

(No Model.)

D. W. TANNER.  
THILL COUPLING.

No. 488,908.

Patented Dec. 27, 1892.

Fig. 1.

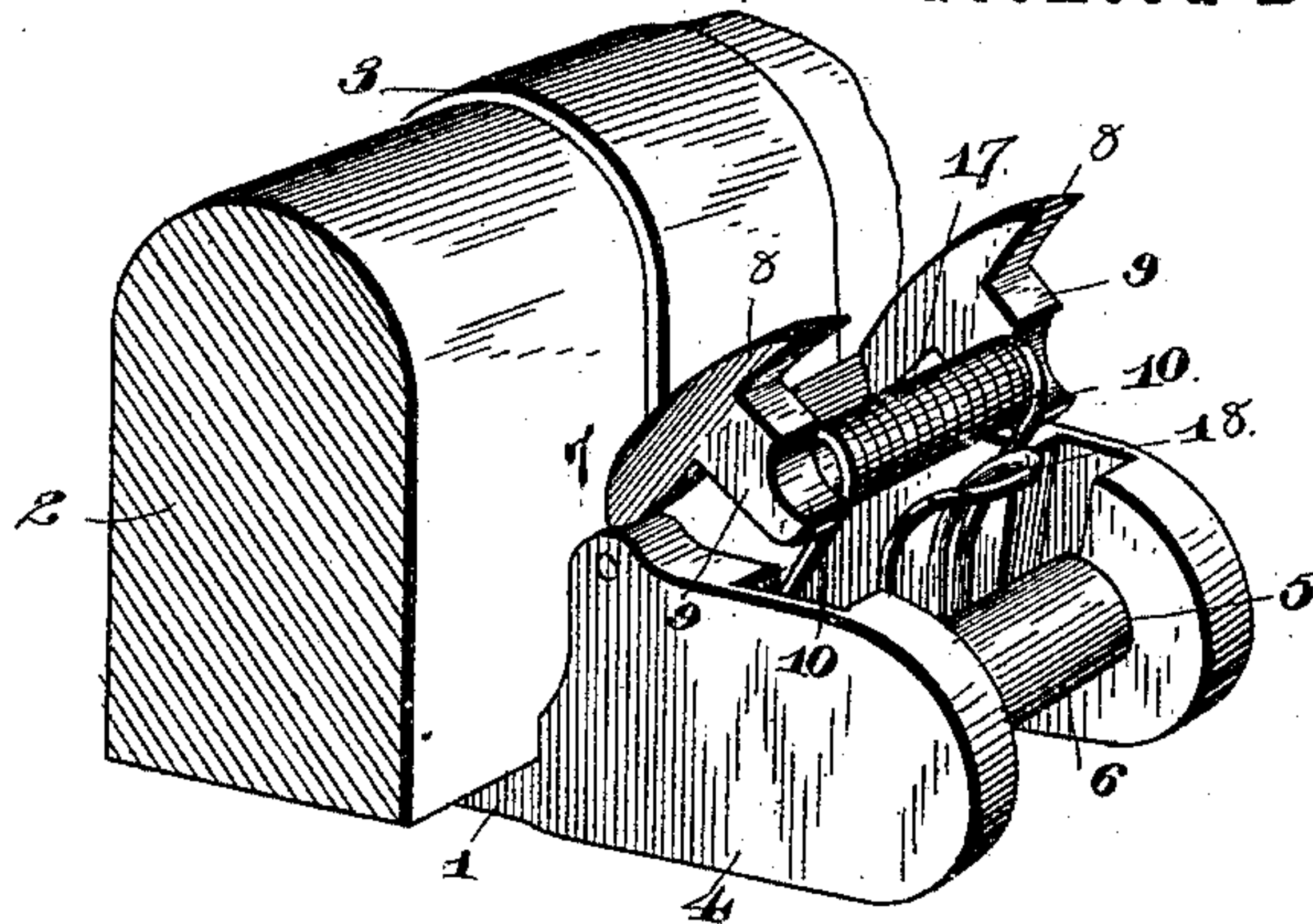


Fig. 2.

