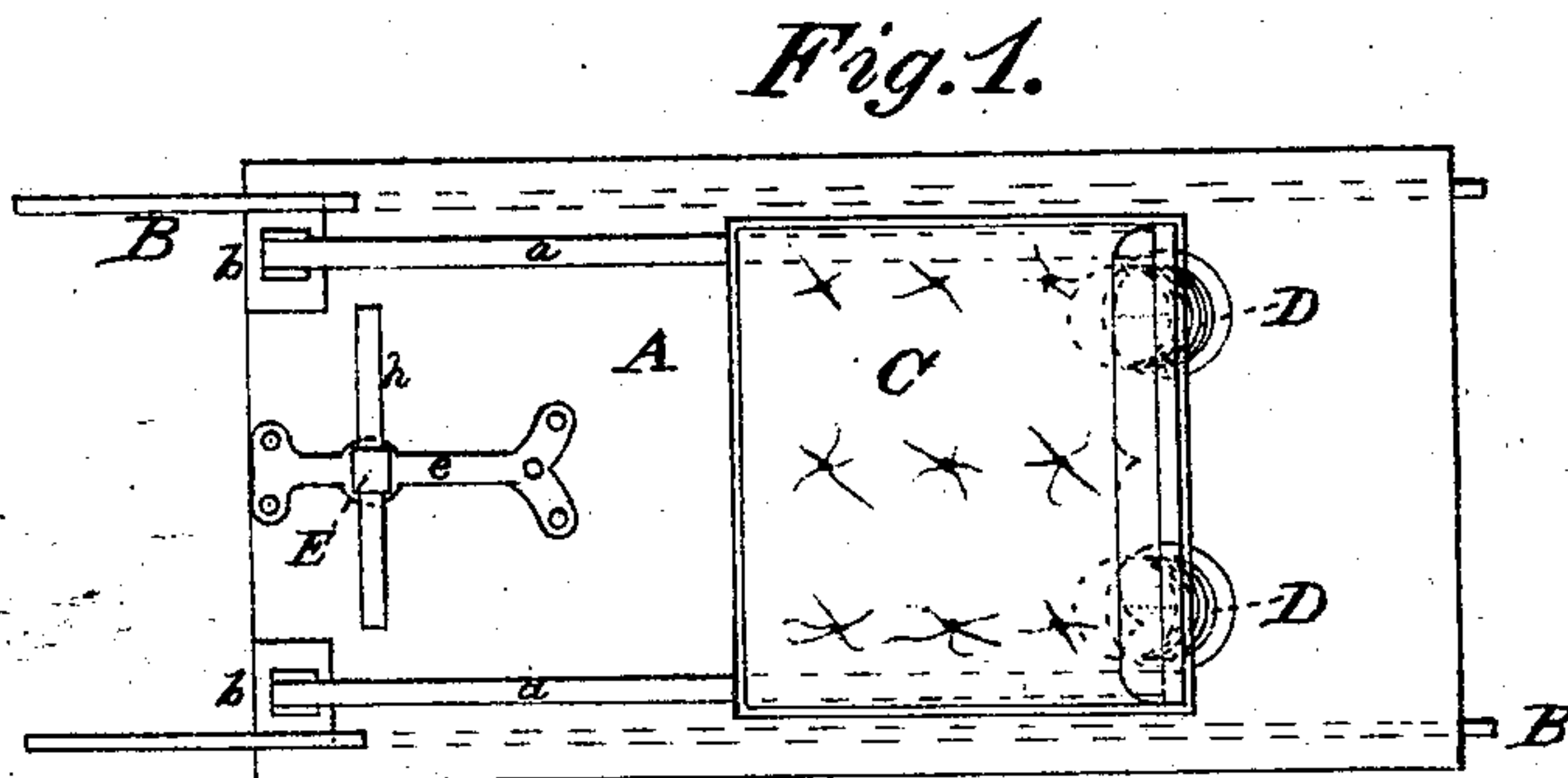
