

J. H. ANDERSON.
BOB SLED RUNNER.
APPLICATION FILED MAR. 15, 1906.

997,226.

Patented July 4, 1911.

2 SHEETS—SHEET 1.

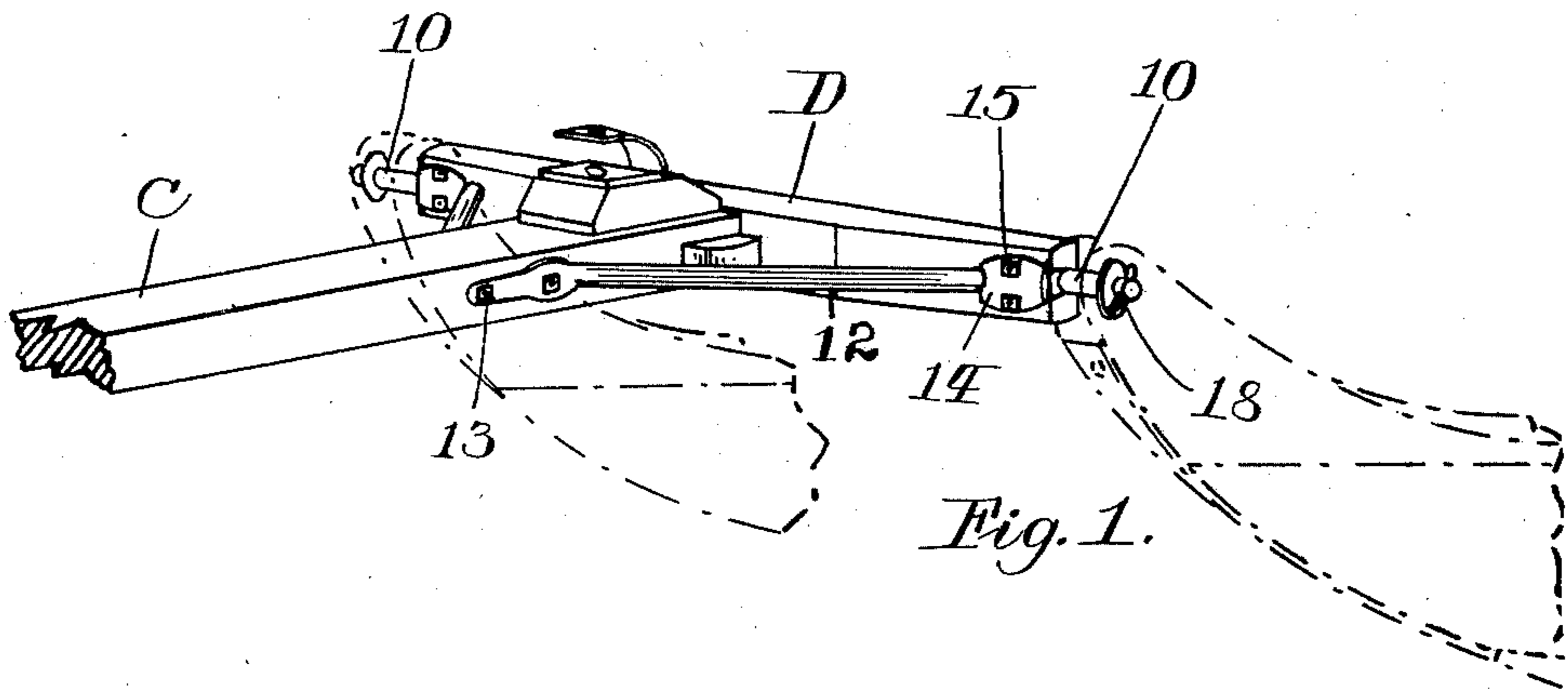


Fig. 1.

