

No. 619,470.

Patented Feb. 14, 1899.

A. & L. H. FELKER.
SLEIGH KNEE.

(Application filed Jan. 10, 1898.)

(No Model.)

Fig. 1.

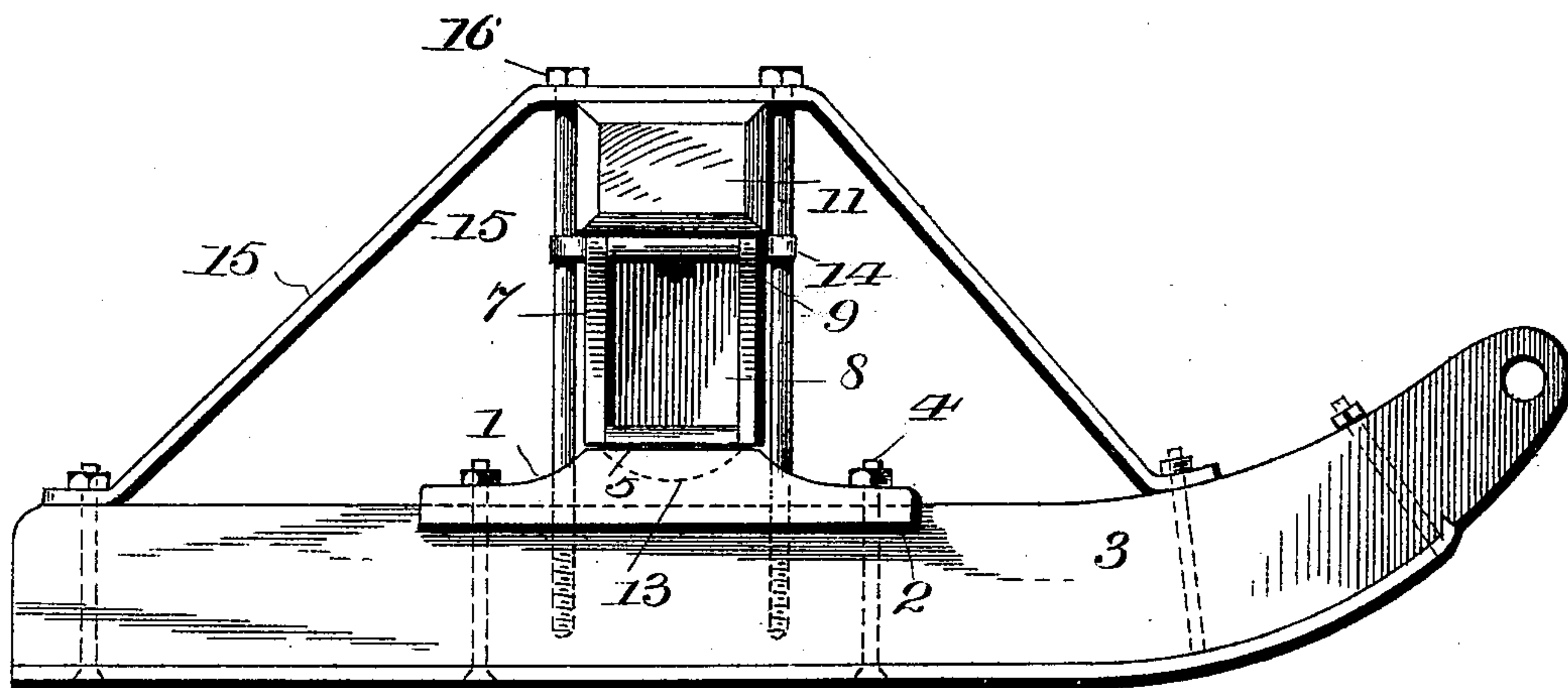


Fig. 2.

