Aug. 7, 1951 A. H. NORMANDIN 2,563,358

COASTER

Filed June 3, 1947

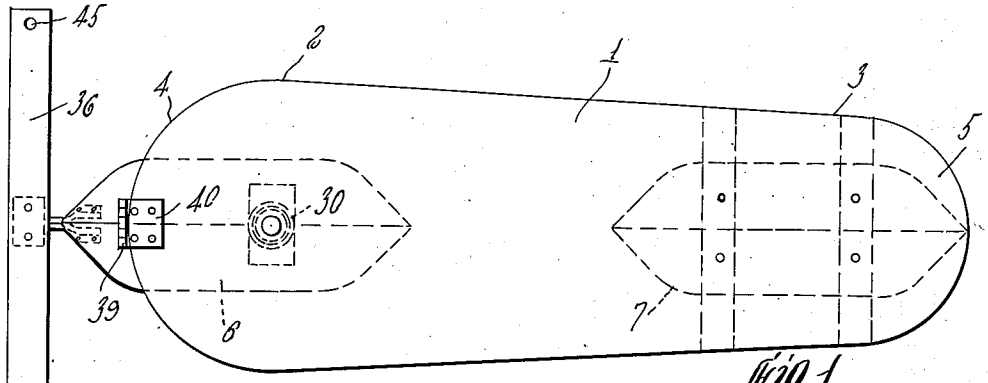


Fig. 1.

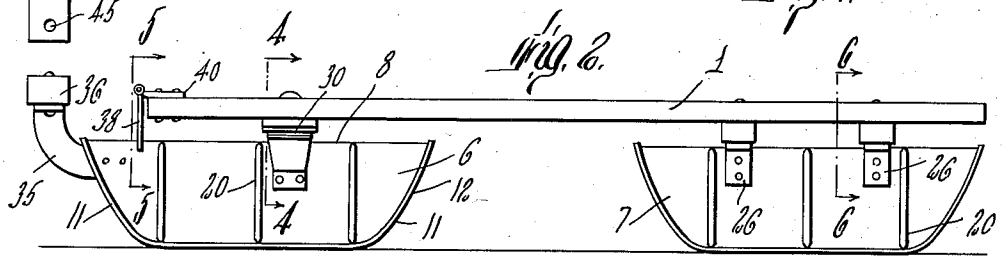


Fig. 2.

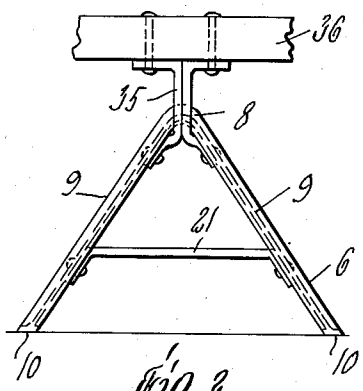


Fig. 3.

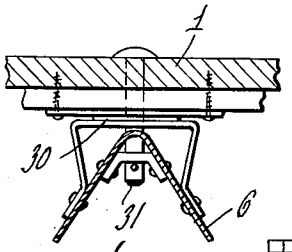


Fig. 4.

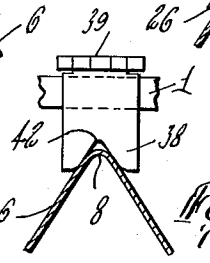


Fig. 5.

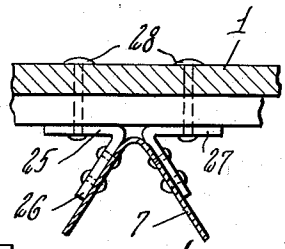


Fig. 6.

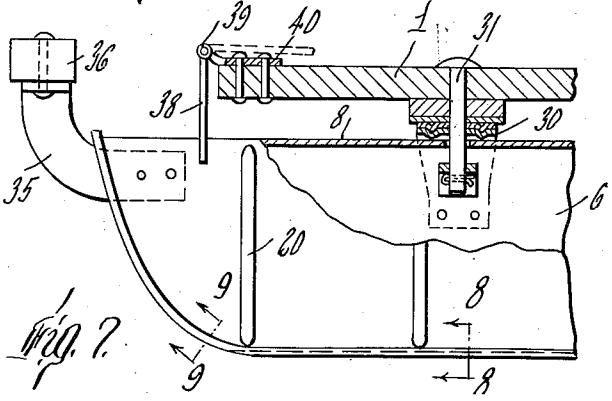


Fig. 7.

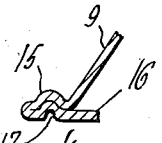


Fig. 8.

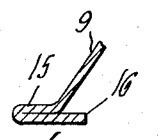


Fig. 9.

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2,563,358

COASTER

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Application June 3, 1947, Serial No. 752,174

2 Claims. (Cl. 280—28)

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This invention relates to coasters, and has for one object to provide a coaster of simple construction and of great maneuverability.

A further object is to provide an improved sled construction, each sled of a pair used in the coaster being formed of a piece of sheet metal bent centrally in inverted V shape and provided with a pair of parallel spaced snow-engaging runner elements along opposite edges, each runner element being preferably provided with a longitudinally grooved tread.

Another object is to provide means for locking the front or steering sled in line with the rear sled, to facilitate the starting of a coast, after which the steering sled is released by the rider so that steering may thereafter be effected.

