Feb. 13, 1923. 1,445,110

E. E. STURK

OCCUPANT PROPELLED SLEIGH

Filed Mar. 3, 1922 2 sheets-sheet 1

Fig. 7.

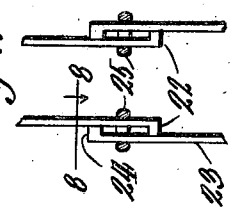
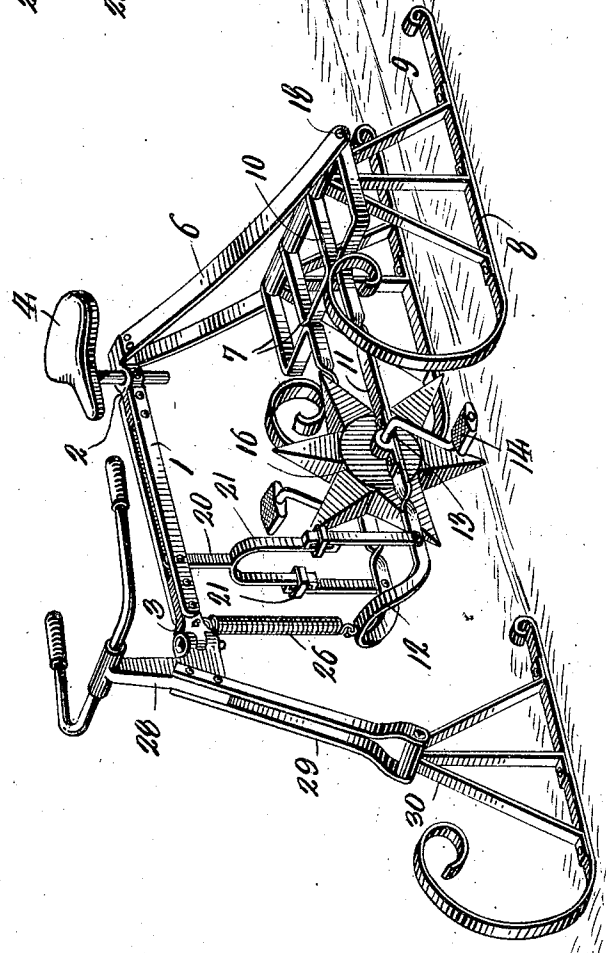


Fig. 6.



Fig. 1.



WITNESSES

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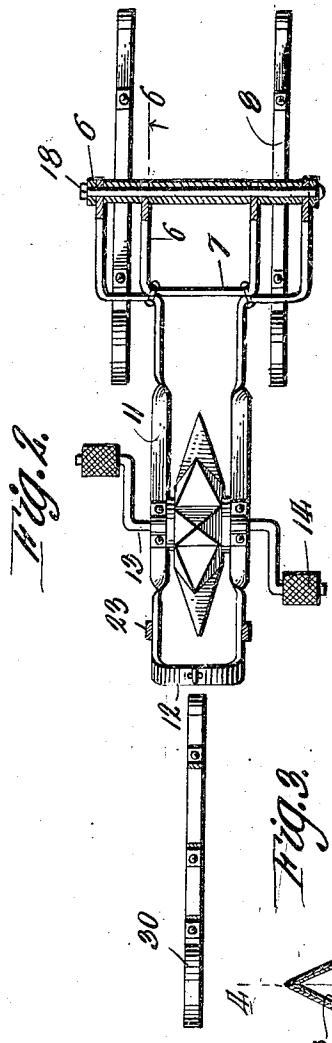


Fig. 1.

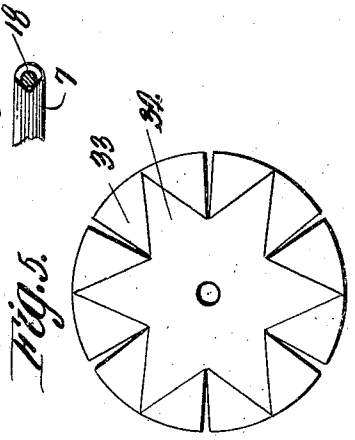


Fig. 5.

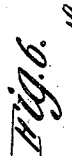


Fig. 6.

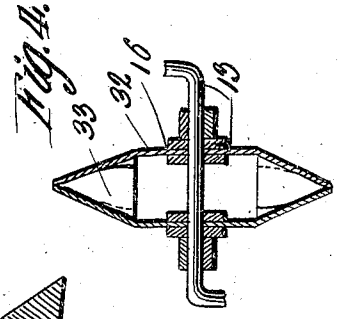


Fig. 4.

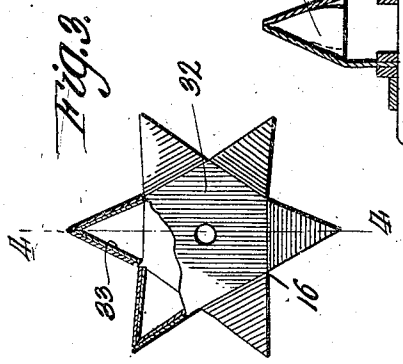


Fig. 3.

