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S. S. GRIFFIN

SLED

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Fig. 1

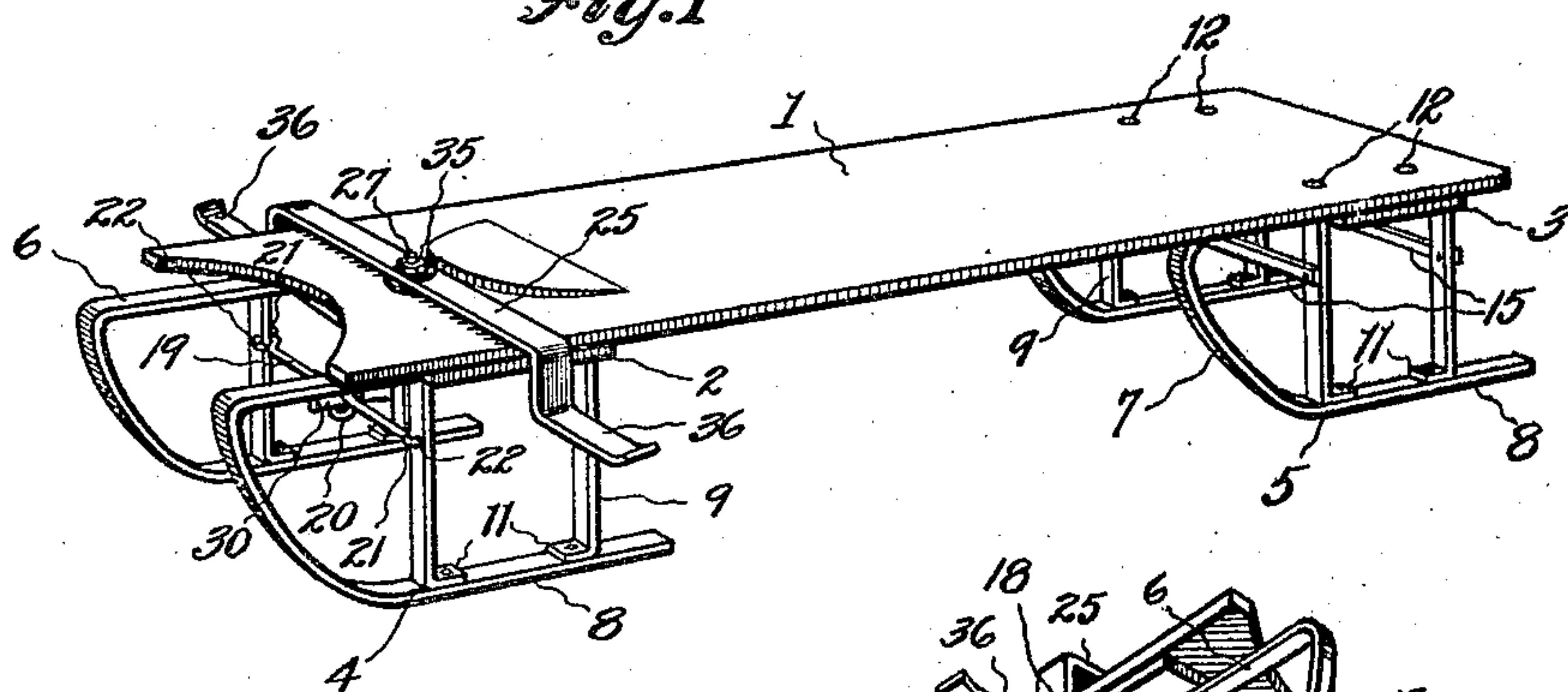


