

H. S. MILLER.
Coasting-Sled.

No. 197,524.

Patented Nov. 27, 1877.

FIG. 1.

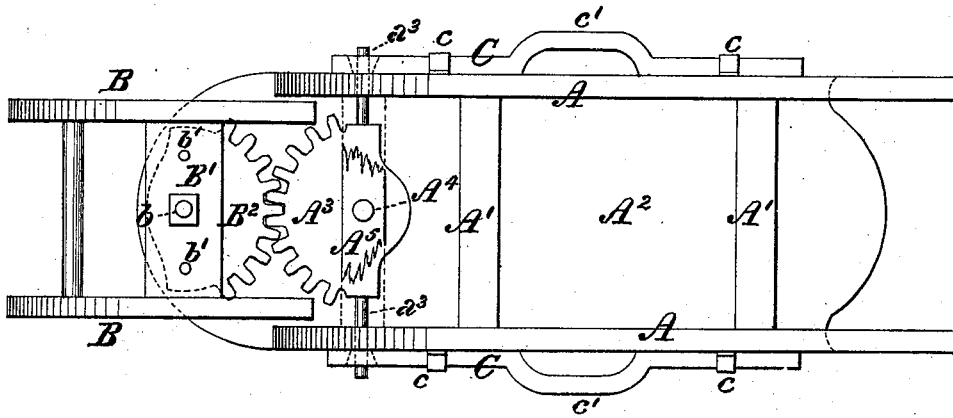


FIG. 2.

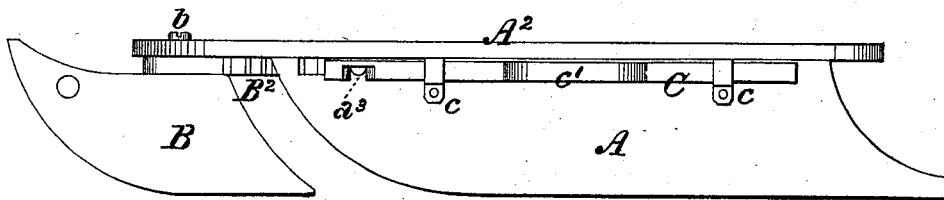
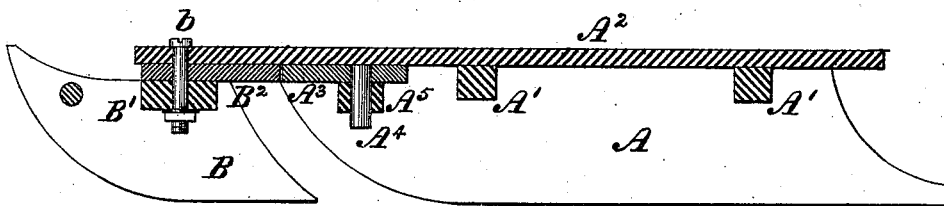


FIG. 3.



WITNESSES

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HENRY S. MILLER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
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IMPROVEMENT IN COASTING-SLEDS.

Specification forming part of Letters Patent No. 197,524, dated November 27, 1877; application filed
November 10, 1877.

To all whom it may concern:

Be it known that I, HENRY S. MILLER, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a certain new and useful Improvement in Coasting-Sleds, of which the following is a specification:

The object of my invention is to provide, in a coasting-sled, simple and efficient means for steering or governing the direction of its movement; to which end my improvement consists in combining, with a coasting-sled, guide-runners pivoted to the main frame of the sled, and carrying a segment-gear meshing with a corresponding gear journaled on the main frame, and vibrated or maintained stationary, as desired, by means of longitudinal sliding bars working in guides upon the main frame, so as to be in convenient reach and under control of the rider, all as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a plan view of a coasting-sled embodying my improvements, inverted; Fig. 2, a side view, in elevation; and Fig. 3, a vertical longitudinal central section of the same.

The main frame of my improved sled may be of any of the ordinary forms of construction, and, in this instance, is shown as consisting of the main runners A, cross-sills A¹, and seat or platform A². To one end of the main frame a supplementary frame, consisting of the guide-runners B and cross-sill B¹, is pivoted by a pin or bolt, *b*, so as to move freely in a horizontal plane thereon. A segment-gear, B², is secured upon the cross-sill B¹ of the supplementary frame by bolts *b*, said gear being concentric with the pin *b*, on which the supplementary frame vibrates. The gear B² meshes with a corresponding gear, A³, secured upon a vertical shaft, A⁴, which is journaled in a cross-sill, A⁵, of the main frame, so that it, with its attached gear A³, may be vibrated therein by a person riding on the seat of the main frame, to change the position

of the guide-runners relatively to the main runners, and thereby steer the sled. The gear A³ has a horizontal pin, *a*³, at each side, said pins projecting through slots in the runners A, and fitting into openings in the longitudinal slide-bars C, arranged one on each side of the main frame, and moving in guides *c*, secured thereto. Hand-rests *c*¹ are formed upon or secured to the slide-bars C, at such point in their length as may be most convenient for the rider, who, by the application of his hands thereto, can vibrate the gears and guide-runners, or hold the same firmly in any desired position.

The drawings show the guide-runners as pivoted to the front end of the sled; but they may be placed at the rear, if preferred, and similarly operated. In either case it will be seen that any required degree of movement can be given, in either direction, to the guide-runners by the rider, and that, the same being fully under his control, he can impart any desired change of direction to the sled, or maintain the movement thereof in a right line, by his grasp upon the hand-rests.

I am aware that pivoted guide-runners for a sled are not new, and do not, therefore, claim such device, save in the relation and mode of operation herein set forth.

I claim as my invention and desire to secure by Letters Patent—

The combination, with the main frame of a sled, of a pivoted supplementary frame having guide-runners, a segment-gear secured upon the supplementary frame concentric with its pivot, and meshing with a segment-gear pivoted to the main frame, and longitudinal slide-bars moving in guides upon the main frame, and engaging pins upon the sides of its segment-gear, substantially as and for the purpose set forth.

HENRY S. MILLER.

Witnesses:

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