April 29, 1924. 1,492,287

J. O. DAGE

SLED

Filed Nov. 18, 1922

Fig. 1.

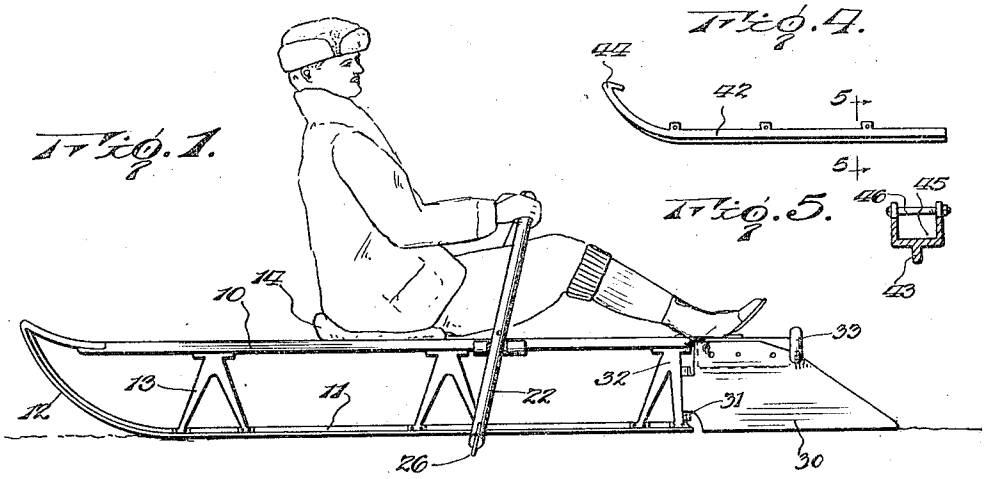


Fig. 4.

Fig. 5.

Fig. 2.

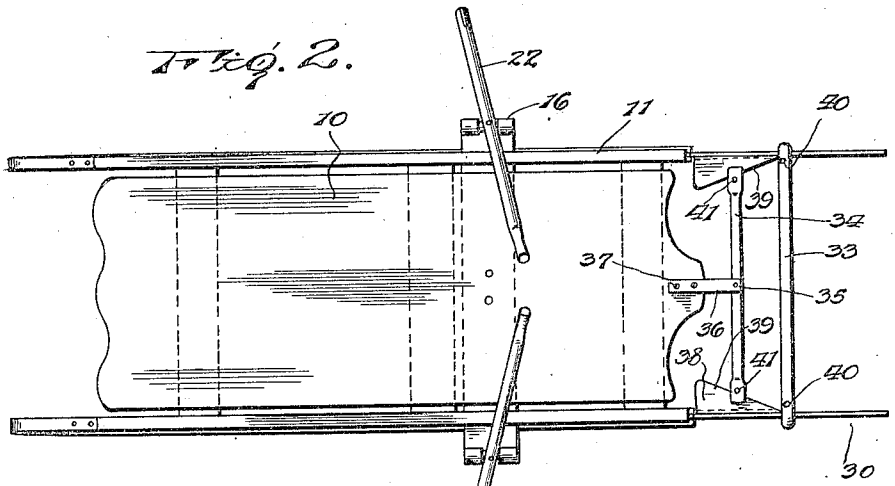
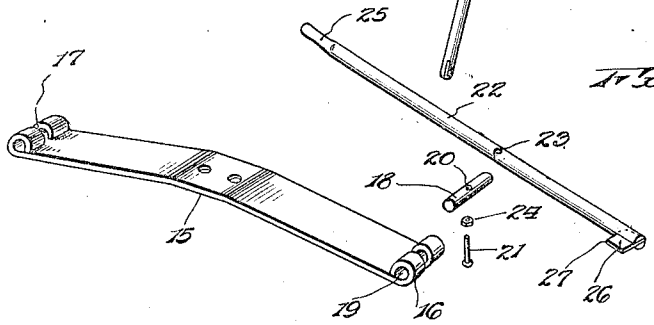


Fig. 3.



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By

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UNITED STATES PATENT OFFICE.

JOHN O. DAGE, OF KELLOGG, MINNESOTA.

SLED.

Application filed November 18, 1922. Serial No. 601,758.

To all whom it may concern:

Be it known that I, JOHN O. DAGE, citizen of the United States, residing at Kellogg, in the county of Wabasha and State of Minnesota, have invented certain new and useful Improvements in Sleds, of which the following is a specification.

