

No. 713,919.

Patented Nov. 18, 1902.

L. PRIDEAUX.
THILL COUPLING.

(Application filed May 8, 1902.)

(No Model.)

2 Sheets—Sheet 1.

Fig 1.

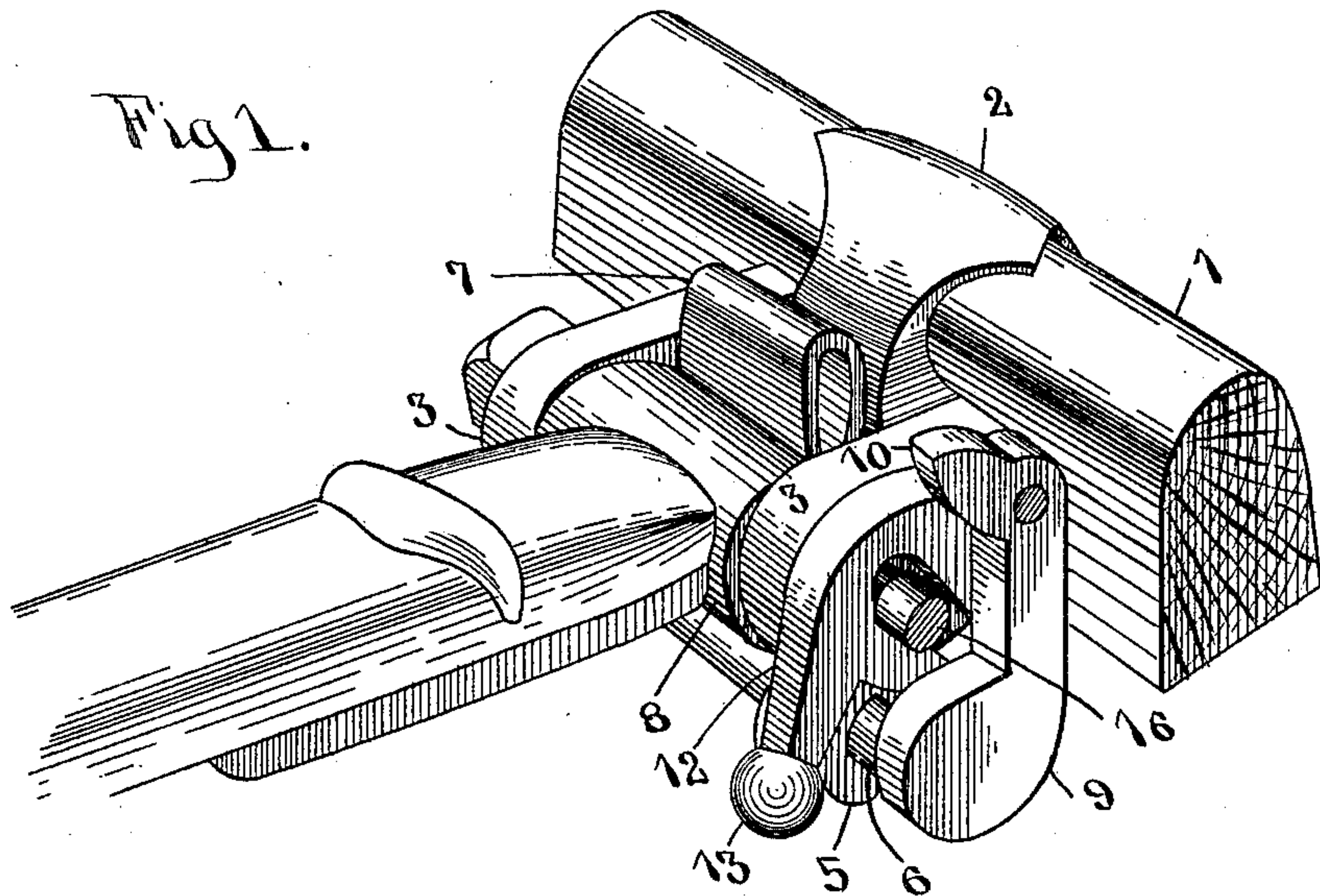
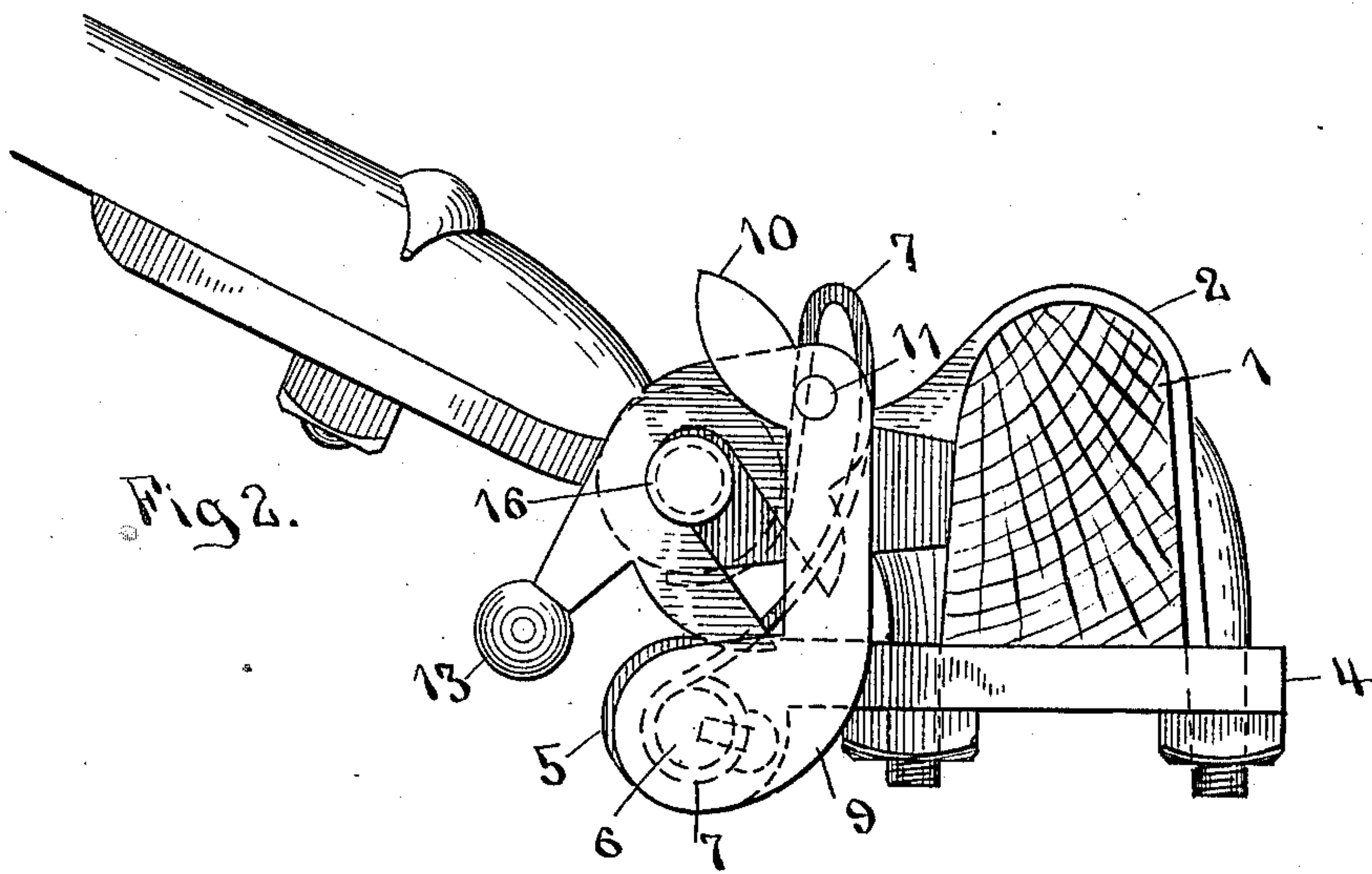


Fig 2.