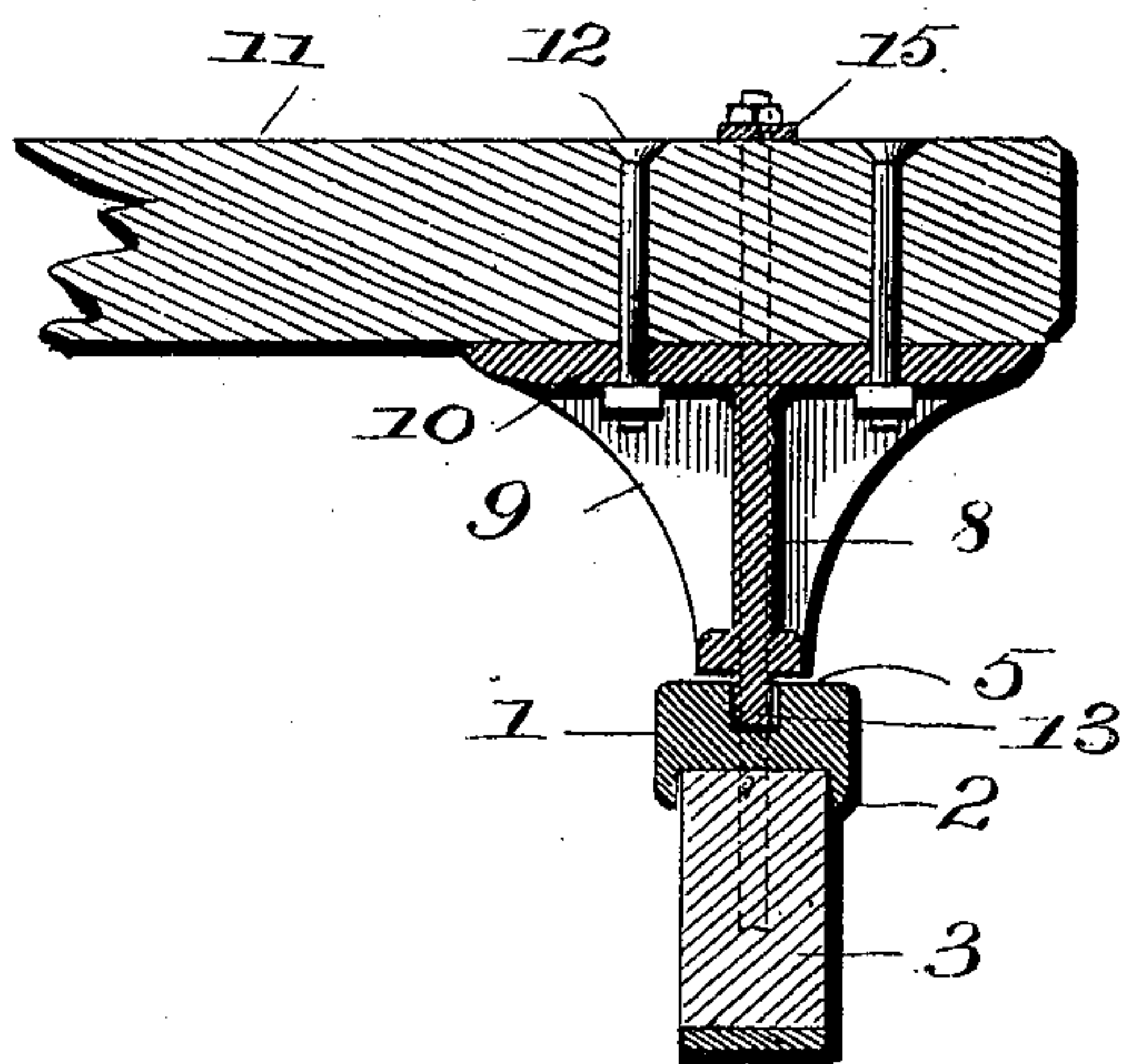


Fig. 3.

