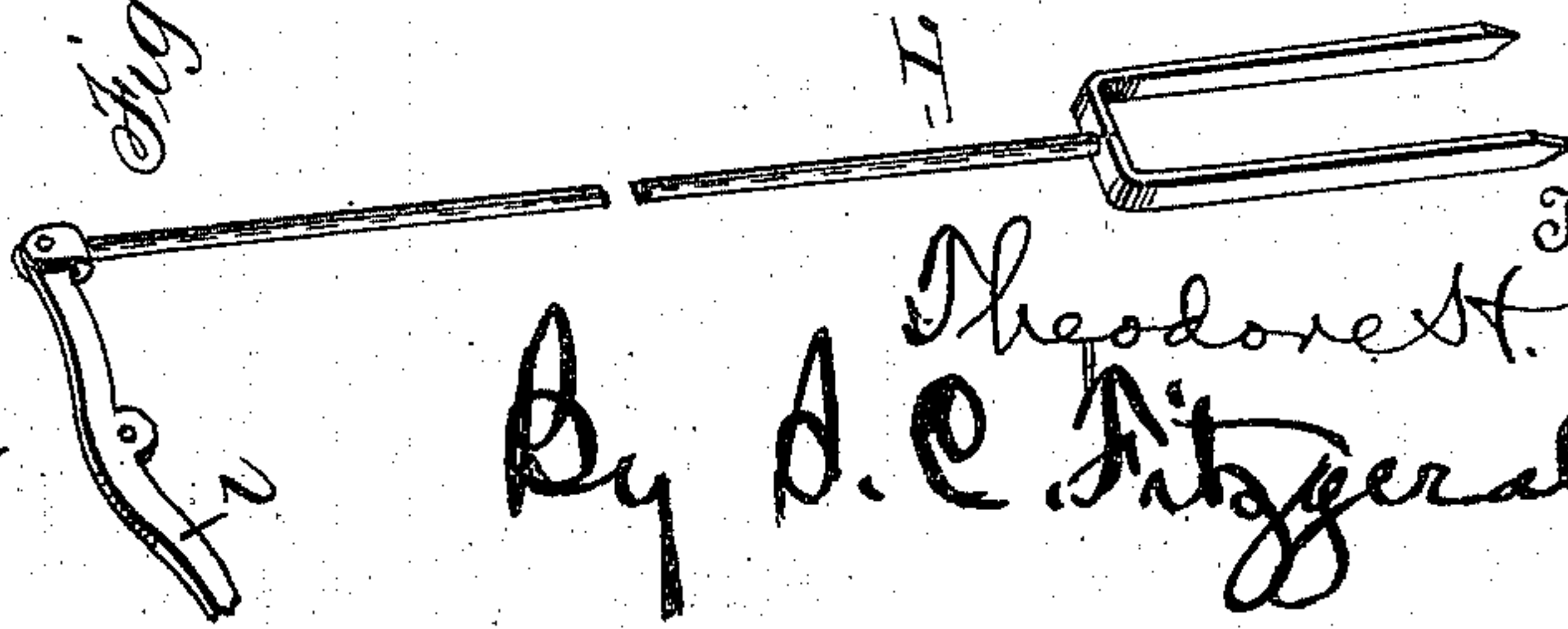


Fig. 2.



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# UNITED STATES PATENT OFFICE.

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## ICE-VELOCIPED.

SPECIFICATION forming part of Letters Patent No. 559,202, dated April 28, 1896.

Application filed August 23, 1895. Serial No. 560,270. (No model.)

*To all whom it may concern:*

Be it known that I, THEODORE HALL PAULSON, a citizen of the United States, residing at Le Grand, in the county of Marshall, State of Iowa, have invented certain new and useful Improvements in Ice-Bicycles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in ice-bicycles; and the object of my invention is to produce a device of the kind which shall be simple, cheap, and capable of attaining a high rate of speed under ordinary operation.

The invention will first be described in connection with the accompanying drawings, and then particularly pointed out in the claim.

In the drawings, Figure 1 is a perspective view of a device embodying my invention. Fig. 2 is an enlarged detail view of the brake device.

Referring to the drawings, A A' are front and back runners, respectively, the front runner A being secured to a standard B, having the usual handle-bar *b* and handles *b'*, the standard being rotatably secured to the framework C in the usual manner to permit the front runner to be turned in steering. The rear or back runner A' carries the rear end of the frame over which is located the rider's seat D, and also a treadle mechanism E, in this case comprising the usual pedals *e*, shaft *e'* and sprocket-wheel *e''*, the shaft *e'* being mounted in ball-bearings in the usual manner.

To the rear of the frame C is pivoted at *f* an arm F, which extends backward from the frame C, and is forked at its rear end to receive a driving-wheel G, which has its periphery provided with teeth *g*, to take a firm hold on the ice.

The driving-wheel G is fixed on a shaft H, journaled in the arm F and provided with a sprocket-wheel *h*, driven by a sprocket-chain I from the sprocket-wheel *e''* on the shaft *e'*.

The front end of the arm F is connected pivotally to one end of a link *k*, whose other end is pivotally attached to the lower end of a hand-lever K, fulcrumed at *k'* on the frame and provided with the usual ratchet and seg-

ment, as shown, whereby the hand-lever may be held at any desired position.

To the handle-bar is attached a brake-handle *l*, which, when pressed, serves to force a plunger L downward into contact with the ice, the lower end of said plunger being bifurcated and provided with two sharp points to enter the ice when the brake is applied.

It will be observed that in my construction the driving-wheel G may be pressed more or less strongly against the ice, as desired, or may be raised from contact with said ice by means of the hand-lever K.

In practice I find it best to round the running-surface of the front runner, as shown, in order that it may be turned easily, and preferably both runners are grooved to prevent them from slipping laterally, as when turning the vehicle in either direction.

By bifurcating the lower end of the brake-plunger and providing the same with two points, one on each side of the front runner, as shown, I avoid the danger of throwing the machine around, as would happen if one point on one side only of the runner were used.

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

In an ice-bicycle, the combination, with a framework and a pair of runners arranged in alinement supporting the same, the rear runner being fixed to the framework, of a treadle mechanism carried by the framework, a bifurcated arm pivotally secured to and fulcrumed on the said framework, a driving-wheel journaled in the rear end of the bifurcated arm, a link connected to the front end of said arm, a lever connected to the link and fulcrumed on the frame, a ratchet-lever and segment for holding said lever in any desired position, and means for transmitting motion from the treadle mechanism to the driving-wheel, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

THEODORE HALL PAULSON.

Witnesses:

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