(No Model.)

E. HAYES.

COUPLING.

No. 600,988. Patented Mar. 22, 1898.

Fig. 1.

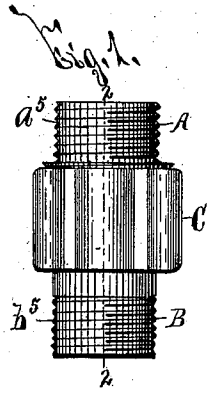


Fig. 2.

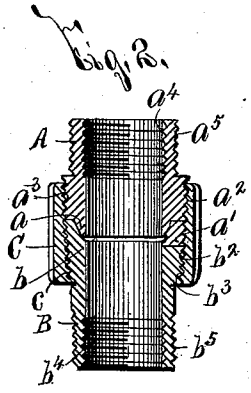


Fig. 3.

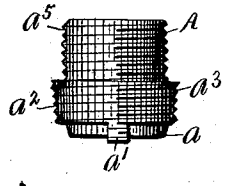


Fig. 5.

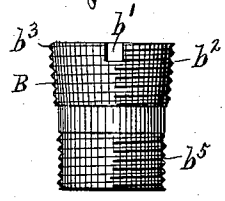


Fig. 4.

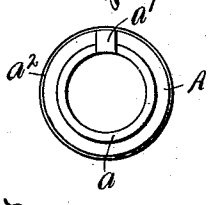


Fig. 6.

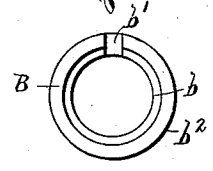


Fig. 7.

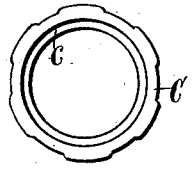
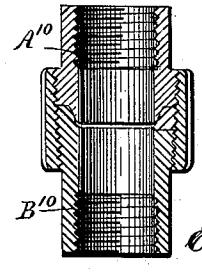


Fig. 8.



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UNITED STATES PATENT OFFICE.

EDWARD HAYES, OF ROCHESTER, NEW YORK.

COUPLING.

SPECIFICATION forming part of Letters Patent No. 600,988, dated March 22, 1898.

Application filed November 14, 1896. Serial No. 612,106. (No model.)

To all whom it may concern:

Be it known that I, EDWARD HAYES, of Rochester, in the county of Monroe, in the State of New York, have invented new and useful Improvements in Couplings, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in couplings particularly applicable for uniting pipes and similar articles, and has for its object the production of a simple and practical device which is cheaply manufactured and is readily secured in position; and to this end it consists, essentially, in the general construction and arrangement of the component parts of the coupling, all as hereinafter fully described, and pointed out in the claim.

In describing this invention reference is had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

Figure 1 is an elevation of my improved coupling. Fig. 2 is a vertical section taken on line 2 2, Fig. 1. Figs. 3 and 4 are respectively elevation and inverted plan of one of the tubular sections of this coupling. Figs. 5 and 6 are respectively elevation and top plan of the other tubular section. Fig. 7 is a top plan of the detached outer sleeve or union of said coupling, and Fig. 8 is a vertical section of a slightly-modified construction of my invention.

As heretofore constructed, couplings for pipes, &c., usually comprise in their organization revoluble sections or nipples arranged end to end and provided with external screw-threads inclined in opposite directions and an outer sleeve or union for uniting said sections. The manufacture and securement in operative position of couplings of this construction is more expensive and difficult and requires the exercise of more care and skill than would be the case were their screw-threads all of the same inclination. I have therefore so constructed the coupling forming the subject-matter of my present invention that its screw-threads may be inclined in the same direction, and consequently said coupling is economically and readily manufactured and connected in operative position.

A, B, and C represent, respectively, the tubular sections or nipples and the outer sleeve or union of my improved coupling. The sections A B are arranged end to end and their adjacent edges are provided with annular and longitudinally-extending tongues and grooves $a\ a'\ b\ b'$, which interlock with each other. The annular tongues and grooves $a\ b$ serve to facilitate the securement of a tight joint between the sections A B, and the longitudinally-extending tongues and grooves $a'\ b'$ prevent independent revoluble movement of either of said sections. The adjacent ends of the sections A B are provided with tapering outer peripheral faces $a^2\ b^2$, which form continuations of each other, as clearly seen at Fig. 2. These faces $a^2\ b^2$ are formed with similarly-inclined screw-threads $a^3\ b^3$, and their adjacent edges are usually disposed in close contact. The opposite ends of the sections A B are preferably formed of less diameter than the faces $a^2\ b^2$, and may be provided with internal and external screw-threads $a^4\ b^4\ a^5\ b^5$ for facilitating the securement of pipes or similar articles thereto. The external and internal screw-threads provided upon the outer or attaching ends of the sections or nipples of my improved coupling may, however, be dispensed with, and at Fig. 8 I have shown a construction of my improved coupling in which the outer or attaching ends of its sections or nipples $A^{10}\ B^{10}$ are unprovided with external screw-threads. The outer sleeve C is of any desirable form, size, and construction, and is usually formed with a tapering inner peripheral face c, having suitable screw-threads for engaging the screw-threads $a^3\ b^3$. The outer face of the sleeve C is usually corrugated for facilitating its engagement by a suitable tool.

When placing my invention in operative position, the outer ends of its tubular sections are suitably secured to the pipes or articles to be connected thereby. Said sections are prevented from revoluble movement by a tool engaged with one of the sections, and the outer sleeve or union is screwed toward the outer end of the tubular section having its opposite end provided with the tapering outer peripheral face of greater diameter. When the outer sleeve or union reaches the limit of its movement, the tubular sections of said

coupling are obviously secured by a tight joint.

My invention will now be readily understood upon reference to the foregoing description and the accompanying drawings.

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

In a coupling, the combination of the tubular section A provided with an annular tongue a, a lengthwise tongue a', and an inclined peripheral face a^2, the tubular section B provided with the annular groove b for receiving the tongue a, the lengthwise groove b' for receiving the tongue a', and the inclined peripheral face b^2 forming a continuation of the face a^2, and the sleeve C having an inner face c engaged with the peripheral faces $a^2\,b^2$, substantially as and for the purpose described.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Rochester, in the county of Monroe, in the State of New York, this 12th day of November, 1896.

EDWARD HAYES.

Witnesses:

ROY C. WEBSTER,

JOHN O'KANE.