

(No Model.)

J. W. YOUS.
THILL COUPLING.

No. 370,587.

Patented Sept. 27, 1887.

Fig. 1.

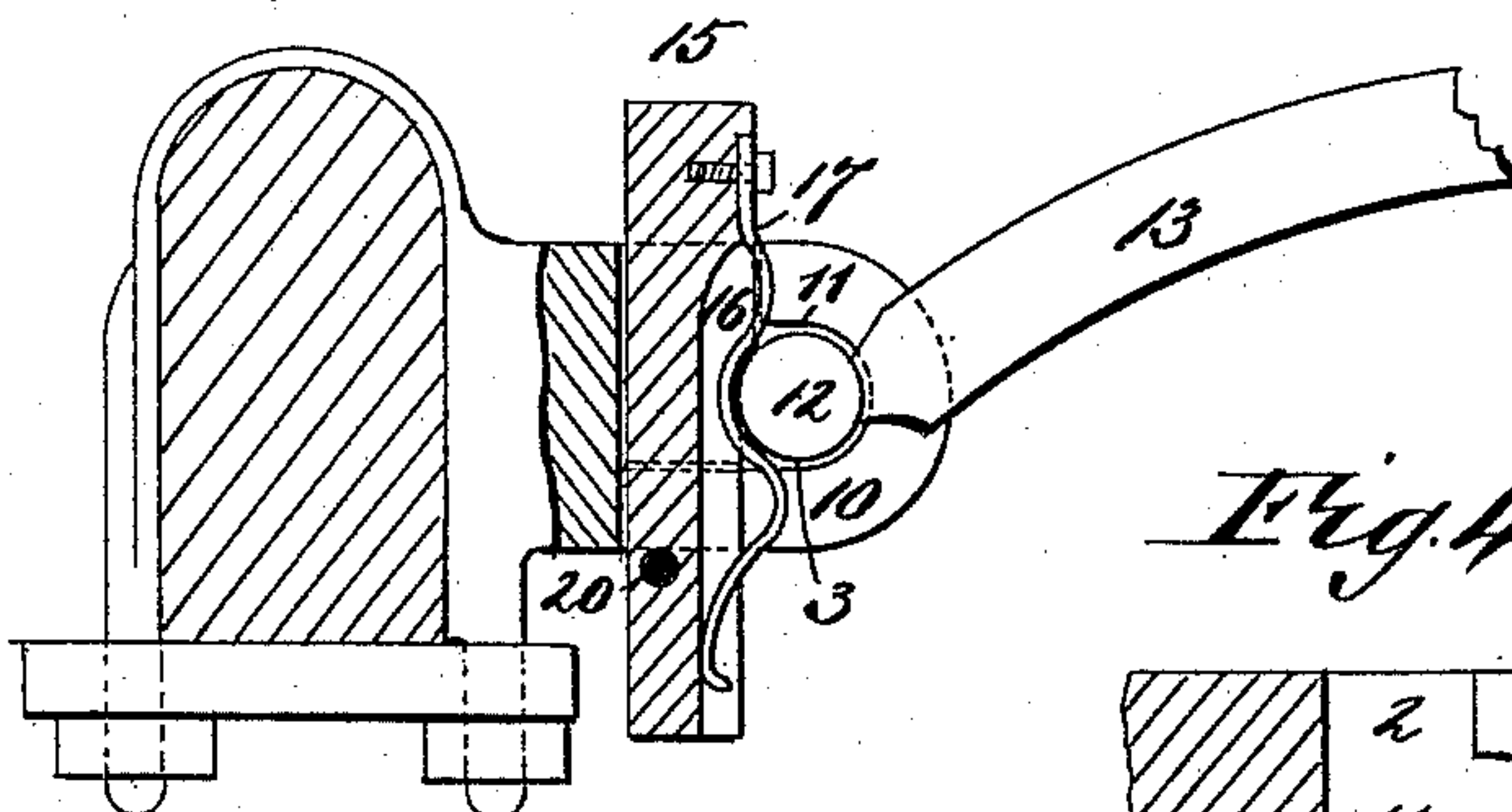


Fig. 4.

