

(No Model.)

J. & A. K. WARREN.
THILL COUPLING.

No. 500,171

Patented June 27, 1893.

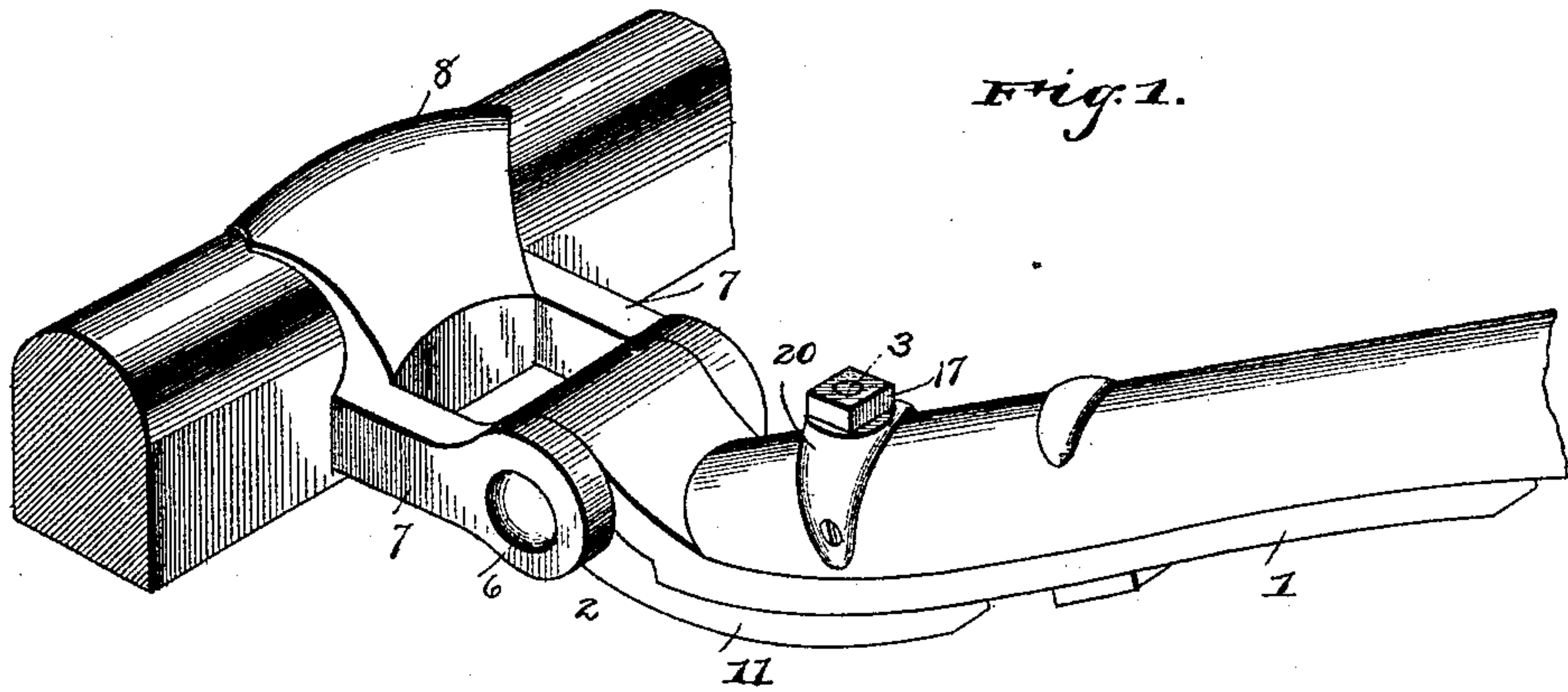


Fig. 1.

