W. J. ROCHE.

COASTER SLED.

APPLICATION FILED MAY 19, 1914.

1,116,487. Patented Nov. 10, 1914.

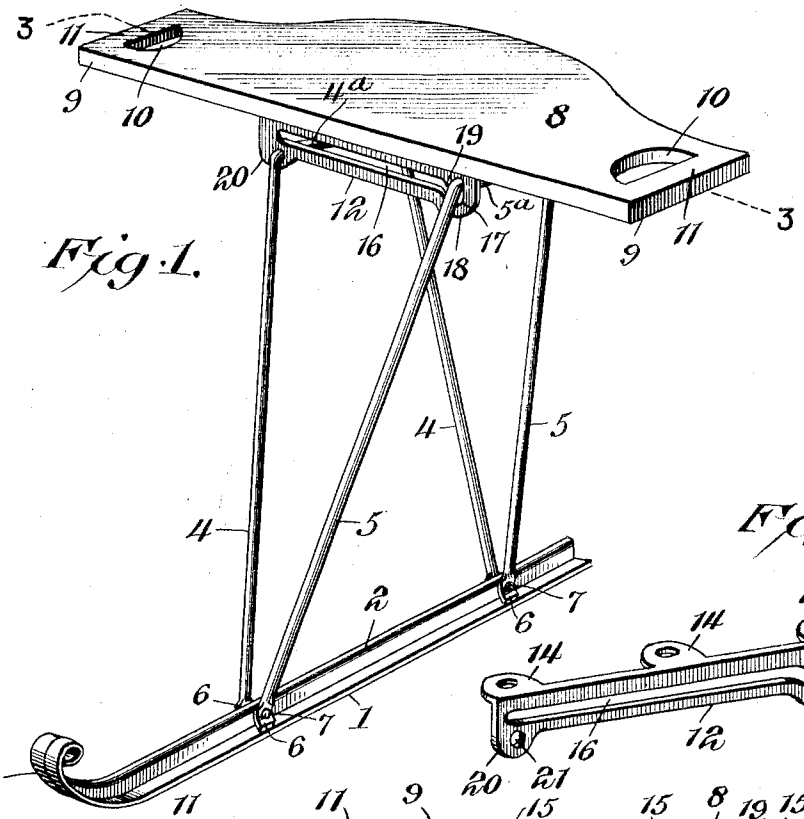


Fig. 1.

Fig. 4.

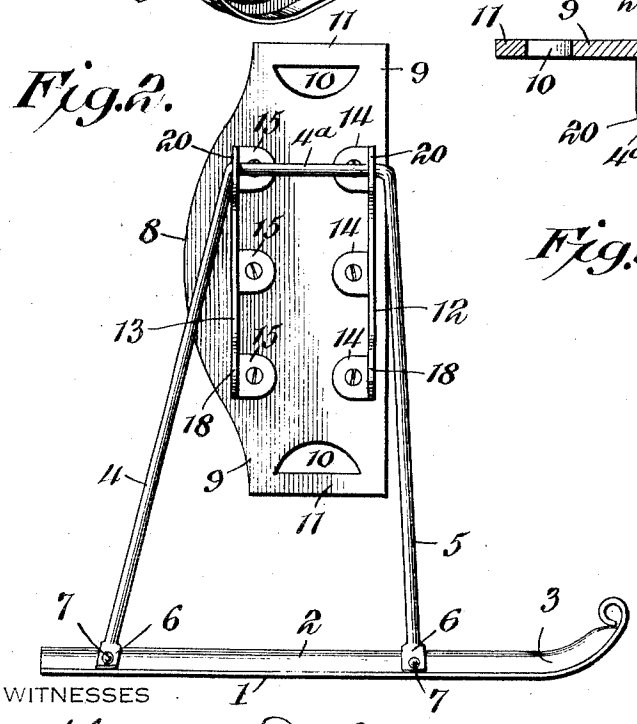


Fig. 2.

