

R. I. COWDEN.
BOB SLED.
APPLICATION FILED AUG. 3, 1908.

930,459.

Patented Aug. 10, 1909.

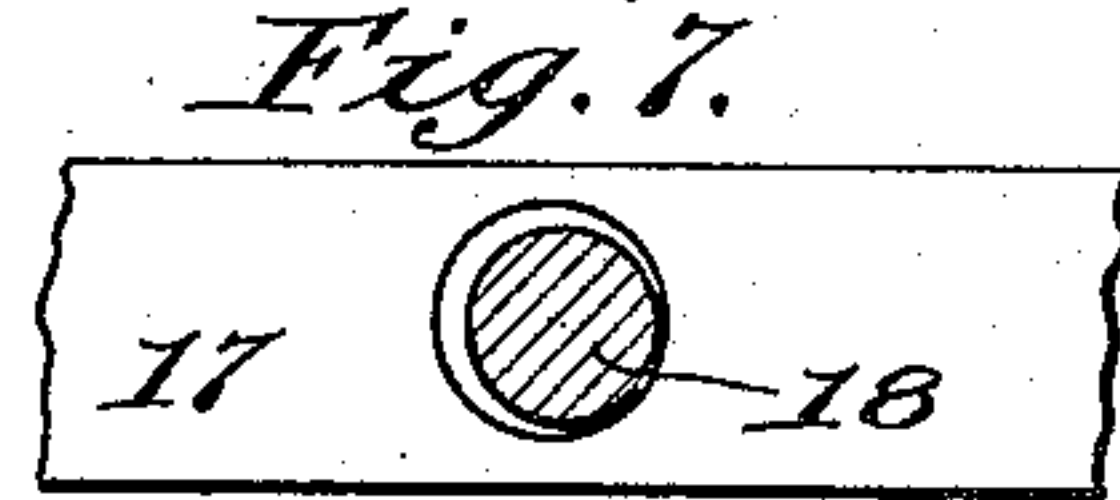
