

(No Model.)

J. D. THOMAS.
SLED.

No. 414,459.

Patented Nov. 5, 1889.

Fig. 1.

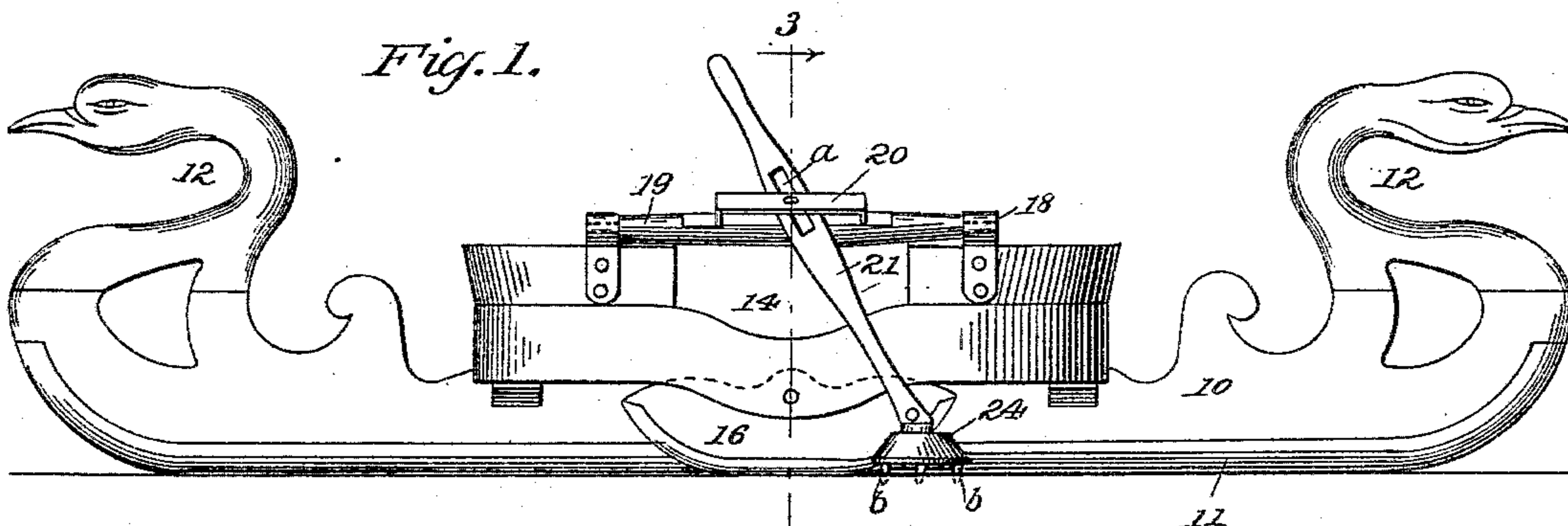


Fig. 2.