Fig. 2

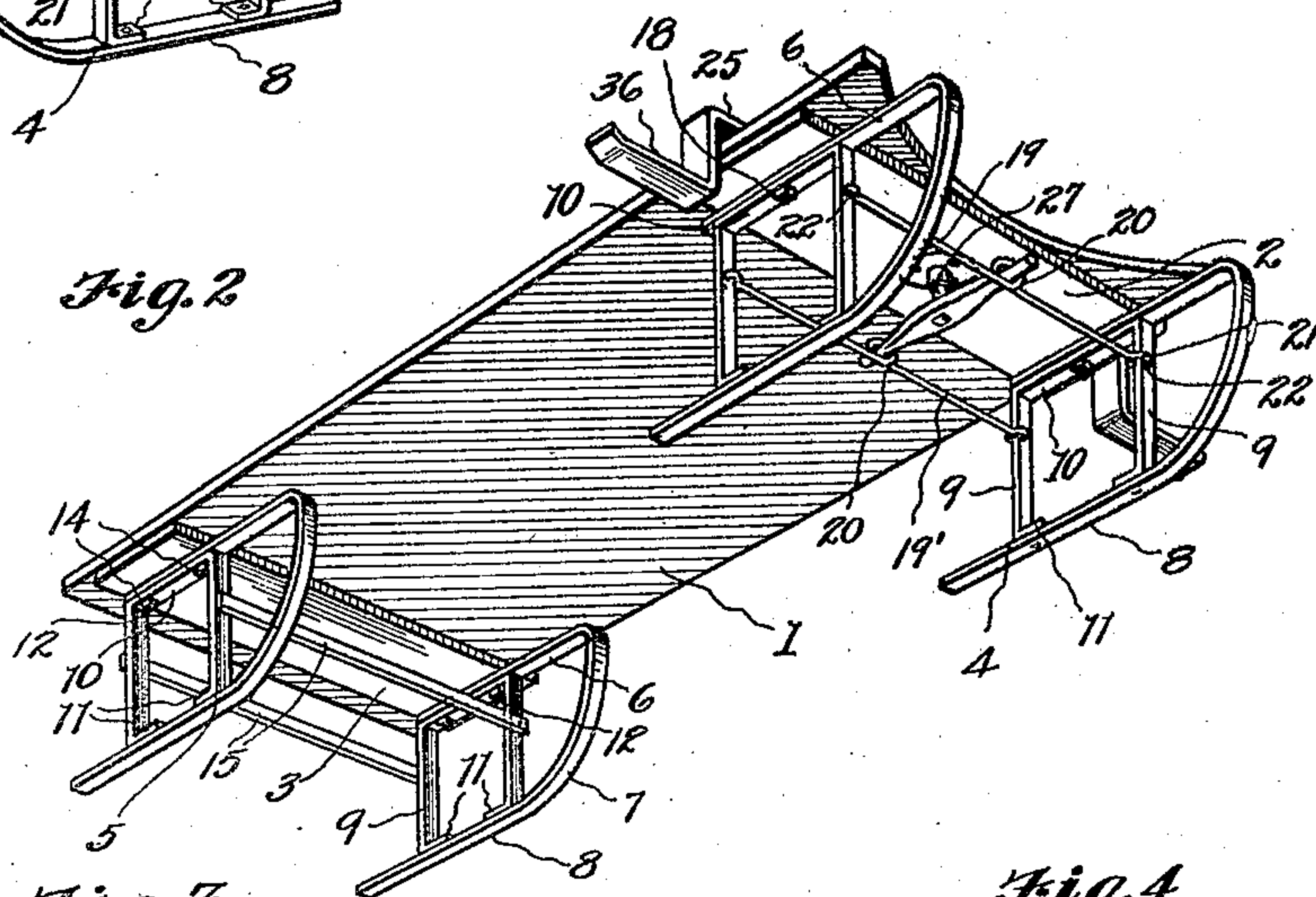


Fig. 3