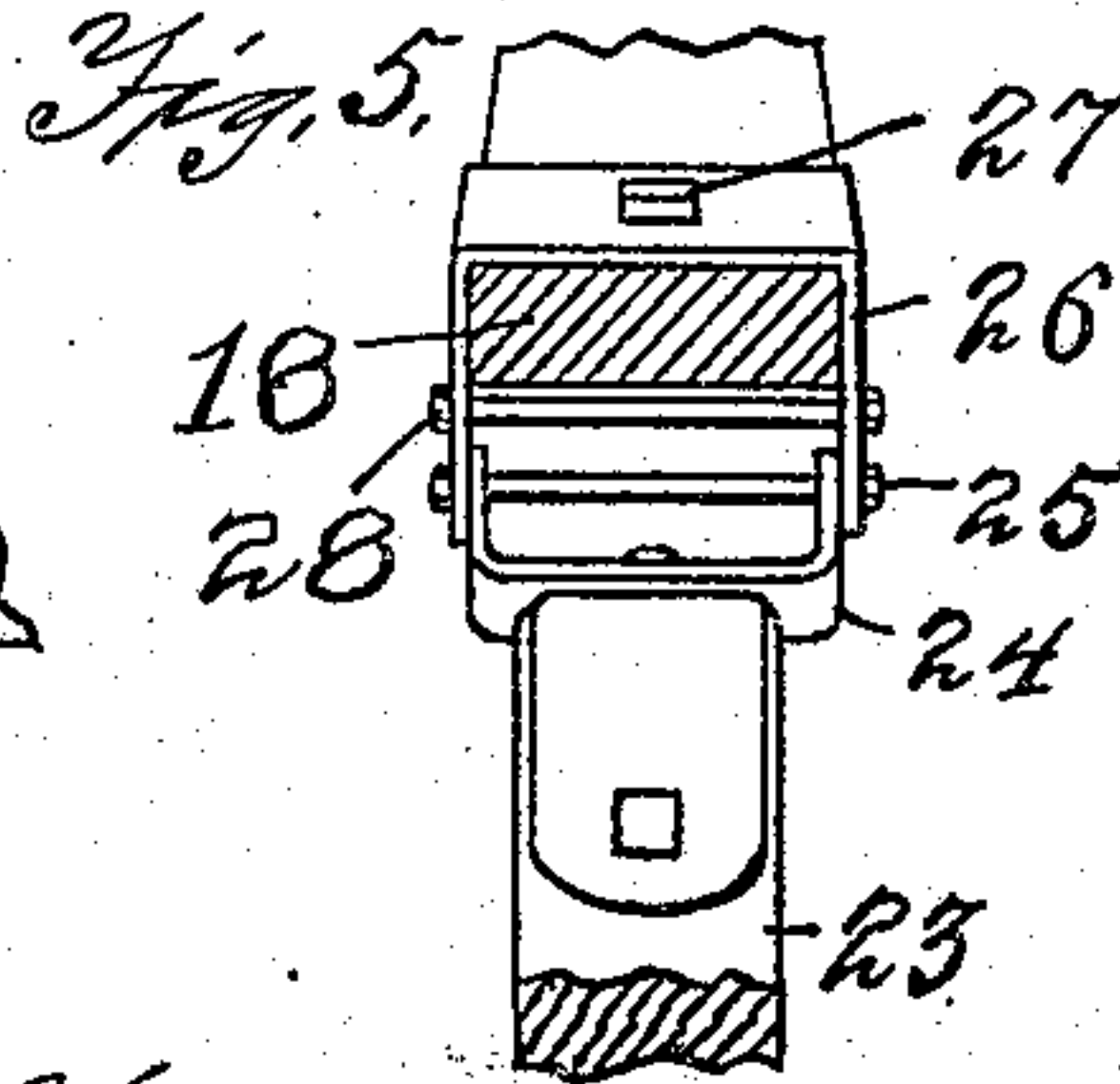
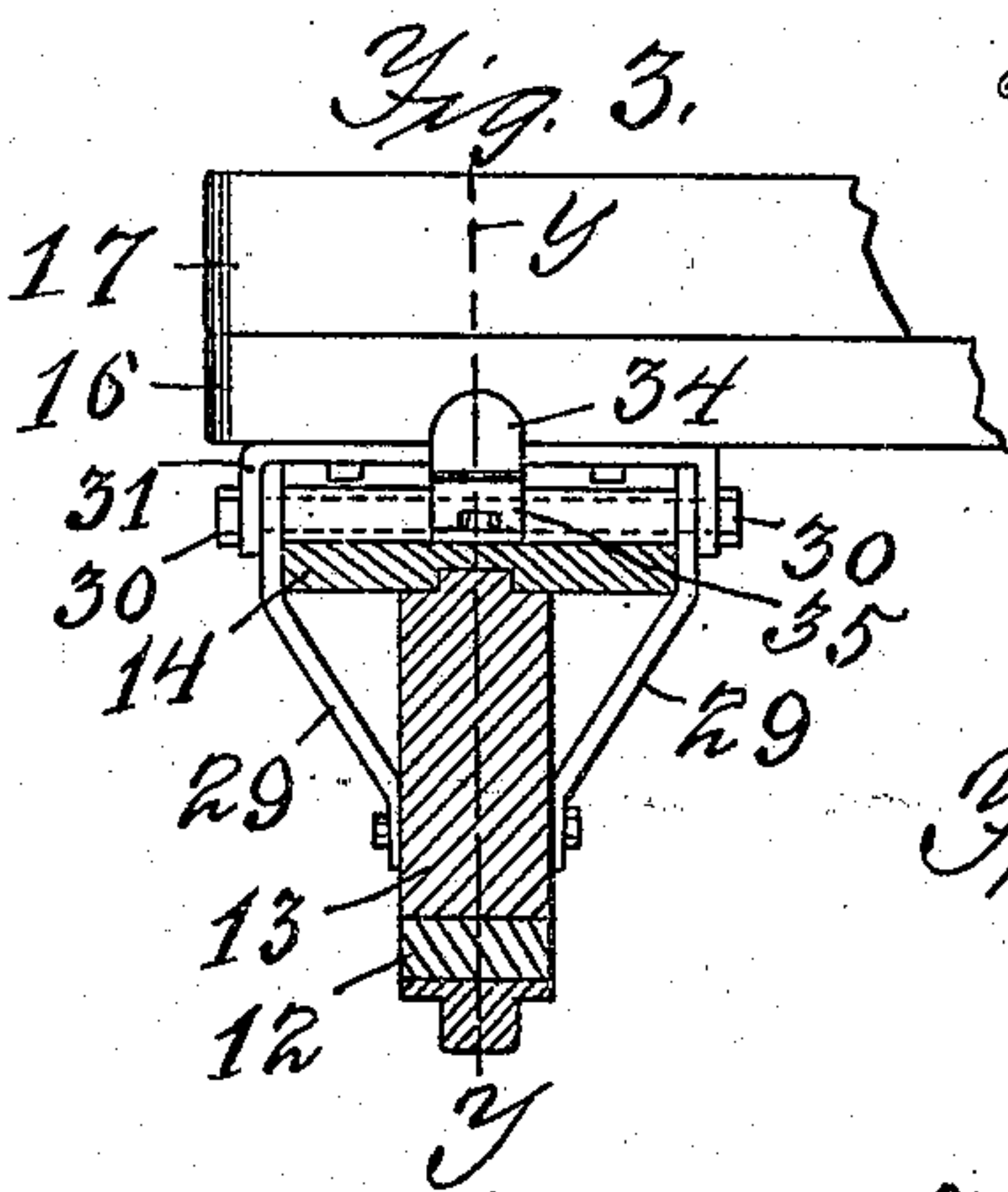