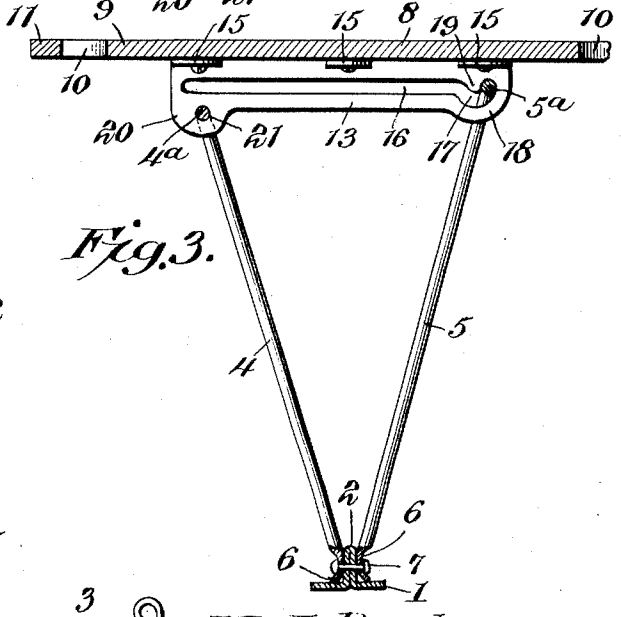


Fig. 3.

WITNESSES

Howard D. Orr.

F. J. Chapman

W. J. Roche,

INVENTOR,

BY E. G. Siggers.

ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM JANSON ROCHE, OF MEADVILLE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO CLEON S. MINIUM, OF COCHRANTON, PENNSYLVANIA.

COASTER-SLED.

1,116,487. Specification of Letters Patent. Patented Nov. 10, 1914.

Application filed May 19, 1914. Serial No. 839,594.

To all whom it may concern:

Be it known that I, WILLIAM J. ROCHE, a citizen of the United States, residing at Meadville, in the county of Crawford and State of Pennsylvania, have invented a new and useful Coaster-Sled, of which the following is a specification.

This invention has reference to improvements in coaster sleds wherein but a single runner is employed, and its object is to provide a sled of such character which may be compactly folded for storage or transportation.

In accordance with the present invention there is provided a coasting sled or device having a single shoe or runner designed to travel on snow or ice, and rising from this runner are diverging legs or supports carrying a seat at the ends remote from the runner. These legs are permanently fastened to the seat so they will not accidentally disengage therefrom, but the fastening arrangement is so constructed that the seat may be moved upon one leg as upon a hinge, while the other leg has a sliding engagement with the fastening devices, and the leg and fastening devices are so related that when the seat is in operative position with respect to the runner the seat and leg are locked together, so that under such circumstances the seat and runner are in operative relation for the use of the device for coasting. To enable the user to maintain a proper position upon the seat, handholds are provided at the ends of the seat in convenient position to be grasped by the hands.

Whether it be desired to transport the sled or to store it, it may be readily folded into small compass without the necessity of manipulating any latches or other fastening devices, and this is particularly convenient for carrying the sled back to the top of the hill down which the user has coasted, by means of the device, since the coasting sled is not at all adapted to be dragged along at the end of a rope as is the custom with an ordinary two runner sled.

The invention will be best understood from a consideration of the following detailed description, taken in connection with the accompanying drawings forming a part of this specification, with the further understanding that while the drawings show a practical form of the invention, the latter is not confined to any strict conformity with the showing of the drawings, but may be changed and modified so long as such changes and modifications mark no material departure from the salient features of the invention.

In the drawings:—Figure 1 is a perspective view of a coaster sled constructed in accordance with the present invention, with the parts in position for coasting. Fig. 2 is a side elevation of the sled in the folded position. Fig. 3 is a central vertical section on the line 3—3 of Fig. 1. Fig. 4 is a perspective view of one of the seat supporting brackets.

Referring to the drawings there is shown a sled provided with a single runner 1 having a longitudinal mid-rib 2, while the end of the runner constituting the front thereof has an upturned end or nose 3 which may correspond in general to the like ends of sled runners.

For convenience of manufacture the runner 1 may be formed out of a single piece of sheet metal bent into the appropriate shape, the rib 2 representing an intermediate longitudinal fold, but this is a detail of manufacture which may or may not be followed.

