(No Model.)

J. HENRETTY.

THILL COUPLING.

No. 528,670. Patented Nov. 6, 1894.

Fig. 1.

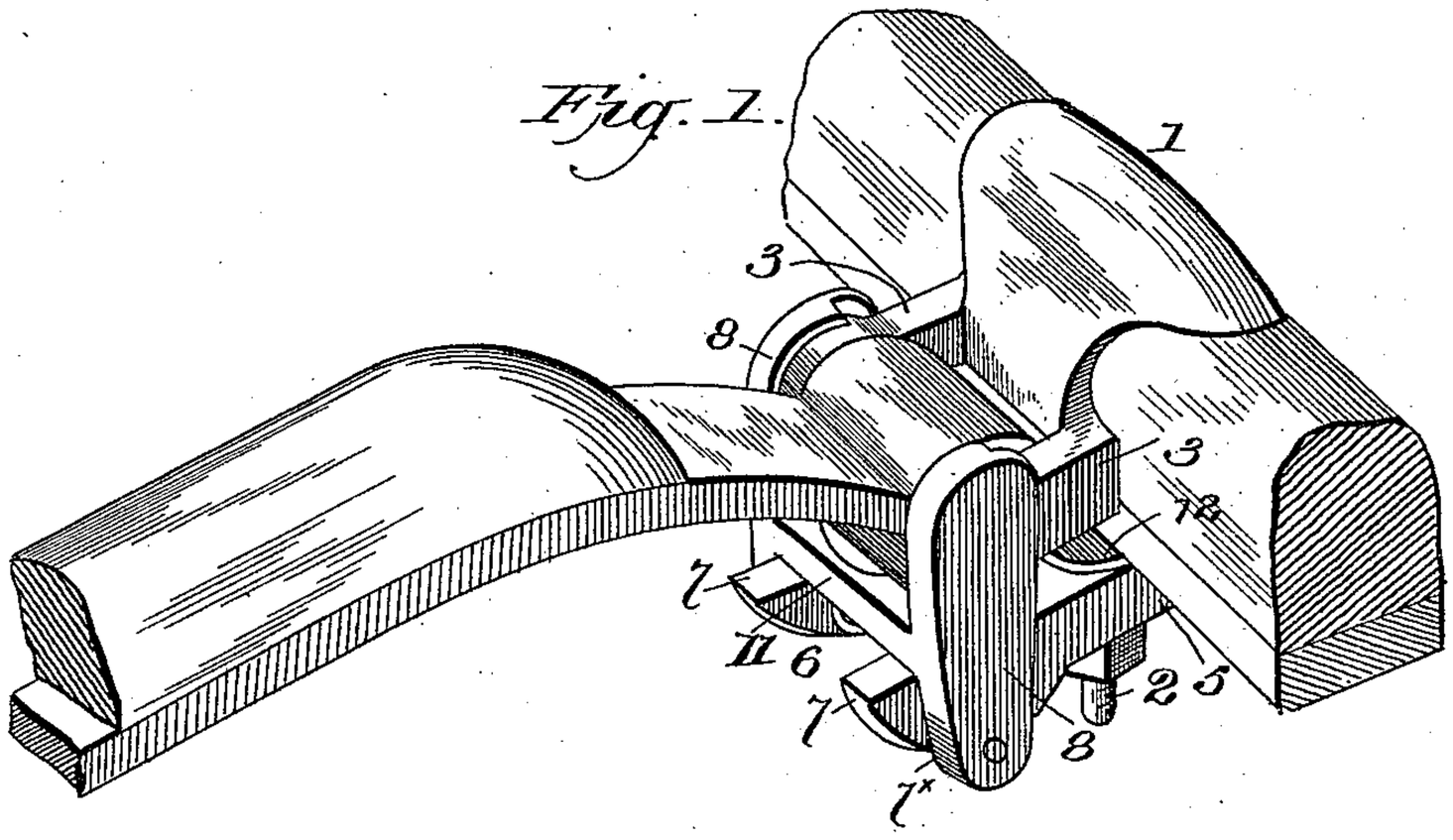


Fig. 2.

