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SLED

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Fig. 1

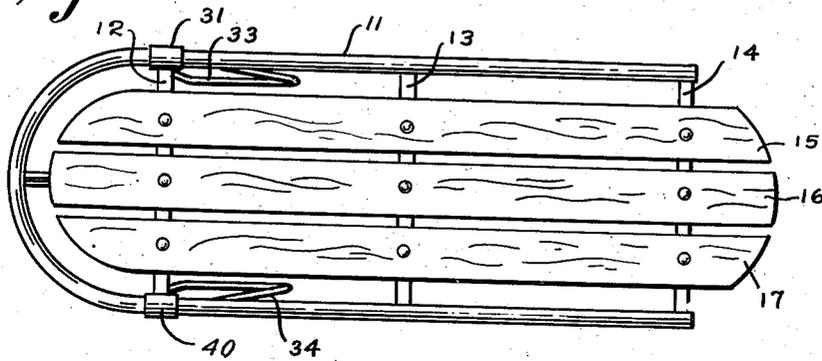


Fig. 2

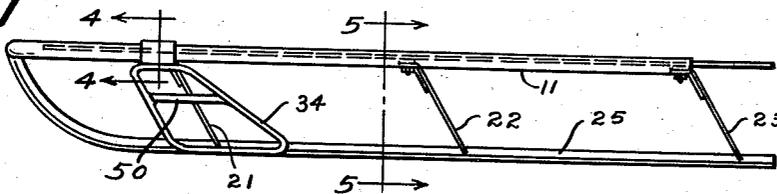


Fig. 3

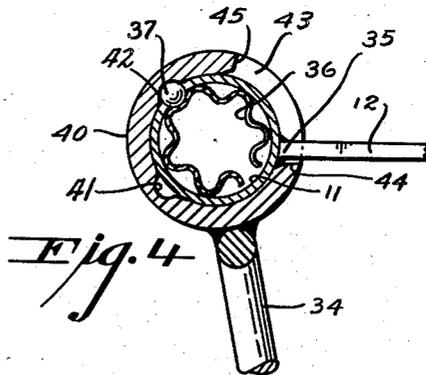
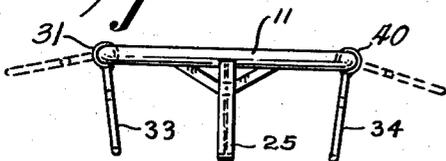
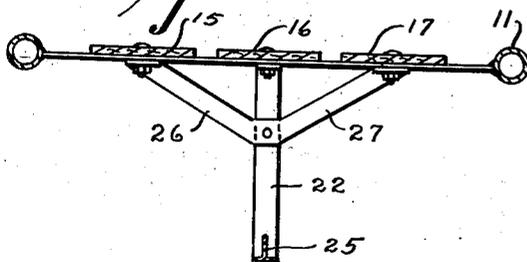


Fig. 5



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8 Claims. (Cl. 280-12)

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The present invention relates to sleds and has for its object a simple form of sled having a single main runner and two auxiliary retractable side runners.

A preferred embodiment of the invention is illustrated in the accompanying drawing wherein Fig. 1 is a plan view of the sled and Fig. 2 is a side elevation thereof. Fig. 3 is a front end elevation. Fig. 4 is an enlarged sectional elevation taken on line 4-4 of Fig. 2 and Fig. 5 is an enlarged sectional view taken on line 5-5 of Fig. 2.

Referring to the drawing in detail, a tubular member 11 forms the top bordering portion of the sled. Member 11 has transverse members 12, 13, and 14, secured thereto, which are suitably attached to bed members 15, 16 and 17 respectively. Rigidly attached to the under sides of members 12, 13, and 14 are depending members 21, 22, and 23 respectively, which, at their lower ends, are rigidly secured to a main runner 25 which is curved up at the front end into engagement with the tubular member 11 and suitably fixed thereto, as by welding or the like. To brace the runner against lateral thrust members such as 26 and 27 are bridged between members 21-23 and the associated members 12-14.