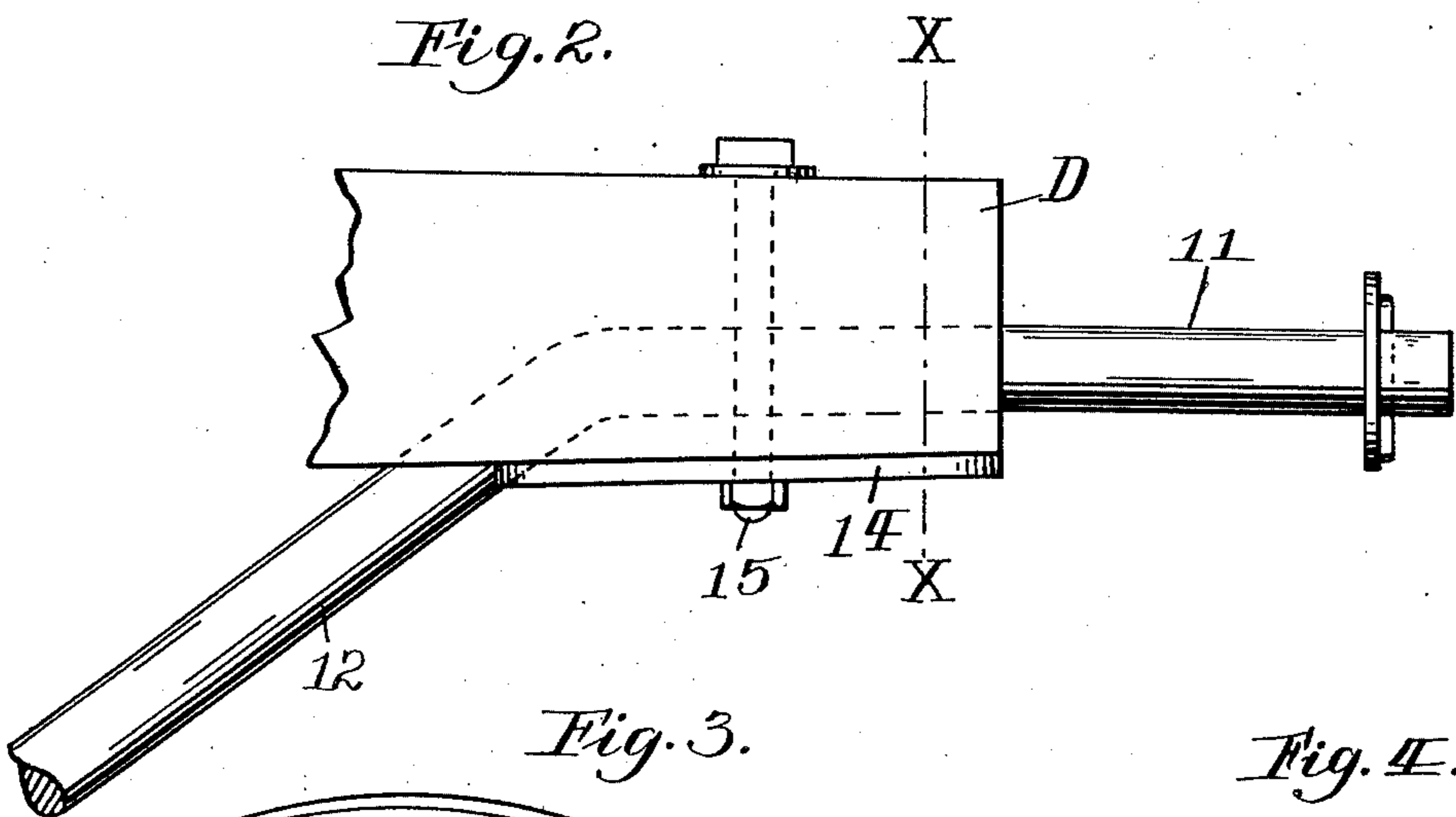


Fig. 2.

