M. W. SEIFERT.

SLEIGH BRAKE.

APPLICATION FILED MAY 8, 1920.

1,392,229.

Patented Sept. 27, 1921.

2 SHEETS—SHEET 1.

Fig. 1.

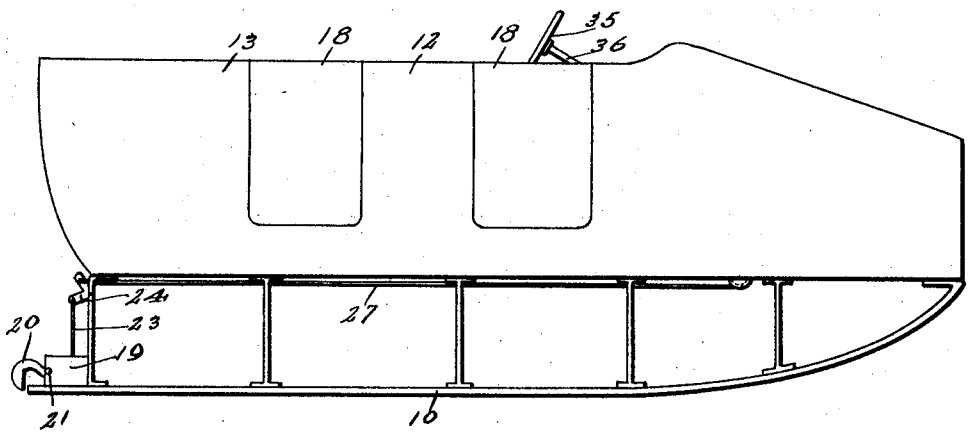
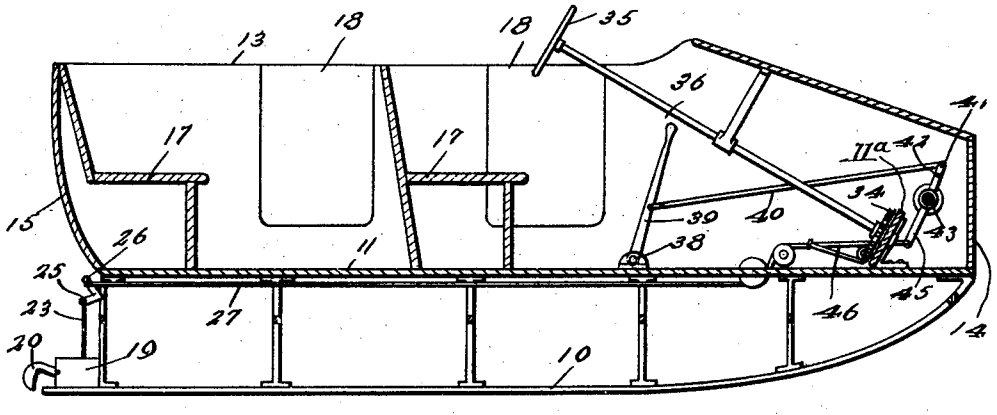


Fig. 2.



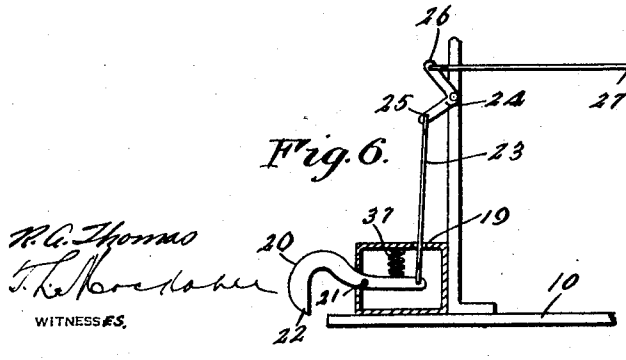


Fig. 6.

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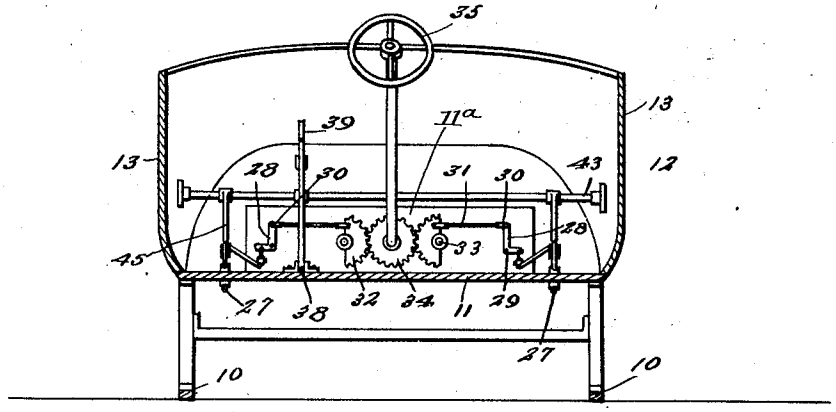
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2 SHEETS—SHEET 2.