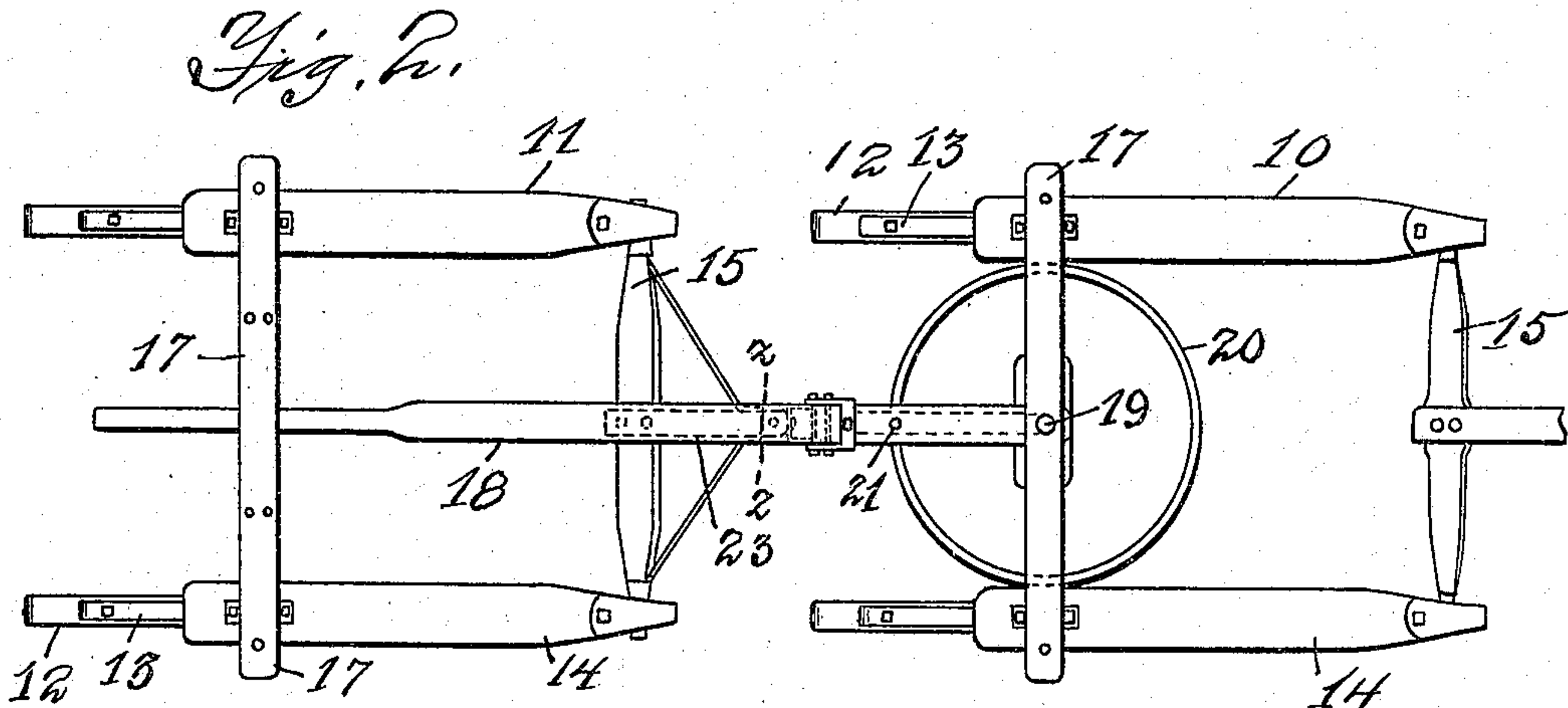
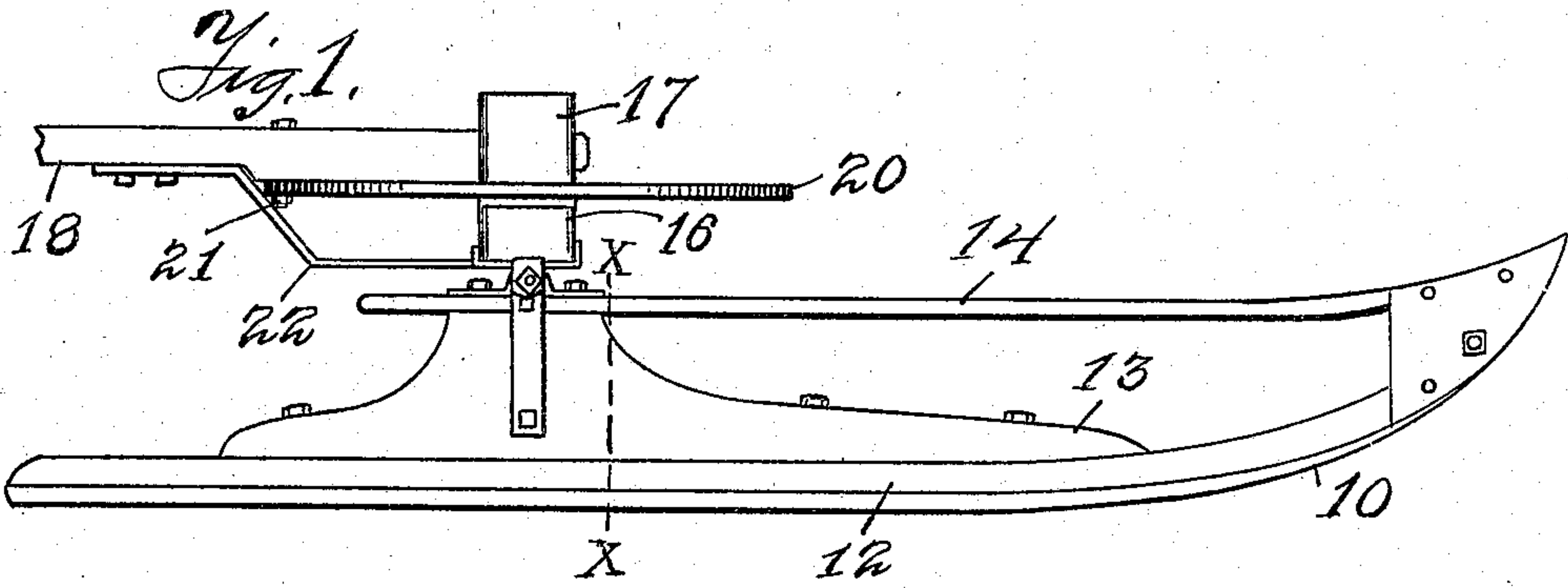