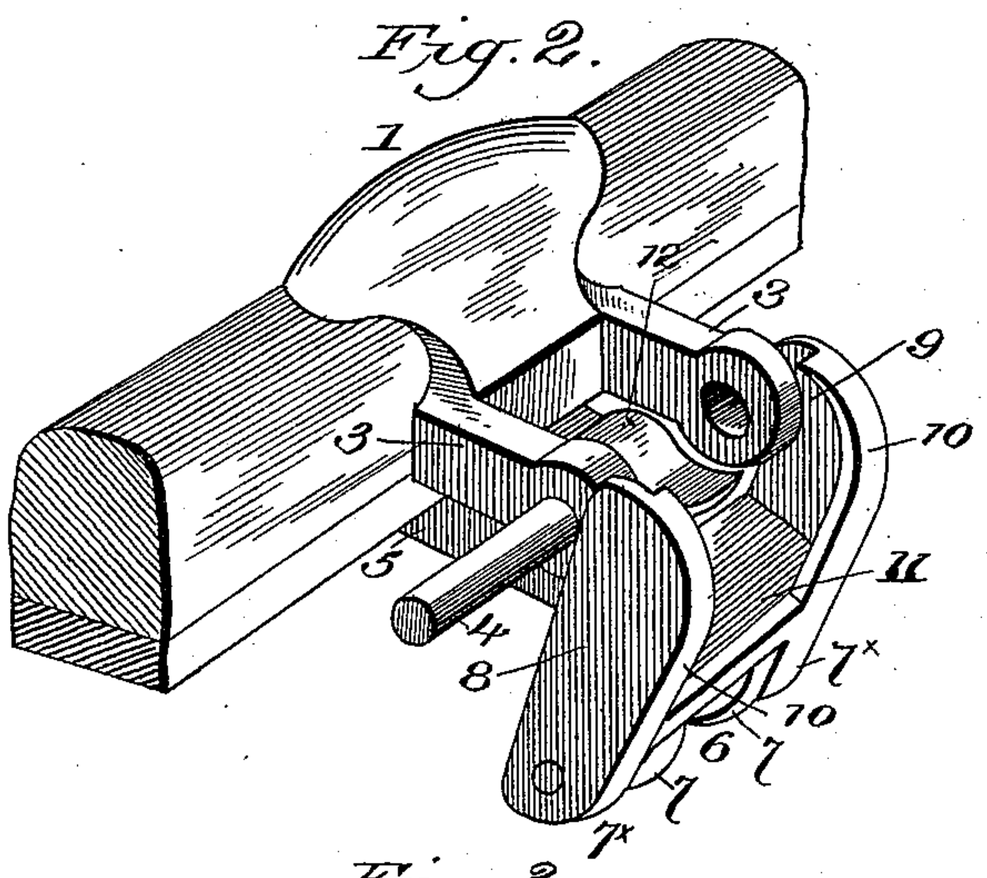
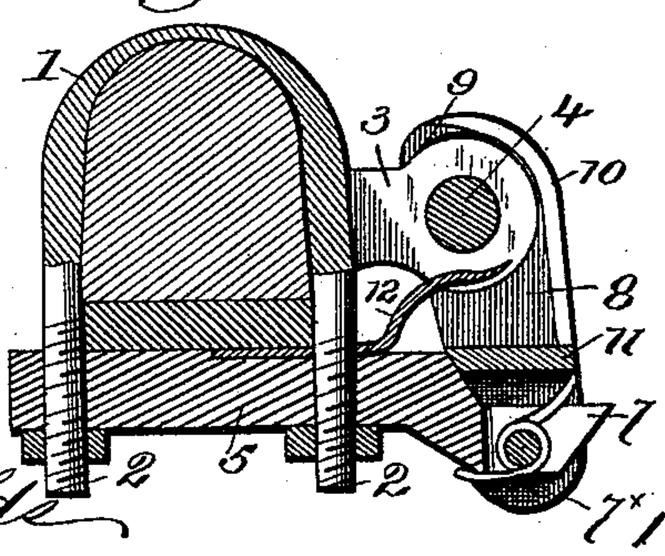


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES HENRETTY, OF STAPLES, MINNESOTA, ASSIGNOR OF ONE-HALF TO JOHN NIVEN, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 528,670, dated November 6, 1894.

