(No Model.)

D. J. OWEN.

THILL COUPLING.

No. 363,254. Patented May 17, 1887.

Fig. 1.

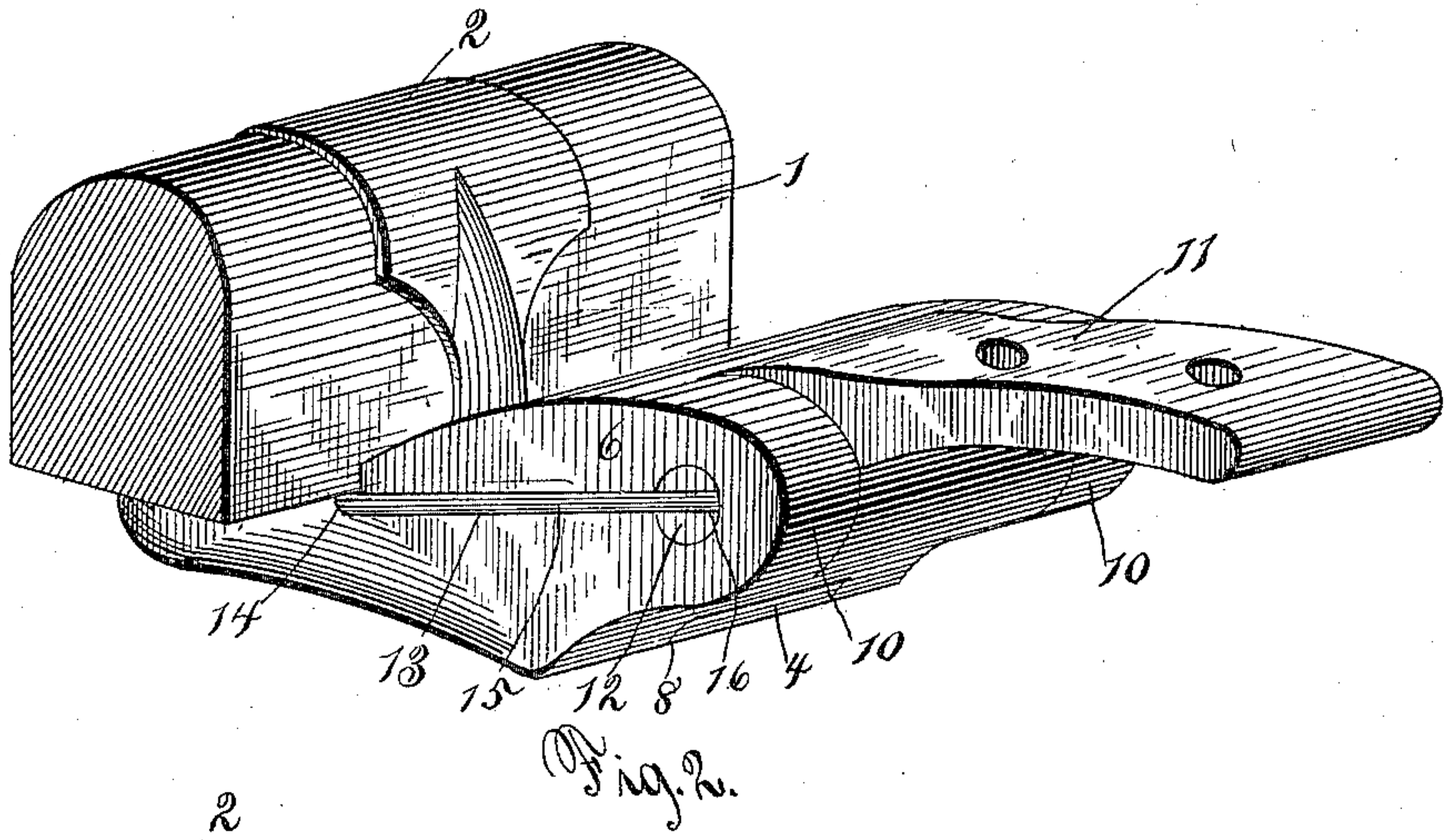


Fig. 2.