Fig. 6.

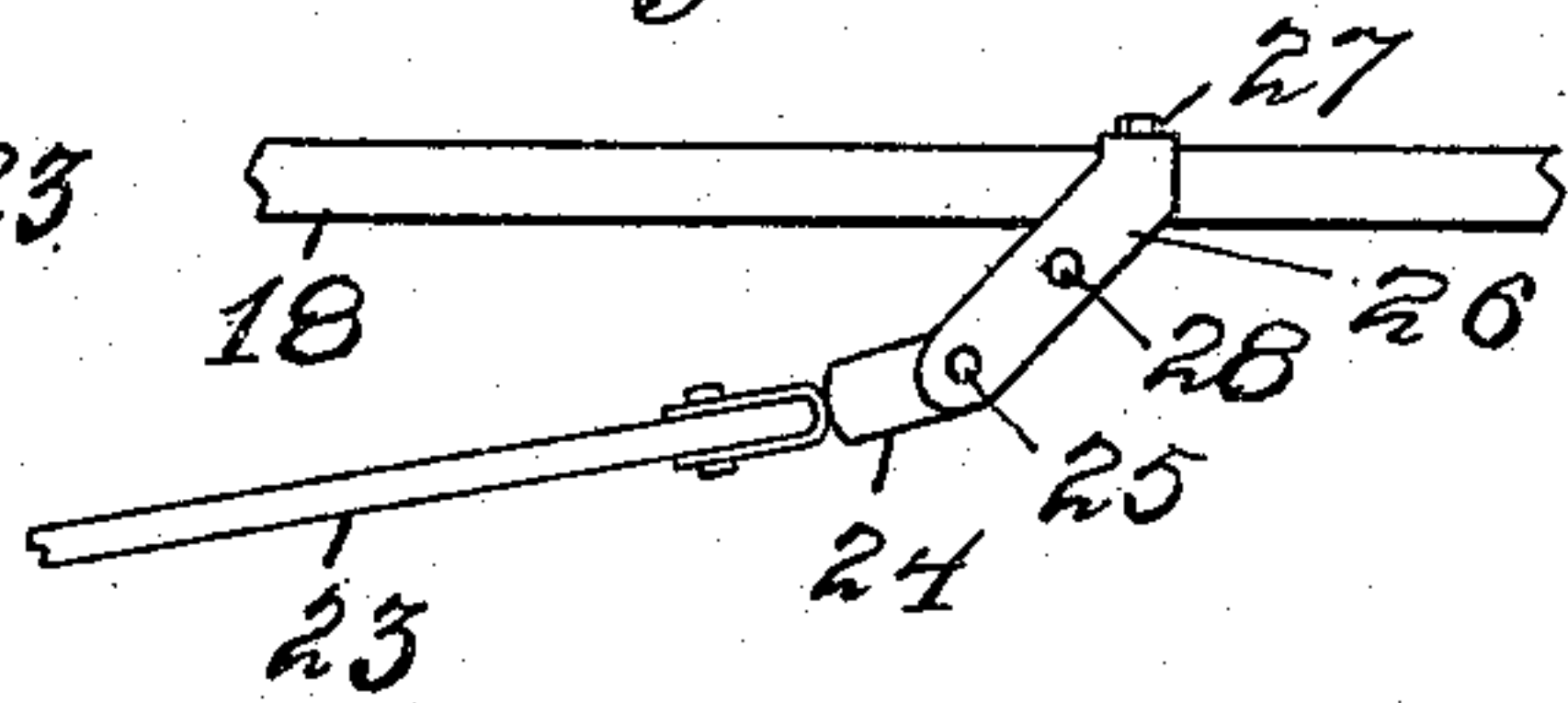
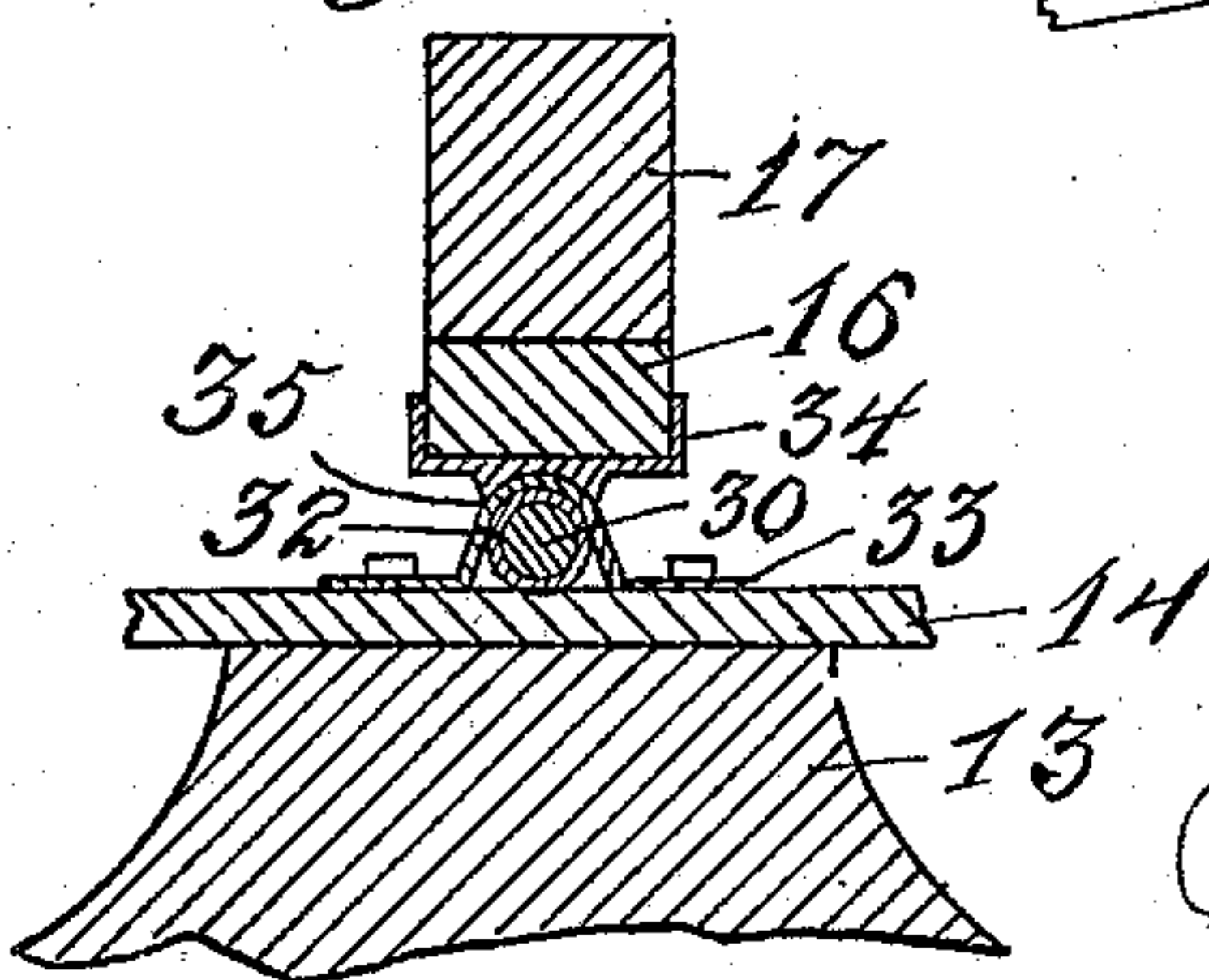