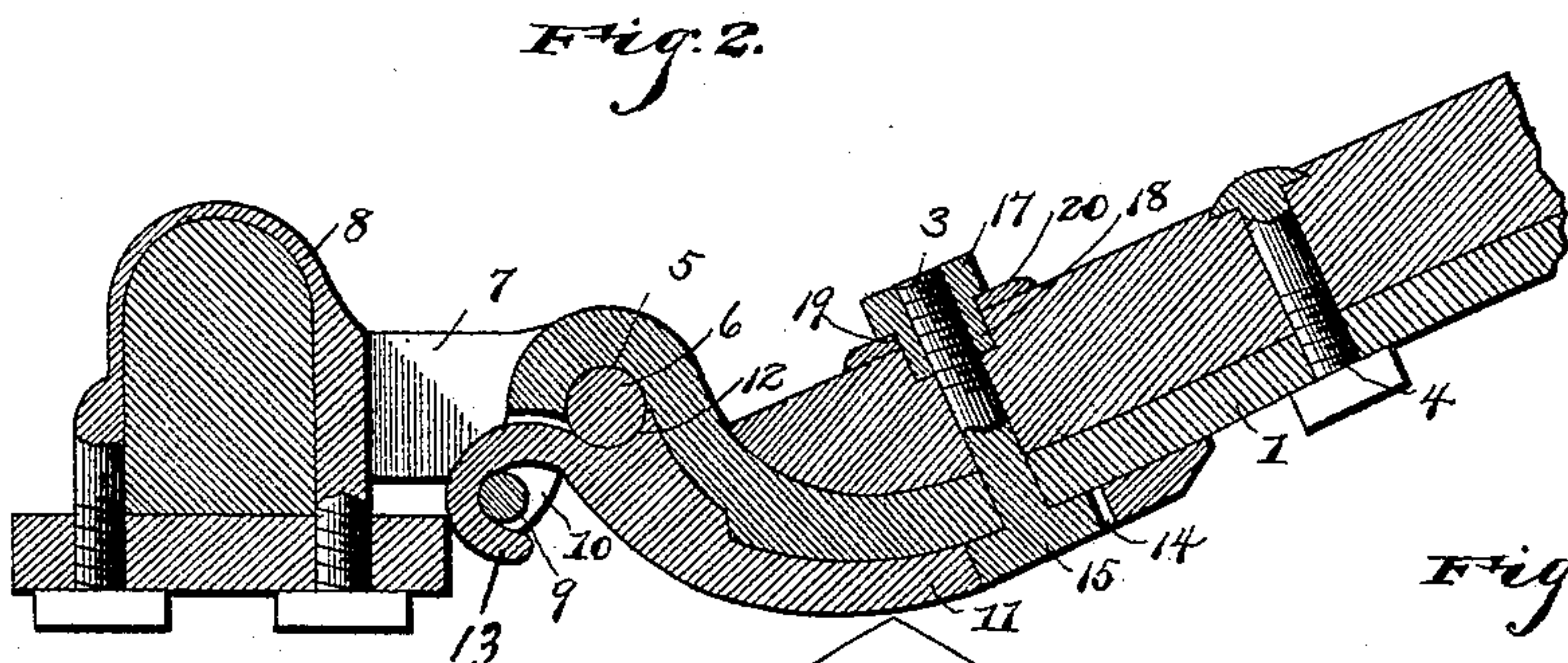


Fig. 2.

