J. LEICHT, JR.

SLED.

APPLICATION FILED FEB. 9, 1920.

1,394,629. Patented Oct. 25, 1921.

Fig. 1.

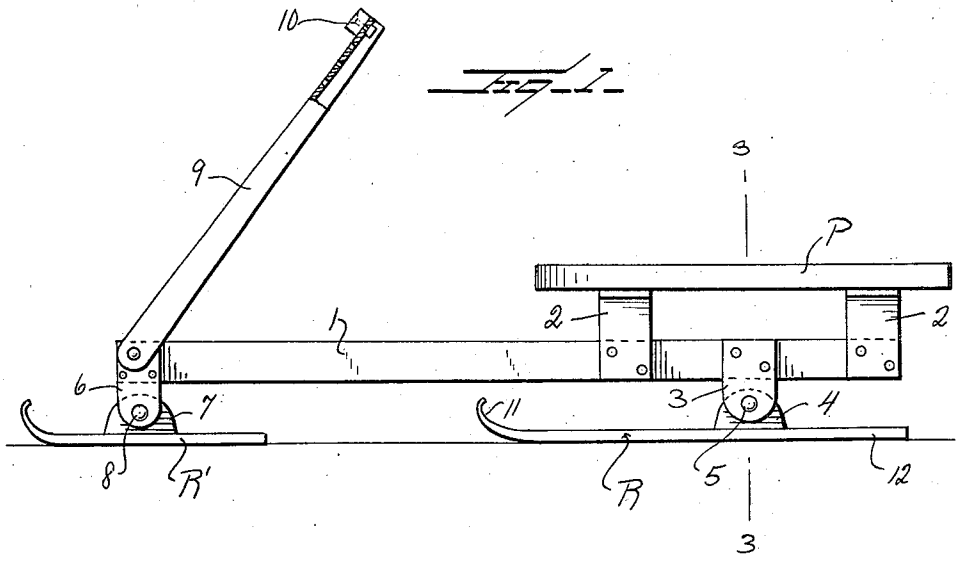


Fig. 2.

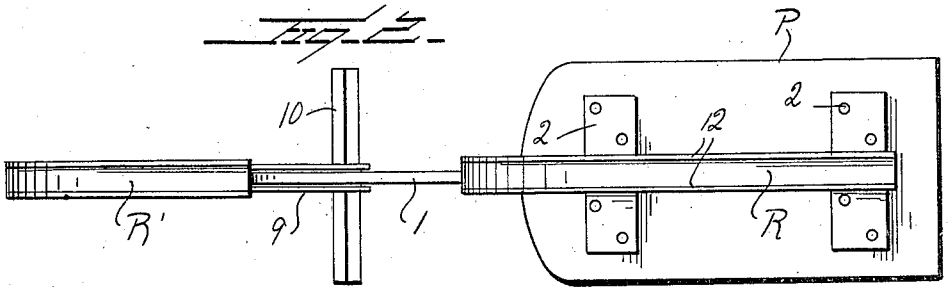


Fig. 3.

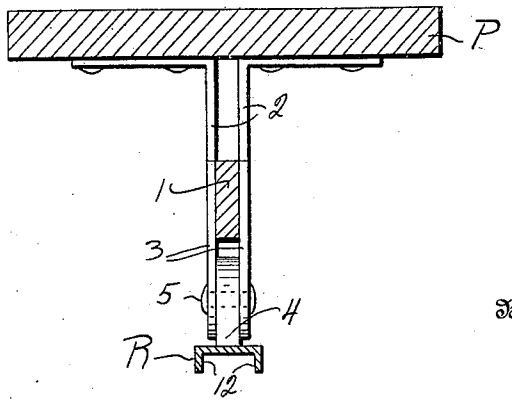
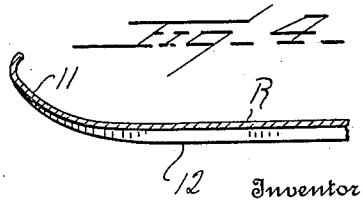


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SLED.

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Application filed February 9, 1920. Serial No. 357,164.

To all whom it may concern:

Be it known that I, JOHN LEICHT, JR., a citizen of the United States, residing at Burlington, in the county of Des Moines and State of Iowa, have invented certain new and useful Improvements in Sleds, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in sleds, and it is an object of the invention to provide a novel and improved device of this general character whereby the same may be readily and conveniently propelled by a pedal extremity of the occupant of the sled.

It is also an object of the invention to provide a novel and improved device of this general character embodying a plurality of runners substantially longitudinally alined and each supported for oscillating movement in a vertical path permitting the vehicle to easily ride over bumps and irregular surfaces.

