

S. F. WILLIAMS.
ROD COUPLING.
APPLICATION FILED JAN. 31, 1910.

964,596.

Patented July 19, 1910.

Fig. 1.

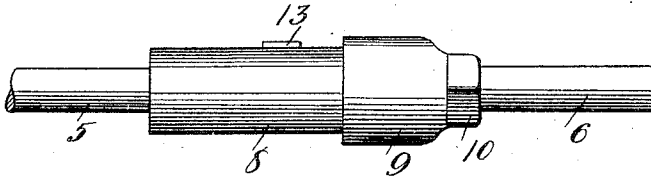


Fig. 2.

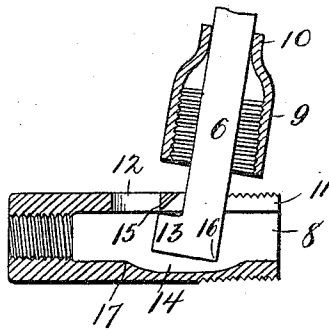
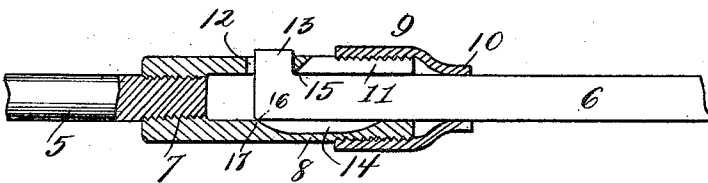


Fig. 3.



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UNITED STATES PATENT OFFICE.

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ROD-COUPLING.

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To all whom it may concern:

Be it known that I, SAMUEL F. WILLIAMS, a citizen of the United States of America, residing at San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Rod-Couplings, of which the following is a specification.

This invention relates to a rod coupling and its object is to provide a simple and inexpensive structure adapted to securely connect the ends of rods and to hold said rods against movement with relation to each other.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawing: Figure 1 is a side elevation of a coupling constructed in accordance with the invention, Fig. 2 is a longitudinal sectional view illustrating the parts in partly connected position and Fig. 3 is a like view with the parts in completely connected position.

Like numerals designate corresponding parts in all of the figures of the drawing.

Referring to the drawing, the numerals 5 and 6 designate the two rods that are to be connected. It will of course be understood that any number of rods may be connected end to end by couplings such as are herein shown and described to thereby provide a rod, composed of a plurality of sections, of any desired length. Rods of this nature may be employed for a number of useful purposes, such for instance as sucker rods in deep wells or for use in cleaning sewer or other pipe. The invention resides in the coupling itself irrespective of the manner or purpose for which it is used.

The rod 5 is threaded at 7 into one end of a tubular coupling sleeve 8. This sleeve 8 is externally threaded at its opposite end for the reception of an internally threaded thimble 9. This thimble is provided with a reduced neck extension 10 which snugly embraces the rod 6 and if desired the exterior face of this neck extension may be angular in form to adapt it for engagement by a wrench or other tool when it is desired to screw the thimble into position upon coupling sleeve 8, see Fig. 3.

A longitudinal slot 11 is formed in one side of the sleeve 8 and opens at the end thereof. An opening 12 is also formed in this side wall in longitudinal alinement with

said slot. The rod 6 is provided with a transverse end extension 13 which enters the opening 12 as shown in Fig. 3. The side wall of the coupling sleeve 8 is cut out as indicated at 14 to permit the passage of the rod 6 thereinto.

In connecting the rods 5 and 6 it will be understood that the rod 5 is screwed into engagement with the coupling sleeve or rather the sleeve 8 is screwed upon the rod, one of the prime reasons necessitating the use of a coupling of this character residing in the great length of the rods employed and the consequent difficulty of imparting rotation to them to screw them together. The rod 6 is first placed in the position illustrated in Fig. 2 and is then swung downwardly, the end extension thereof swinging around the center formed by the point 15. After the rod 6 reaches its limit of movement, that is, when it is in alinement with rod 5 the thimble 9 is screwed upon sleeve 8. It will be seen that the engagement of the end 13 of rod 6 in opening 12 of the sleeve 8 will effectually prevent endwise movement of the rods with relation to each other. The thimble 9 will prevent swinging movement of rod 6 through slot 11 to disengage the parts and in addition to this the final movement of rod 6 in seating itself brings its extreme corner 16 over the edge wall 17 of recess 14 at which time said wall backs up and supports the end of the rod 6 and prevents any transverse movement thereof.

From the foregoing description it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention but while the elements shown and described are well adapted to serve the purposes intended it is to be understood that the invention is not limited to the precise construction set forth but includes within its purview such changes as may be made within the scope of the appended claim.

Having described my invention what I claim is:—

The combination with a pair of rods to be connected together end to end, of a tubular sleeve threaded upon the end of one of said rods, said tubular sleeve having a longitudinally extending slot formed therein and opening at one of its ends, said sleeve also having a transverse opening formed in its wall in longitudinal alinement with said slot, a transverse extension formed upon the

end of the other of said rods and adapted to enter said opening when said last named rod is given a swinging movement through said slot, and a thimble mounted upon the
5 last named rod, said thimble being internally threaded for engagement with the exterior of said sleeve, and said thimble having a reduced portion which embraces the last named rod, the wall of the sleeve being
10 cut out opposite said slot and opening to permit the aforesaid movement of said rod, the portion of the wall of the sleeve lying

in the rear of the extreme end of said rod when the parts are in their connected position, preventing transverse movement of the
15 end of said rod, substantially as shown and described.

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

SAMUEL F. WILLIAMS.

Witnesses:

FRANK F. CARPENTER,
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