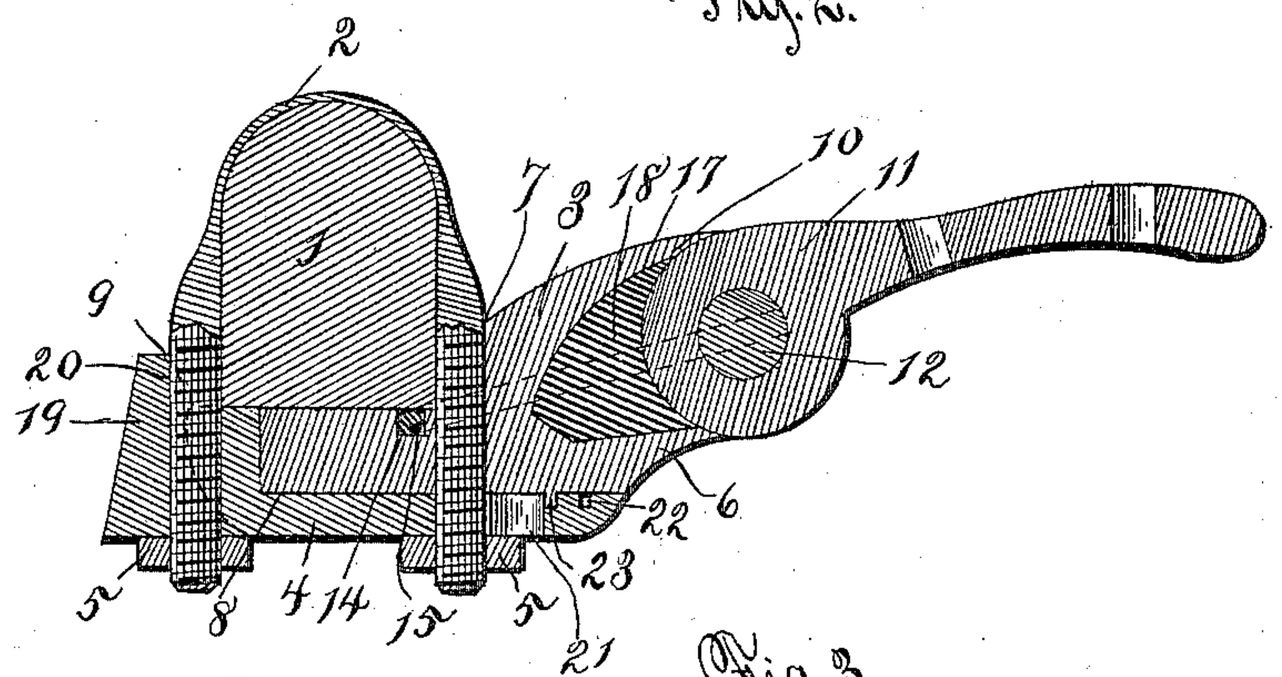
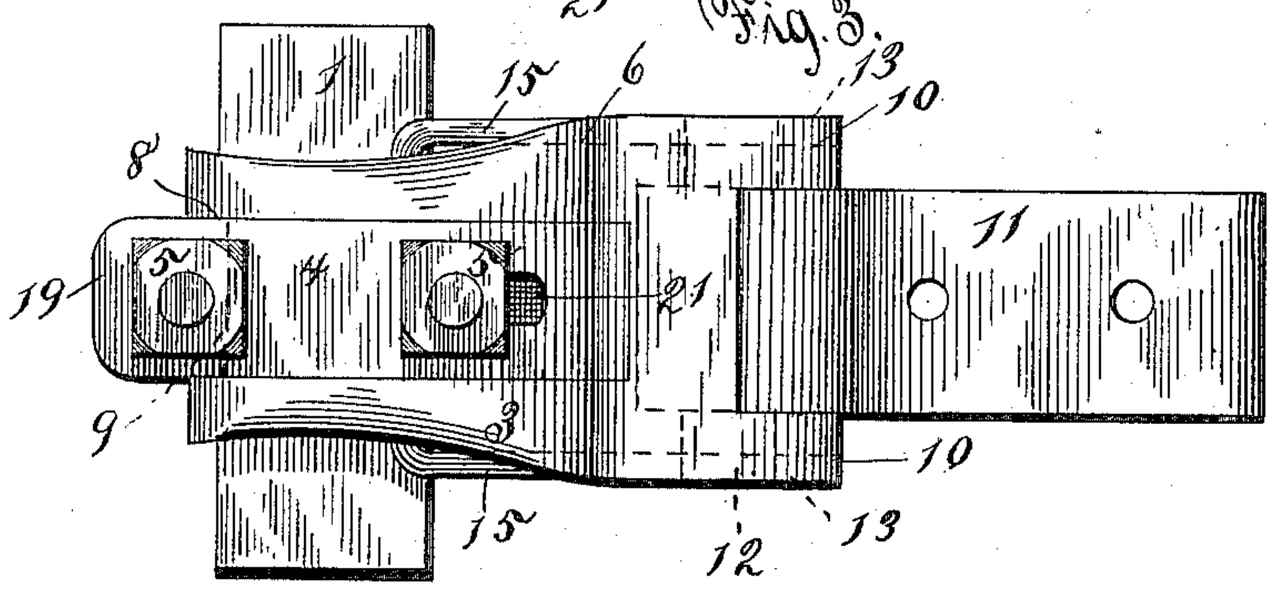


Fig. 3.