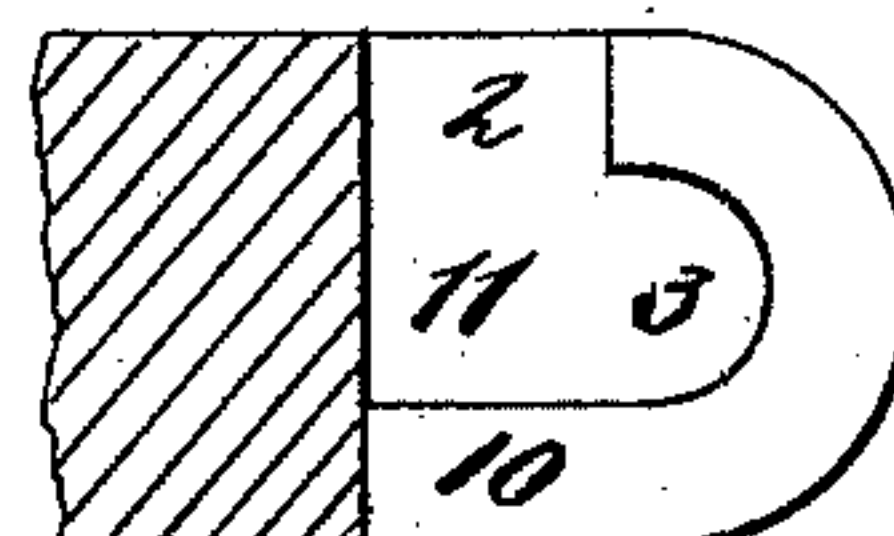


Fig. 2.

