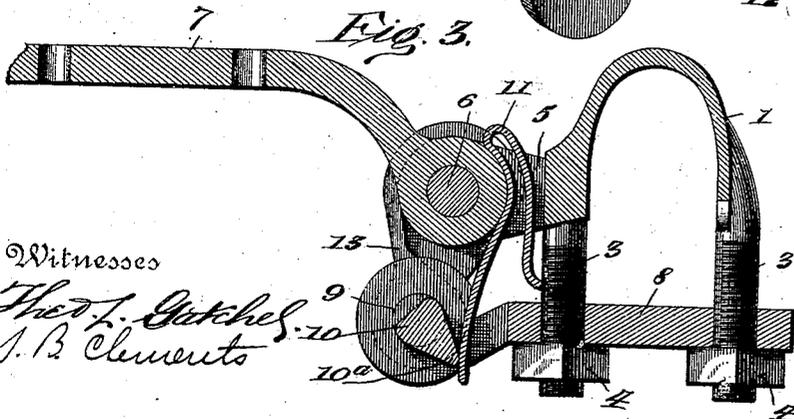
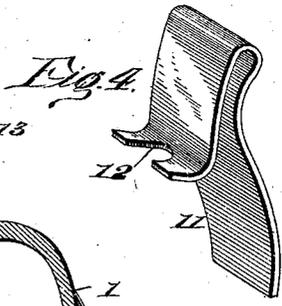
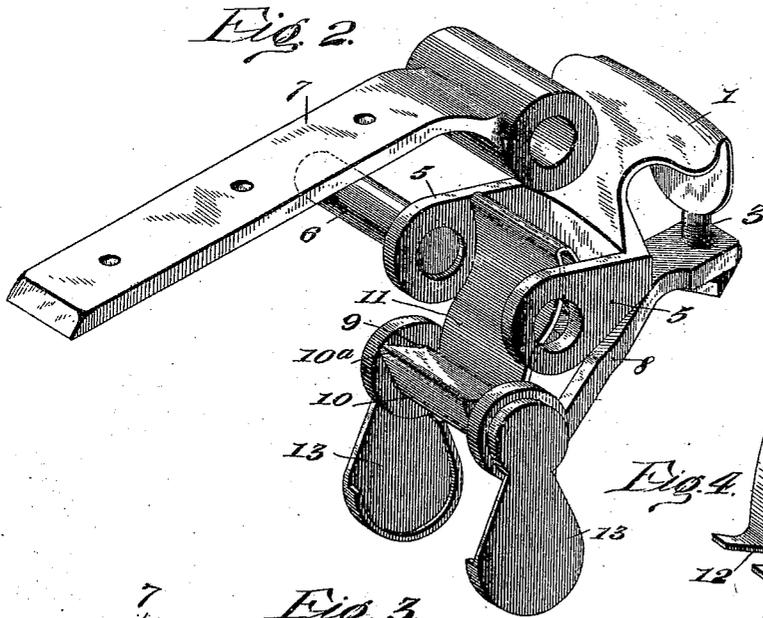
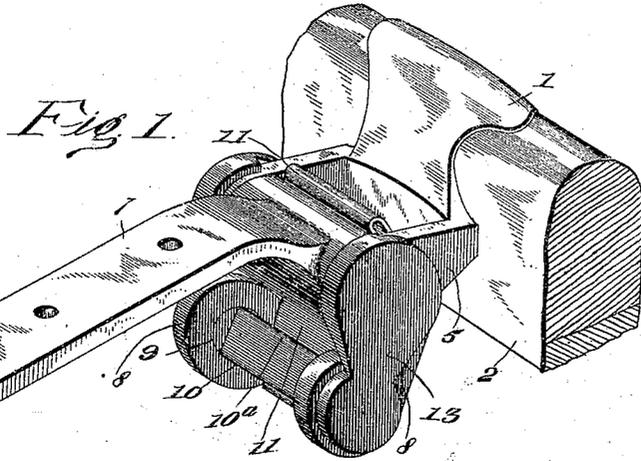


(No Model.)

J. HENRETTY.
THILL COUPLING.

No. 551,894.

Patented Dec. 24, 1895.