Witnesses
F. L. Ourand.
B. L. Coul.

Inventor
Demus J. Owen,
By his Attorneys
Louis Bagger & Co.

UNITED STATES PATENT OFFICE.

DEMUS J. OWEN, OF LYNN, PENNSYLVANIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 363,254, dated May 17, 1887.

Application filed February 14, 1887. Serial No. 227,512. (No model.)

To all whom it may concern:

Be it known that I, DEMUS J. OWEN, a citizen of the United States, and a resident of Lynn, in the county of Susquehanna and State of Pennsylvania, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved thill-coupling. Fig. 2 is a vertical sectional view of the same, and Fig. 3 is a bottom view of the coupling.

Similar numerals of reference indicate corresponding parts in all the figures.

My invention has relation to that class of thill-couplings in which the thill-iron is secured to the shaft by means of a coupling-pin passing through the thill-eye and secured in place by means of springs bearing against its ends, and in which the inner side of the thill-eye bears against a yielding block or cushion, preventing rattling; and it consists in the improved construction and combination of parts of such a coupling, as hereinafter more fully described and claimed.

In the accompanying drawings, the numeral 1 indicates the axle, upon which the usual clip, 2, is secured, straddling and securing the main portion 3 of the coupling by means of its shackle 4 and its nuts 5. The said main portion of the coupling consists of a plate, 6, having a perforation, 7, for the passage of the forward leg of the clip, and a longitudinal groove or recess, 8, in its under side, and a notch or recess, 9, in its rear end, while the perforated ears 10, between which the thill-eye 11 is pivoted upon a bolt, 12, project from the forward end of the said plate. The outer sides of the ears are formed with grooves 13, extending from a transverse groove in the upper side of the plate at the inner ends of the perforated ears, and extending from the said groove 14 to the perforations in the ears, and a spring, 15, is placed with its central straight portion in the groove in the top of the plate, and has its ends, which are bent at right angles to the central portion, resting in the grooves and bearing with their ends in transverse grooves 16 in the ends of the pivotal bolt, the said grooves forming continuations of the grooves in the sides of the ears, so that the ends of the spring may serve to retain the said bolt in place in the ears and thill-eye.

A recess, 17, is formed in the body portion of the coupling between the perforated ears, and a block, 18, of rubber or similar yielding material, is placed within this recess and bears against the thill-eye, preventing rattling. The shackle 4 rests and fits in the groove or recess in the under side of the plate, and has an upwardly-projecting portion, 19, at its rear end, which portion projects up into the notch or recess in the rear end of the plate, and has a vertical perforation, 20, through which the rear leg of the clip passes; and the forward end of the shackle has a longitudinal slot, 21, for the passage of the forward leg of the clip, and has transverse grooves in its upper face, with which grooves 22 it may fit upon a transverse rib or tongue, 23, in the forward end of the groove or recess in the under side of the plate, the said grooves and rib and the slot for the leg of the clip admitting of the coupling being used upon axles of different thickness, as the shackle may be slid out or in in the groove or recess, according to the thickness of the axle, and be secured by means of the rib engaging the transverse groove, which is brought to register with it, when the nut may be screwed home and the shackle is held in place.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a thill-coupling, the combination of a plate clipped to the under side of the axle, and having a pair of perforated ears projecting from its forward end and a transverse groove in its upper side, and two grooves in the outer sides of the ears, extending from the ends of the transverse groove to the perforations in the ears, a thill-eye, a pivotal bolt passing through the perforations of the ears and through the thill-eye, and having transverse grooves in its ends, and a bail-shaped spring having its central portion resting in the transverse groove, and having its ends

resting in the grooves in the sides of the ears, and bearing with the ends in the grooves in the ends of the pivotal bolt, as and for the purpose shown and set forth.

2. In a thill-coupling, the combination of a plate having the thill-eye pivoted at its forward end and formed with a longitudinal groove or recess in its under side, having a transverse rib in the forward end and formed with a notch or recess in its rear end, a clip passing through the plate with its forward leg and having nuts upon the lower ends of its legs, and a shackle having a perforated and upwardly-projecting rear portion fitting in the notch or recess in the rear end of the plate, and having the rear leg of the clip passing through it and formed with transverse grooves in the forward end of its upper face fitting upon the rib in the groove or recess in the plate, and having a slot in its forward end for the passage of the forward leg of the clip, as and for the purpose shown and set forth.

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

DEMUS J. OWEN.

Witnesses:
ELMER E. JOHNSON,
L. R. LYMAN.