Fig. 3.



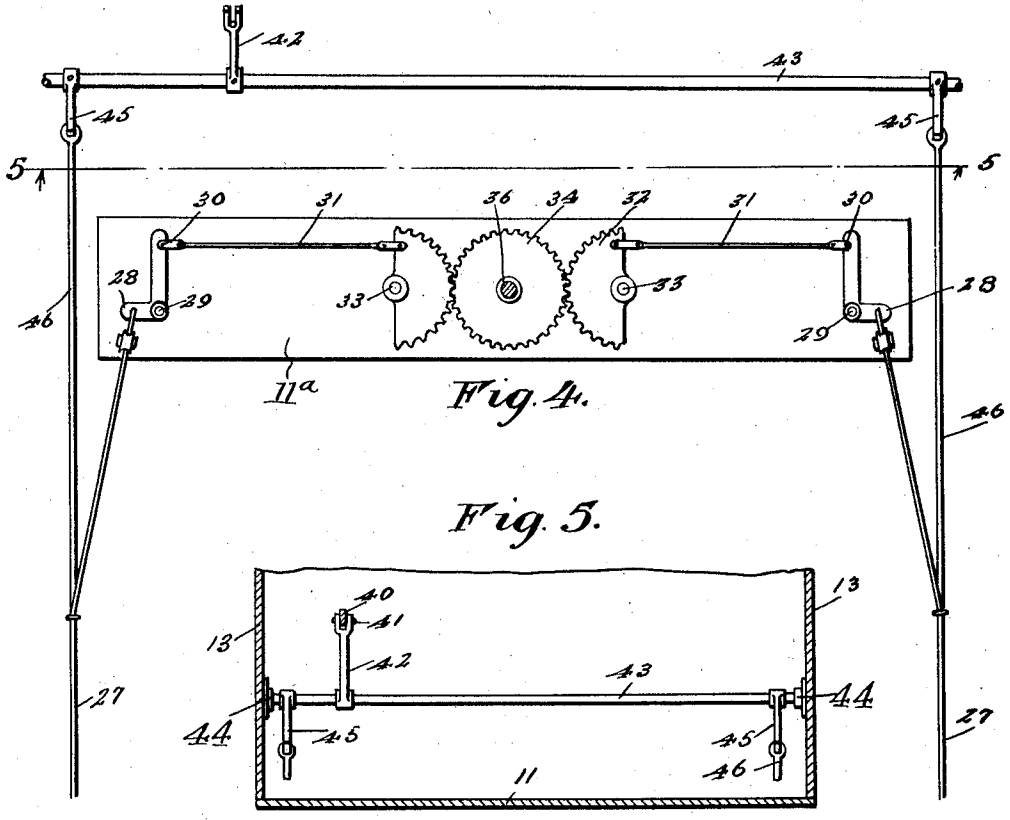


Fig. 4.

Fig. 5.

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MARTIN WILHELM SEIFERT, OF MURRAY, UTAH.

SLEIGH-BRAKE.

1,392,229. Specification of Letters Patent. Patented Sept. 27, 1921.

Application filed May 8, 1920. Serial No. 379,861.

To all whom it may concern:

Be it known that I, MARTIN W. SEIFERT, a citizen of the United States, residing at Murray, in the county of Salt Lake and State of Utah, have invented new and useful Improvements in Sleigh-Brakes, of which the following is a specification.

This invention relates to sleighs, the object being to provide a sleigh which is controlled by a steering and braking mechanism, both mechanisms being combined in a novel manner so as to provide a simple and economical construction.

Other objects and advantages of the invention will appear as the following description is read in connection with the accompanying drawings.

In the drawings:—

Figure 1 is a side elevation of a sleigh embodying the present invention;

Fig. 2 is a longitudinal sectional view of the same;

Fig. 3 is a transverse sectional view;

Fig. 4 is an enlarged detail plan view of the steering and braking controlled means;

Fig. 5 is a small scale section on the line 5—5 of Fig. 4; and

Fig. 6 is an enlarged view of the rear end of one of the runners showing the braking and steering shoe and the adjacent portion of the flexible controlling wire or cable.

Referring to the drawings in detail, like characters of reference denote corresponding parts throughout the several views.