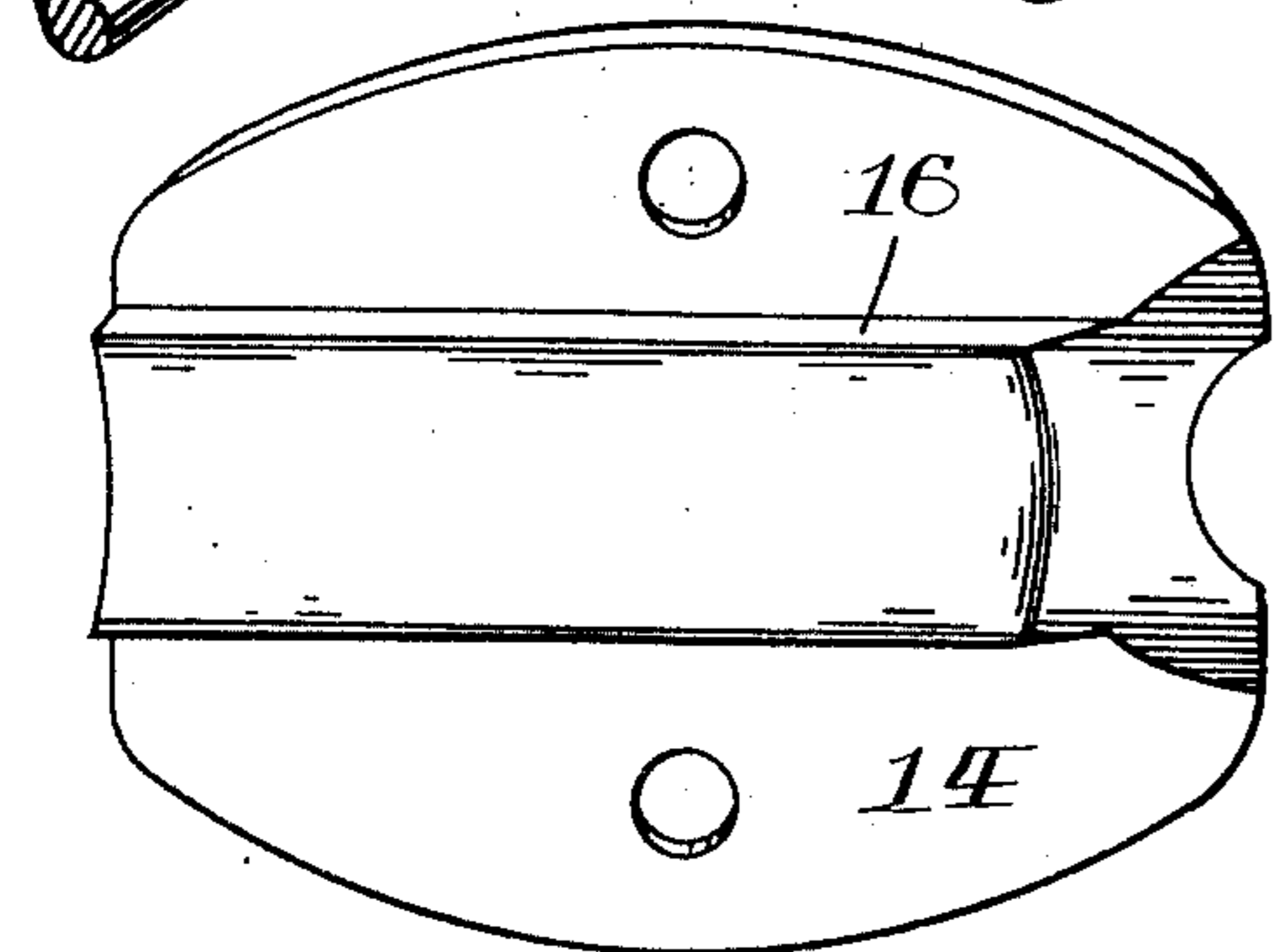


Fig. 3.