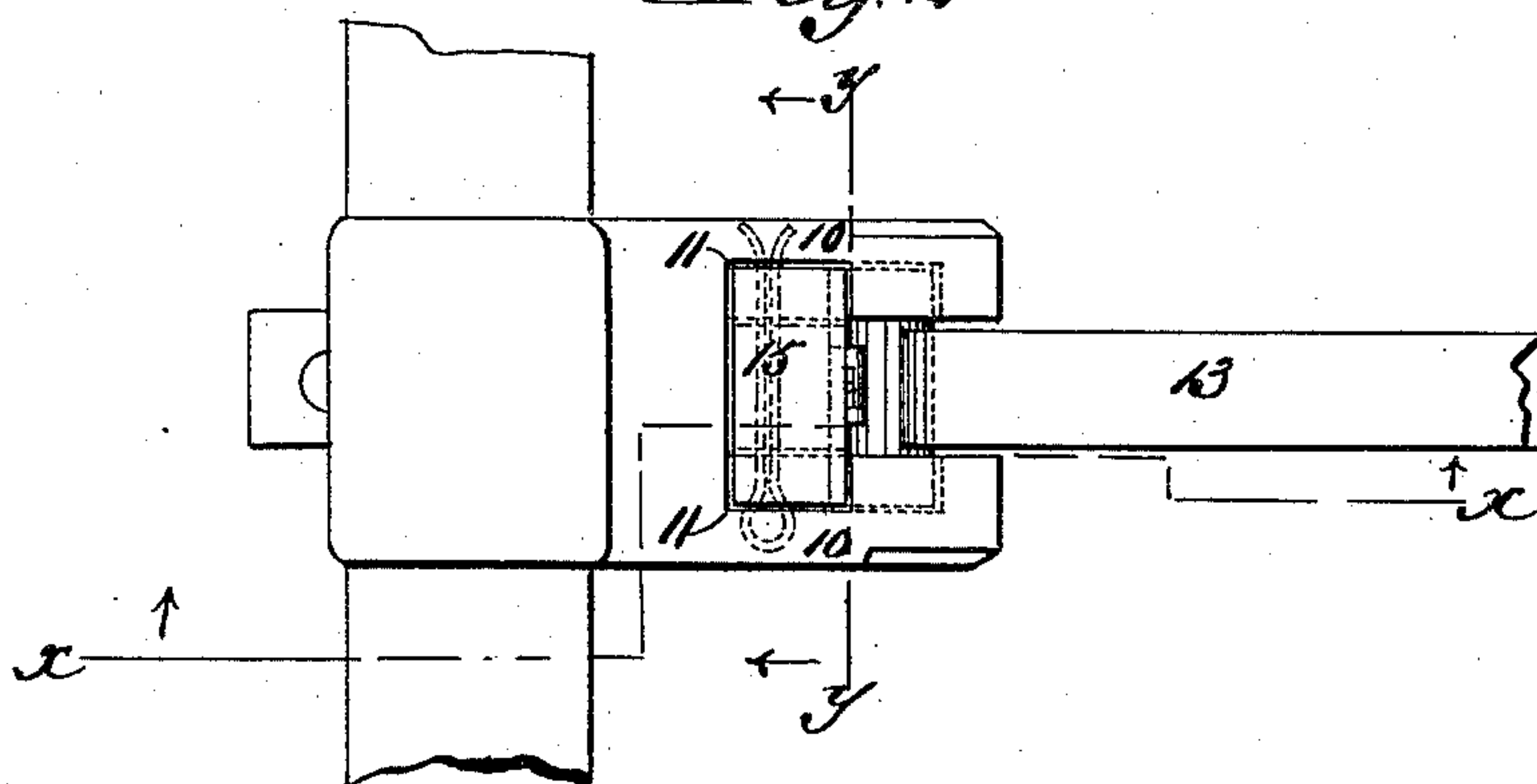
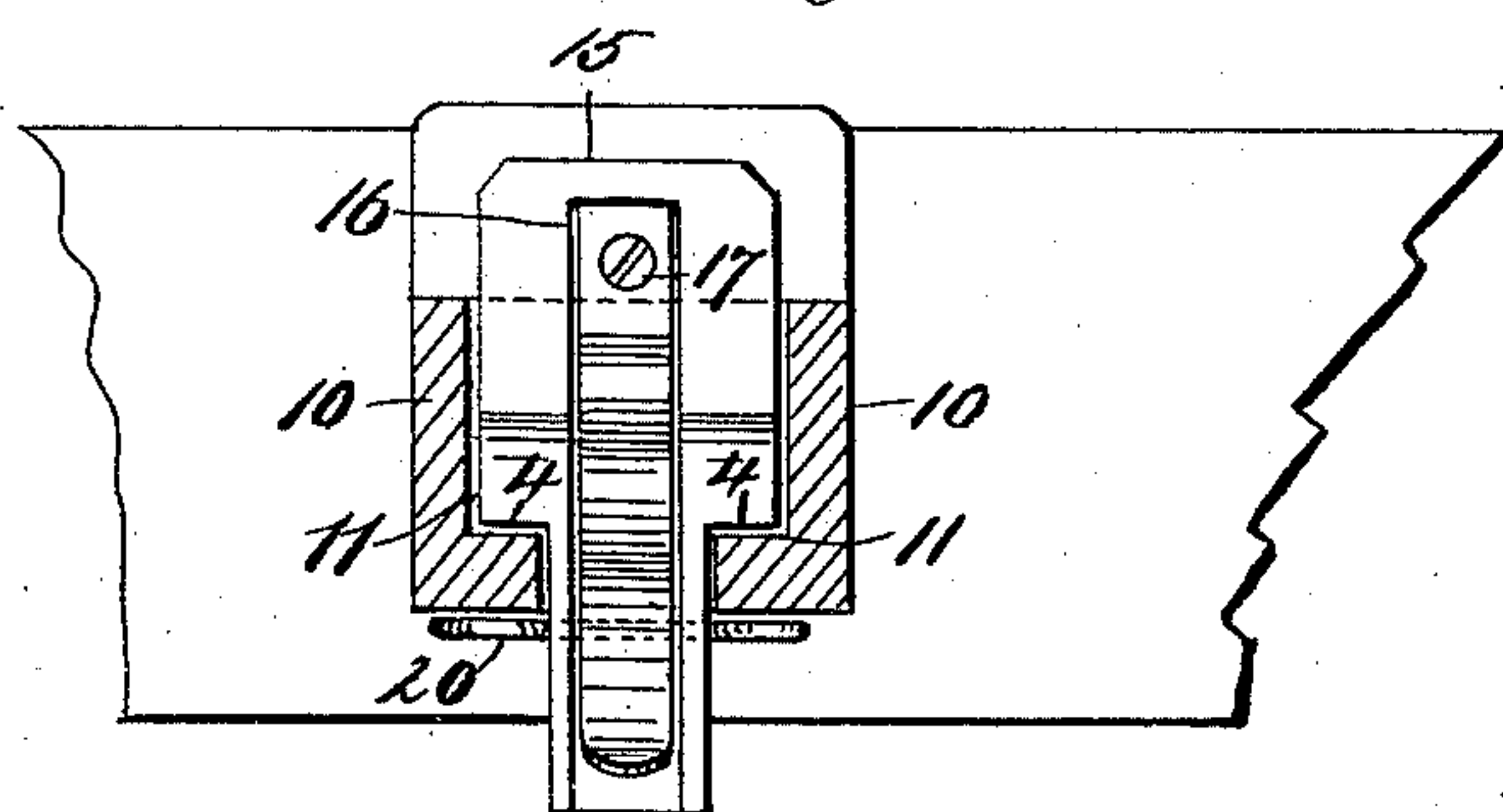