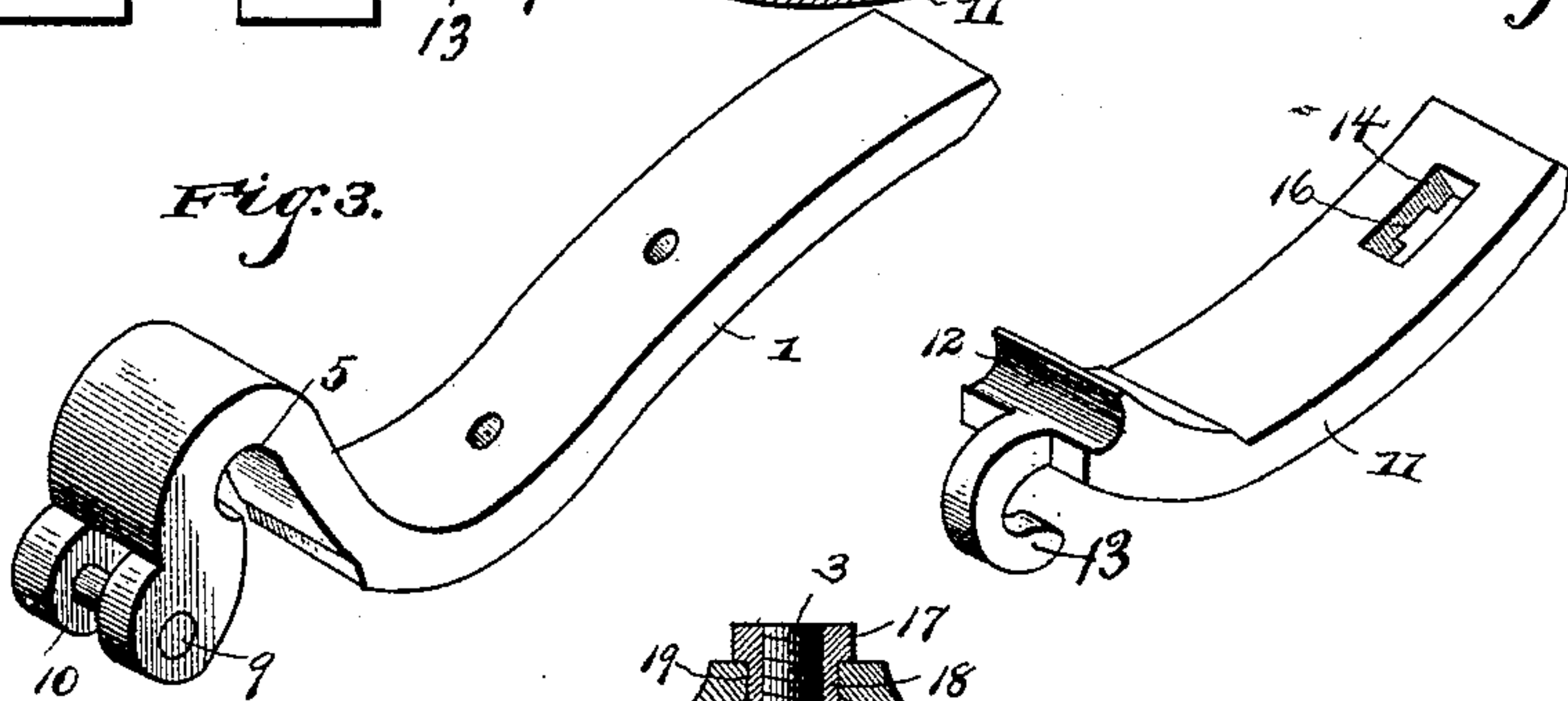


Fig. 3.

