No. 747,039. PATENTED DEC. 15, 1903.

C. C. BRADLEY.

THILL COUPLING.

APPLICATION FILED AUG. 1, 1903.

NO MODEL.

Fig. 1

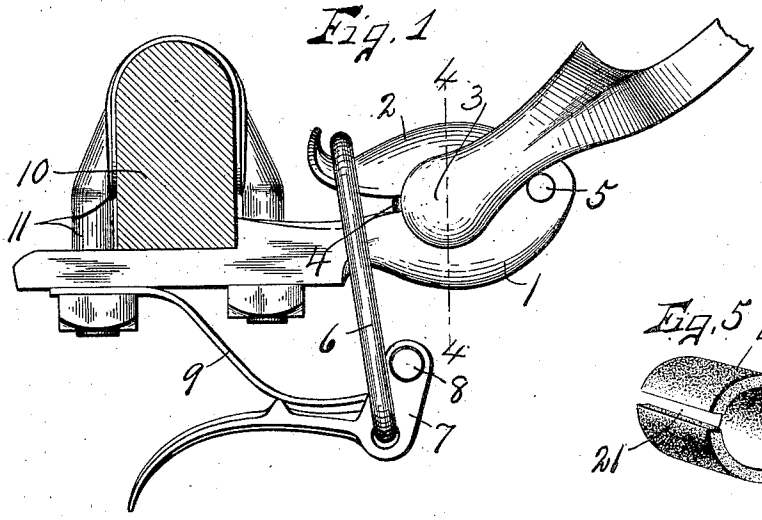


Fig. 5

Fig. 2.

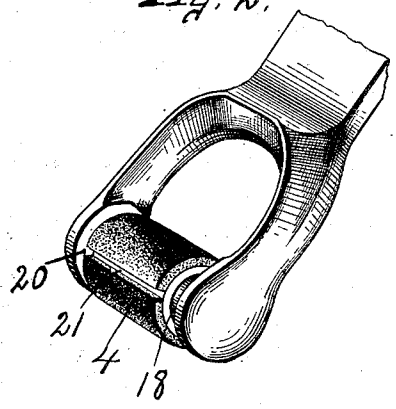


Fig. 3.

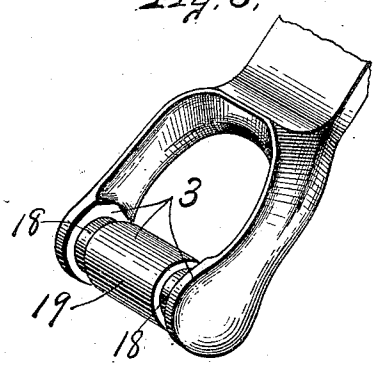
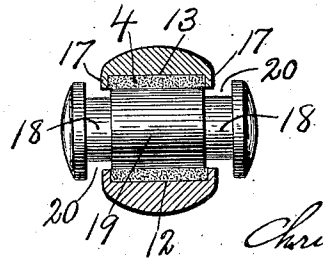


Fig. 4.



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No. 747,039. Patented December 15, 1903.

UNITED STATES PATENT OFFICE.

CHRISTOPHER C. BRADLEY, OF SYRACUSE, NEW YORK.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 747,039, dated December 15, 1903.

Application filed August 1, 1903. Serial No. 167,866. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER C. BRADLEY, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Thill-Couplings, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in thill-couplings, and refers more particularly to the draft-eye and coupling-pin and an interposed packing of leather or equivalent material.

The object of this invention is to enable the use of a cylindrical coupling-pin in connection with the draft-eye having cylindrical bearing-faces and to interpose a cylindrical packing of leather or equivalent material between the coupling-pin and bearing-faces of the draft-eye in such manner as to prevent the contact of the metal parts of the pin and draft-eye with each other, and thereby obviate the noise and rattling due to such contact.

In the drawings, Figure 1 is a side elevation of a thill-coupling embodying the features of my invention. Figs. 2 and 3 are perspective views of the coupling-pin, showing the packing in operative position in Fig. 2, but removed in Fig. 3. Fig. 4 is a sectional view taken on line 4 4, Fig. 1. Fig. 5 is a perspective view of the detached packing-sleeve.