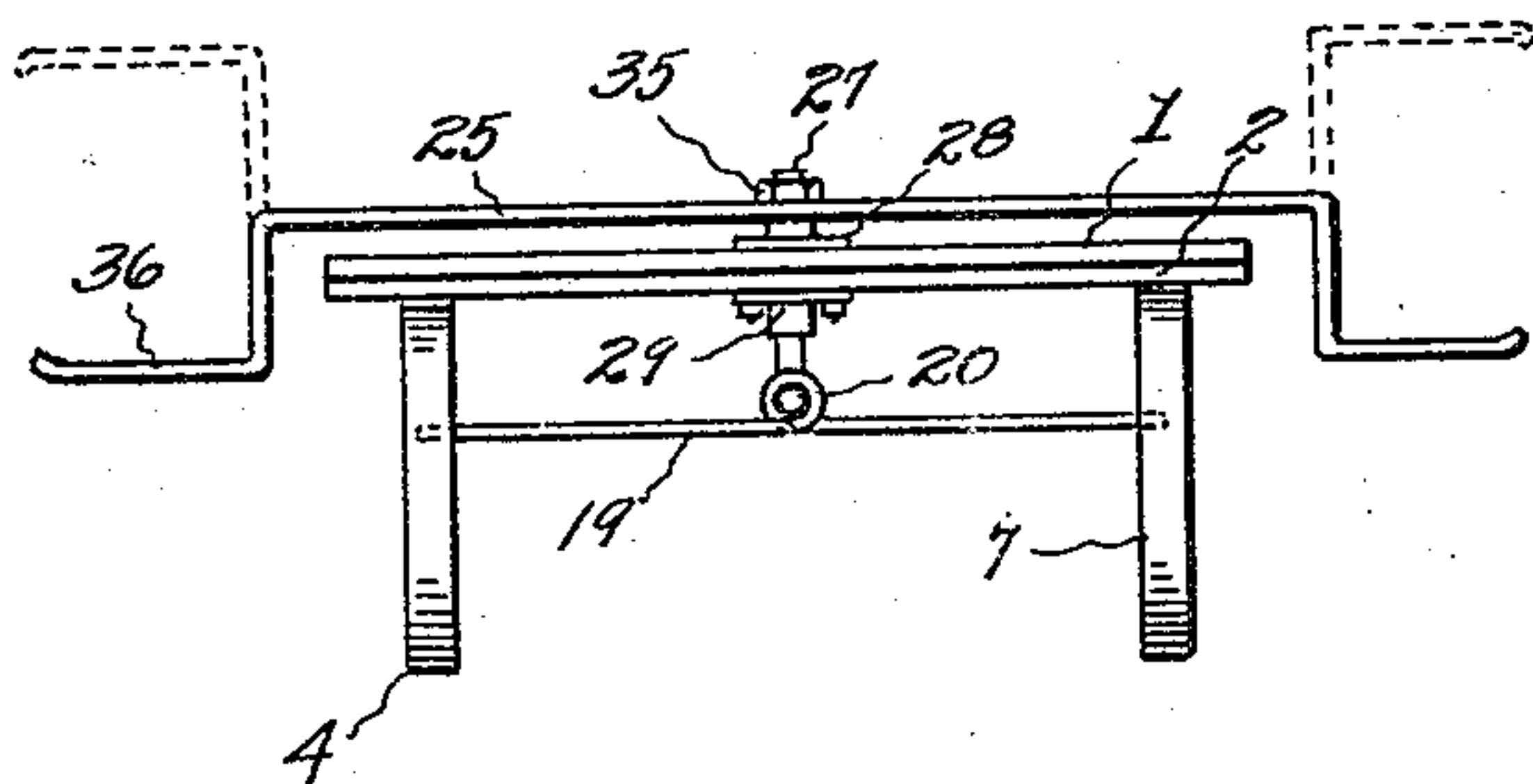
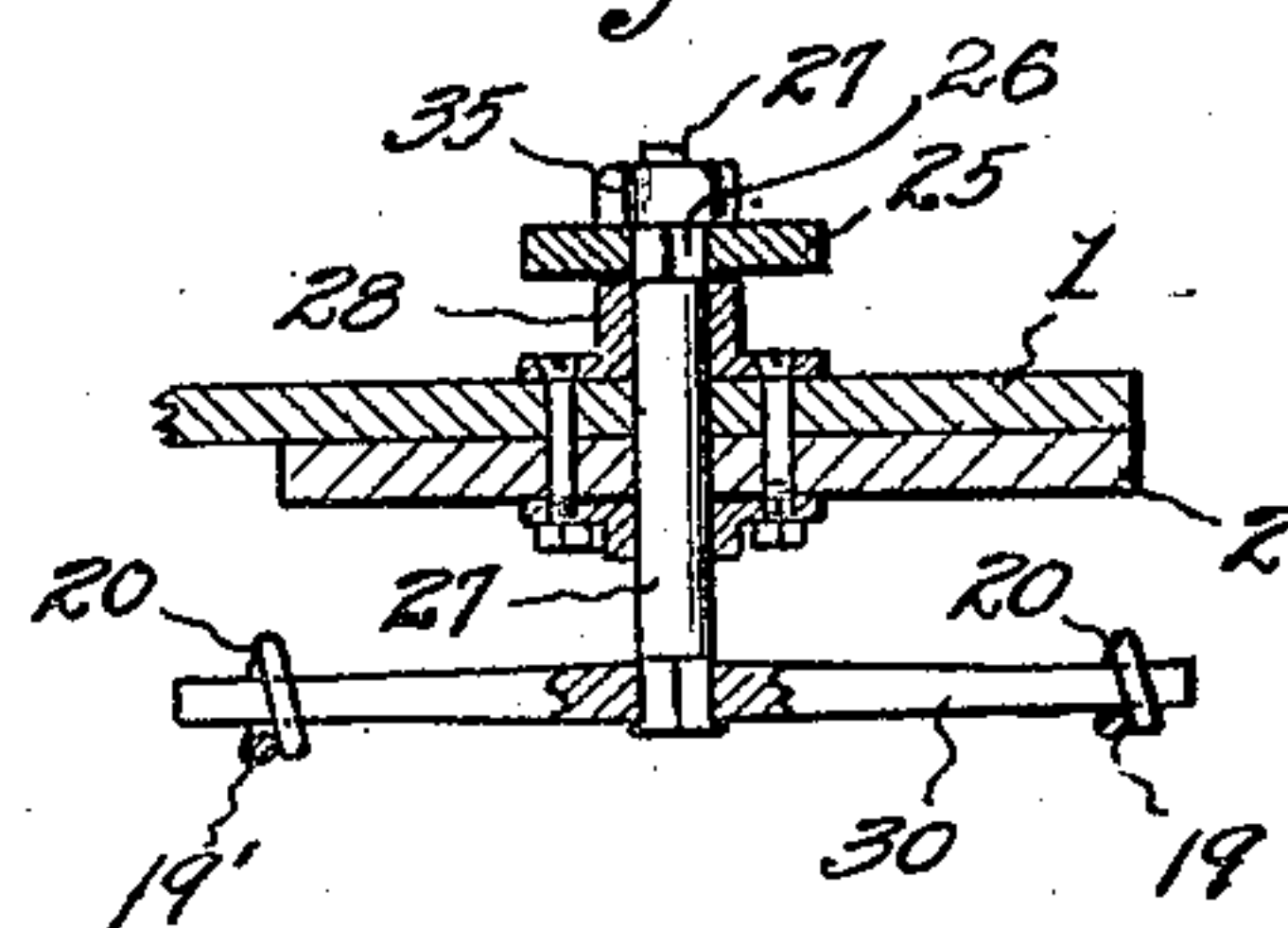