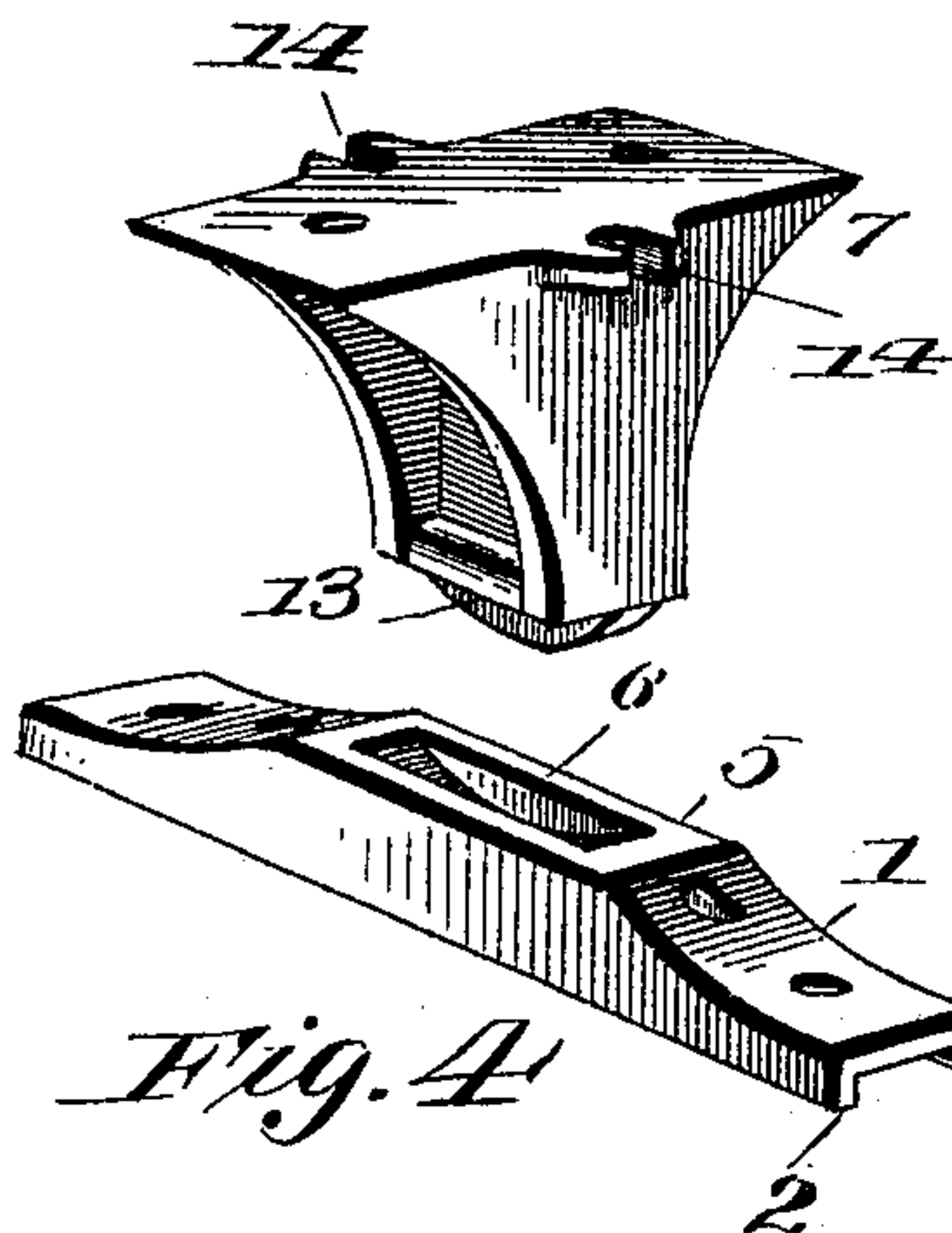


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

ANDREW FELKER AND LEWIS H. FELKER, OF KENDALL, WISCONSIN.

SLEIGH-KNEE.

SPECIFICATION forming part of Letters Patent No. 619,470, dated February 14, 1899.

Application filed January 10, 1898. Serial No. 666,217. (No model.)

To all whom it may concern:

Be it known that we, ANDREW FELKER and LEWIS H. FELKER, citizens of the United States, residing at Kendall, in the county of Monroe and State of Wisconsin, have invented certain new and useful Improvements in Bob-Sleigh Knees and Plates for Runners; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to bob-sleigh knees and plates for runners; and it consists in the novel construction and arrangement of its parts, as hereinafter described.

The object of the invention is to provide a knee adapted to support the cross-beam of the sleigh, the lower end of the knee resting upon a plate, the said plate being attached to the runner, the knee having a slight oscillatory motion upon the plate, the oscillatory motion being in alinement with the runners or with the draft of the sleigh, the knee and the plate receiving the lower end of the knee being so constructed as to prevent any lateral oscillation of the knee with respect to the runner.