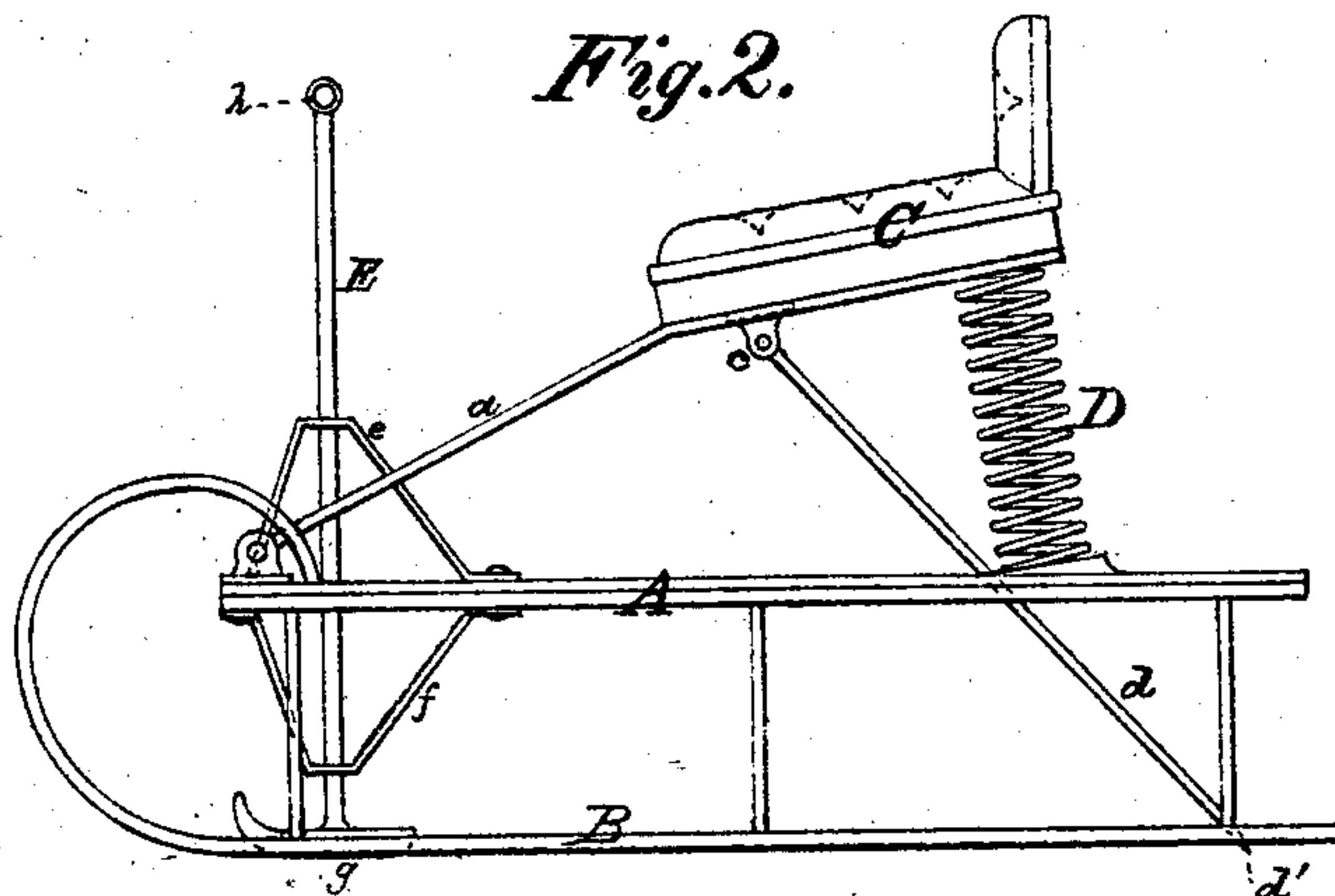
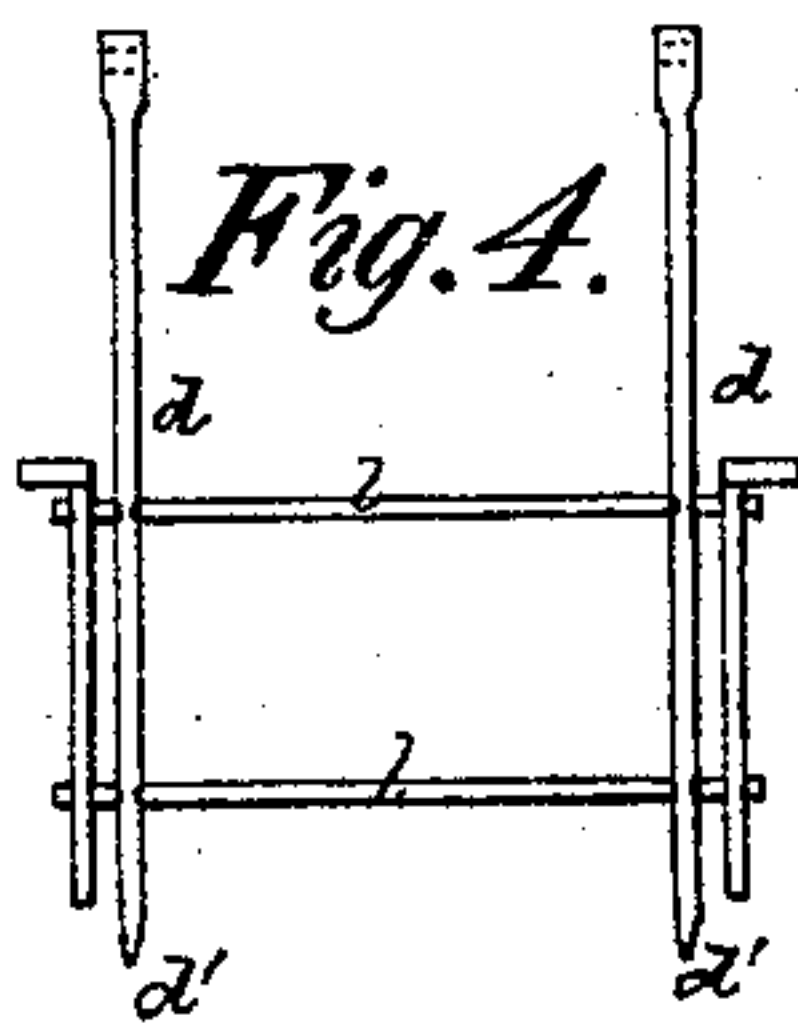
