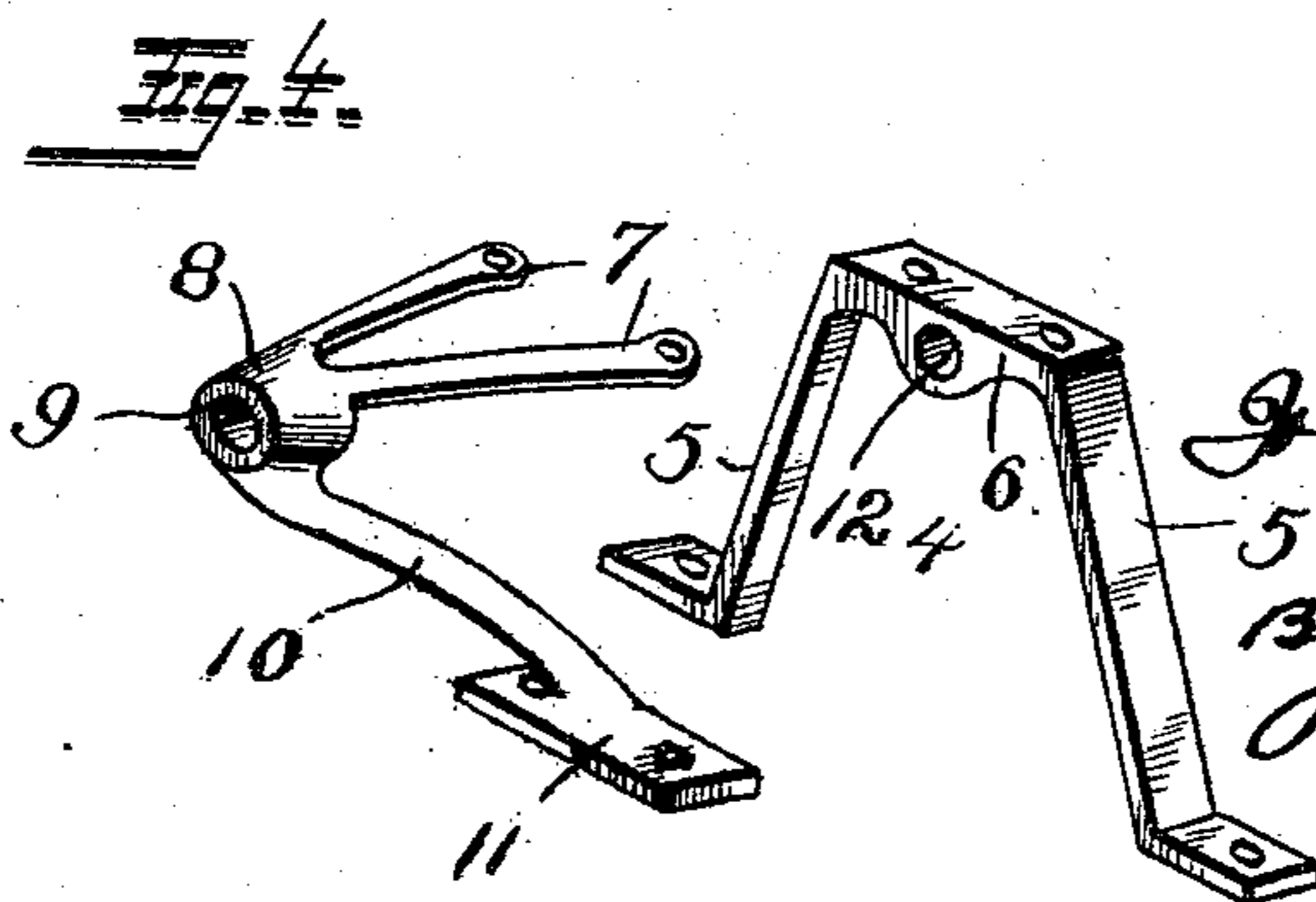