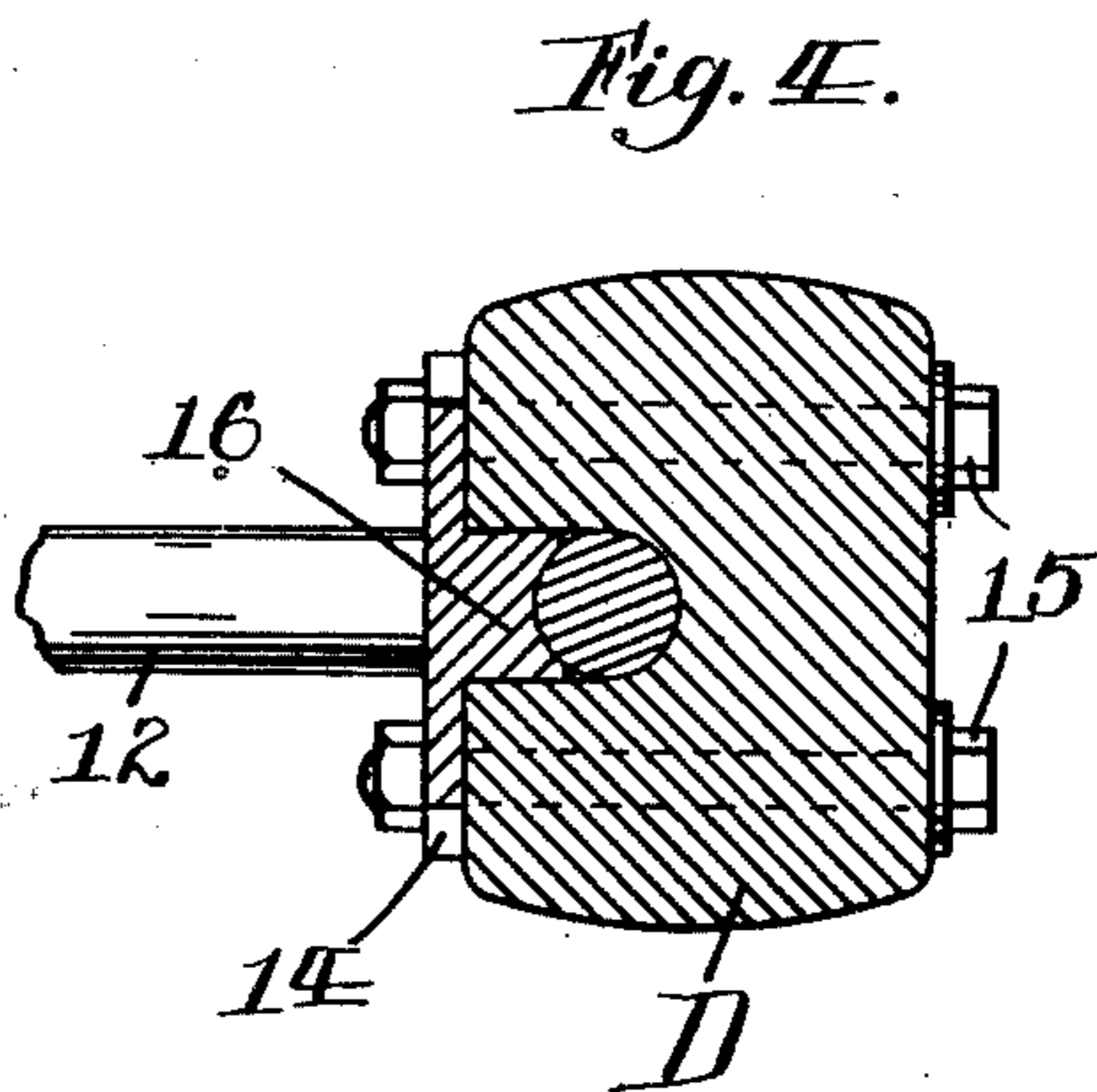


Fig. 4.

Witnesses:

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Inventor:

