(No Model.)

A. L. & J. D. THOMPSON & P. J. STEWART.

THILL COUPLING.

No. 592,718. Patented Oct. 26, 1897.

FIG. 1.

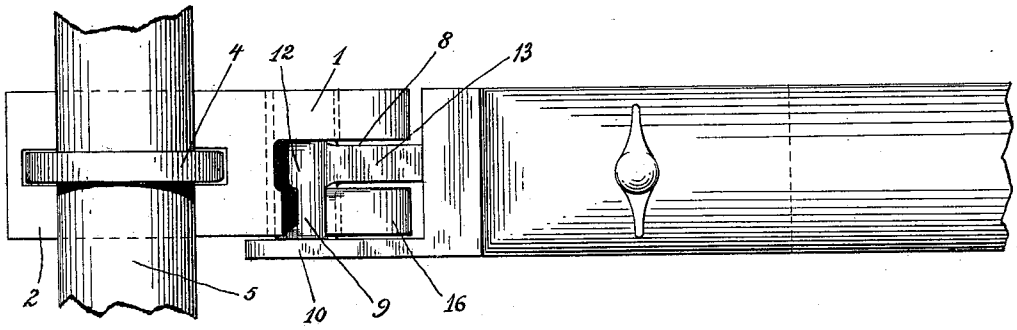


FIG. 2.

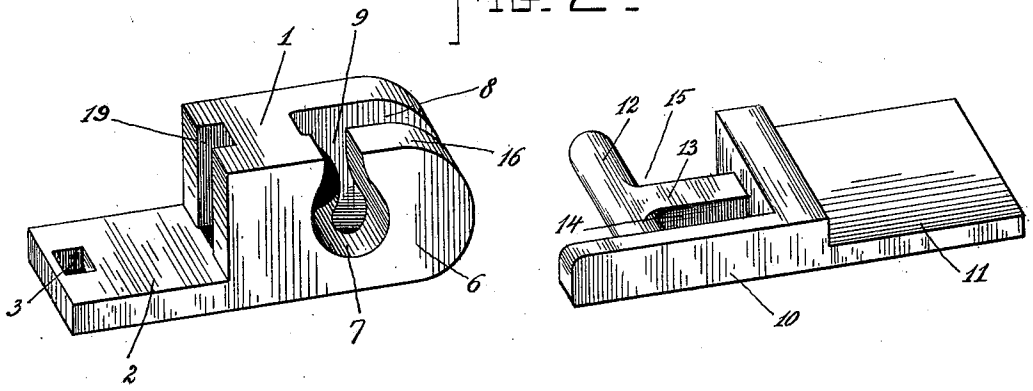


FIG. 3.

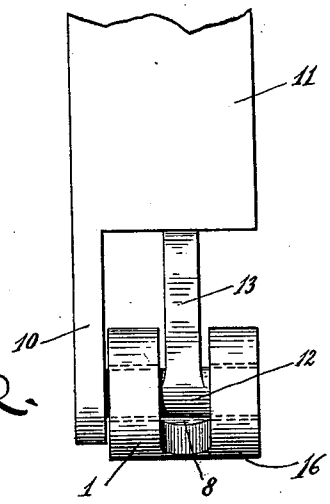
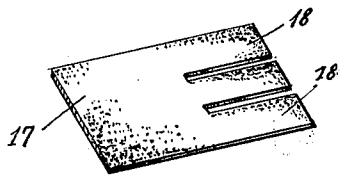


FIG. 4.



WITNESSES

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ALLEN L. THOMPSON, JESSE D. THOMPSON, AND PHILANDER J. STEWART, OF PROVO CITY, UTAH; SAID JESSE D. THOMPSON AND SAID STEWART ASSIGNORS OF THEIR RIGHT AND ALLEN L. THOMPSON ASSIGNOR OF PART OF HIS RIGHT TO JAMES W. SCOTT, C. H. WOOD, FRANK W. WOOD, AND F. J. BOOREY, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 592,718, dated October 26, 1897.

Application filed February 20, 1897. Serial No. 624,310. (No model.)

To all whom it may concern:

Be it known that we, ALLEN L. THOMPSON, JESSE D. THOMPSON, and PHILANDER J. STEWART, citizens of the United States, residing at Provo City, in the county of Utah and State of Utah, have invented certain new and useful Improvements in Thill-Couplings; and we 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.