Fast to opposite sides of the rib 2 are generally U-shaped legs 4, 5, respectively. The leg 4 is somewhat shorter than the leg 5, and when in operative position these legs diverge to about equal extents from opposite sides of the rib 2. The legs have the same spread in the direction of the length of the runner, and their ends where meeting the rib 2 are flattened, as indicated at 6, and are also slightly rounded outwardly. The corresponding ends 6 of the legs where applied to opposite sides of the rib 2 are secured together by rivets 7, which, however, do not tightly bind the legs to the rib, and this in conjunction with the convex sides of the flattened portions 6 which are presented toward the rib 2, permit a rocking of the legs toward and from each other. There is also provided a seat 8 of appropriate length and width to support the person of the user, and the seat has end portions 9 with passages 10 therethrough defining handholds 11 between the extreme outer ends of the seat and the passages 10, so that

the user when supported by the seat may hold tightly thereto by grasping the handholds 11.

Fast to what constitutes the under side of the seat are spaced brackets 12, 13, respectively, these brackets being substantially identical one with the other except that they are provided with ears 14, 15, on respectively opposite sides so that the brackets may be suitably applied to the seat. The brackets are usually in the form of castings, although they may be otherwise made and are relatively long as compared with their width. Extending longitudinally through each bracket is an elongated slot 16 terminating near one end of the bracket in a reversely curved portion 17, the bracket being there widened, as shown at 18, to permit the reverse curve 17, and this reverse curve defines a tooth 19 directed away from the seat 8 when the bracket is applied thereto. Except for the reverse curve 17 the slot 16 is straight and substantially parallel with the seat when the bracket is applied. At the end of the bracket remote from the reverse curve it is similarly widened, as shown at 20, and is there provided with a perforation 21 through which the yoke portion 4^a of the leg 4 is passed. This yoke portion is or may be straight, and the brackets are spaced apart a distance nearly equal to the length of the yoke, so as to center the seat with respect to the leg 4. The other leg 5 is somewhat longer than the leg 4 and it has a similar yoke portion 5^a extending through both slots 16 of the two brackets 12 and 13.

The yoke 4^a of the leg 4 and the perforated widened ends 20 of the brackets 12 and 13 constitute a hinge for the seat 8 upon which it may be turned into substantial parallelism with the leg 4, or to an approximately horizontal position with respect to the surface upon which the runner 1 is lodged when the device is being used. The yoke 5^a is movable along the slot 16 from one end to the other, and when it reaches the return bend 17 it may be moved about the tooth 19 until lodged in the closed end of the return portion 17 when the tooth 19 of each bracket 12 and 13 locks the leg 5 against movement toward the leg 4, and likewise against any movement away from the leg 4, the arrangement being such that in this position the two legs diverge at about equal angles with respect to the rib 2, and then the seat 8 is substantially parallel with the sustaining surface of the runner 1.

While there are no positive fastening devices between the leg 5 and the seat structure, the device is particularly rigid and firm when in use, since the weight of the rider holds the yoke 5^a in the closed end of the return portion 17 of each slot 16.

When the device is not in use for coasting purposes, that is, when the device is stored or is being carried by the user, the end of the seat where locked to the yoke 5^a of the leg 5 is lifted sufficiently, and then the leg 5 is moved toward the leg 4, this permitting the end of the seat which had been raised to unlock the leg 5 to drop toward the legs 5 and 4 and the leg 5 is moved along the slots 16 toward the leg 4, wherefore the seat is folded down in substantial parallelism with the legs and the latter are folded together until in approximate or actual contact, the movement of the legs one toward the other being permitted by the curved ends 6 and slightly loose connection formed by the rivets 7.

The device is operated with the user sitting upright on the seat and is steered by the inclination of the body of the rider to one side or the other much in the same manner as riding a bicycle.

The runner, legs, and brackets are customarily made of metal, say, steel, and the seat 8 is customarily made of wood, but it is evident that any suitable materials may be employed, and the particular configuration shown may be varied within relatively wide limits without any material departure from the invention. The legs of the folding structure are self bracing, being quite widely spread apart in the direction of the length of the runner where secured thereto, while the yoke portion of the legs are also relatively extensive in the direction of the length of the runner. The brackets 12 and 13 also provide extended supports coacting with the legs to increase the stability and rigidity of the whole structure.

What is claimed is:—

1. A coasting sled comprising a single runner with legs attached thereto and extending lengthwise of the runner and also movable into divergent relation one to the other on opposite sides of the center line of the runner, and a seat carried by the portions of the legs remote from the runner.