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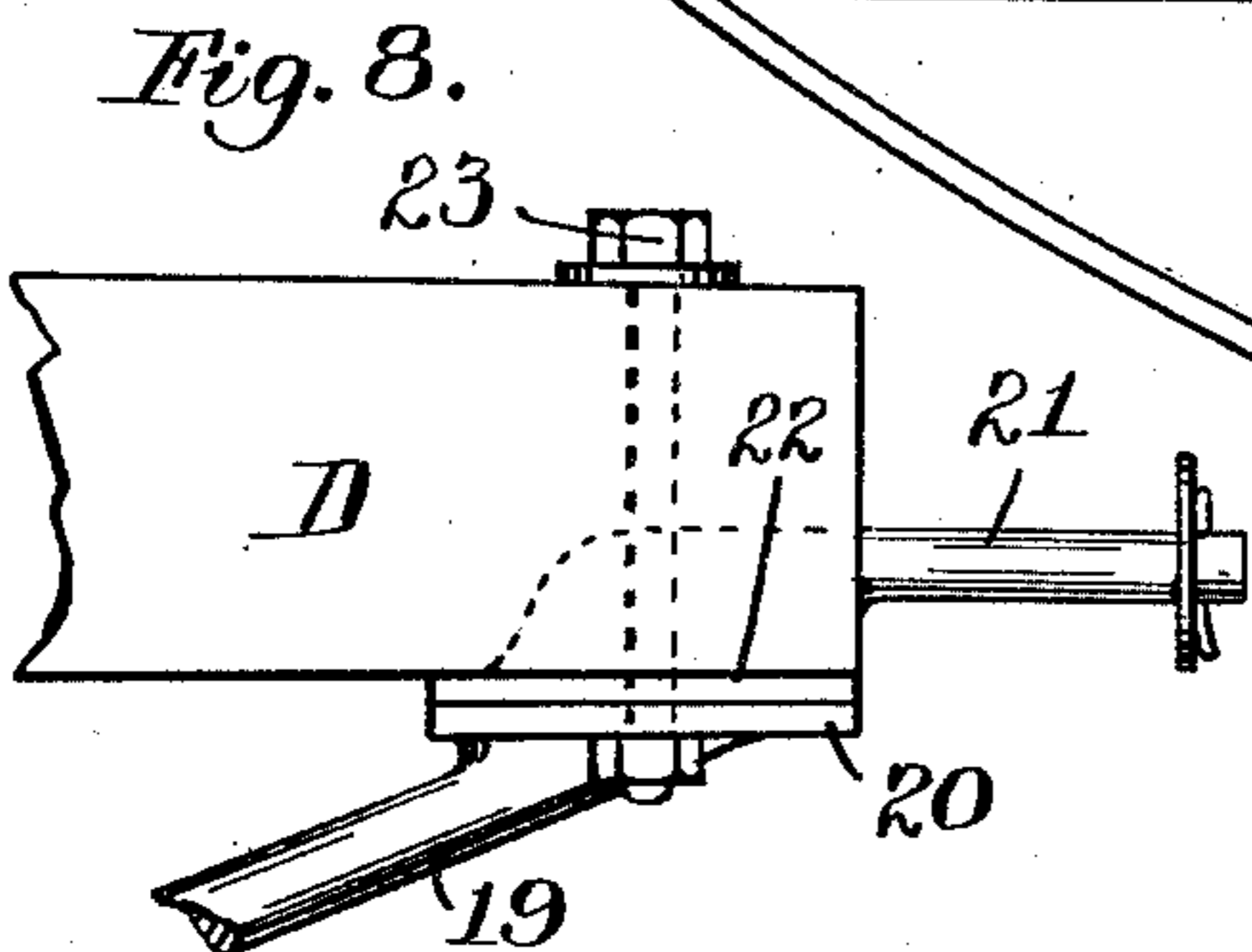