Further objects and advantages will appear from a description of an embodiment shown in the accompanying drawings in which

Figures 1 and 2 are top plan and side elevational views, respectively, of a coaster embodying the invention.

Figure 3 is a fragmentary front elevation of the same.

Figures 4, 5 and 6 are detail sectional views on the correspondingly numbered section lines of Figure 2.

Figure 7 is a fragmentary view similar to a portion of Figure 2 but to a larger scale and partly broken away and in longitudinal central section.

Figures 8 and 9 are detail sectional views on lines 8—8 and 9—9, respectively, of Figure 7.

Referring to the drawings, at 1 is indicated a body support which is in the form of a board having a wider forward portion at 2 and a narrower rearward portion at 3, these portions terminating in rounded ends 4 and 5. To the under face of this body support are secured two sleds 6 and 7. These sleds may be identical, except for the manner in which they are connected to the support 1. Each may be formed of a metallic plate bent substantially centrally between its side edges at 8 in inverted V shape with a relatively sharp apex to form a pair of side walls 9 diverging downwardly preferably at approximately 60° and continuous from edge to edge for the full height of the sled terminating in parallel spaced runner portions 10. The upper portion of the sled is thus relatively narrow and the lower portion wide. The ends of the sleds are convexed as at 11 and the edges of the portions 9 and the curved ends 11 are preferably flanged to form widened runners along opposite

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side edges of the sled, these runners merging with the upwardly curved end flanges 12 which form with the runner portions marginal thickened edges of the sled member.

As shown in Figure 8, the runner flanges may comprise edge portions 15 of the plate bent back on itself to form the double flange elements 16, the same construction being continued throughout the entire margin of the runner plate and form at the ends of the sleds, the flanges 12. Along the side edges of the plate the edge flanges are preferably domed upwardly as at 17 to provide a groove extending longitudinally of each runner, this helping to prevent side slippage of the sleds on the supporting surface but this groove does not extend into the end flanges 12. The sled plates may be stiffened at intervals by transversely extending corrugations 20 and interiorly the two sides 9 may be held to the desired angle of divergence by cross braces 21 (see Figure 3), spaced apart by suitable intervals and located below the apex of the sled.

The rear sled 7 is fixed against swiveling motion with reference to the support 1, and for this purpose opposed brackets 25 (see Figure 6) may be employed, each bracket having a leg 26 secured as by riveting to the outer face of a side of a sled and a horizontal flange 27 at its upper end secured as by rivets 28 to the body support 1. This provides a strong and rigid mounting for the rear sled.

The forward sled is mounted for steering pivotal motion and for this purpose is secured to the body support 1 as by a rotary center bearing at 30 and a pivot pin 31 (see Figures 2, 4 and 7). The means for securing both sleds to the body support 1 extend at least as high as the apex of each sled and form parts of substantial width greater than the apex of the sled to provide stable attachment between the sled and the body support. The forward sled also has means secured thereto by which it may be turned about its center plate and pin for the purpose of steering. To this end, there may be attached to the forward end portion of the front sled 6 forwardly and upwardly extending brackets 35 to the forward ends of which is fixed a steering bar 36. This steering bar can be reached readily by either the hands or feet of the rider, depending upon whether he is lying or sitting on the support 1, and be turned to turn the front sled 6 about its pivot for steering purposes.

It will commonly be found desirable to temporarily hold the two sleds in alinement while the rider is starting to coast in order that his hands

and feet may be free from steering effort. To this end a latch **38** has been illustrated pivoted at **39** to a bracket **40** secured to the front portion of the support **1**. This latch **38**, as shown best in Figure 5, comprises a plate having a central V shaped recess **42** which can be engaged about opposite sides of the front sled and prevent pivotal motion of the front sled. As soon as the rider has started, however, he may reach forwardly and pull up the latch **38** and move it back to overlie the bracket **40**, as shown in dotted lines in Figure 7, whereupon the front sled is free to be steered by swinging the steering bar **36**.

The particular construction of the sleds, being of inverted V form, provides for substantial stability of the coaster and should the coaster strike somewhat soft snow, the side portions **9** will squeeze the snow between them, thus providing for a more extensive area of contact and affording increased stability. The runner groove on the flange element **16** further tends to prevent side slippage when contacting with a frozen surface.

The steering bar **36** may be provided with holes **45** adjacent to each end through which a rope may be passed by which the coaster may be pulled when desired.

From the foregoing description of an embodiment of this invention, it should be evident to those skilled in the art that various changes and modifications may be made without departing from the spirit or scope of this invention.

I claim:

1. A coaster sled comprising a one piece inverted V shaped sheet material member having a relatively narrow apex provided with thickened marginal portions and having curved ends, the thickened marginal portions of said member presenting parallel runners merging with said ends, cross bracing members below said apex between and secured to the sides of said member, and a body support securing means engaging the outer sides of said member and extending at least as high as the apex thereof and of a width substantially greater than said apex.

2. A coaster comprising a body support, a pair of sleds spaced lengthwise of said support in normal alinement, the forward sled being pivotally connected to said support for steering and presenting a pair of sides diverging downwardly from its upper face, a latch pivoted to said support and having a free end notched to engage with said diverging sides when turned downwardly about its pivot, said latch being turnable about its pivot upwardly and rearwardly into an inoperative position permitting free turning of said forward sled for steering.

ALFRED H. NORMANDIN.

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