Dec. 1, 1936. L. W. WARGO 2,062,953

SLED

Filed March 13, 1935

Fig. 1.

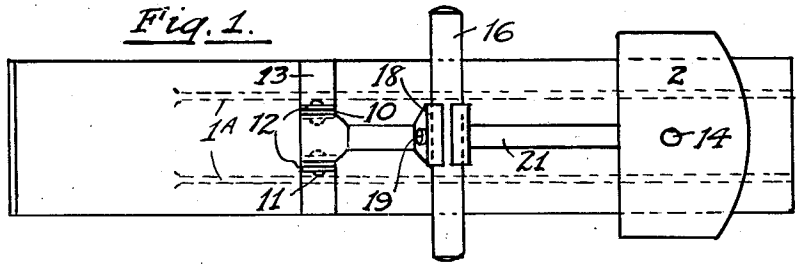


Fig. 2.

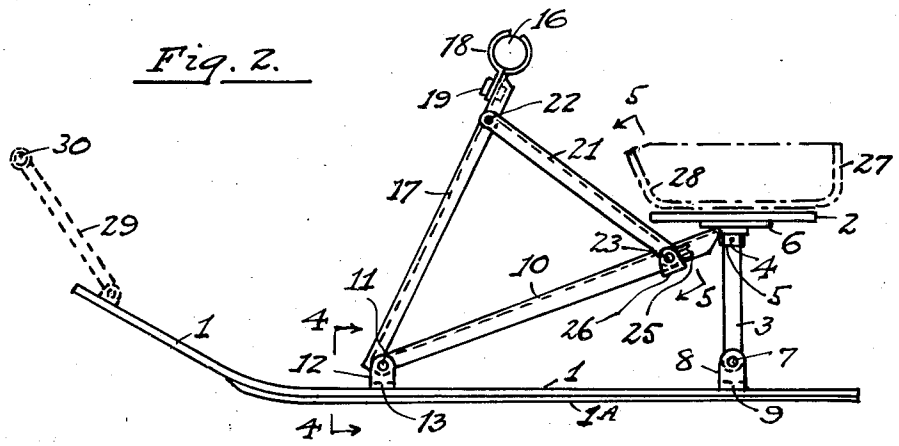


Fig. 3.

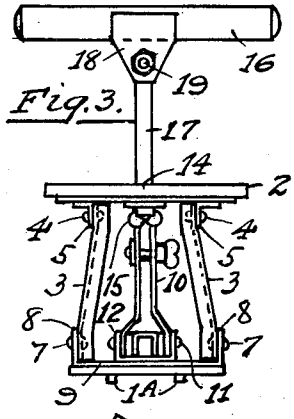


Fig. 4.

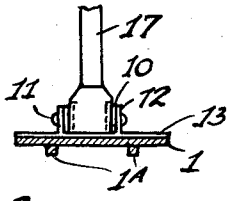


Fig. 5.

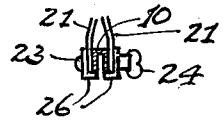


Fig. 6.

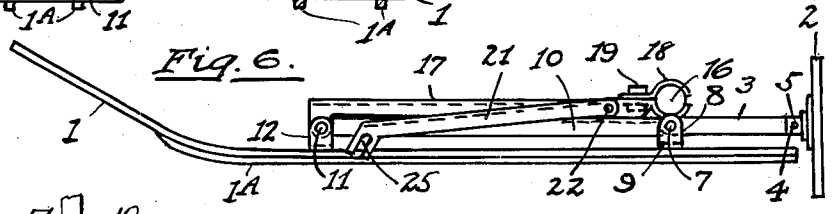
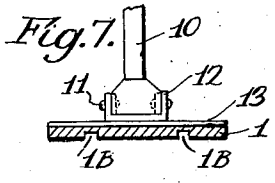


Fig. 7.



INVENTOR:-

Louis W. Wargo.

Patented Dec. 1, 1936 2,062,953

UNITED STATES PATENT OFFICE

2,062,953

SLED

Louis W. Wargo, Dearborn, Mich.

Application March 13, 1935, Serial No. 10,749

3 Claims. (Cl. 280—23)

This invention relates to sleds and its principal object is to provide a sled which is lighter and which requires less force to propel it than is the case with the sleds at present in use.

Another object of the said invention is to provide a sled which may be folded into a very small space when not in use, thus reducing the cost of transportation in quantities and at the same time making the sled more convenient for the user than is the case with sleds at present in use.

With these and other objects in view the invention consists in the improved construction, arrangement, and combination of parts which will be hereinafter fully described, reference being had to the accompanying drawing, in which drawing—

Figure 1 is a plan view of a sled constructed in accordance with my said invention.

Figure 2 is a side elevation of the same.

Figure 3 is a rear elevation of the same.

Figure 4 is a section on line 4—4 of Figure 2.

Figure 5 is a section on line 5—5 of Figure 2, and

Figure 6 is a side elevation showing the positions of the several parts when the sled is folded for transportation.

Figure 7 is a section similar to Figure 4 showing a modification.

Like characters designate corresponding parts throughout the several views.