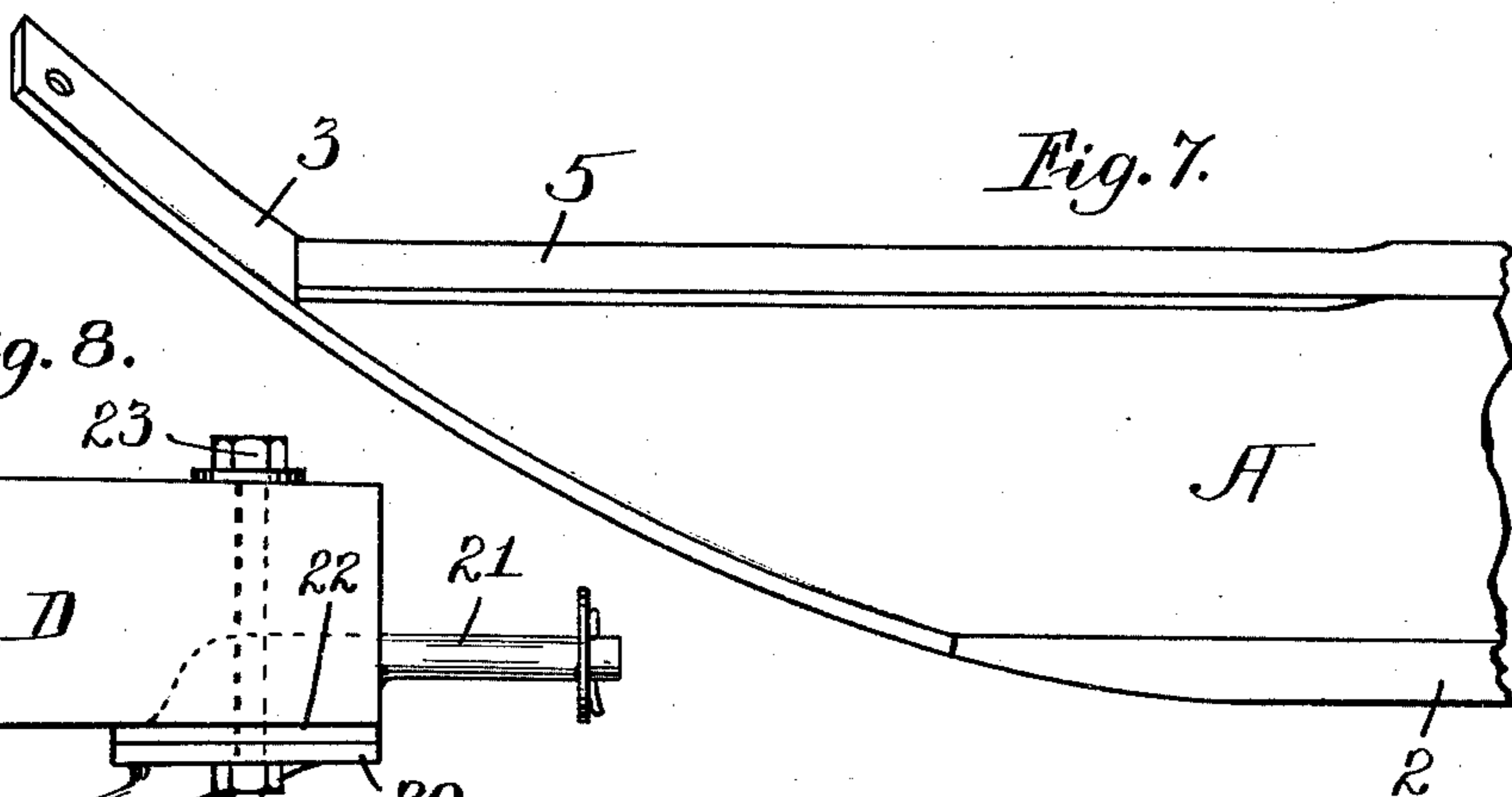
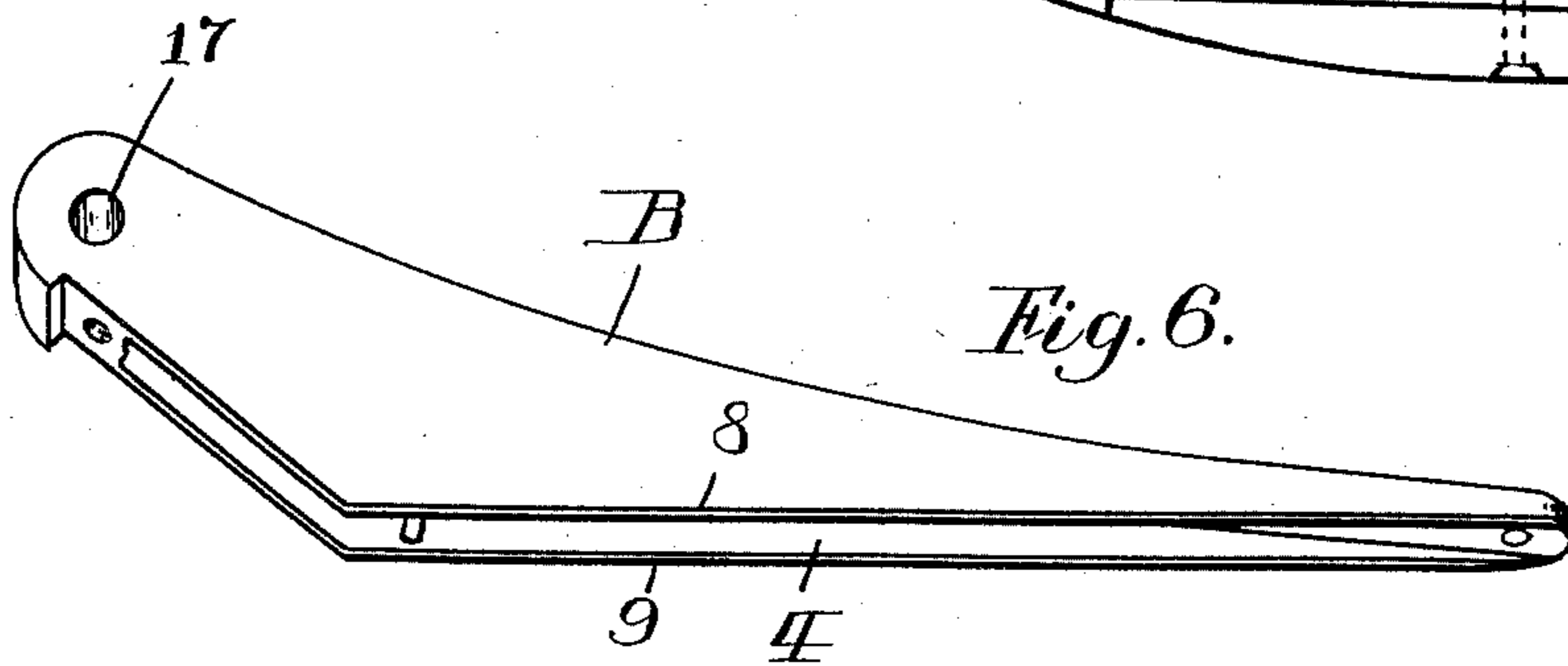