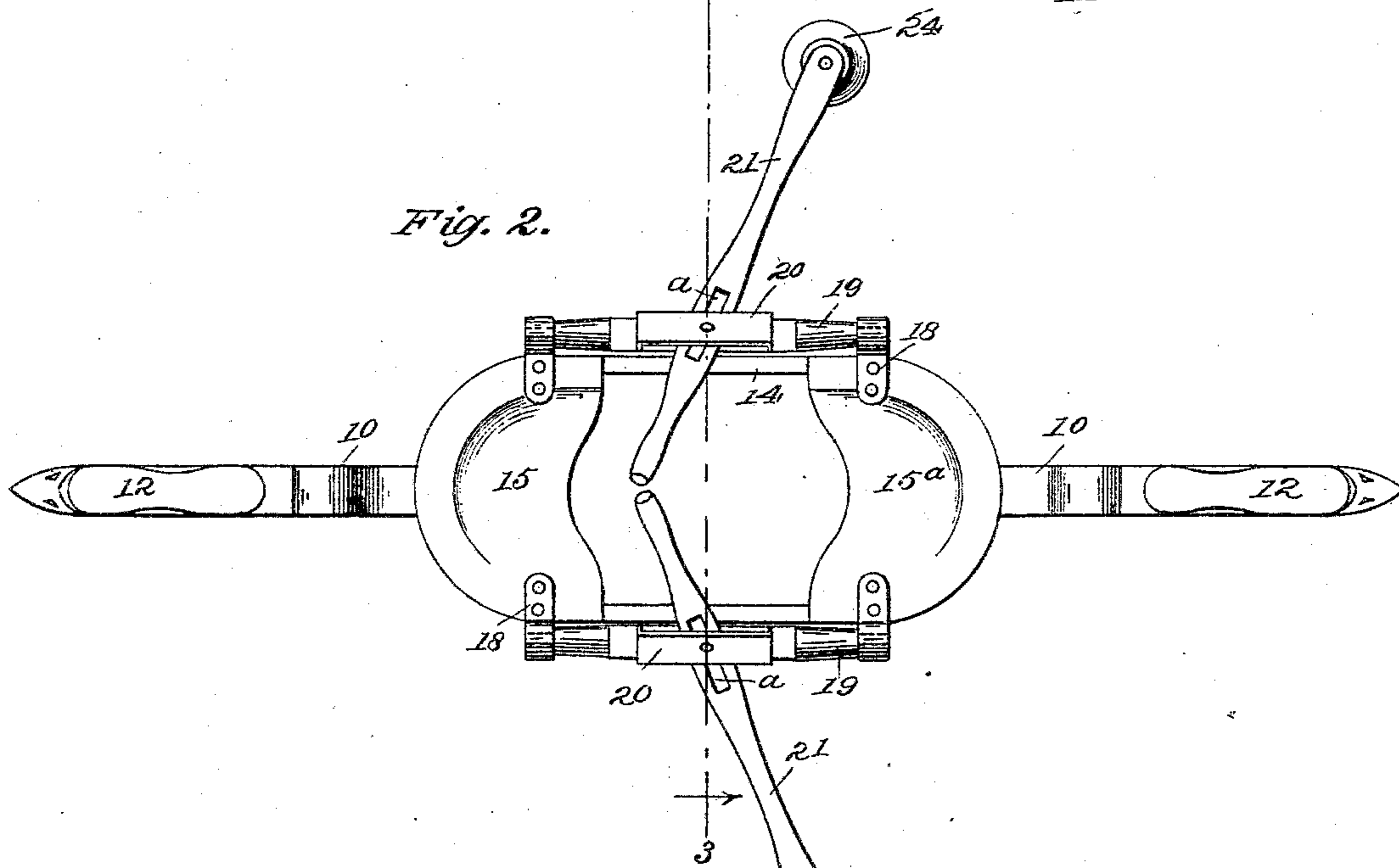
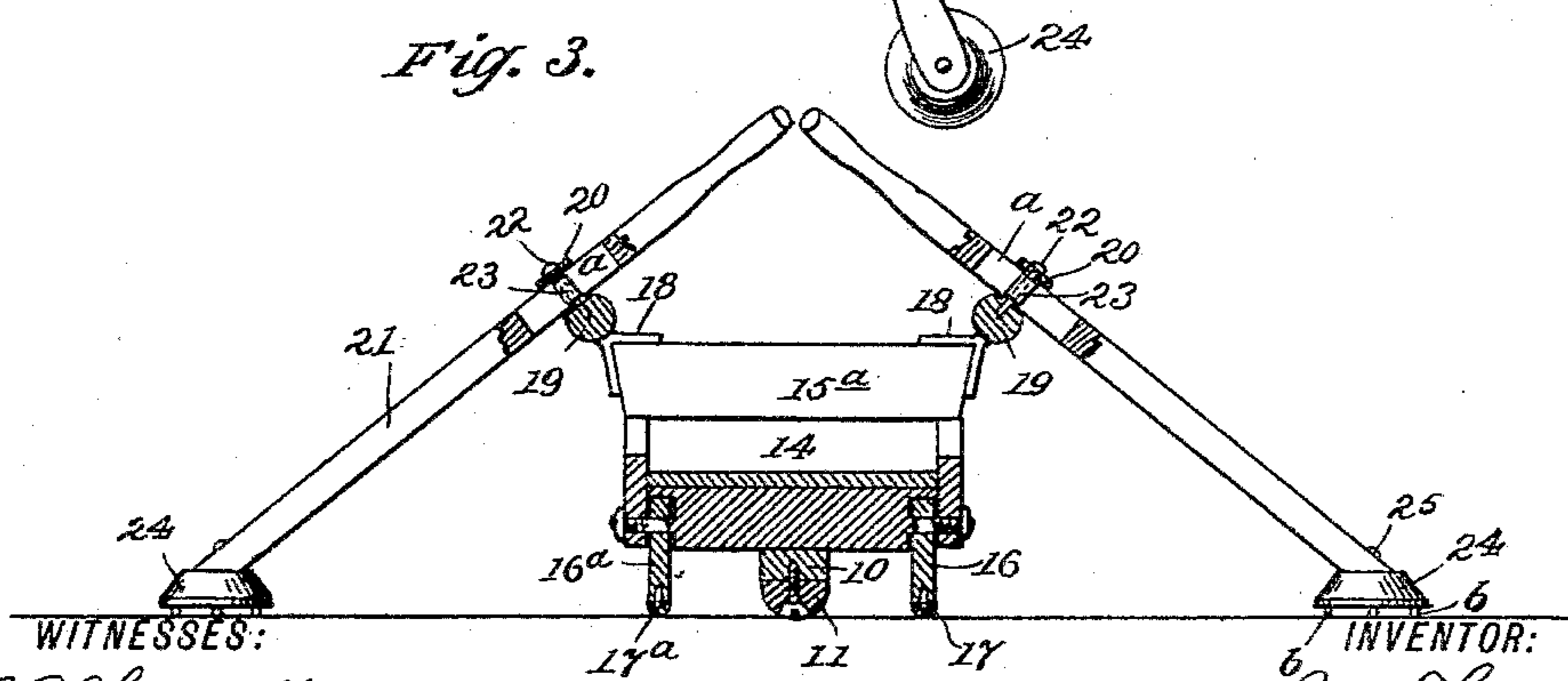