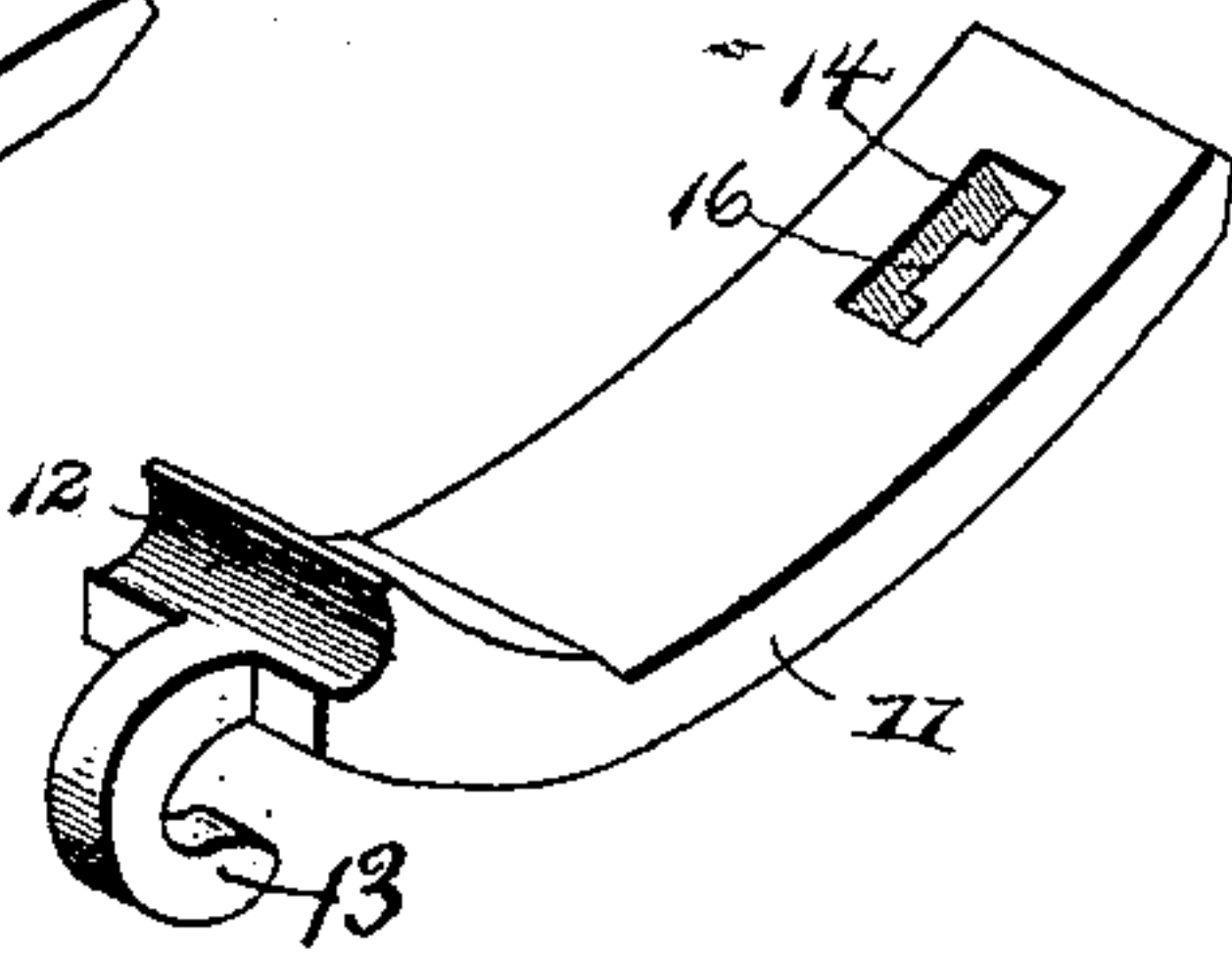
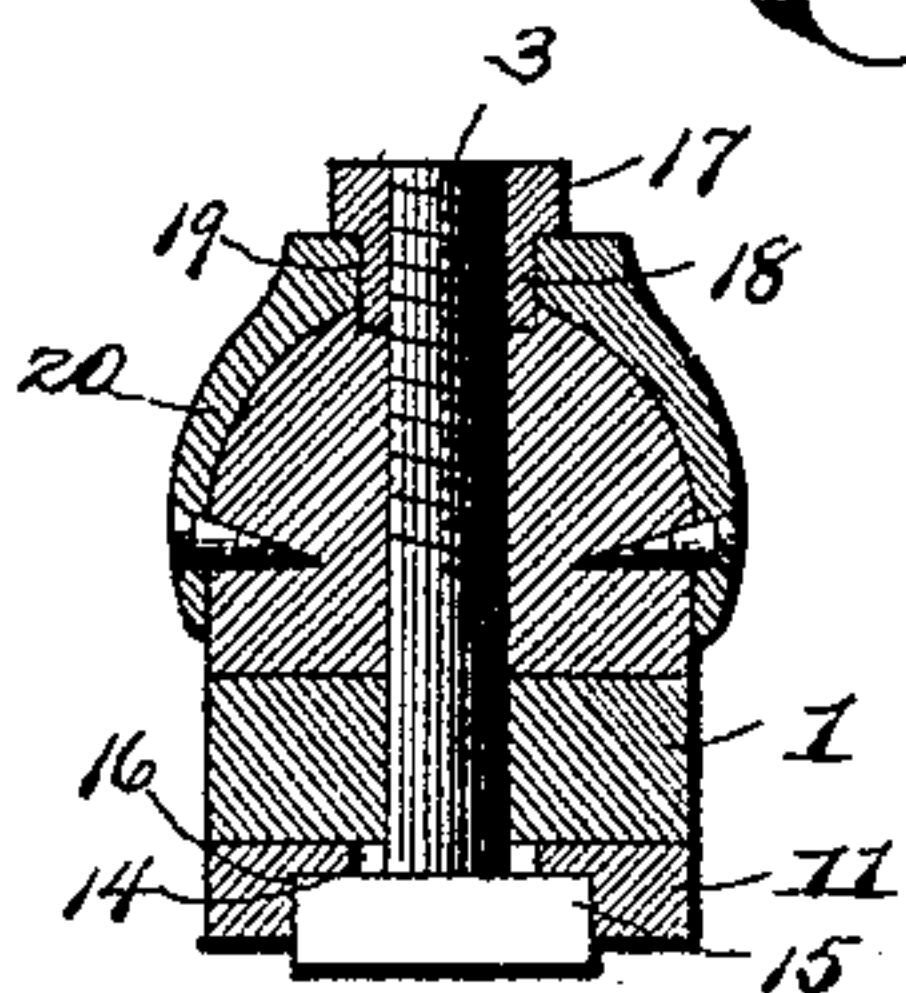


Fig. 4.