Fig. 4



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## UNITED STATES PATENT OFFICE.

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## SLED.

Application filed February 16, 1920, Serial No. 359,134. Renewed December 1, 1922.

*To all whom it may concern:*

Be it known that I, SIDNEY S. GRIFFIN, a citizen of the United States, and resident of the city of Seattle, county of King, and State of Washington, have invented certain new and useful Improvements in Sleds, of which the following is a specification.

This invention relates to improvements in sleds and more particularly to sleds of that type commonly used for coasting; the principal objects of the invention being, first, to provide a durable and substantial steerable sled, second, to provide runners comprising features of construction whereby they are rigidly braced and strengthened, and third, to provide means for controlling the front runners so that the sled may be guided by either the feet or hands of the rider.

In accomplishing these and other objects of the invention I have provided improved details of construction, the preferred forms of which are illustrated in the accompanying drawings, wherein,

Figure 1 is a perspective view of a sled constructed according to the present invention.

Figure 2 is an under side, perspective view of the same, particularly illustrating the mechanism whereby the front runners are steered.

Figure 3 is a front elevation of the sled.

Figure 4 is an enlarged, sectional detail, illustrating the character, and manner of mounting the steering pin.

Referring more in detail to the drawings: 1 designates the top of a sled, embodying the present invention, which may be of any desirable length and width, and which, near its opposite ends, has cross plates 2 and 3 secured thereto to strengthen and stiffen the same at the points where the sled runners are attached.

Secured to the forward and rearward ends of the top, in tracking alinement, are the forward and rearward runners, 4 and 5, respectively, each of which consists of a single strip of metal bent to form an upper horizontal bar 6, a downwardly curved forward portion 7, and an elongated base or runner portion, 8, which extends parallel with the bar 6. These are strengthened by brace members consisting of bars which are bent, each to form two vertical legs 9, a horizon-

tal bar 10, which connects the upper ends of the legs and which is secured to the runner bar 6. Each of the legs has an inturned foot 11 which is riveted or otherwise secured to the runner bar 8.

The runners at the rear of the sled are each secured to the top by two bolts 12 which are extended downwardly through the top 1 and plate 3 and through the upper bars 6 of the runners and bars 10 of the braces and at their ends have nuts 14 threaded thereon which are drawn tight to hold the runners perfectly rigid.

Cross bars 15 are extended between the vertical braces 9 of the rear runners to strengthen the same against lateral strain and add rigidity to the construction.

The runners of the front set are of substantially the same construction as those of the rear set, but are each secured to the top by a single bolt 18 so that they may be swung pivotally to steer the sled. These runners are held in parallel alinement by means of two cross bars 19 and 19', each of which has a loop 20 at its center which extends in a vertical plane and at its opposite ends has loops 21, which lie in a horizontal plane and extend through apertures 22 in the vertical brace members 9.

The steering mechanism consists of a transversely disposed cross bar 25, provided with a square aperture at its center whereby it is mounted upon a squared portion 26 of a pivot pin 27 which is revolvably mounted in bearings 28 and 29 secured to the upper and lower faces of the top, centrally at its forward end. A cross bar 30 is secured to the lower end of the pin 27, which has its opposite ends projecting slidably through the loops 20 of the cross rods 19 and 19'. With this construction movement of the cross bar 25 rotates the pin 27 and the latter moves the lower cross bar 30. The ends of the latter bar move in the loops 20 to shift the cross bars 19, 19', and the latter being pivotally fixed to the runners 4 move them in accordance with the movement of the bar to steer the course of the sled.

The bar 25 is locked in position by means of a nut 35, threaded onto the upper end of the pin, and at its outer ends the bar has depending foot rests 36, whereupon a rider may place his feet to steer the runners. By removing the nut 35, the steering bar may



be inverted and the foot rest used as hand holds so that the sled may be guided by hand.

It is apparent that by this construction, a  
5 substantial and rigid construction is provided, the runners are braced against lateral strain, and by movement of the cross bar 25, the front runners will be accordingly actuated to guide the sled.

10 What I claim as new is:

In a sled of the character described, a sled body, a truck comprising a pair of parallel runners, each runner comprising a top and bottom rail and two vertical, apertured  
15 brace members, means pivotally attaching the runners to the body at transverse points

thereof, a pair of transverse connecting rods having horizontal loops at their opposite ends extending through the apertures of corresponding vertical brace members and having vertical loops formed at their centers, a steering pin rotatably mounted and extended vertically through the body, a cross bar fixed at the lower end of said pin having its ends extended slidably through said  
20 central loops of the connecting rods and a steering bar fixed on the upper end of the pin and transversely overlying the sled body.

Signed at Seattle, King County, Washington, this 5th day of February, 1920.

SIDNEY S. GRIFFIN.