

ROD COUPLING.

925,503.

Patented June 22, 1909.



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ROD-COUPLING.

No. 925,503.

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To all whom it may concern:

Be it known that I, HEINRICH H. POFAHL, a citizen of the United States, residing at Vivian, in the county of Waseca, State of Minnesota, have invented certain new and useful Improvements in Rod-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 devices for coupling two rods, more particularly for coupling a pump rod with a wind-mill operating rod, and has for one of its objects to simplify and improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a simply constructed device of this character whereby two rods may be instantly coupled and uncoupled without detaching any of the parts.

With these and other objects in view the invention consists in certain novel features of construction as hereafter shown and described and then specifically pointed out in the claims.

The improved device may be employed for coupling rods of various forms and sizes, and rods employed for various purposes, but for the purpose of illustration the improved device is shown applied to the adjacent ends of a wind-mill operating rod and a pump rod, and in the drawings thus employed, Figure 1 is a side elevation of the adjacent portions of a wind-mill rod and a pump rod, with the improved device applied. Fig. 2 is a rear elevation of the same. Fig. 3 is a section on the line 3—3 of Fig. 2.

A portion of a conventional wind-mill operating rod is represented at 10 and a portion of a conventional pump rod at 11. The rod 10 is generally of wood, while the rod 11 is generally of metal, and these portions are shown in this form. Connected to the lower end of the rod 10 is a stock or bar 12 having spaced wings or ribs 13—14 bearing against the opposite sides of the rod 10. The stock 12 is provided with two preferably square apertures 15—16 with flaring outer portions 17—18, the latter portions being preferably circular. Bolts 19 are extended through the rod 10 and are provided with square portions 20—21 to engage in the square aper-

tures 15—16, and with flaring heads 22—23 engaging in the flaring portions 17—18 of the apertures, the bolts being secured by nuts 24—25, as shown. By this means the stock 12 is firmly secured to the rod 10.

At its lower end the stock 12 is provided with a lateral projection 26, and formed through the projection and likewise through the stock is a continuous transverse aperture 27, and formed through the stock transversely of the aperture is a seat or recess 28, and extending laterally from the stock at the side opposite to the projection 26 is a stud or pin 29. Formed through the upper side of the projection 26 is an open slot 30 communicating with the aperture 27, as shown, and extending upwardly from the portion of the aperture which is located within the stock is a vertical slot 31 in transverse alinement with the slot 30 and continuing the same. Slidable through the aperture 27 is a bar 32 having a laterally extending loop 33 at its forward end, the laterally extended portions of the loop fitting into the seat 28 when the bar 32—33 is in its withdrawn position, as hereafter explained. Extending upwardly from the bar 32 is a rib 34 corresponding to and slidably engaging in the alined slots 30—31, the rib having a transverse seat 35. Extending through the stock 12 above the slot 31 is a stud or pin 36, preferably riveted at one end at 37 in the stock. Mounted for rotation upon this stud 36 is the hub portion 38 of a lever or crank arm 39, the latter having a ball 40 at its outer end. Formed upon the hub 38 is a cam rib 41, preferably in screw form and operating constantly in the seat 35. The rod 11 is slidable through the loop 33 and is provided with an aperture 42 adapted to engage over the pin 29. By this simple arrangement it will be obvious that when the lever arm 39 is turned into one of its positions, the cam rib 41 will move the bar 32 with its loop 33 into their outward positions and force the loop 33 outwardly and carry the rod 11 free from the pin 29, so that the movement of the rod 10 with its attached stock 12 will not affect the rod 11, as the loop will be caused to slide upwardly and downwardly upon the rod. If however, the lever 39 is moved into its other position the rib 41 will move the bar 32 inwardly and seat the rod 11 by its aperture 42 over the pin 29 and hold it in that position, the head

40 upon the crank arm materially assisting in the operation and holding the lever arm in either of its two positions, as will be obvious.

5 The improved device is simple in construction, can be inexpensively manufactured, and instantly operated by simply throwing the lever arm over from side to side as may be required to couple the rod 11 to the rod
10 10, or uncouple it therefrom as may be required.

The metal parts may be constructed of cast steel, malleable iron, or other metal or metallic compounds, as required, and may
15 be of any required size.

What is claimed, is:—

1. A coupling device of the class described comprising a stock adapted to be connected to a rod and provided with a transverse
20 guideway at one end and with a lateral pin adjacent to the guideway, a bar slidable through said guideway and provided with a loop at one end and with a transverse seat, a crank arm having a hub and mounted for
25 rotation upon said stock and with a cam rib upon said hub and engaging said transverse seat, and a rod movable through said loop

and provided with an aperture adapted to engage over said lateral pin.

2. A coupling device of the class described 30 comprising a stock adapted to be connected to a rod and provided with a lateral projection at one end and with a transverse guideway extending through the stock and through said projection, said stock having 35 a lateral pin adjacent to the guideway and with an open slot in the projection communicating with the guideway, a bar slidable through said guideway and provided with a loop at one end and with a longitudinal rib 40 extending through said slot, said rib having a transverse seat, a crank arm having a hub and mounted for rotation upon said stock and with a cam rib upon said hub and engaging said transverse seat, and a rod mov- 45 able through said loop and provided with an aperture adapted to engage over said lateral pin.

In testimony whereof, I affix my signature, in presence of two witnesses.

HEINRICH H. POFAHL.

Witnesses:

GEO. E. EWERT,
WM. A. POFAHL.