Fig. 4.



Witnesses
J. A. Ellsworth
M. Harris

Inventor
Robert I. Cowden
By
J. Arthur Baldwin
Attorney

UNITED STATES PATENT OFFICE.

ROBERT I. COWDEN, OF FALCONER, NEW YORK.

BOB-SLED.

No. 930,459.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed August 3, 1908. Serial No. 446,533.

To all whom it may concern:

Be it known that I, ROBERT I. COWDEN, a citizen of the United States, residing at Falconer, county of Chautauqua, and State of New York, have invented new and useful Improvements in Bob-Sleds, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The invention relates to the construction of sleighs and more particularly to the form known as bob-sleds; and the object of my improvement is to provide a strong and durable form of hinge or oscillative attachment for the bolster to the rave of the sled so that the sled may oscillate with perfect freedom and independent of the accompanying bob in passing over obstructions; also to provide a coupling for the sleds by means of which either of the sleds may be raised sidewise without seriously disturbing the other sled; the improvements consisting in the peculiar construction and combination of devices as fully set forth in this description and the accompanying drawings and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of the forward bob showing my method of attachment of the bolster to the bob. Fig. 2 is a plan view of the bob-sleds showing my method of connecting the bobs. Fig. 3 is a sectional view at line X X in Fig. 1. Fig. 4 is a sectional view at line Y Y in Fig. 3, the lower portion of the sled runner being broken away. Fig. 5 is a sectional view at line Z Z in Fig. 2 showing the coupling of the rear bob to the reach; and Fig. 6 is a side elevation of said coupling. Fig. 7 is a detail of a portion of the rear bolster.

Similar numerals refer to corresponding parts in the several views.

The numeral 10 indicates the forward bob, and the numeral 11 the rear bob. The bobs are preferably constructed with a runner 12 having a bench 13 thereon to support the rave 14. The front ends of the runners are connected by a pivotally mounted cross bar 15 in the manner common to such sleds.