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN W. YOUS, OF MOUND CITY, MISSOURI, ASSIGNOR TO HIMSELF AND
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THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 370,587, dated September 27, 1887.

Application filed January 12, 1887. Serial No. 224,129. (No model.)

To all whom it may concern:

Be it known that I, JOHN WATSON YOUS, of Mound City, in the county of Holt and State of Missouri, have invented a new and Improved Thill-Coupling, of which the following is a full, clear, and exact description.

This invention relates to a simple, cheap, and durable thill-coupling, wherein the parts are so arranged that the use of bolts and the ordinary form of rubber anti-rattler are dispensed with, the invention consisting, essentially, of a thill or pole iron provided with side lugs or trunnions that are arranged to enter a horizontal recess which extends forward from the main vertical recess of the axle-clip, the parts being held together by a spring-carrying wedge, as will be hereinafter described, and specifically pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a view of my improved form of thill or pole clip, said clip being shown in section upon a line corresponding to that of the broken line *x x* in Fig. 2. Fig. 2 is a plan view of my improved form of coupling. Fig. 3 is a cross-sectional view taken on line *y y* of Fig. 2, and Fig. 4 is a central longitudinal sectional view of a portion of the clip.

My improved form of clip is secured to the axle in the ordinary manner, as is clearly shown in the drawings, the main feature of novelty in the clip proper resting in the novel form given to the ears of the clip.

Each of the ears 10 is provided with an L-shaped recess, 11, said recesses being arranged to receive trunnions or projections 12 of the thill or shaft iron 13, said trunnions or projections being inserted between the ears by placing them within the vertical sections 2 of the recesses 11, pressing them downward until they strike the lower walls of the recesses, and in then drawing the thills forward, so that the trunnions will rest in the forward horizontal portions, 3, of the said recesses. After

the parts have been adjusted as described they are held in place by a wedge, 15, that is formed with a recess, 16, within which there is mounted a spring, 17, said spring being bent to sinuous form, as best shown in Fig. 1 and indicated in Fig. 3, the upper portion of the wedge 15 being of sufficient width to enter the recesses 11, while the lower portion of the wedge is contracted, so as to permit that portion of the wedge to pass between the ears 10, shoulders 4 being formed between the broad and the contracted portions of the wedge, which shoulders rest upon the lower defining walls of the recesses 11 and hold the wedge from dropping downward, all upward movement of the wedge being prevented by the spring 17, which also takes the place of the rubber and rollers heretofore used. To avoid danger of displacement in case the spring 17 should break, I provide a cotter, 20, that is arranged as best shown in Fig. 1. When the parts have been adjusted as above described, and as indicated in the drawings, the thill or shaft iron will be held against accidental displacement, and the danger of such displacement, which exists when the parts are united by the ordinary form of bolt, is entirely overcome.

When it is necessary to remove the thills and substitute a pole, or vice versa, the cotter 20 is withdrawn and the wedge 15 forced upward and out of engagement with the clip, after which the pole or thills are moved backward and raised from engagement with the clips, the trunnions at this time passing outward through the vertical portions 2 of the recesses 11. In this way a pair of thills may be removed and a pole substituted therefor in a very short time, and in practice I have found that this substitution may be effected within half a minute.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

In a thill-coupling, the combination, with a clip provided with ears having T-shaped recesses and a thill-iron provided with trunnions, of the wedge 15, fitting in the vertical

portions of the recesses of the ears, and provided with the recesses 16 in its front face, the shoulders 4, resting on the bottom of the said recesses and a reduced portion projecting between the ears of the clip, the spring 5 17, secured to the upper end of the wedge and having its lower end resting in the re-

cess thereof, and the cotter 20, passed through the reduced lower end of the wedge, substantially as herein shown and described.

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Witnesses:

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