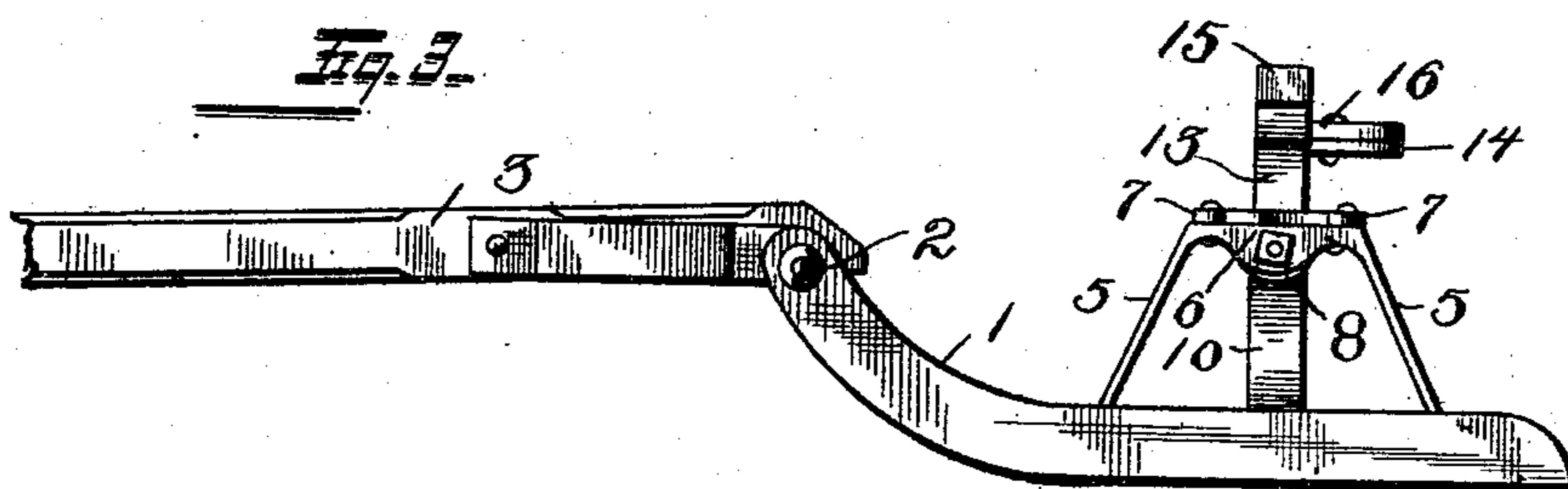
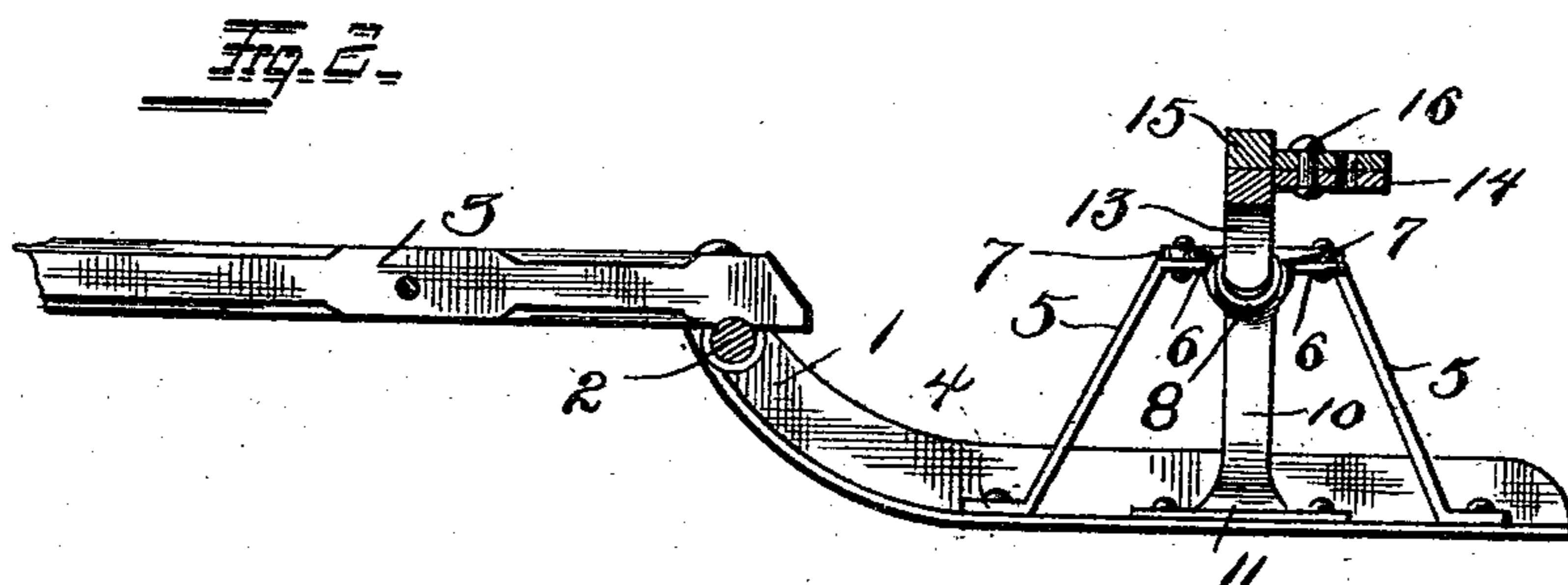