The bolsters are preferably composed of the under bolster 16 and the top bolster 17, the top bolsters of the two bobs being connected by a reach 18 which is mounted in the forward top bolster by means of a king bolt 19. The rear end of the reach is rounded and inserted through a suitable round opening in the rear top bolster, so that either of

the bobs may be raised sidewise without affecting the other bob. The forward end of reach 18 is also attached to forward top bolster 17 by means of a fifth wheel 20 which is bolted to the reach at 21, and the brace 22 which is attached at its rear end to the under side of reach 18 and at the forward end receives the lower end of king bolt 19, in the manner common to wagon construction.

The rear bob 11 is attached to reach 18 by means of a short tongue 23. The forward end of the tongue 23 is pivotally attached, by means of a suitable bolt, to the clevis 24, and the forward ends of the clevis are oscillatively attached at 25 to the lower ends of a strap piece 26 which embraces reach 18 and is bolted thereto at 27. Strap piece 26 preferably has the bolt 28 extending there-through just beneath reach 18. A suitable bolt is supplied to form the connection 25 for these two clevises or strap pieces. It is now apparent that tongue 23 can pivotally turn in either direction without disturbing the attachment of the rear bob to reach 18. It can also oscillatively move up or down without disturbing said connection to the reach. Thus it is apparent that either of the bobs can be raised sidewise in passing over obstructions or turned into almost any position without seriously discommoding the other bob.

I am aware that the bobs have been hinged to the bolsters by various means heretofore, but the means so used have been so constructed that the parts had to be obtained from the factory and a blacksmith could not renew the same. Accordingly my hinge is so constructed as to greatly strengthen the same and at the same time allow of its reproduction by any good worker in metal. It consists of the inner and outer side straps 29 which extend down onto the bench and above the rave 14 a sufficient distance to receive through the upper ends the bolt 30. An oppositely placed bracket or strap piece 31 having downwardly extending lugs spaced the exact distance apart to close preferably outside of the upper ends of straps or braces 29; said lugs having holes therethrough to receive bolt 30 and the strap 31 is bolted to the under side of lower bolster 16. A piece of metal tubing 32 of the exact length between the upper ends of straps 29 is placed between the upper ends of straps 29 to brace the same and receive therethrough the bolt 30.

In order to support the extremely heavy

loads carried on bob-sleds a central strap 33 is provided which passes over tube 32 midway of its length and is bolted to the upper side of rave 14. A strap piece 34 having upwardly extending lugs spaced to embrace the lower side of under bolster 16 is provided on its lower side at 35 with a curved bearing to receive the rounded portion of strap 33 as it passes over pipe 32 and bolt 30.

It is apparent that the parts of this hinge can be easily stamped out and readily assembled and they are so simple that any common blacksmith should be able to renew any one of them, thereby oftentimes preventing the disabling of the bob-sled for a good share of the season.

I claim as new:

1. In a bob-sled, the combination of a bolster, a runner having a suitable bench and rave, strap pieces extending up each side above said rave, lugs on the under side of said bolster extending down and inclosing said strap pieces, a bolt through said strap pieces and lugs to unite the same, a tube around said bolt and fitting between said strap ends to hold the same, and bearing plates midway of the length of said tube between said tube and bolster.

2. In a bob-sled, the combination of a bolster 16, a runner 10 having a bench 13 and rave 14, strap braces 29 each side of said rave and above the same, a strap piece 31 on

the under side of said bolster having downwardly extending lugs each side of said braces, a bolt 30 through said lugs and braces to hinge the same, a tube 32 around said bolt to hold said lugs and braces apart, a bearing plate 34 on said bolster, and a bearing plate 35 over said tube fitting said bolster bearing plate, substantially as and for the purpose specified.

3. A bob sled comprising the front bob 10 and rear bob 11, lower bolsters 16 and upper bolsters 17 on each of said bobs, a reach 18 extending through the front upper bolster having a strap 22 attached to its under side and extending beneath the front lower bolster, a king-pin 19 extending through said upper and lower front bolster and the end of said reach and strap, a fifth wheel 20 attached to the under side of said reach and extending forward between said bolsters to bear on the same, said reach having a rounded rear end extending through a round hole in the rear top bolster, tongue 23 on the rear bob having a swivel and clevis attachment to said reach.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT I. COWDEN.

Witnesses:

A. L. FURLOW,
I. A. ELLSWORTH.