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No. 713,919.

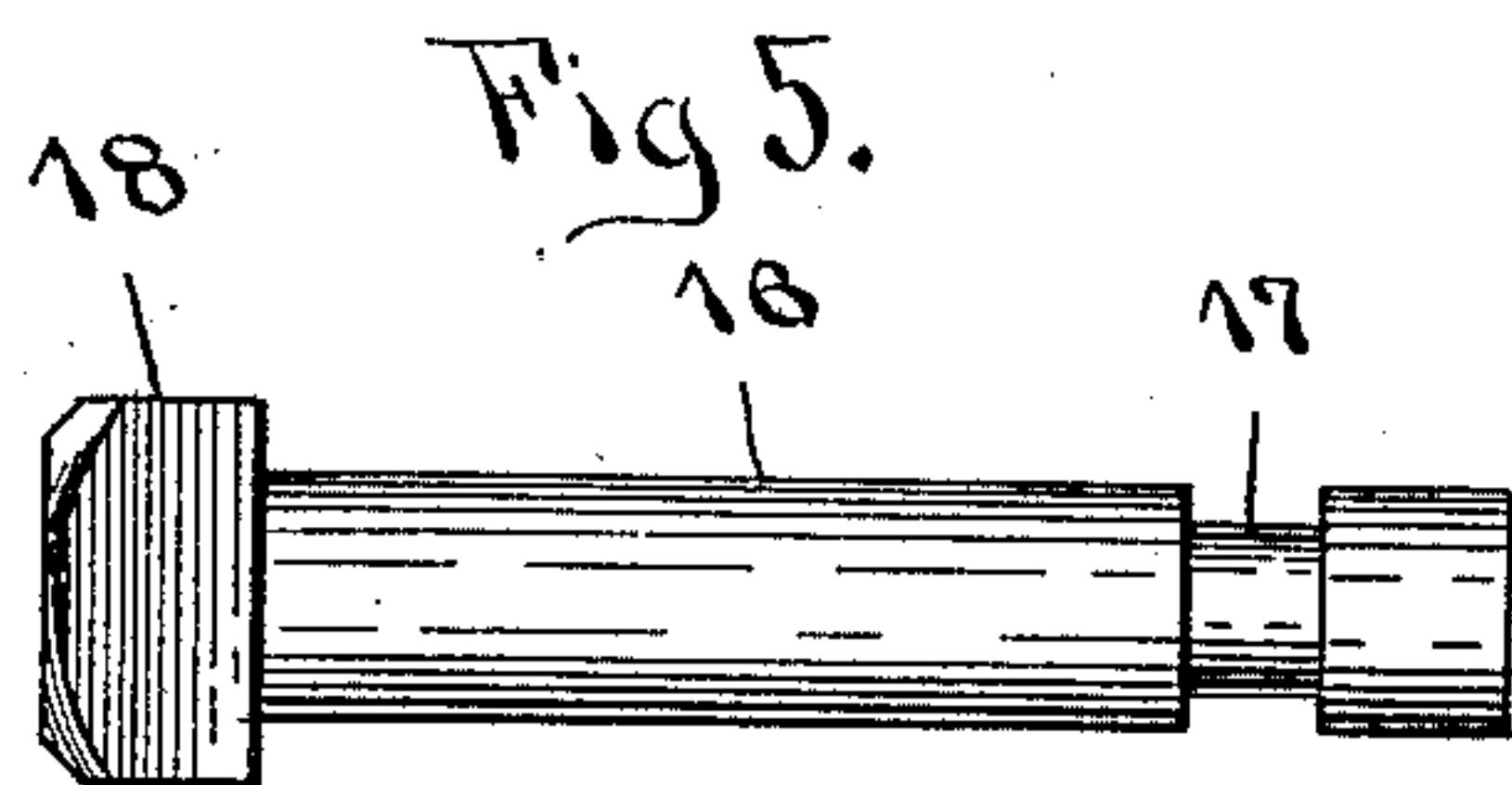
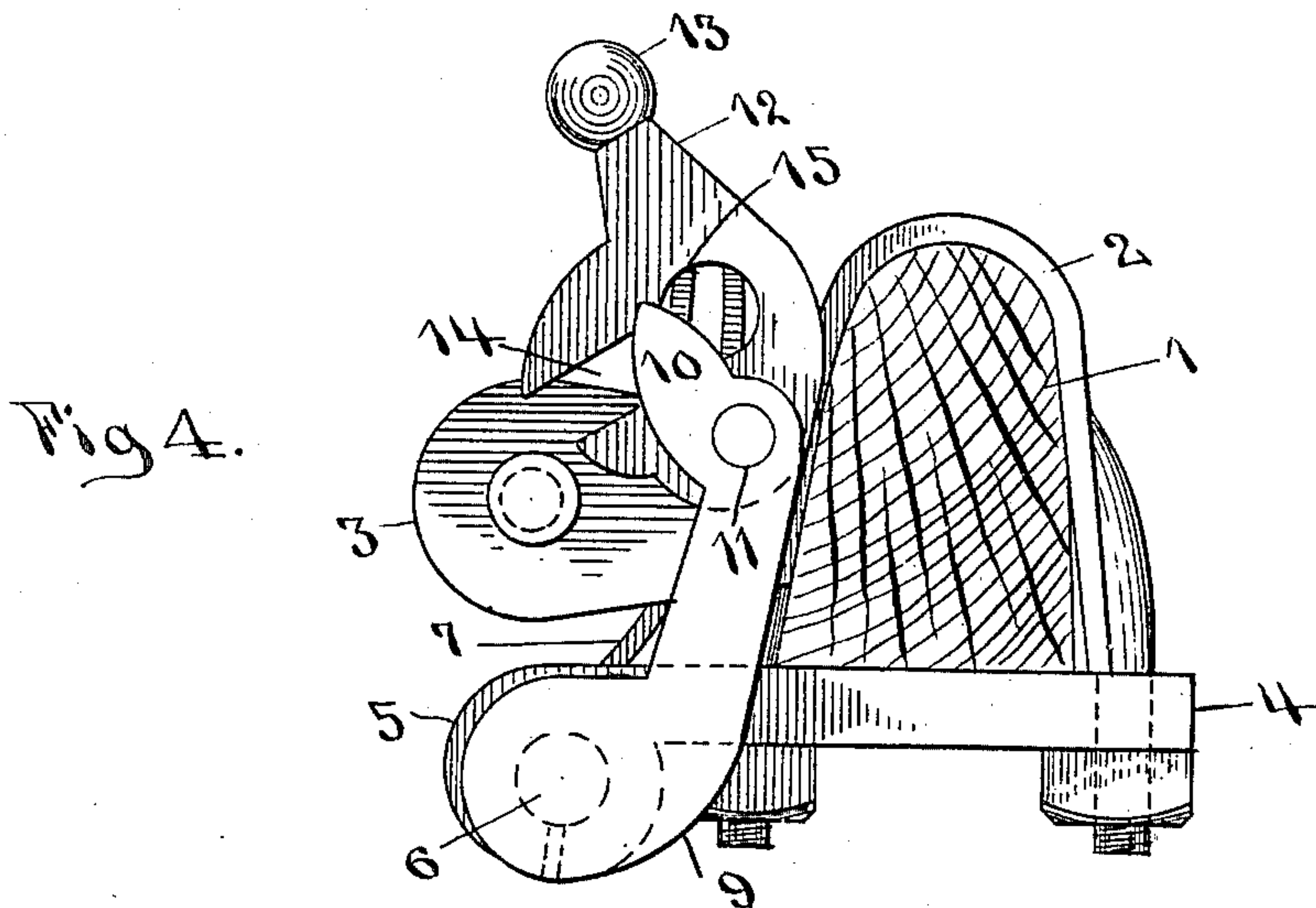