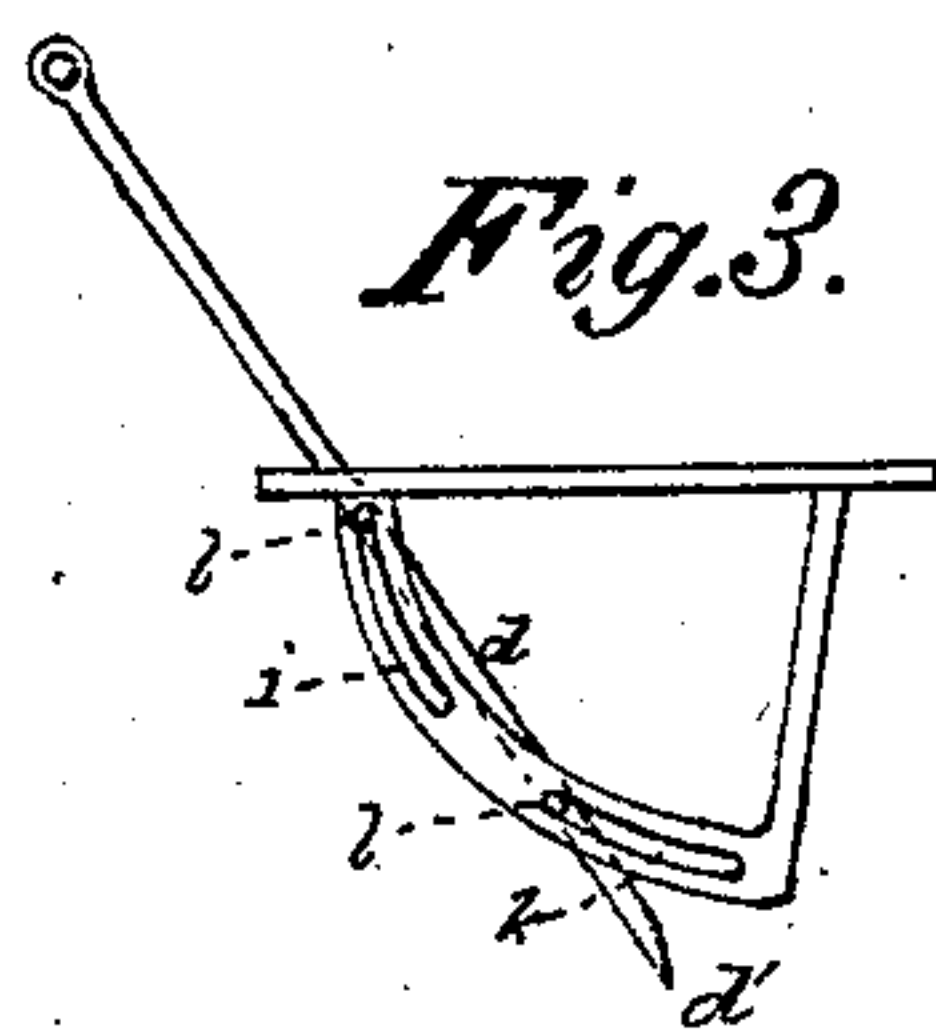