Application filed January 27, 1894. Serial No. 498,245. (No model.)

To all whom it may concern:

Be it known that I, JAMES HENRETTY, a citizen of the United States, residing at Staples, in the county of Todd and State of Minnesota, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to thill couplings, and has for its object to provide simple and effective means for attaching thill irons to the couplings and holding the connecting bolts in securing position without the use of heads, threads and nuts.

With these and other objects in view, the invention consists of the construction and arrangement of the several parts which will be more fully hereinafter described and claimed.

In the drawings: Figure 1 is a perspective view of a thill coupling embodying the invention and showing a thill iron applied thereto. Fig. 2 is a similar view of the thill coupling showing an improved locking device thrown away from the main clip and in position to apply the thill iron. Fig. 3 is a central longitudinal section of the coupling, the parts being shown in locked position.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

Referring to the drawings, the numeral 1 designates a clip of suitable form which is applied to the axle beam or in any other position and has depending legs 2 which are screw-threaded and receive securing nuts. The said clip is provided with outwardly extending arms 3 which have outer apertured ends in which is mounted a headless securing bolt 4 which is of the exact length of the distance from the outer face of one arm 3 to the outer face of the opposite arm. To the under side of the axle or other device to which the clip is applied is a plate 5 which acts as a tie plate and has extended therethrough the legs 2 of the clip. The forward portion of the said plate 5 is depressed and bifurcated as at 6 to form two lugs 7 having upper horizontal edges. Pivotally connected to and embracing the said lugs 7 are the lower ends $7^{\times}$ of a locking frame 8, the said lower ends being attached to the lugs by a pintle which passes through all of the said parts in a plane parallel with the bolt heretofore described. The upper ends of the frame on the inner opposing sides thereof are recessed as at 9, the said recesses opening outwardly at the rear and terminating at the front in flanges 10 which cover a portion of the forward edges of the arms 3 and form a stop to limit the rearward movement of the said locking frame. It will be seen that the upper portion of the opposite parts of the said locking frame are adapted to embrace the outer surfaces and a portion of the forward ends of the arms 3 and to cover the openings through which the bolt 4 is inserted to thereby hold the said bolt in place and prevent it from having lateral movement and thus retain it in its seat. The lower portion of the opposite members of the locking frame are connected by a cross bar 11 which is superposed above the upper surfaces of the lugs 7. Surrounding the pivot pin or bolt which connects the locking frame to the said lugs and located between the said lugs is a coiled spring having an arm bearing against the under side of the cross bar 11 to normally hold the locking frame against the arms 3 of the clip as fully shown in Fig. 1. When it is desired to hold the bolt in permanent position against movement the locking frame is arranged as shown in Fig. 1 and when it is desired to release the same the bolt 4 the said locking frame is pulled outwardly as shown in Fig. 2 to permit said bolt 4 to be withdrawn or inserted in attaching or detaching the thill iron. In the rear part of the coupling and engaging the thill iron is an antirattling spring 12 which is adapted for well known purposes.

It is obviously apparent that many minor changes in the construction and arrangement of the several parts might be made and substituted for those shown and described without in the least departing from the nature or spirit of the invention.

Having thus described the invention, what is claimed as new is—

In combination with a clip having forwardly extending arms, of a headless bolt removably mounted in said arms, a tie-plate having a forwardly depressed portion formed with a

bifurcation to provide two lugs, a locking frame pivotally connected to and embracing the said lugs, the upper end of the frame on the inner opposing sides thereof being recessed to form front flanges and adapted to close over the opposite ends of the headless bolt, the lower portions of the opposite sides of the said locking frame being connected by a cross bar, and a coiled spring having an arm bearing against the under side of the cross bar to hold the locking frame normally closed against the arms of the clip, substantially as and for the purposes specified.

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

JAMES HENRETTY.

Witnesses:
JNO. D. MARLIN, Jr.,
J. NIVEN.