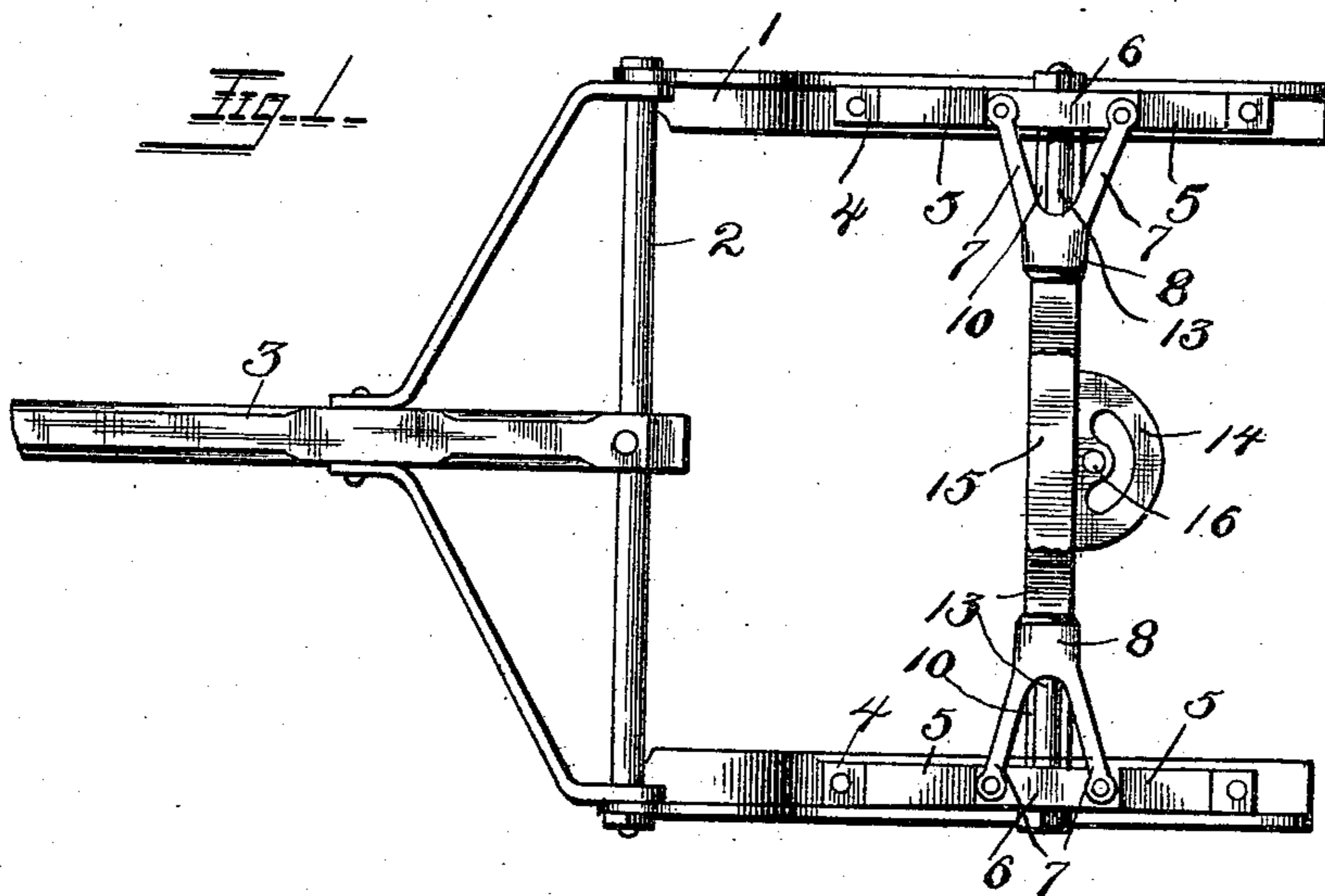