Witnesses
Theo. L. Gatchel
S. B. Clements

Inventor
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Philip W. Annett
his Attorney

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. 551,894, dated December 24, 1895.

Application filed June 7, 1895. Serial No. 552,014. (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.

My invention relates to thill-couplings, the same being especially designed as an improvement upon the invention described in the patent issued to me November 6, 1894, No. 528,670, the object of the same being to simplify the old construction by making it in fewer parts and also to improve the operation of the same.

The invention in the present instance resides particularly in the antirattling spring, which also serves the function of holding the locking-frame in its locked position, and also in the construction of this frame, which is adapted to the form of spring employed.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of a thill-coupling embodying my invention. Fig. 2 is a similar view showing the locking-frame in its lowered position with certain parts detached. Fig. 3 is a vertical central sectional view through the coupling, and Fig. 4 is a detailed perspective view of the antirattling spring.

Like reference-numerals indicate like parts in the different views.

1 represents a clip which is adapted to fit over the axle-beam 2, and has downwardly-extending legs 3, which are threaded for the purpose of receiving the nuts 4 4. The clip 1 has forwardly-extending arms 5 5, which are perforated for the reception of the pivotal bolt 6, which passes through perforations in said arms and through a hole in the end of the thill-iron 7.

8 represents a plate secured to the under side of the axle-beam 2 by nuts 4 on the end of the downwardly-projecting legs 3 of the clip 1. This plate has forwardly-extending arms, which are perforated, as shown at 9, and through the perforation 9 passes a shaft

10 of the locking-frame. This shaft has a projecting lug 10^a on one side thereof, which is adapted to engage one side of a spring 11, as clearly shown. This spring is shown in detail in Fig. 4, and consists of a plate of metal recessed at 12 to enable it to fit against the front leg 3, extending upwardly therefrom and bent downwardly and forwardly to bring it into engagement with the lug 10^a on the shaft 10. The upper bent end of said spring acts downwardly and forwardly against the end of the thill-iron 7, serving the purpose of an antirattling spring and also to secure the locking-frame in its closed position.

The locking-frame referred to consists of two side plates 13 secured to the ends of the shaft 10, which are adapted, when in their closed position, to surround the arms 5 of the clip 1, and prevent the bolt 6 therein from becoming displaced. These plates are formed with flanges on their inner sides, which prevent the inward movement of said plates when in their locked position. By this construction it will be seen that the spring 11, acting against the lug 10^a on the shaft 10, holds the locking-frame in its closed position and also prevents rattling of the thill-iron in its bearings.

To remove the iron, the locking-frame is turned down upon its pivotal shaft 10 against the force of the spring 11, when the bolt 6 may be removed and replaced, and, if necessary, a new spring applied thereto. To lock the frame, it is merely necessary to force it upward, where it is held through the action of the spring 11 on the under side of the lug 10^a.

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

1. In a thill coupling, the combination with a clip adapted to surround an axle beam having downwardly depending legs and forwardly extending arms, of a thill iron rotatably mounted in the forward extending arms of said clip, a plate secured to the lower end of said legs having forwardly extending arms, a locking frame rotatably mounted in the arms of said plate consisting of a pivotal shaft having a lug on one side thereof and side plates adapted to fold up and surround the arms on said clip, and a spring adapted to engage the lug on said shaft, whereby said locking frame

will be held securely in its locked position, substantially as and for the purpose described.

2. In a thill coupling, the combination with a clip adapted to surround an axle beam
5 having downwardly depending legs and forwardly extending arms, of a thill iron rotatably mounted in the forward extending arms of said clip, a plate secured to the lower end of
10 said legs having forwardly extending arms, a locking frame rotatably mounted in the arms of said plate consisting of a pivotal shaft having a lug on one side thereof and side plates adapted to fold up and surround the arms on
15 lug on said shaft consisting of a plate of

spring metal recessed at one point to enable it to fit against one of the legs of said clip extending upwardly and bearing upon the rear surface of said thill iron and bent downwardly and forwardly into the range of movement of the lug on said pivotal shaft, substantially as and for the purpose described. 20

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

JAMES HENRETTY.

Witnesses:

F. W. RHODA,
JNO. D. MARLIN, JR.