Our invention relates to improvements in thill-couplings; and the object of the same is to provide a device in which the coupling and uncoupling of its parts may be readily accomplished without removing nuts, screws, or similar devices, the latter being entirely dispensed with in our construction.

The invention also has for its object the provision of a coupling in which rattling and noise are prevented.

With these objects in view the invention consists in certain details of construction and combination of parts, as hereinafter set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of our improved thill-coupling. Fig. 2 is a detached perspective view of the same. Fig. 3 is an end view of our invention, showing the same in the first position for coupling. Fig. 4 is a perspective view of the leather washer.

Referring to the drawings, 1 designates the thill-coupling, having the base-plate 2, which is provided with passages 3 for receiving the clip 4 or other device for securing the coupler to the axle 5 of the vehicle. At the forward end of the base-plate 2 is the draw-head 6, provided with a central transverse perforation 7 and the longitudinal recess 8 opening thereinto. This recess 8 extends through the top wall of the draw-head, and the vertical recess 9 also extends through said top wall and opens into the transverse perforation 7, the said perforation and recesses 8 and 9 forming an L-shaped passage in the head with the transverse perforation passing through one arm of the L. This L-shaped recess leaves a cut-away portion or projection 16.

The thill-iron is formed with a base-plate 11, which may be secured to the thills by bolts or in any other desired manner, and at its rear end is cut away to form a longitudinally-extending arm 10. This arm 10 has the integral transversely-extending pin 12 near its free end, and the central web or arm 13 connects the pin 12 intermediate its ends with the opposite leg of the L. Thus two recesses 14 and 15 are formed, the latter having an open end. The pin 12 constitutes the trunnion of the thill-iron.

When it is desired to couple the shafts to the vehicle, they are positioned as shown in Fig. 3 and the trunnion 12 readily inserted in the transverse perforation 7 of the coupler-head, the free end of said trunnion passing out through the side wall of the head. The shafts are then lowered and the parts assume the positions illustrated in Fig. 1, the central web or connecting-arm 13 taking the longitudinal recess 8 and the recess 14 of the thill-iron receiving the projecting or cut-away portion 16 of the coupler-head formed by the L-recess. The perforated wall of the L works in the recess 15 of the thill-iron, as is clearly illustrated. The end of the coupler-head is convex or rounded and the recesses 14 and 15 are concaved, so that a bearing is formed for the two parts of the coupling. The arm 10 and the web 13 prevent disengagement of the parts except when turned to the position illustrated in Fig. 3. We provide a leather washer 17, which is formed of a single piece of leather having one end slit to form the tongues 18, which enables it to fit within the L-shaped recess, as will be readily understood. This washer prevents rattling and wear of the parts. The rear end of the coupler-head is recessed at 19 in line with one of the bolt-passages 3 for the reception of one of the legs of the securing-clip.

From the above description it will be understood that the shafts may be instantly attached or detached from the vehicle and the

tongue inserted and that our coupler is very simple in its construction, cheap in its manufacture, and effectual in its operation.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A thill-coupling comprising a draw-head, provided with a transverse passage, and an L-shaped recess communicating therewith through the upper wall thereof, a thill-iron having a longitudinally-extended arm projecting from one edge thereof, a pin carried by said arm a short distance from its extremity, and a bar connecting said pin intermediate its ends with the end wall of the thill-iron thereby forming two parallel passages one of which is open so that when the parts are united, the pin takes the transverse passage of the coupling-head, while the connecting-bar engages the longitudinal passage, the portion of the arm of the thill-iron projecting beyond the point of connection of the pin, bearing against the side wall of the draw-head to strengthen the coupling, substantially as described.

2. A thill-coupling comprising a draw-head having a transverse passage formed therein, and an L-shaped passage opening through the upper wall thereof and communicating with the transverse passage, a washer of flexible material having its ends slit, said washer adapted to be positioned in the transverse passage with the side portions formed by the slits engaging the inner periphery of the walls of the transverse passage and with the central portion resting on the bottom wall of the longitudinal passage, and a thill-iron having a longitudinally-extending arm, a pin carried by said arm, and a bar connecting said pin with the end wall of the iron, said iron adapted to be positioned in the head and rest upon said washer, substantially as described.

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

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Witnesses:
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