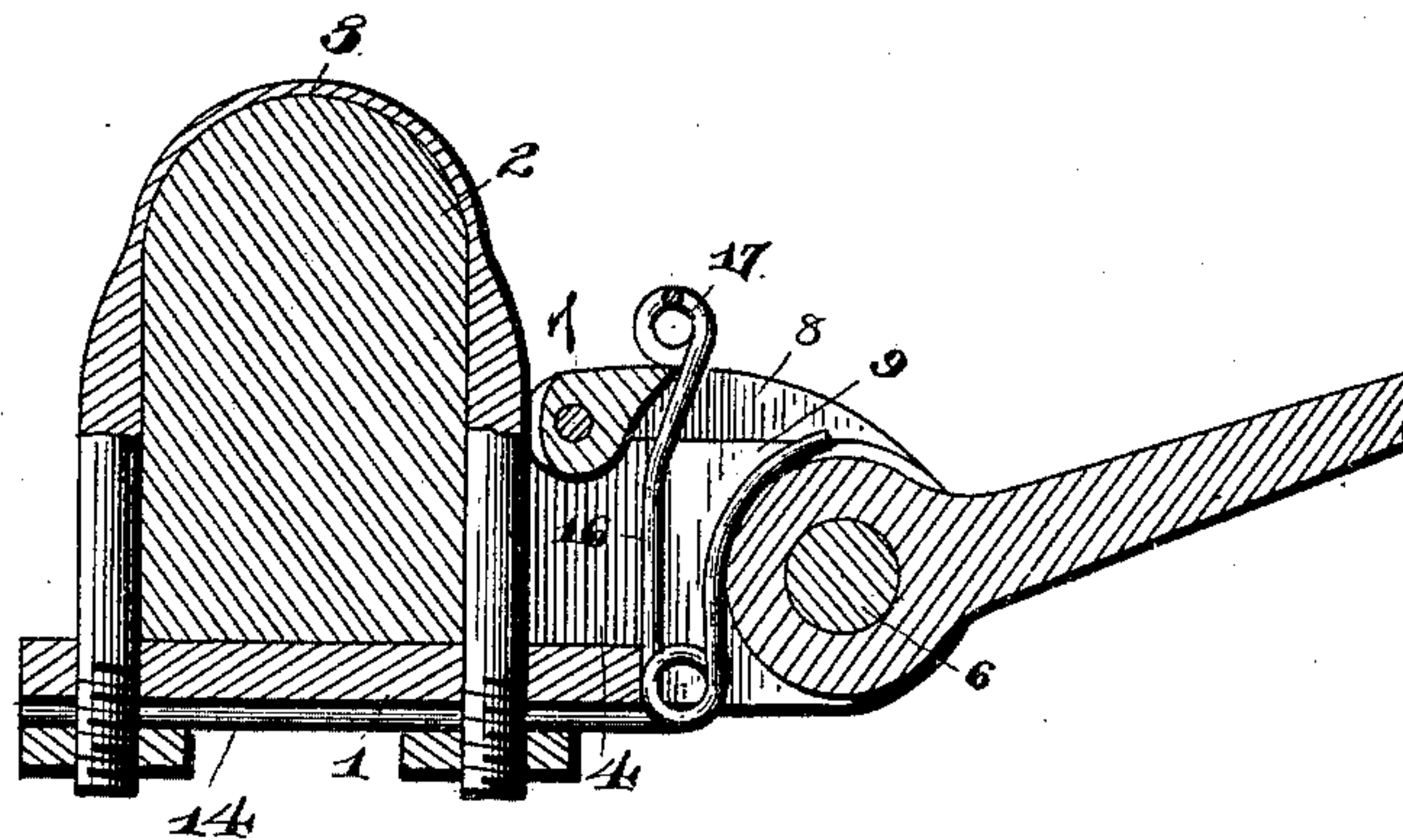


Fig. 3.