Fig. 5.



Witnesses

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By their Attorneys,

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UNITED STATES PATENT OFFICE.

JOHN WARREN AND ALBERT K. WARREN, OF EVANSVILLE, INDIANA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 500,171, dated June 27, 1893.

Application filed June 4, 1892. Serial No. 435,532. (No model.)

To all whom it may concern:

Be it known that we, JOHN WARREN and ALBERT K. WARREN, citizens of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented a new and useful Thill-Coupling, of which the following is a specification.

The invention relates to improvements in thill couplings.

10 The object of the present invention is to provide a simple and inexpensive thill coupling which will enable thills to be readily attached to and removed from an axle, and which will not, when the shafts are in their
15 normal position, become uncoupled and cause accidents.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated
20 in the accompanying drawings and pointed out in the claim hereto appended.

In the drawings—Figure 1 is a perspective view of a thill coupling constructed in accordance with this invention. Fig. 2 is a central
25 longitudinal sectional view. Fig. 3 is a detail perspective view of the thill iron. Fig. 4 is a similar view of the hinged section. Fig. 5 is a transverse sectional view, the elongated head being arranged transversely of the slot
30 and fitting in the oppositely disposed recesses.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a thill iron secured to a thill 2
35 by bolts 3 and 4 and having its rear end bent upward and outward to form a bearing recess 5 to receive a coupling rivet or pin 6 rigidly secured to forwardly extending ears 7 of an axle clip 8 and forming a permanent part
40 thereof. The rear end of the thill iron is bifurcated and transversely perforated to receive a pintle 9 which extends across the bifurcation 10 and is adapted to hinge a locking section 11 which closes the bearing recess
45 5 and secures the coupling pin or rivet therein, and is provided with a concave shoulder 12 conforming to the configuration of the coupling pin or rivet and forming a part of the bearing surface. The rear end of the
50 hinged locking section is provided with a rearwardly and downwardly projecting hook

or open eye 13, which engages around the pintle 9, whereby the locking section 11 is hinged to the thill iron. The front end of the hinged locking section 11 is provided with a longitudinal slot 14 adapted for the reception of
55 a lower rectangular head 15 of the bolt 3, which head is adapted to pass through the longitudinal slot and to be turned transversely of the same to lock the hinged section, and
60 the latter is provided on opposite sides of the longitudinal slot with recesses 16, which are adapted to receive the elongated or rectangular bolt head to prevent the bolt turning and becoming accidentally disengaged from
65 the hinged section and thereby releasing the latter.

When it is desired to uncouple the thill, the nut 17 of the bolt 3 is loosened sufficiently to allow the elongated head 15 to be disengaged
70 from the recesses and to be turned longitudinally of the slot to release the hinged locking section. The thill is then elevated, and the rear end of the hinged section is disengaged from the pintle, and the thill iron may then
75 be disengaged from the coupling pin or rivet by lowering the thill. By this arrangement the thill may be readily disengaged from the coupling pin and uncoupled, and accidental uncoupling when the thill is in its normal position in use is prevented. It will also be apparent that the thill may be readily coupled
80 with an axle by inserting the end of the thill iron back of the coupling pin or rivet when the thill is lowered and then raising the thill
85 and attaching the locking section and securing the latter.

The nut 17 is provided with a depending cylindrical extension 18 which is arranged in an opening 19 of a bearing plate 20 extending transversely of the thill and arranged on
90 the upper face of the same and conforming to the configuration thereof.

What we claim is—

In a thill coupling, the combination with an axle clip having forwardly projecting ears, a coupling pin forming a permanent part thereof, a thill iron having its rear end extended upward and rearward and bifurcated, a pintle extending across the bifurcation, a detachable
100 locking section provided at its rear end with a hook loosely engaging over said pintle and

having at its front end an elongated slot, and
recesses disposed at opposite sides of the slot,
a bolt passing through the thill iron and pro-
vided with an elongated head adapted to pass
5 through the slot and to engage with the re-
cesses, and a nut arranged on the bolt and
adapted to hold the head in engagement with
said recesses, substantially as described.

In testimony that we claim the foregoing as
our own we have hereto affixed our signatures to
in the presence of two witnesses.

JOHN WARREN.

ALBERT K. WARREN.

Witnesses:

R. W. NORWOOD,

W. B. WRIGHT.