In the accompanying drawings, Figure 1 is a side elevation of a bob-sleigh, showing the invention attached thereto. Fig. 2 is a transverse sectional view of the runner, the knee, and the plate. Fig. 3 is a perspective view of the knee. Fig. 4 is a perspective view of the plate.

The plate 1 is provided along its longitudinal edges with the downwardly-extending flanges 2 2. The said plate is adapted to rest on the upper surface of the runner 3, the flanges 2 2 passing down along the sides of the runner, the said flanges preventing the runner from splitting. The bolts 4 pass through suitable perforations in the plate and through the runner and secure the plate in its proper position. The plate 1 is provided on its upper side with an elevated portion 5, said portion having in its upper surface a recess 6, the bottom of the said recess 6 being curved, as indicated by dotted lines in Fig. 1 and as shown in Fig. 4.

The knee 7 consists of the perpendicular webbing 8 and the webbings 9 9, located at the edges of the web 8 and extending at right

angles thereto. The webbings 9 9 taper from their upper ends toward their lower ends, as shown in Figs. 2 and 3. The horizontal webbing 10 is attached to the upper edges of the webbings 8 and 9 9, the said horizontal webbing 10 forming a long bearing for the cross-beam 11 of the bob-sleigh, the bolts 12 passing through suitable perforations in the cross-beam 11 and through registering perforations in the webbing 10, thus making the cross-beam 11 fast with the knee 7. The lower end of the knee 7 is provided with a downward projection 13 having flat sides, the lower edge of the said projection being curved and conforming to the curved bottom of the recess 6 of the plate 1. The said projection 13 is adapted to enter the said recess and snugly fit therein, the projection coming in contact with the bottom thereof. The upper portion of the knee 7 is provided with the horizontally-slotted ears 14. The brace 15 is secured at its ends to the runner 3, the said brace extending up and passing over the cross-beam 11. The bolts 16 pass perpendicularly through perforations in the upper portion of the brace 15 and extend perpendicularly down on each side of the cross-beam 11, the slots of the ears 14 of the knee 7 receiving the said bolts. The lower ends of the bolts 16 pass through perforations in the plate 1, the extreme lower end of the said bolts extending nearly through the runner 3, as indicated by the dotted lines in Fig. 1. The body of the sleigh or load (not shown in the drawings) is supported by the cross-beam 11.

The means for drawing the sleigh is connected to the end of the runner. Thus, as any jarring or uneven play is applied to the runner, the knee 7 will have a slight oscillatory play, and the contents of the body of the sleigh will be relieved to a certain extent of such jarring or uneven play. The oscillatory play of the knee 7 is in the line of draft of the sleigh, all lateral play of the said knee being prevented by the perpendicular bolts 16, passing through the slotted ears 14, and also by the perpendicular walls of the recess 6 of the plate 1, receiving the projection 13 of the lower end of the knee 7.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A sleigh-knee, comprising a runner, and a knee supported thereon, said knee being adapted to support the body or load and having an oscillatory play in the line of draft of the sleigh, but being without lateral oscillatory play with relation to the runner, said knee comprising a perpendicular central web extending in the line of the runner, transversely-extending webs tapering from their upper ends toward their lower ends and being integral at their longitudinal central axes with the edges of the central web, and a horizontal web integrally connecting the upper edges of the upright webs and having suitable perforations for receiving bolts, whereby the knee is secured to the body of the sleigh.

2. A sleigh-knee, comprising a runner, a knee supported thereon and adapted to support the body or load, said knee comprising a perpendicular central web extending in the line of the runner, transversely-extending

webs tapering from their upper ends toward their lower ends and being integral at their longitudinal central axes with the edges of the central web, and a horizontal web integrally connecting the upper edges of the upright webs and having suitable perforations for receiving bolts, whereby the knee is secured to the body of the sleigh, said knee being provided at its lower end with a projection, a plate mounted upon the runner and provided with a recess for receiving said projection, and means for retaining the knee upon said plate.

In testimony whereof we affix our signatures in presence of two witnesses.

ANDREW FELKER.
LEWIS H. FELKER.

Witnesses:
PETER MOE,
H. W. KIEL.