Fig. 3.



WITNESSES:

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SLED.

SPECIFICATION forming part of Letters Patent No. 414,459, dated November 5, 1889.

Application filed July 19, 1889. Serial No. 318,021. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. THOMAS, of Petoskey, in the county of Emmett and State of Michigan, have invented a new and Improved Sleigh, of which the following is a full, clear, and exact description.

This invention relates to a novel form of sleigh, the object of the invention being to provide for the propulsion of said sleigh by means of oar-like attachments; and to the end named the invention consists of certain novel constructions, arrangements, and combinations of elements, to be hereinafter fully explained, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side view of my improved sleigh. Fig. 2 is a plan view thereof, and Fig. 3 is a cross-sectional view on line 3 3 of Figs. 1 and 2.

In constructing such a sleigh as the one forming the subject-matter of this application I provide a long runner 10, which is shod with a half-round iron 11, the ends of the runner being preferably ornamented by means of swan's-heads, as shown at 12. The runner 10 supports a box-like structure 14, which is provided with seats 15 and 15^a, and to the under side of the box-like structure 14 I pivotally connect short side runners 16 and 16^a, such runners being shod with half-round irons 17 and 17^a. To each side of the seat-box 14 I connect brackets 18, and in these brackets I loosely mount side bars 19, which carry straps 20, the bars being free to rock upon the brackets 18.

Between the bars 19 and their straps 20, I pass levers 21, that are formed with slots *a*,

and through the slots I pass retaining pins or bolts 22, that carry anti-friction rolls or sleeves 23, the arrangement being such that the operator is free to impart a rowing motion to the levers. In order that the levers may secure a strong hold upon the ice or road-bed over which the sleigh is to be propelled, I provide each lever with a foot 24, and these feet are furnished with spikes or prongs *b*, the feet being supported by swivel pins or bolts 25.

In using the sleigh the operator seats himself upon one of the seats 15 or 15^a, and, grasping the levers 21, manipulates them in the same manner that oars are manipulated, the spikes or prongs *b* of the feet 24 engaging the ice and acting as fulcrums, against which the levers are drawn. To reverse the direction, the operator changes his seat.

This sleigh is designed especially for use upon ice; but it will of course be understood that it might be used upon comparatively smooth roadways when such roadways are covered with snow or ice.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A sleigh comprising a body, a runner secured to the center of the bottom of the body and projecting from the ends thereof, and runners pivoted to the sides of the body, substantially as herein shown and described.

2. In a sleigh, the combination, with the body, of brackets secured to the sides thereof, the bars 19, mounted to rock in the said brackets and provided with the straps 20, the slotted levers 21, provided with feet 24, and the bolts 22, passing through the straps 20 and the slots of the levers 21, substantially as herein shown and described.

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Witnesses:

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