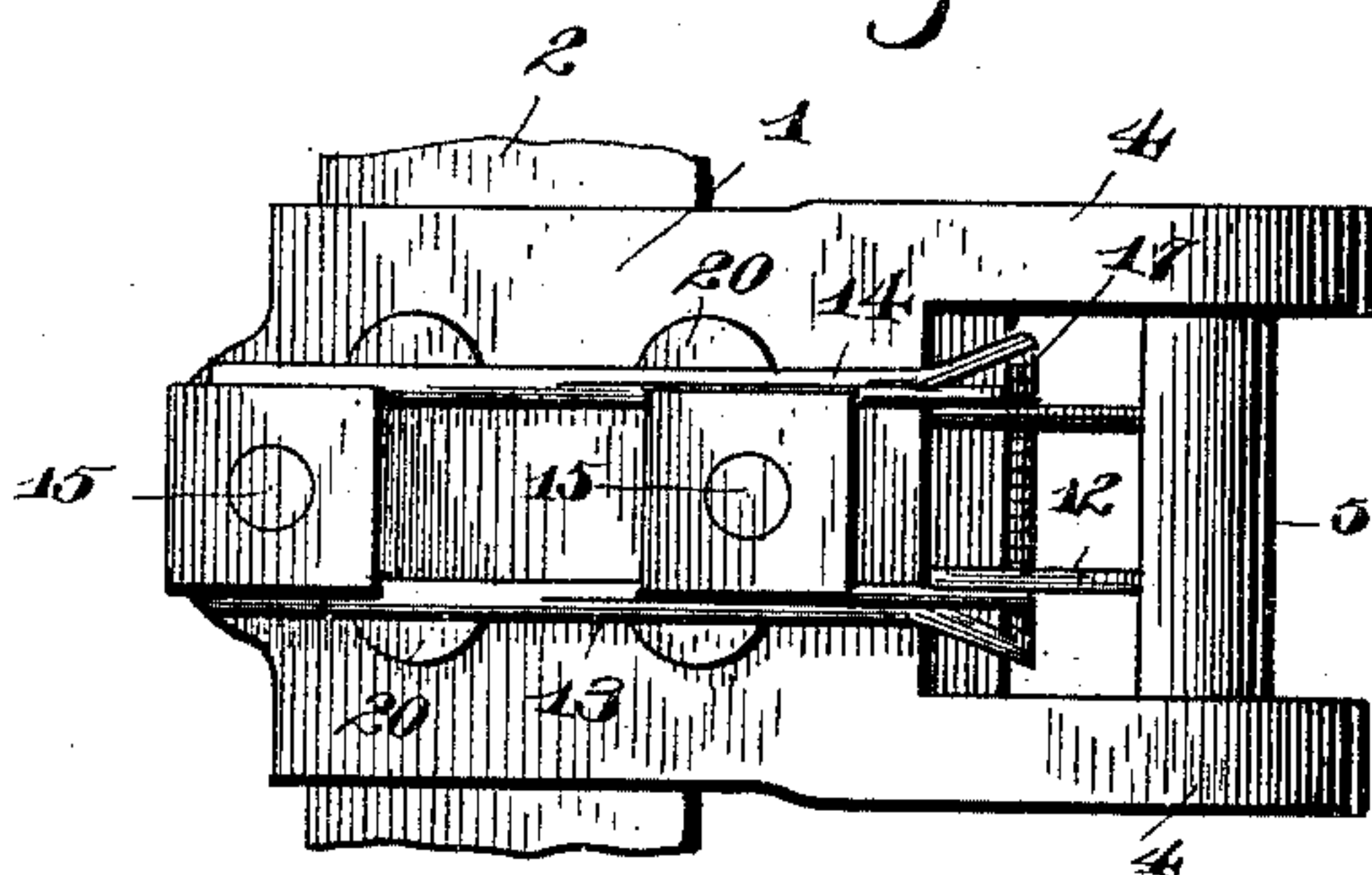