The sleigh illustrated in the drawings, is designed as a coasting sleigh, but it is obvious that any well known type of propelling mechanism may be incorporated to provide a self propelled sleigh. As illustrated the sleigh includes runners 10, upon which is mounted a floor or platform 11, which forms the lower member of the body of the sleigh, which body includes sides 13 and front and rear 14 and 15 respectively. The body includes seats 17, the forward seat being provided for the operator. The sides 13 are provided with front and rear doors 18 and when these doors are closed the occupants of the sleigh will be protected from the cold or from inclement weather.

The particular novelty of the invention resides in the provision of mechanism for controlling the sleigh and to this end there is secured to the rear ends of each of the runners 10, a housing or casing 19, within which is pivotally mounted a shoe 20, this pivotal mounting being shown at 21. One end 22 of the shoe is adapted to be depressed to engage the snow or ice over which the sleigh is traveling, while the opposite end of the shoe has pivotally secured thereto a flexible element 23, preferably in the form of a wire cable. Pivoted upon the upper rear end of each of the runners, is a bell crank lever 24, one end of the flexible member 23 being secured to one arm of the lever as shown at 25. Secured to the lever as shown at 26, is one end of a flexible element 27, the opposite end of this element being secured to a bell crank lever 28, pivotally mounted as shown at 29 upon a foot board 11^a. The lever 28 has also connected thereto as shown at 30, one end of a flexible element 31, the opposite end being connected to a toothed segment 32 which is mounted for pivotal movement as shown at 33. The foregoing mechanism is duplicated from each side of the sleigh and the toothed segments 32 are engaged and rotated by a centrally located gear 34. The gear 34 is rotated through the medium of a steering wheel 35, which is mounted upon one end of a steering post 36 secured to the wheel 35.

By means of this mechanism either one of the shoes 20 may be depressed to act as a retarding means, whereupon the sleigh will turn in the direction governed by the particular shoe operated. In order to hold the shoes 20 normally disposed above the lower surface of the runners 10, each of the shoes has connected thereto one end of a spring 37, the opposite end of the spring bearing against the housing 19.

Pivotally mounted within the body of the sleigh as shown at 38, is a lever 39. This lever has pivotally connected thereto one end of a connecting rod 40, the opposite end of this rod being pivotally connected as shown at 41 to an upwardly extending bar or post 42 carried by a rock shaft 43, the latter being mounted in bearings 44 on each side of the sleigh. Also projecting from the rock shaft 43 adjacent each end thereof, is a rod or bar 45, the outer end of which is connected through the medium of a flexible element 46, to the flexible element 27 previously mentioned.

By operating the lever 39, the shoes 20 will be simultaneously depressed through the rock shaft connection with the flexible elements 27.

From the foregoing description and the

accompanying drawings, it will be apparent that by operating the steering wheel 35 either one of the shoes 20 may be depressed to change the direction of travel of the sleigh, or by operating the lever 39, both shoes will be simultaneously depressed to stop the travel of the sleigh.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is reserved to make any changes that properly fall within the scope of the appended claims.

Having described the invention, what is claimed is:—

1. The combination with a sleigh, of shoes pivotally mounted upon each of the runners and normally disposed above the lower surface thereof, toothed segments mounted upon each side of the center of the sleigh and flexibly connected with the shoes, a manually operated gear engaging both segments to depress the shoes independently to provide a steering mechanism, means connected to the steering mechanism to depress the shoes simultaneously to provide a braking mechanism and means for normally holding the shoes in elevated position.

2. The combination with a sleigh, of shoes pivotally mounted upon the runners and normally disposed above the lower surface thereof, means including a steering wheel for depressing each of said shoes independently to steer the sleigh, means for depressing the shoes simultaneously to provide a braking mechanism and means for normally holding the shoes in elevated position.

3. The combination with a sleigh, of shoes pivotally mounted upon each of the runners and normally disposed above the lower surface thereof, a steering post, a gear mounted upon said post, gears mounted upon opposite sides of and engaging the steering post gear, a bell crank lever pivotally secured upon each side of the sleigh and means connecting each of said bell crank levers with the gears operated by the steering post gear and means also connecting said bell crank levers with the pivotally mounted shoes for depressing the latter independently to steer the sleigh, means for depressing the shoes simultaneously to provide a braking mechanism and means for normally holding the shoes in elevated position.

4. The combination with a sleigh, of shoes pivotally mounted upon each of the runners and normally disposed above the surface thereof, means for depressing each of the shoes independently to steer the sleigh, means for depressing the shoes simultaneously to provide a braking mechanism, said means including a rock shaft having a flexible connection with the shoes and means for operating the rock shaft and means for normally holding the shoes in elevated position.

In testimony whereof I affix my signature.

MARTIN WILHELM SEIFERT.