1 is the runner which takes the place of the usual double runner and is formed of a single strip of wood or other suitable material, the over-all width of which is approximately one-half the over-all width of the double runner arrangement. Upon the under surface of the runner are a pair of downwardly-projecting parallel strips 1A preferably spaced at some distance from the edges as shown clearly in Figure 4. 2 is the seat, of any suitable material, supported by the inclined members 3 to which it is fixed at 4 by rivets which pass through downwardly extending flanges 5, which form part of the re-enforcing plate 6, and also through the upper ends of the vertical members 3, as shown clearly in Figure 3. The lower ends of the members 3 are pivoted at 7 to the upstanding ears 8 of the channel-shaped member 9 attached to the runner. Secured to the underside of the seat at the center is the brace 10, the lower end of which is pivoted at 11 to ears 12 forming part of the re-enforcing plate 13 which extends throughout the width of the runner. Connection of the brace at the upper end is preferably through a screw 14 and a thumb nut 15 so as to be easily detachable. 16 is the handle, of wood or other suitable material supported upon the inclined member 17, being secured thereto by the clip 18 and bolt 19 and the lower part of the member 17 is hinged at 11 similarly to the brace 10. 21 is a brace hinged at 22 to the member 17 and secured to the member 10 by the bolt 23 and thumb nut 24, the end of the brace being slotted at 25 so that it may be slipped off the bolt when the thumb screw 24 is slackened off. In order to prevent accidental disconnection at this point there are provided the L-shaped members 26, the vertical members of which are secured upon the bolt 24 and the horizontal members of which pass under the ends of the brace 21 and prevent it from slipping down when the nut is screwed tightly upon the bolt, as shown in Figure 5.

It will be understood from the foregoing description and on reference to the drawing that I have provided a sled of very strong and simple construction and which can be folded into a very small space when not in use. It will be observed, also, that due to the narrow width of the runner the sled will offer a very much reduced resistance in traveling upon snow and ice since the runner partakes of the nature of a ski which rides upon the surface instead of cutting into it as is the case with sleds having a pair of relatively narrow runners. The addition of the strips 1A on the underside of the runner will obviously tend to maintain the sled in a straight line and reduce side drift.

In order to adapt my improved sled for use by young children the seat may be provided with a basket or other enclosure 27, as indicated in broken lines in Figure 2, the said basket having openings 28 for the legs. The sled may be further adapted to this purpose by the addition of a bar or rod 29 secured at its lower end to the runner and terminating at its upper end in a handle 30, so that it may be drawn by some person other than the passenger.

While I have in the foregoing described a preferred embodiment of my invention, it will be obvious to those skilled in the art that the same may be varied to suit any particular or peculiar requirement without departing from the essential features of my said invention as specifically defined in the appended claims. For example, while the principal members are shown as being made up of metal channel sections, the same may be made from tubular sections of metal or, in some cases, wooden members may be substituted. Similarly, members such as the runner, seat, and handles may be made from a combination of wood and metal, fiber, or other synthetic material. Also,

I may substitute grooves for the strips 1A which will have a similar effect.

Having thus described my said invention, what I claim and desire to secure by Letters Patent of the United States is:

1. The combination, with a sled having a single runner of narrow width and of comparatively thin material, of a seat, a support for said seat hinged at its lower end to a transverse re-enforcing member which extends throughout substantially the full width of said runner, a diagonal seat brace for maintaining said support in a substantially vertical position when in use, one end of said brace being detachably connected to the underside of said seat and the other end being pivotally connected to a transverse re-enforcing member extending substantially throughout the full width of said runner, a handle, a support for said handle having its lower end pivoted upon the pivot of the seat brace, and a brace for said handle having one end pivoted to said handle support at a point near its junction with said handle and having the other end pivoted to the seat brace at a point near the connection of said brace to said seat.

2. The combination, with a sled having a single runner of narrow width and of comparatively thin material, of a seat, a support for said seat hinged at its lower end to a transverse re-enforcing member which extends throughout substantially the full width of said runner, a diagonal seat brace for maintaining said support in a substantially vertical position when in use, one end of said brace being detachably connected to the underside of said seat and the other end being pivotally connected to a transverse re-enforcing member extending substantially throughout the full width of said runner, a handle, a support for said handle having its lower end pivoted upon the pivot of the seat brace, a brace for said handle having one end pivoted to said handle support at a point near its junction with said handle and having the other end pivoted to the seat brace at a point near the connection of said brace to said seat, and means for detaching said last named end of said handle brace from said seat brace.

3. The combination, with a sled having a single runner of narrow width and of comparatively thin material, of a seat, a support for said seat hinged at its lower end to a transverse re-enforcing member which extends throughout substantially the full width of said runner, a diagonal seat brace for maintaining said support in a substantially vertical position when in use, one end of said brace being detachably connected to the underside of said seat and the other end being pivotally connected to a transverse re-enforcing member extending substantially throughout the full width of said runner, a handle, a support for said handle having its lower end pivoted upon the pivot of the seat brace, a brace for said handle having one end pivoted to said handle support at a point near its junction with said handle and having the other end pivoted to the seat brace at a point near the connection of said brace to said seat, and means for detaching said last named end of said handle brace from said seat brace, said means comprising a bolt fixed to said seat brace, a pair of slotted members at or near the end of said handle brace, and a pair of L-shaped members upon said bolt adapted to prevent accidental displacement of said handle brace.

LOUIS W. WARGO.