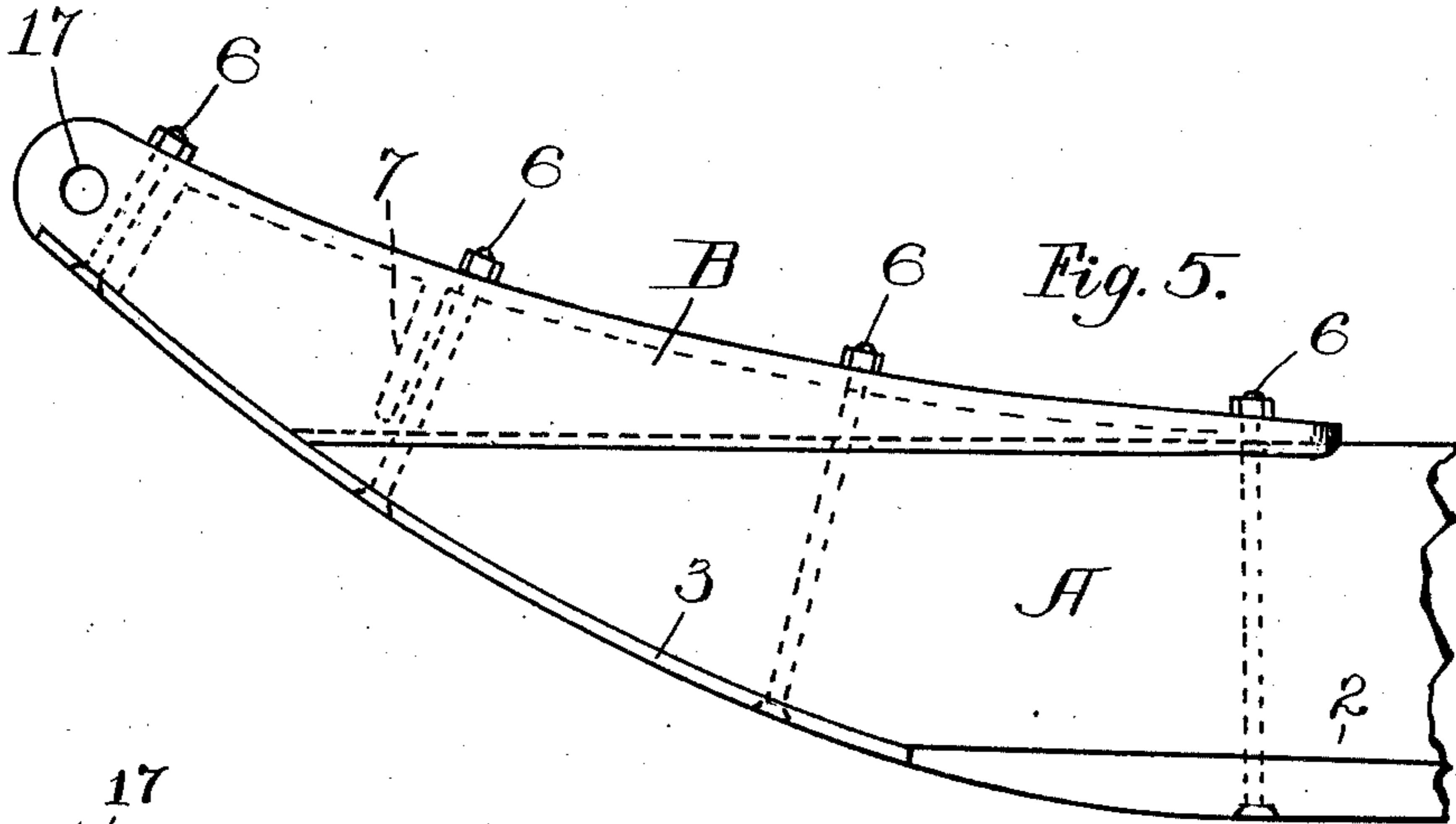
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2 SHEETS—SHEET 2.