(No Model.)

J. STEPHENS.
BOB SLED.

No. 537,999.

Patented Apr. 23, 1895.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN STEPHENS, OF MENOMONEE, WISCONSIN.

BOB-SLED.

SPECIFICATION forming part of Letters Patent No. 537,999, dated April 23, 1895.

Application filed December 27, 1894. Serial No. 533,135. (No model.)

To all whom it may concern:

Be it known that I, JOHN STEPHENS, a citizen of the United States, residing at Menomonee, in the county of Dunn and State of Wisconsin, have invented certain new and useful Improvements in Bob-Sleds; and I do 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.

My invention relates to bob-sleds, and among the objects in view is to provide a bob-sled in which the runners are adapted to readily pass over any obstacle encountered, each of said runners being also independent of the other so that when one runner passes over an obstruction the other runner will be unaffected.

A further object is to provide a sled with an improved construction of knee and rave whereby great strength is obtained and whereby the runners are connected with the supporting axle for the purpose of attaining the before described object; and my invention consists in the novel construction, arrangement and combination of parts as hereinafter described, illustrated in the drawings and pointed out in the claims.

In the drawings, Figure 1 is a plan view of my improved bob-sled. Fig. 2 is a transverse sectional view taken through the center of the supporting axle. Fig. 3 is a side elevation. Fig. 4 is a perspective view of the knee and rave detached.

1 indicates the runners of the sled, the same being formed in the angle or L shape shown and pivotally connected at their forward ends with the opposite ends of a connecting rod 2. To the said rod is secured the tongue or pole 3.

4 indicates the improved knees, the same comprising the diverging arms 5 and the connecting piece 6 integral with said arms. The lower ends of the arms are bent horizontally and are bolted to the horizontal portions of the runners. To the upper face of the portions 6 of the knees are bolted the diverging arms 7 of raves 8, which are perforated as at 9, and have the integral inclined arms 10, which terminate at their lower

ends in broadened feet or bases 11 which are bolted to the horizontal portions of the runners. Each of the pieces 6 of the knees is perforated as at 12 in alignment horizontally with the perforations 9.

13 indicates the supporting axle or shaft which passes loosely through the perforations 9 and 12, thus pivotally supporting the runners from said axle. The axle is provided centrally with a plate or disk 14 to which is pivotally connected the bolster 15 by a pivot stud or bolt 16.

It will be seen that by reason of the runners being pivotally connected in an independent manner with the axle, when one of said runners meets with an obstruction, the remaining runner will not be affected, and it will also be seen that the construction and arrangement of the knees and raves gives great strength to the device.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a bob-sled, the combination with the runners of the knees having diverging arms bolted to the runners and integral connecting pieces, the raves having diverging arms bolted to the said connecting pieces and with inclined arms bolted at the lower ends to the runners, and an axle passing loosely through openings in the raves and knees, in the manner and for the purpose set forth.

2. In a bob-sled, the combination with the runners of the knees having diverging arms and the horizontal integral connecting pieces, the raves having horizontal diverging arms bolted to the upper face of said connecting pieces, and also having integral inclined arms bolted to the runners, an axle passing loosely through openings in the raves and the horizontal portions of the knees and a connecting rod to which the front ends of the runners are pivotally connected.

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

JOHN STEPHENS.

Witnesses:

ALEXIS P. DAVIS,
J. P. KRAFT.