My invention relates to sleds provided with propelling means for rapid travel on ice or hard packed snow, and the main object of the invention is to provide a sled having oars operated in the same manner as a row boat. In this manner a great rate of speed may be attained, particularly over smooth ice.

Another object of the invention is to furnish a sled with a steering device, which can be operated by the user's feet, while the oars, of course, are operated by his hands.

In the accompanying drawing the preferred construction of the invention is illustrated, and—

Figure 1 is a side elevation of the sled;

Figure 2, a top plan view thereof;

Figure 3, a perspective view of some of the details;

Figure 4, a side elevation of a detachable runner, and

Figure 5, a transverse section along line 5—5 of Figure 4.

The sled is constructed in the usual manner with a flat top 10 and runners 11 curved upwards at the front as at 12 and rigidly connected with the top 10 by means of braces 13 furnished in pairs between the top 10 and the runners 11. A small seat 14 is furnished, which may be placed in the most convenient position upon the top 10.

Near the middle and secured under the top 10 is a carrier 15 preferably made of flat steel and extending in transverse direction beyond the sides of the sled, terminating with rowlocks 16. These rowlocks are formed by curving the ends of the carrier 15 upwardly and providing a slit or opening in the middle thereof, as at 17. A small pin 18 is inserted in the cylindrical opening 19 in the rowlock and this pin has a central aperture 20, in which a pivot 21 is seated. This pivot has a head engaging on the under side of the pin 18 and it extends upwardly through the aperture 20, so that the oar 22, which is also furnished with a corresponding aperture 23, may be swiveled on the pivot 21. The oar is held from disengaging the pin by means of a nut 24 threaded on the upper end of the pivot 21. In this manner a universal joint is formed, so that the oar 22 may have the usual rowing motion, that is to say, it can move in horizontal direction around the axis of the pivot 21 and at the same time move in a vertical direction around the axis of the pin 18.

The upper end of each oar 22 is provided with a handle 25 in the usual manner and the opposite end is provided with a blade. In Figure 3 this blade is shown as an inserted piece of sheet metal 26 and is comparatively small. It is preferable to have a metal blade so that the sharp edge 27 on the blade may grip the ice during the rowing action and not slip thereon. For use on snow covered ground, on the other hand, a considerably larger blade may be furnished.

The carrier 15 is preferably made of spring steel, so that it will yield slightly in vertical direction from the pressure of the oars.

At the rear end of the sled are placed a pair of rudders 30, which have hinged connection, as at 31, with the rearmost braces 32, between the top and the runners of the sled. Reference numeral 33 indicates a brace journaled, as at 40, to the rudders, which are placed parallel and intended to trail in the paths of the runners 11. A foot rest or steering bar 34 is pivoted, as at 35, on the link 36 fastened at the rear end of the top 10, as at 37. This foot rest 34 engages by means of a roller pin 41 at each end, with a shoe 38, which is secured by rivets or the like at the edge of the corresponding rudder 30 and engages with its inclined edge 39, the roller pin 41.

A person placed on the seat 14, as indicated in Figure 1, will be able to exert considerable power on the oars, when his feet are placed against the bar 34, and propel himself along the smooth surface of the ice at a great speed. By releasing the pressure on one foot, the right for instance, and increasing it on the left, he will turn the rudders 30 in one direction by the action of the roller 41 upon the edge 39 at his right foot, the brace 33 pulling the other rudder with it, and by this means steer his course along the ground.

In Figures 4 and 5 is shown an adaptor

for converting the sled, if built for snow running, for instance, to an ice sled. Supposing that the sled has wide treaded runners 11 suitable for snow covered ground, then adaptors 42, of the cross section shown in Figure 5, may be utilized with a narrow fin 43 on the under side, which may be clamped under the runners 11. The adaptor 42 is provided with a hook 44 intended to engage over the sharp nose of runner 11 and is channel shaped as at 45 in order to embrace the latter. Securing bolts 46 hold the adaptor rigidly to the runner 11, see Figure 5.

Having thus described the invention, what is claimed as new is:

In a vehicle, an oar carrier secured thereon, rowlocks at the ends of said carrier and oars engaging in said rowlocks, said rowlocks comprising bent fingers on said carrier, a journal pin supported by said fingers and a pivot mounted transversely in said journal pin, said oars having suitable apertures for said pivot.

In testimony whereof I affix my signature.

JOHN O. DAGE.