T. S. KEMP.

PUMP ROD COUPLING.

APPLICATION FILED DEC. 20, 1912.

1,067,819. Patented July 22, 1913.

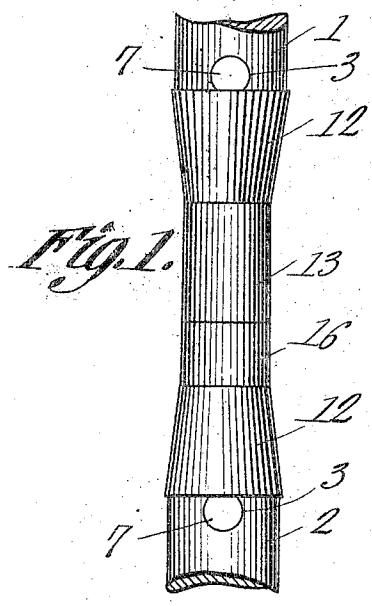


Fig. 1.

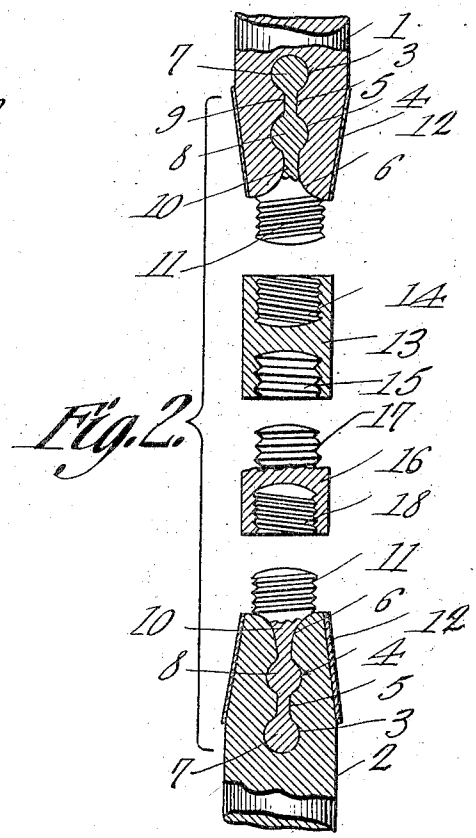


Fig. 2.

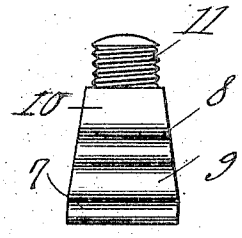


Fig. 3.

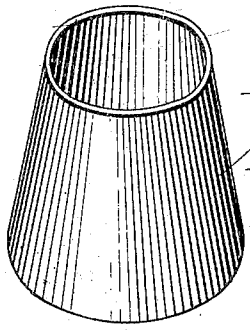


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

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PUMP-ROD COUPLING.

1,067,819. Specification of Letters Patent. Patented July 22, 1913.

Application filed December 20, 1912. Serial No. 737,802.

To all whom it may concern:

Be it known that I, THOMAS S. KEMP, a citizen of the United States, residing at Clarendon, in the county of Donley and State of Texas, have invented a new and useful Pump-Rod Coupling, of which the following is a specification.

This invention relates to a pump rod coupling and more particularly to a coupling adapted to connect together pump rods made of wood or similar substance.

An object of the invention in to provide an improved form of coupling in which the ends of the rods to be coupled are wedgedly engaged by the coupling member and the ends of said rods prevented from spreading by means of suitable ferrules.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the drawings accompanying this specification and forming a part thereof, the preferable form of my invention is illustrated, in which:—

Figure 1 is a view in elevation of my improved coupling secured to the ends of suitable pump rods. Fig. 2 is a vertical cross sectional view of the same in which the various parts have been detached. Fig. 3 is a detail view of one of the rod engaging members. Fig. 4 is a detail view of one of the ferrules.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 and 2 are the ends of wooden rods which are to be coupled. In the application of my improved coupling to the ends of these rods, they are provided with the transverse cylindrical bores 3 and 4 communicating by the restricted passage 5. Extending downward from the bore 4 is the restricted passage 6, the latter flaring outward adjacent the end of the rod. As has been illustrated in the drawings, both the rods 1 and 2 are similarly formed.

