

(No Model.)

T. C. JOY.  
RADIATOR COUPLING.

No. 524,804.

Patented Aug. 21, 1894.

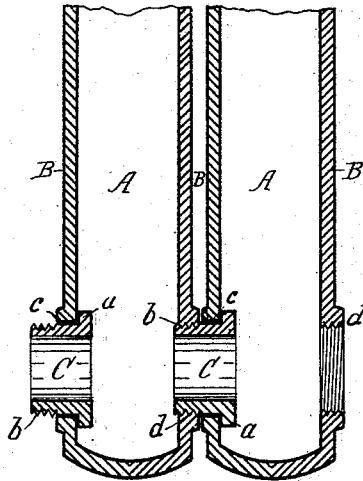


Fig. 1.

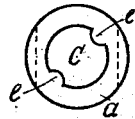


Fig. 2.

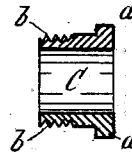


Fig. 3.

WITNESSES:

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THADDEUS C. JOY, OF TITUSVILLE, PENNSYLVANIA.

## RADIATOR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 524,804, dated August 21, 1894.

Application filed May 26, 1892. Serial No. 434,512. (No model.)

To all whom it may concern:

Be it known that I, THADDEUS C. JOY, a citizen of the United States, residing at Titusville, in the county of Crawford and State of Pennsylvania, have invented a new and useful Improvement in Radiator-Couplings, of which the following is a specification.

My invention relates to the manner of coupling together the sections of a sectional steam or hot water radiator, my object being to make a more perfect and stronger coupling than those now in use.

The accompanying drawings illustrate my improvement, Figure 1. being a sectional view through the coupling of the lower part of two sections, showing the sections as coupled together, and with the parts ready to couple to the adjoining sections; Fig. 2. a view of the flange end, and Fig. 3. a longitudinal section of the connecting nipple.

A. represents the steam space in the section; B. the walls; C. the coupler. The coupler is a common pipe nipple, having a collar or flange *a*. upon one end, and an extension screw thread *b*. on the other. The walls of each section are pierced in the ordinary manner at or near the bottom, or at any other point, as at *c-c*. and *d-d*. The opening on one side *c* of each section being a round, smooth hole, just large enough to pass the nipple, until the flange *a*. bears against the inside of the wall B. On the other side *d*. the hole is tapped to receive the thread on the end of the coupler. When the sections are placed together as in Fig. 1, the coupler C. being passed through the hole *c*. is screwed into the hole *d* of the adjacent section, and the two sections are brought snugly together, the joint being packed in any ordinary manner. A wrench may be inserted in the nipple, through the opposite hole for the purpose of exerting a stronger pressure, the lugs *e-e*. being provided for that purpose. The nipple, having the flange *a*. round and concentric with the bore, and of greater diameter than the hole *c*. it is evident that it cannot be introduced into the section after the section is cast. It is made complete and placed in the

core before placing the core in the mold; then after the casting is complete, and the core removed, the nipple is found in the steam space, where there is room to adjust it to place. This nipple may be of cast or wrought iron, or any suitable metal; the thread on it as well as the thread in the section may be made in the casting, or cut afterward.

I am aware that couplings have heretofore been made in a similar manner, with this exception, that the flange of the nipple has been cut away on the two sides, where indicated by the dotted lines in Fig. 2, in order that the nipple could be introduced through the hole *c*. after the section was completed. The flange being cut away, weakened it, and produced an unequal strain upon the walls of the section.

I claim as my invention—

1. A loop radiator; each loop having ports for the passage of the heating fluid; the port on the one side being plain, and the opposite port threaded to receive a nipple; in combination with a flanged nipple inserted in the core of the section before casting, the body of the nipple being of less diameter than the plain port but the flange thereof of greater diameter, the end of the nipple being threaded corresponding to the interior thread of the port of the next section: substantially as shown and described.

2. As a new article of manufacture; a sectional steam or hot water loop radiator; each loop having ports for the passage of the heating fluid, the port on the one side being plain, and the opposite port threaded to receive a nipple; in combination with a flanged nipple inserted in the core of the section before casting, the body of the nipple being of less diameter than the plain port but the flange thereof being of greater diameter, the end of the nipple being threaded to correspond to the interior thread of the port of the next section: substantially as shown and described.

THADDEUS C. JOY.

Witnesses:

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