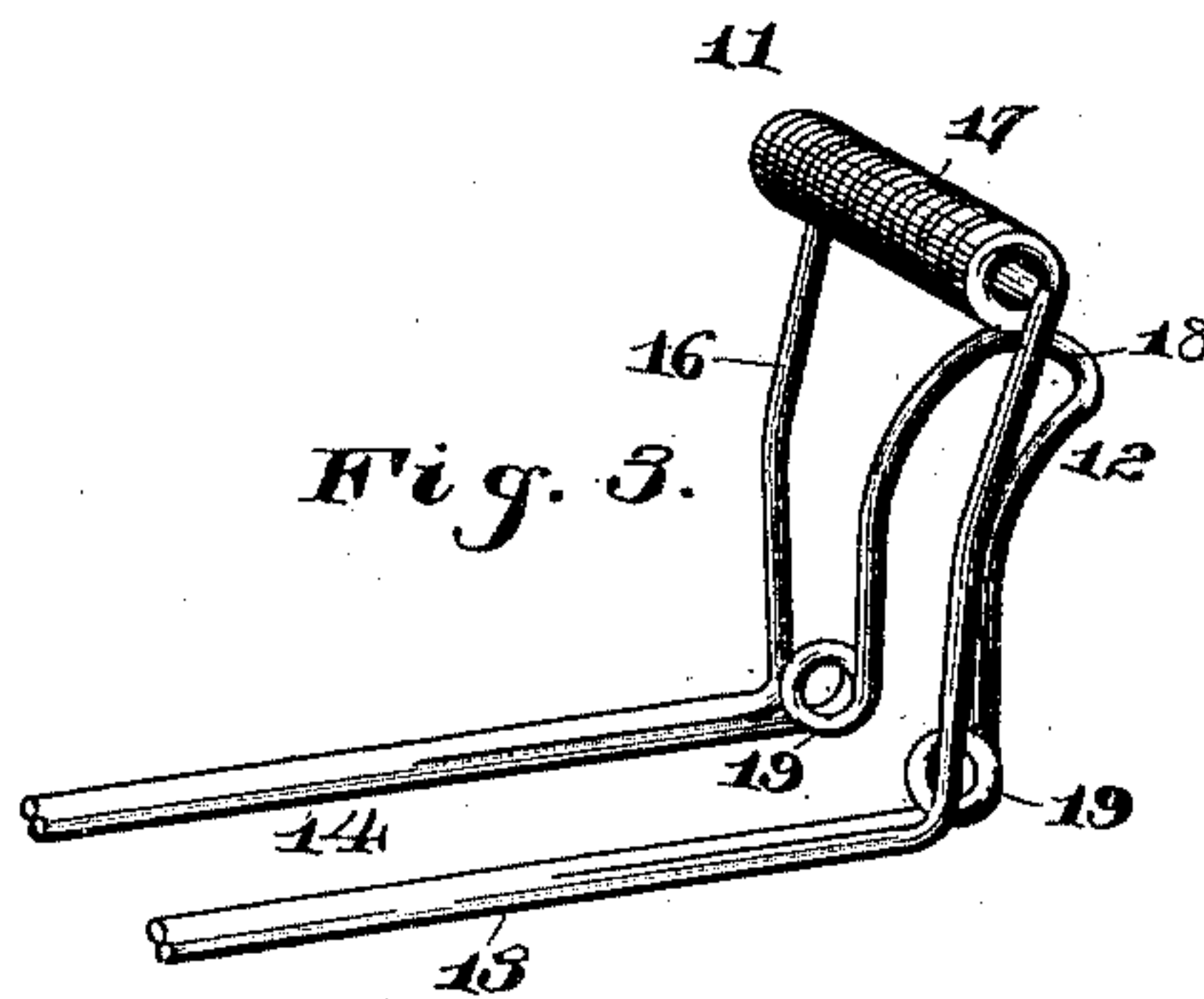