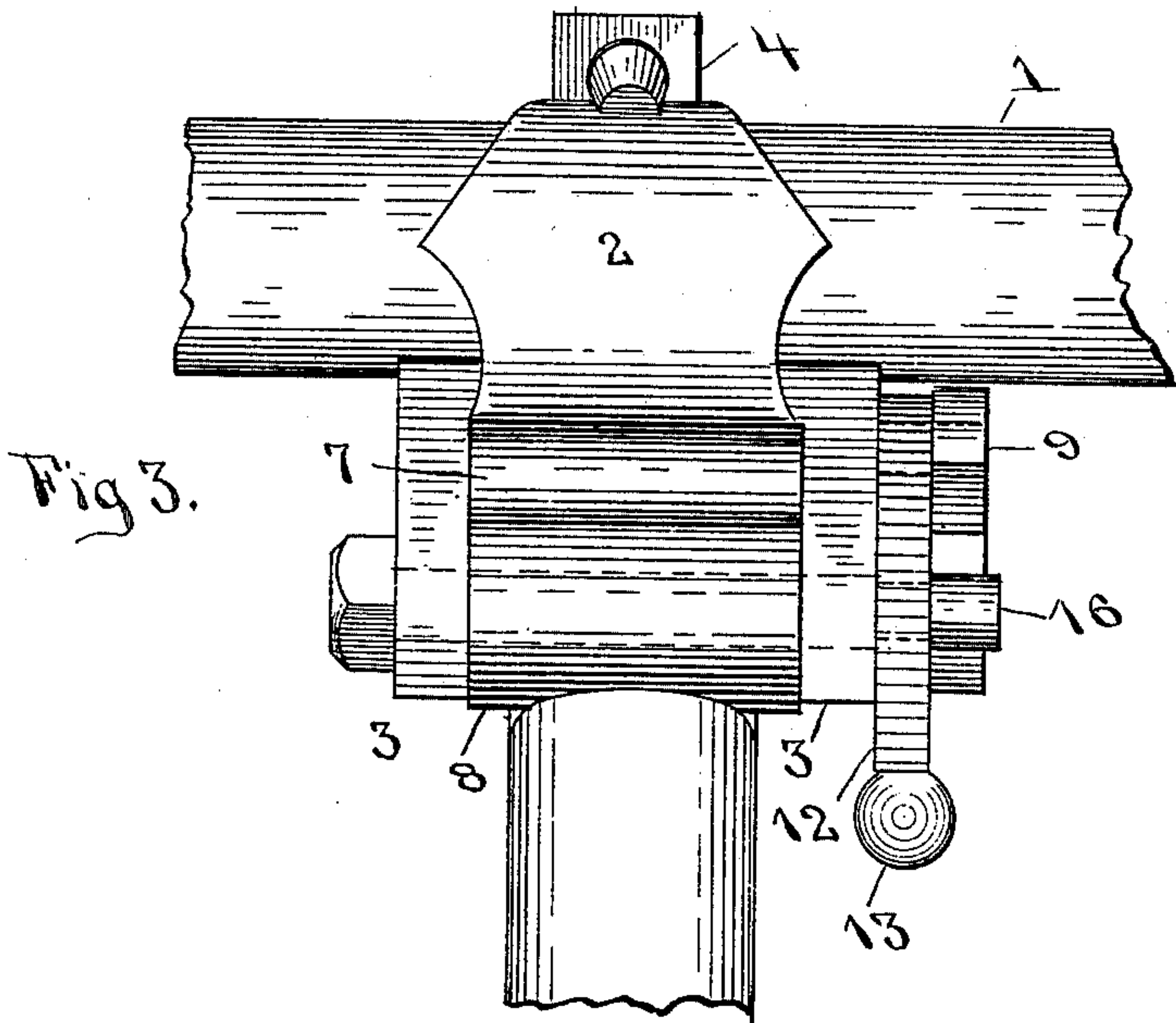
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INVENTOR:

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by 1 June 1902.
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UNITED STATES PATENT OFFICE.

LEWIS PRIDEAUX, OF PHILADELPHIA, PENNSYLVANIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 713,919, dated November 18, 1902.

Application filed May 8, 1902. Serial No. 106,445. (No model.)

To all whom it may concern:

Be it known that I, LEWIS PRIDEAUX, a citizen of the United States, and a resident of the city of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a full and complete disclosure.

In general my invention has for its object to provide a thill-coupling which obviates the use of unnecessary exertion in attaching or detaching the thills of a carriage and which at the same time locks the parts securely in place, preventing them from becoming detached by the jarring of the vehicle and also from being a source of disagreeable noise by rattling.

Another object of my invention is to provide a coupling which may be attached to and used in connection with the ordinary thill-coupling of a vehicle in which the parts were connected by means of a common bolt and nut.

For a detailed description of the construction and operation of my device reference may be had to the following specification and to the accompanying drawings, forming a part thereof, in which the same reference-numerals refer to corresponding parts in all the figures.

Figure 1 is a perspective view of my improved thill-coupling. Fig. 2 is a side elevation. Fig. 3 is a plan view. Fig. 4 is a side elevation showing the parts in unlocked position, and Fig. 5 is a view of the connecting-bolt.

The numeral 1 indicates the axletree of a vehicle, which is provided near each end with the usual clips or straps 2, carrying the projections 3 3 and retained in position by a bar 4. The thill-iron 8 is retained between the projections 3 3 by a bolt similar to the bolt 16, but held in position by a nut. These are the parts ordinarily used with thill-couplings.

In my improved device the cross or tie bar is replaced by the bar 4, having the forward extensions provided with holes forming bearings for the shaft 6. To this shaft 6 is attached, by a screw or other suitable fastening, a looped plate-spring 7, which extends upwardly adjacent to the clips and of which the

upper end is adapted to bear against the thill-iron or bearing-piece 8, attached to the thill 5 when the parts are in their locked position.

Rigidly attached to one end of the shaft 6 is a lever 9, having at its upper end a finger-piece 10 and a hole for the reception of a connecting-pin 11. This pin carries a lever 12, having a finger-piece 13 and the eccentric slot 14, which is enlarged slightly at the inner end, as indicated at 15. A connecting pin or bolt 16 is provided, which has near one end a groove 17 and at the other end a suitable head 18.

The slotted portion of the lever 12 is adapted to engage the groove 17 of the bolt 16, and the enlarged portion 15 of the slot forms a seat to retain the lever 12 in position with the grooved portion of the bolt at the end of the slot.

In connecting the thills to the axletree the parts are manipulated as follows: Supposing the levers to be in the position shown in Fig. 4, the thill-iron is placed between the projections 3 3 and the pin or bolt 16 inserted through both. The groove 17 is thus brought opposite the lever 12, and when the latter is forced downwardly the slot 14 engages said groove. As the lever 12 is forced downwardly the lever 9 is forced toward the left by reason of the eccentric nature of the slot 14. This causes the shaft 6 to turn, and thereby forces the spring 7 against the thill-iron carried by the thills. The parts are thus firmly locked in position, and the spring acts not only to prevent rattling, but also to retain the end of the bolt in the depression at the end of the slot 14 by reason of the constant strain upon the levers 9 and 12.

To disconnect the parts, the finger-piece 10 is forced toward the left and the lever 12 raised, which allows the depression in the slot 14 to be dislodged from the end of the pin 16. Thereafter the parts automatically snap into their unlocked positions by reason of the tension of the spring 7.

It will be noticed that I have provided an arrangement of parts consisting of the bar 4, shaft 6, spring 7, levers 9 and 12, which may be used with the common form of thill-coupling.