The ends of the rods are turned or cut on a bevel to form the frusto-conical ends. Adapted to fit within the bored openings and restricted passage of the rod ends are the members formed with the lugs 7 and 8 connected by the web 9. Extending from the lug 8 is the web 10 which is flared outwardly to conform with the passage 6 and terminates in the threaded portion 11. As illustrated in Fig. 3 the edge of this member is inclined and rounded in order to conform and lie flush with the outer surface of the rods 1 and 2. By reason of the enlarged lugs or bosses 7 and 8 fitting within the respective openings 3 and 4, a secure grip or hold is obtained upon the rods 1 and 2. In order to prevent the ends of the rods 1 and 2 from splitting and being forced outward, a suitable ferrule as illustrated in Fig. 4, is provided which fits upon the frusto-conical ends of the rods 1 and 2. The said ferrule is shell-like in form and frusto-conical in configuration and fits snugly upon the end of the rod and prevents the attaching ends of the rods from moving transversely thereof. In this connection it is to be understood that the lugs 7 and 8 with the webs and threaded ends are first forced into position within the openings formed in the rod ends after which the ferrule 12 is installed in position. Having thus provided attaching means for gripping the wooden rod ends in order to secure and couple the threaded projections or ends 11 together, the coupling member 13 is provided with the internally threaded ends 14 and 15. The central portion of this union or coupling member is solid and the outer surface of which may be milled to form a suitable wrench engaging surface. A second coupling member 16 is provided with the threaded plug 17 and the internally threaded socket 18, the threads in this coupling being both preferably right-handed ones. The socket 18 threadedly engages the portion 11 of the rod attaching member.

In the assembling of my improved coupling, the rod attaching members with their transverse extending lugs are first inserted in the ends of the wooden rods. The ferrules 12 are then positioned thereon. The union member is then screwed upon the portion 11 which threadedly engages the socket 14. Attention is called to the fact in this connection that the diameter of the union is sufficient to extend over the end of the ferrule and hold the latter firmly in position. The plug and socket member 16 is

threadedly positioned upon the portion 11 of the other rod attaching member and is also of a diameter sufficient to contact with and hold in position the ferrule. The socket 15 and threaded plug 17 are now brought into threaded engagement which effectually couples the two rods 1 and 2 together in an efficient and secure manner.

Should the occasion arise in which it is not advisable or is impossible to turn one of the rods 1 or 2, by the use of a union member which is right and left handedly threaded, the plug and socket may first be assembled upon one of the rod attaching members and the union member brought into contact with the plug thereof and the threaded end of the other rod attaching member. Upon the rotation of the union member the coupling between the rods will be accomplished.

I wish it to be understood that I do not wish to limit myself to the use of my improved coupling with wooden rods as it is apparent that the same may be effectually applied to rods of other materials to effectually couple the latter.

Having thus fully described the construction and operation of my improved rod coupling, what I claim to be new and original with me is:—

1. A coupling for rods, said rods provided with frusto-conical ends, said rods provided with transverse openings adjacent the ends, a restricted passage between said openings, a restricted and flared passage communicating with the end of said rod and with one of said transverse openings, rod attaching members adapted to fit within said rod end openings, ferrules adapted to hold said rod attaching members in position in said rod openings, an internally threaded union member, a plug and socket threaded member, said union member and plug and socket member adapted to threadedly engage said rod attaching members and effectually couple said rods, said union member and said plug and socket member being further adapted to maintain said ferrules in position upon the rod ends.

2. In a coupling, the combination with rods provided with transverse openings extending therethrough and with restricted commnuicating passages therebetween, of rod attaching members adapted to fit within said rod end openings, frusto-conical ferrules adapted to embrace the said rod ends to maintain said rod engaging members securely in position, the lower ends of said rod engaging members externally threaded, and means adapted to engage the external threaded ends of the rod attaching members to effect a coupling therebetween, said means contacting with the lower extremities of said ferrules adapted to maintain the same in position and to thereby maintain the said rod attaching members in position.

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

THOMAS STEPHEN KEMP.

Witnesses:
G. S. PATTERSON,
MULKEY PATTERSON.