WITNESSES

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Patented Feb. 13, 1923. 1,445,110

UNITED STATES PATENT OFFICE.

EWALD ERNEST STURK, OF PORTLAND, MAINE.

OCCUPANT-PROPELLED SLEIGH.

Application filed March 3, 1922. Serial No. 540,895.

To all whom it may concern:

Be it known that I, EWALD E. STURK, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Occupant-Propelled Sleighs, of which the following is a specification.

The present invention relates to a sleigh and has for its object to provide a device of this nature, in a manner hereinafter set forth, having a foot operated mechanism for propelling the sleigh when occasion so requires and further having means for shifting the said mechanism clear of the ice or snow to permit of coasting of the sleigh when desired.

Further objects of the invention are to provide a sleigh which is simple in its construction and arrangement, strong, durable, efficient and convenient in its use and inexpensive to manufacture.

With the foregoing and other objects in view, this invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, it being understood that changes, variations and modifications can be resorted to without departing from the scope of the invention as hereinafter claimed.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:

Figure 1 is a perspective of a sleigh in accordance with this invention,

Figure 2 is a horizontal section taken therethrough looking downwardly,

Figure 3 is an elevation of the propeller device, a portion thereof being broken away,

Figure 4 is a section taken therethrough on the line 4—4 of Figure 3,

Figure 5 is a plan of one side thereof showing the same before the device is assembled,

Figure 6 is a detailed section taken on the line 6—6 of Figure 2 looking in the direction of the arrow,

Figure 7 is a detail fragmentary view showing the manner in which the telescoping frame operates, and

Figure 8 is an enlarged section taken on the line 8—8 of Figure 7 looking in the direction of the arrow.

Referring to the drawing in detail it will be seen that the device consists of a pair of main bars 1 which are slightly spaced from each other so as to receive a seat bracket 2 at one end and a fulcrum bracket 3 at the other end. A seat 4 is disposed in the seat bracket 1 in any suitable manner being held in an adjusted position by means of a screw. This seat bracket 2 extends rearwardly for a short distance so as to be connected to the upper ends of the standards 6 which diverge from each other toward their bottom ends and are in pivotal engagement with a truck indicated at 7 which is provided with a pair of spaced runners 8 having vertical brackets 9 extending therefrom for supporting a frame 10. A bar 11 is bent upon itself so that its legs are spaced from each other and its bent portion is curved upwardly as at 12. Intermediate the legs of the bar 11 there is journalled a pedal shaft 13 which is provided with any conventional form of pedals 14 and a propeller member indicated generally at 16 is keyed upon this shaft for the purpose of engagement with the snow or ice so that the sleigh may be propelled forwardly when desired. The rear portions of the bars 11 are offset and pivotally engaged with the rear truck by the bolt 18 passing through its terminals, this bolt 18 being supported by the brackets 9 and also engaged with the terminals of the standards 6. Both the standards 6 and the bar 11 is pivoted on a bolt or bar 18. A telescoping supporting frame is associated with the bar 11 and consists of an upper member having a forked shaped appearance so as to provide a shank 20 and prongs 21 which are bent at their terminals into right angularly extending lips 22 which act as stops as will presently appear. The rods 23 form part of this telescoping frame and are also provided with stop lips 24 for engagement with stop lips 22 and a ring 25 is suitably mounted on the prongs 21 so as to keep the prongs in engagement with the corresponding bar 23. A spring 26 is connected to the curved-up end 12 of the bar 11 and also to the fulcrum bracket 3.

This fulcrum bracket 3 rotatably supports a handle bar receiving member 28 which has a front fork 29 for receiving the forward or steering runner 30.

As is disclosed to advantage in the drawing, the propelling device 16 is substantially star shape being formed of two spaced side

members shown in plan in Figure 5. Each side member consists of a star shaped body 32 having the wings 33 on its pointed extension which are bent inwardly or at substantial right angles to the wing extension so that when the two sides are together these wings overlap each other as is indicated to advantage, for instance, in Figure 3 and also indicated in Figure 4. This hollow construction of the propelling device renders the same light and the spring 26 will retain the same out of engagement with the ice or snow until pressure is given to the pedals 14 which will cause the propeller to rotate and at the same time force it into engagement with the snow as will be evident from an inspection of Figure 1.

Having thus described my invention what I claim as new is:—

1. A sleigh of the class described comprising a steering portion having a runner at its lower end, a pair of rearwardly extending brace bars extending therefrom, a pair of standards connected with the bars, a sleigh truck carried at the end of the standards, a bar pivoted to the truck, a spring for supporting one end of the bar, a propeller rotatable on the bar, and a telescoping frame connected to the first mentioned bars and the latter bar.

2. A propeller device of the class described comprising a pair of spaced members including body portions having pointed extensions radiating therefrom, wings formed on the extensions and extending angularly therefrom so as to overlap and lie alongside of similar extensions on the opposite member.

In testimony whereof I affix my signature in presence of two witnesses.

EWALD ERNEST STURK.

Witnesses:

E. L. Proctor,

Geo. R. Dame.