Fig. 4.



Witnesses

Chas. G. Ford.  
N. W. Riley

Inventor

David W. Tanner.

By his Attorneys,

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

DAVID WILMER TANNER, OF MARLIN, TEXAS, ASSIGNOR OF ONE-HALF TO  
S. P. RICE, OF SAME PLACE, AND LOUIS T. FULLER, OF CALVERT, TEXAS.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 488,908, dated December 27, 1892.

Application filed May 27, 1892. Serial No. 434,551. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID WILMER TANNER, a citizen of the United States, residing at Marlin, in the county of Falls and State of Texas, have invented a new and useful Thill-Coupling, of which the following is a specification.

The invention relates to improvements in thill couplings.

The object of the present invention is to provide a simple and inexpensive combined thill coupling and anti-rattler, in which thills may be readily coupled and uncoupled.

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

In the drawings—Figure 1 is a perspective view of a thill coupling constructed in accordance with this invention, the cap being raised. Fig. 2 is a central longitudinal sectional view, the cap being closed. Fig. 3 is a detail perspective view of the spring. Fig. 4 is a reverse plan view of the thill coupling.

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

1 designates a clip plate which is secured to an axle 2 by an axle clip 3, and which is provided with forwardly projecting ears 4 having bearing recesses 5 in their inner opposed faces adapted for the reception of a coupling pin or bolt 6, for securing a thill iron to the clip plate. The bolt or coupling pin 6 has its ends reduced to form journals and it is secured in the bearing recesses by a hinged cap piece 7 having forwardly projecting extensions 8 adapted to fit over the tops of the bearing recesses and provided with depending lugs 9 adapted to enter the bearing recesses to secure the coupling bolt and having curved edges 10 conforming to the configuration of the bolt. The depending lugs 9 are arranged back of the bolt, and their front edges fit against the rear side of the bolt. The cap is locked to secure the bolt against accidental displacement by a spring having a securing portion 11 and an anti-rattling portion 12, each of which consists of parallel sides 13 and 14, and are secured together and

are clamped to the lower face of the clip plate by bolts 15 of the axle clip, and each of the portions extend upward and are interposed between the coupling bolt and the back of the cap. The securing portion is provided with upward extensions 16 which are connected by an integral horizontally disposed spiral spring 17 arranged between the extensions of the cap piece and adapted to engage the latter between the extensions to hold the same closed. The anti-rattler portion is provided with a vertical loop 18 and has coils 19 arranged at the angles formed by the parallel sides, and the sides of the loop, and the latter is adapted to bear against the eye of the thill iron to press the same forward to prevent noise and rattling, and a thill iron supports the spring and enables it to securely clamp the cap piece by preventing the spring becoming bent too far forward.

It will be seen that the anti-rattler and thill coupling is simple and comparatively inexpensive in construction, that it enables thills to be readily coupled and uncoupled and will prevent noise and rattling.

The clip plate is provided on its lower face with depending lugs or bosses 20 which have straight inner edges and are adapted to form a way for the sides 13 and 14 of the portions of the springs and to prevent the sides spreading and becoming disengaged from the nuts of the axle clip.

What I claim is—

1. The combination of a clip plate adapted to be secured to an axle by an axle clip and provided with forwardly projecting ears and having bearing recesses opening at the top of the ears, a coupling bolt arranged in the recesses, a hinged cap adapted to close the bearing recesses and a combined anti-rattler and securing spring extending vertically in advance of the cap and having two arms one being adapted to bear against an eye of the thill iron and being arranged to engage the upper front edge of the cap piece to lock the latter when closed, substantially as described.

2. The combination of a clip plate provided with forwardly projecting ears and having bearing recesses, a coupling bolt arranged in the recesses, a cap hinged to the clip plate



and provided with forward extensions and having depending lugs arranged in the recesses, and a spring arranged between the coupling bolt and the clip plate and having  
5 a vertically disposed spring loop adapted to engage the eye of the thill iron and provided with a horizontal coil engaging the cap and locking the same, substantially as described.

3. In a thill coupling, the combination of an  
10 axle clip having nuts, a clip plate provided on its lower face with bosses and having forwardly projecting ears provided with bearing recesses, a coupling bolt arranged in the latter, a hinged cap piece provided with forward

extensions and closing the recesses, and a  
15 spring having parallel sides secured to the lower face of the clip plate by said nuts, said spring having a spring loop adapted to engage a thill iron and being provided with vertical extensions, and a horizontal coil adapted to  
20 engage the cap, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DAVID WILMER TANNER.

Witnesses:

THOMAS H. DUNNE,  
JOHN MCCARTNEY.