2. A coasting sled comprising a single runner with legs attached thereto and extending lengthwise of the runner and also movable into divergent relation one to the other on opposite sides of the center line of the runner, and a seat carried by the portions of the legs remote from the runner, one leg being hingedly connected to the seat and the seat and other leg having coacting connections for locking said leg thereto, with those ends of the legs connected to the seat spread apart and said second-named leg being movable along the connections toward the other leg to permit folding of the seat against the legs.

3. A sled provided with a single runner, a seat, a leg carried by the runner and hingedly connected to the seat, and another leg carried by the runner and also connected to the seat and movable toward and from

the first-named leg whereby the legs may be spread apart transversely of the runner to support the seat, and brought together to permit folding of the seat against the approached legs.

4. A sled having a single runner, a seat with spaced brackets thereon arranged transversely of the length of the runner with each bracket provided with a longitudinal slot terminating at one end in a return bend thereby defining a tooth, a leg fast to the runner at longitudinally spaced points thereon and hingedly connected to the brackets at corresponding ends of each, and another leg connected to the runner at corresponding points to the connection of the first leg thereto and extending through the slots in the brackets, said second-named leg being movable lengthwise of the slots and into the return bends thereof to be locked by the teeth at the ends of the slot remote from the first-named leg.

5. A sled comprising a single elongated runner with a rib extending lengthwise thereof, an approximately U-shaped leg having its free ends connected at spaced points to the rib of the runner on one side thereof, another approximately U-shaped leg similarly connected to the rib on the opposite sides thereof, a seat, and spaced brackets fast to the seat and extending transversely of the runner, and each being provided with a longitudinal slot terminating at one end in a return bend and at the other end provided with a perforation spaced from the slot, one of the legs having its yoke portion extending through the passage near one end of each bracket, and the other leg having its yoke portion extending through the slots of the brackets and movable into the return bends of the slots to lock therein.

6. A sled comprising a single elongated runner with a rib extending lengthwise thereof, an approximately U-shaped leg having its free ends connected at spaced points to the rib of the runner on one side thereof, another approximately U-shaped leg similarly connected to the rib on the opposite side thereof, a seat, and spaced brackets fast to the seat and extending transversely of the runner, and each being provided with a longitudinal slot terminating at one end in a return bend and at the other end provided with a perforation spaced from the slot, one of the legs having its yoke portion extending through the passage near one end of each bracket and the other leg having its yoke portion extending through the slots of the brackets and movable into the return bends of the slot to lock therein, and the legs having the ends connected to the runner flattened and curved with fastening devices securing the flattened portions to the runner to permit a rocking of the legs toward and from each other on the runner.

7. A sled comprising a single runner, an approximately U-shaped leg having its yoke portion remote from the runner and the ends of the leg spaced apart and connected to the runner at points spaced lengthwise thereof, another leg similarly connected to the runner, the two legs being movable toward and from each other transversely of the runner, a seat, and elongated brackets fast to the seat and arranged transversely of the runner, said brackets being each provided with a longitudinal slot with one end shaped into a return bend, the shorter one of the two legs having its yoke portion hingedly connected to one end of the brackets, and the longer of the legs having its yoke portion extending through the slots in the brackets and movable lengthwise of the latter into and out of the return bends.

8. A sled comprising a single runner, legs extended lengthwise of the runner and secured thereto and movable on the runner toward and from each other in a direction transverse to the length of the runner, and a seat carried by one of the legs and connected to the other leg for movement of the leg along the seat in a direction transverse to the length of the runner, said seat having means for temporarily locking the second-named leg where supporting the seat in divergent relation to the first-named leg.

9. A sled comprising a single runner, legs mounted thereon for movement toward and from each other in a direction transverse to the length of the runner, a seat mounted on the legs and connected thereto for movement of the legs toward and from each other, and the folding of the seat against the legs, said seat having handholds at the ends for the grasping of the seat by the hands of the user of the sled.

10. A sled provided with a single runner, a seat, and supports for the seat carried by the runner and movable toward and from each other to provide for the support of the seat and for the folding of the seat into substantially parallelism with the supports when the latter are moved together.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM JANSON ROCHE.

Witnesses:
T. F. CHARLTON,
F. L. ROCHE.