Witnesses:
E. M. Boesel.
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UNITED STATES PATENT OFFICE.

JOHN H. ANDERSON, OF ST. PAUL, MINNESOTA.

BOB-SLED RUNNER.

997,226.

Specification of Letters Patent.

Patented July 4, 1911.

Application filed March 15, 1906. Serial No. 306,206.

To all whom it may concern:

Be it known that I, JOHN H. ANDERSON, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented a new and useful Bob-Sled Runner, of which the following is a specification.

My invention relates to improvements in bobsled runners and has among its objects to provide increased strength and inexpensive construction.

With this invention the runner is made out of a single, straight piece of material, to which is attached a nose piece and a sectional shoe to permit casting of part of the shoe out of metal and using sheet steel for the remainder. This construction of the shoe reduces its expense and produces better results than if the entire shoe is made in one piece.

A further object is the production of a strong and rigid nose piece and of a simple and substantial coupling device between it and the pole and roller.

In the accompanying drawings forming part of this specification, Figure 1 is a perspective view in detail of the forward end of a bobsled illustrating my invention, detail portions of the runners being indicated by broken lines; Fig. 2 is an enlarged, detail, plan view of the roller, showing the coupling and a detail portion of the brace between the roller and the pole; Fig. 3 is a perspective view looking toward the inner side of the clamp used on the roller; Fig. 4 is a section of Fig. 2, taken on the line X—X; Fig. 5 is a detail side view of the forward end of the runner; Fig. 6 is a perspective view of the nose piece removed from the runner; Fig. 7 is a perspective view of the runner, the nose piece being detached, and Fig. 8 is a detail, plan view of an alternative construction of the coupling on the roller.

In the drawings A represents the runner, which is made out of a single piece of material, such as wood having its grain substantially straight throughout its length. Ordinary runners are steamed and bent to form the nose piece, but with my invention the expense and breakage incident to such bending is obviated and a stronger, more durable and neater appearing runner is produced.

The forward end of the runner is cut on a curve to receive the shoe, which is made in two sections 2 and 3. The section 2 is

straight throughout its length and may be made out of cast iron of any suitable thickness. The section 3 extends forward from the end of the section 2 and may be made of comparatively thin steel, which is less expensive than cast iron and produces equally as beneficial results because the wear is not as great as on section 2. On the top of the forward end of the runner is a nose piece B, which in thickness is equal to that of the runner to form substantially and appear like a solid, bent runner. This nose piece may be made of metal and is hollow to form a groove 4, into which a tongue 5 on the forward end of the runner projects. The nose piece, runner and sections of the shoe are fastened firmly together by means of bolts 6. A web 7 between the sides 8 and 9 of the nose piece serve to strengthen the construction thereof.

C represents the pole, which has the customary roller D provided with couplings upon its ends. These couplings are similar in construction and each consists of a pin formed on the end of a brace rod 12. The brace rods are fastened through the pole by means of bolts 13 and to the roller by a clamp plate 14, which is strapped to its face by bolts 15. Each brace rod is recessed into the roller. A rib 16 on the clamp plate impinges against the pin to secure it in place. An eye 17 in the nose piece receives the pin, where it is held by a washer and key 18. This construction serves to brace the pole and roller and at the same time forms a strong and rigid pivot connection between the roller and nose piece on the runner, and, further, it is applicable to the hind runner in connection with the reach. Where I use the term "pole" throughout the specification and claims I mean to include the reach which is ordinarily used on a complete bobsled.

In the alternative construction the coupling is shown constructed with a separate brace and coupling pin, the brace 19 being formed with a flange 20 and the pin 21 with a corresponding flange 22. These flanges are fastened to the roller by bolts 23. The coupling pin is recessed in the shoulder in the same manner as in the preferred construction.

In use the couplings may be easily disconnected by detaching the keys.

It is obvious that the details of construction may be changed and modified without

departing from the spirit of this invention, and I do not confine myself to the exact construction described.

Having described my invention, what I claim as new and desire to protect by Letters Patent, is:—

1. A device of the class set forth, comprising, in combination, a straight runner provided with an upcurved lower surface and a tongued upper forward end, a hollow nose piece on said runner having a pair of substantially plain vertical sides, between the lower edges of which the tongue on the forward end of said runner is received, said sides being joined by an upper transverse wall closing the upper portion of the space between them, and means for securing said nose over said tongue leaving the adjacent opposite sides of said nose and runner lying in the same vertical planes.

2. A device of the class set forth, comprising, in combination, a runner, a hollow nose piece having two plain sides closed at and entirely open below their upper ends, said sides overlapping the upper edge of said runner and their out-sides resting flush with the sides of the runner, a shoe on said runner and nose piece, a pole provided with a roller the latter having a slotted end, a combined coupling pin and brace passing through said nose piece fastened to said pole and lying in the slotted end of said roller,

and means for clamping said pin and brace to said roller.

3. A device of the class set forth, comprising, in combination, a runner, a nose piece, means for fastening said nose piece on said runner, a pole provided with a roller having a slot in its end, a brace connected with said pole, lying in the slot in said roller and provided with a pin passing through, and forming a coupling with said nose piece, and a cleat for clamping said brace on said roller.

4. A device of the class set forth, comprising, in combination, a runner A, a nose piece B provided with an eye 17, a shoe 2, means for fastening said nose piece and shoe to said runner, a pole C provided with a roller D having a longitudinal slot between its upper and lower sides, a coupling pin 11 passing through said slot in said nose piece and formed with a brace 12, a clamp plate 14 over said coupling pin, means for securing said clamp plate to said roller, and means for securing said brace to said pole.

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

JOHN H. ANDERSON.

Witnesses:

ELSIE M. BOESEL,
F. G. BRADBURY.