Similar reference characters indicate corresponding parts in all the views.

In order to demonstrate the practicability of my invention, I have shown a draft-eye consisting of a fixed section 1 and a movable section 2 for receiving a coupling-pin 3 and a packing 4, the movable jaw or section 2 being hinged at 5 to the front end of the fixed section or jaw 1 and is held in operative position by a link 6, having one end engaged with the free end of the movable jaw 2 and its other end pivotally connected to a lever 7, which latter is fulcrumed at 8 upon the free end of a spring 9, said spring being attached in any suitable manner to an axle, as 10, and in this instance is secured directly to one of the legs or bolts of the clip 11, as seen in Fig. 1.

The inner faces 12 and 13 of the jaws 1 and 2 are substantially flat or parallel with the axis of the coupling-pin 3, and the opposite side edges of each jaw are formed with inturned flanges 17. It is thus apparent that the adjacent faces of the jaws are provided with recesses and that the faces 12 and 13 are curved longitudinally for forming cylindrical bearing-faces to receive the packing-sleeve 4, presently described, the flanges 17 serving as abutments for the end edges of the sleeve to prevent its lateral displacement with reference to the jaws 1 and 2, as seen in Fig. 4.

The coupling-pin 3 is cylindrical in cross-section, and its opposite ends 18 are reduced in diameter to form an enlarged central or intermediate cylindrical portion 19 and annular groove 20 at the opposite ends of the enlarged portion. This coupling-pin is somewhat longer than the width of the jaws 1 and 2, and the jaws are of slightly greater width than the length of the enlarged intermediate portion 9, so that the flanges 17 are alined with the grooves 20 and are sufficiently separated from the ends of the enlarged portion 19 to prevent contact with the coupling-pin.

The packing 4 is formed of leather or similar pliable material, and consists of a cylindrical sleeve which is split longitudinally through one side at 21 and is provided with inner and outer cylindrical bearing-faces, the former being engaged with the enlarged portion 19 of the coupling-pin, and the latter is seated in the recesses of the adjacent faces of the jaws 1 and 2. This packing-ring is of substantially the same length as the distance between the flanges 17, and therefore projects slightly beyond the opposite ends of the enlarged portion 19, which it incloses, so that when the jaws are clamped upon the coupling-pin the packing-sleeve is brought into close engagement with the periphery of the portion 19 and permits the rocking movement of the draft-eye and coupling-pin one upon the other without liability of contact between the metal parts.

In assembling the parts of my improved coupling the packing-sleeve is sprung open and placed upon the enlarged portion 19 of the coupling-pin, and therefore becomes a fixture of the coupling-pin. The link 6 is then detached from the free end of the jaw 2 by means of the lever 7 and the jaw 2 and is then swung forwardly upon its hinge-pin 5, whereupon the coupling-pin, with the packing thereon, is inserted between the jaws, and

the jaw 2 is then swung backwardly and engaged by the link 6, which holds the movable jaw in its operative position.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a thill-coupling, a draft-eye and a coupling-pin having an enlarged cylindrical center portion, in combination with a cylindrical packing of leather or equivalent material encircling said portion and engaged by the adjacent faces of the draft-eye.

2. A thill-coupling comprising a draft-eye, a cylindrical coupling-pin having reduced ends and a cylindrical packing encircling the intermediate portion of the coupling-pin and engaged by the adjacent faces of the draft-eye.

3. A thill-coupling comprising oppositely-arranged jaws having cylindrical bearing-faces, a coupling-pin having an enlarged cylindrical center portion, and a cylindrical packing encircling said enlarged portion of the coupling-pin and engaged by the cylindrical bearing-faces of the jaws.

4. A thill-coupling comprising two jaws having cylindrical bearing-faces and inwardly-projecting flanges at the opposite ends of the bearing-faces, a cylindrical coupling-pin and a packing encircling the coupling-pin and engaged by said bearing-faces and inwardly-projecting flanges.

In witness whereof I have hereunto set my hand this 29th day of July, 1903.

CHRISTOPHER C. BRADLEY.

Witnesses:

HOWARD P. DENISON,

MILDRED M. NOTT.