Associated with the lateral runs of member 11 are sleeves 31 and 40 to which are rigidly attached side runners 33 and 34, respectively. Since the side runner assemblies are alike a detailed description of one will suffice.

The section of member 11 occupied by an end 35 of transverse member 12 has arranged therein a corrugated leaf spring member 36 resiliently holding a ball 37 in an aperture in member 11. The sleeve 40 surrounds this section of member 11 and holds the ball depressed flush with the outer wall surface of member 11 except at such times that the sleeve is turned to either of two extreme positions. In one of these positions a groove 41 in the inner surface of sleeve 40 permits the ball 37 to move out and lock the sleeve against free turning. A second groove 42 is occupied by the ball 37 in the other extreme position of the sleeve for a similar purpose.

The sleeve 40 is permitted to occupy the same area of portion 11 occupied by member 12 because of the provision of a rectangular slot 43 thru the sleeve sidewall. This slot is of a width and so located that with the side runner 34 attached thereto in a sled supporting position, slot bordering portion 44 of the sleeve engages the transverse member 12; and when the runner 33 is in a fully retracted position slot bordering portion 45 engages such transverse member.

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A bridge member or handle 50 is arranged transverse the loop formed by runner 33 parallel to the nearby portion of member 11 and may be readily seized and the sleeve turned to move the runner between its sled supporting and retracted positions at will by a sled occupant.

As will be noted the auxiliary runners 33 and 34 are toed in, so to speak, so that the load carried tends to hold them in sled supporting position. Use of the ball locks prevents uncontrolled swinging movements of the runners as might occasionally occur were they omitted; their most important function, however, is in positively holding the runners in their fully retracted position.

What is claimed is:

1. In a sled, a top bordering portion of circular cross section, a transverse member associated with said portion, a sleeve surrounding and turnable about said bordering portion and having surfaces engageable with said member for limiting the amount of possible turning movement thereof, and a runner fixed to said sleeve occupying a sled supporting position when the sleeve is turned to one extreme position and occupying a non-supporting position when turned in the reverse direction.

2. A structure such as defined by claim 1 wherein a spring actuated member is arranged within the top bordering portion surrounded by said sleeve and cooperative with grooves in the inner surface of said sleeve to hold it in either of the extreme positions to which it is turned.

3. In a sled, a top including a tubular rail extending about the front and sides thereof, sled bed supporting members fixed to the side portions of said tubular rail, a sleeve surrounding and turnable about said rail and having a slot therein occupied by one of said bed supporting members, and a sled runner attached to said sleeve movable into and out of sled supporting position by turning said sleeve.

4. A structure such as defined by claim 3 wherein means is provided tending to hold the runner in either extreme position to which it is moved.

5. In a sled, a top bordering portion, a sleeve surrounding and turnable about said bordering portion, a member fixed to said bordering portion engageable by said sleeve to limit the arc through which said sleeve may be turned, and a runner fixed to said sleeve occupying a sled supporting position when said sleeve is turned to one extreme position and occupying a non-supporting position when turned to the opposite extreme position.

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6. In a land vehicle, a top bordering portion, fixed members associated with opposite sides of said portion, a turnable member associated with each of said fixed members, land-engaging elements one carried by each of said turnable members and each independently positionable between vehicle supporting and non-supporting positions by imparting a movement to its said turnable member, and means independently cooperative with each of said members to hold its turnable member in the position into which it is moved. 10

7. In a land vehicle, top-bordering side rails, fixed and movable members associated with each of said rails, a vehicle supporting element independently attached to each of said movable members and each independently movable between vehicle supporting and non-supporting positions by movement of its said movable member, and means cooperative with said movable and fixed members to hold said movable members in the positions to which they are moved. 20

8. In combination, a land vehicle having a load-supporting bed, bed-supporting means arranged under said bed midway between the lateral borders thereof, and auxiliary vehicle bed-sup- 25

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porting means arranged on either side of said first specified bed-supporting means and each pivoted in the vicinity of opposite lateral borders of the bed about axes parallel to a line drawn lengthwise of the bed and each turnable independently of the other into and out of bed-supporting positions.

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