CHARLES H. HUDSON.

Improvement in Self-Propelling Sleighs.

No. 116,191.

Patented June 20, 1871.



Witnesses:
Joel S. Root
S. M. Root

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UNITED STATES PATENT OFFICE.

CHARLES H. HUDSON, OF NEW YORK, N. Y.

IMPROVEMENT IN SELF-PROPELLING SLEIGHS.

Specification forming part of Letters Patent No. 116,191, dated June 20, 1871; antedated June 7, 1871.

To all whom it may concern:

Be it known that I, CHARLES H. HUDSON, of the city, county, and State of New York, have invented a new and Improved Self-Propelling Sleigh, of which the following is a specification:

My invention consists of certain devices applied to and combined with a sled or sleigh of ordinary form and construction, whereby the rider may, by appropriate motions of the body, propel or force the sleigh ahead.

In the accompanying drawing, which represents a sleigh embodying my invention, Figure 1 is a plan, and Fig. 2 is a side elevation thereof. Figs. 3 and 4 represent the side and end of a device for guiding and controlling the motion of the pushers or pawls by which the sleigh is driven forward.

A is the bottom of the sleigh, which may, if preferred, be made in the form of a box. To this bottom are attached, in the usual manner and form, the runners B B. A seat, C, is secured to two rods, *a a*, which are pivoted to the bottom A at the points *b b*, the seat being supported on two spiral springs, D D. To the under side of the seat at *c* is secured or pivoted the pushing-bar or pawl *d*. This pawl is pointed at its lower end and rests on the ice, passing through a slot in the bottom A of sufficient length to allow it to move forward and backward freely. The rider, sitting upon the seat, depresses it, thereby forcibly thrusting the pointed end *d'* of the pawl *d* against the ice, which moves the sleigh forward. By alternately throwing a part of his weight upon his feet, which rest on the bottom A, and then upon the seat C in rapid succession, the sleigh is moved forward at considerable speed. Two or more pawls, *d*, may be used, and they may be of different lengths; and a spring may be

attached to them to hold them down upon the ice. Through the front part of the bottom A an upright rod, E, is passed, resting or turning in bearings in the brackets *e* and *f*, which are bolted to the bottom A. The bottom of this rod is furnished with a shoe or runner, *g*, similar to a skate-blade, which bears upon the ice and serves to guide the sleigh, when operated, by means of the handle *h* at the top of the rod E, which handle is grasped by the rider. Figs. 3 and 4 represent a modified form of the pawls *d*, in which they are guided by the slots *i* and *k* in the bracket F, the pins or rods *l* passing through the slots *i* and *k* for that purpose, and the brackets being secured to the under side of the bottom A. The pins or rods *l* may, if desired, be inserted in or secured to the pawls *d* separately, so as to allow the pawls to move independently. The pawls are secured to the under side of the seat C by a hinge or pivot-joint, the same as shown in Figs. 1 and 2.

Having thus fully described my invention, I claim—

1. The combination, with a sleigh, of the vibrating seat C and pawl *d*, substantially as and for the purpose hereinabove set forth.

2. The combination, with a sleigh having the vibrating seat C and the pawl *d* applied thereto, of the guiding-runner *g*, substantially as specified.

3. The combination, with a sleigh having the vibrating seat C and pawl *d* attached thereto, of the pins *l* secured to said pawls and the slotted guides F secured to the sleigh, substantially as set forth.

CHAS. H. HUDSON.

Witnesses:

H. JAMES WESTON.

S. M. ROOT.