It is also an object of the invention to provide a novel and improved sled embodying a novel and improved runner provided in its working face with a longitudinally disposed channel operating, by pressure on the snow, to provide an effective guide groove operating to materially lessen the liability of lateral motion or skidding of the vehicle.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved sled whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:

Figure 1 is a view in side elevation with a portion broken away of a sled constructed in accordance with an embodiment of my invention;

Fig. 2 is a view in bottom plan of the structure illustrated in Fig. 1;

Fig. 3 is an enlarged sectional view taken substantially on the line 3—3 of Fig. 1; and

Fig. 4 is a longitudinal sectional view taken through the forward end portion of one of the runners as herein included.

As disclosed in the accompanying drawings, 1 denotes an elongated bar, preferably metallic, possessing a certain degree of inherent resiliency, to permit requisite lateral flexure thereof to negotiate, when required, a desired steering of the vehicle when in transit.

P denotes a platform, preferably of wood, and which constitutes a foot rest. Depending from substantially the transverse center of said platform P and adjacent to the opposite ends thereof are the brackets 2 having their lower end portions riveted or otherwise substantially permanently secured to the bar 1 and whereby the platform P is slightly spaced vertically with respect to the bar 1. Depending from the bar 1 at a point substantially midway of the brackets 2 are the transversely spaced ears 3 between the lower or free end portions of which extend an upstanding ear 4 carried by a runner R. The ears 3 and 4 are pivotally connected by the rivet 5 or the like. It is also to be particularly noted that the ear 4 is positioned rearwardly of the longitudinal center of the runner R and which arrangement has been found in practice to facilitate in a more effective travel of the vehicle although, under all conditions, this exact location is not imperative.

Depending from the forward end portion of the bar 1 are the transversely spaced ears 6 between which extends an ear 7 extending upwardly from substantially the longitudinal center of a second or front runner R′. The ears 6 and 7 are pivotally connected by the rivet 8, or the like, whereby the runner R′ is also supported for oscillating movement in a direction toward the bar 1. Also pivotally engaged with the forward end portion of the bar 1 is an elongated handle member 9, preferably of metal, and which has adjustably engaged therewith the cross bar 10. The bar 10 is adapted to be adjusted longitudinally of the handle member 9 in accordance with the occasions of practice and particularly as necessitated by the stature of the occupant of the vehicle.

In practice, the occupant of the vehicle rests the major portion of his weight upon one foot positioned upon the platform P and propels the vehicle by his second foot or

limb and the direction of travel of the vehicle may be readily controlled through the instrumentality of a handle member 9 as through the medium of the handle member 9, the forward portion of the bar 1 may be readily and conveniently flexed in a lateral direction due to the inherent resiliency of said bar 1. The runner R′ is substantially longitudinally alined with the runner R. The runner R′ is also of a length materially less than the length of the runner R but otherwise the runners R and R′ are substantially duplicate in construction. Each of the runners R and R′ has its forward end portion 11 disposed upward on a predetermined curvature. The remaining or major portion of each of the runners is straight and the longitudinal margins of said straight portions are defined by the depending flanges 12, having their inner faces substantially perpendicularly related to the under face of the runner. The forward end portions of each of the flanges 12 are gradually reduced in thickness in a forward direction, said reduced portions of the flanges defining the opposite sides of the curved portion 11 of the runner and, in other words, the forward end portions of the flanges 12 commence at zero and increase gradually as the front curved portion 11 of the runner proceeds downwardly until the resultant groove or channel afforded by the flanges 12 attains its full depth thus avoiding, in a large measure, retardation by friction, and at the same time establishes by compression of the snow a firmer track or guide of snow in the groove or channel of the runner and thereby materially lessening liability to lateral movement or skidding of the vehicle.

From the foregoing description, it is thought to be obvious that a sled constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof, and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:—

1. A vehicle of the class described comprising an elongated resilient bar, a platform supported by the rear end portion of the bar, a handle member engaged with the forward end portion of the bar, and fore and aft runners secured to the opposite end portions of the bar and underlying the same, turning movement of the handle flexing the forward end portion of the bar laterally.

2. A vehicle of the class described comprising an elongated resilient bar, a platform supported by the rear end portion of the bar, a handle member engaged with the forward end portion of the bar, turning movement of the handle member flexing the forward end portion of the bar laterally, and fore and aft runners, each of said runners having a single connection with the bar whereby the runner has oscillating movement in a vertical direction, the connection between the bar and the rear runner being rearwardly of the longitudinal center of said runner.

In testimony whereof I hereunto affix my signature.

JOHN LEICHT, Jr.