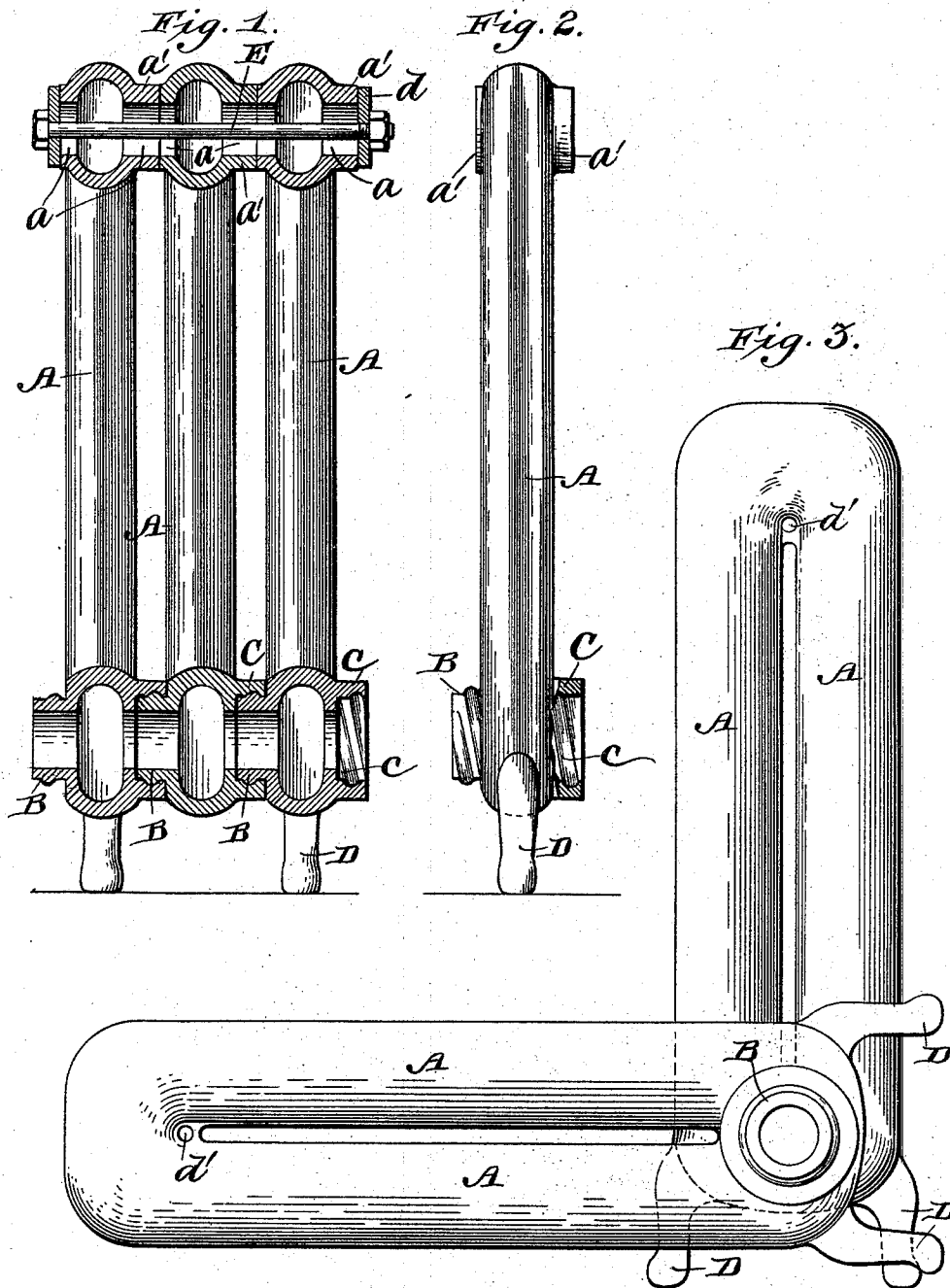


(No Model.)

J. D. YOUNG.
STEAM OR HOT WATER RADIATOR.

No. 530,317.

Patented Dec. 4, 1894.



Witnesses

Gloverance
W. Harry Muzzy

Inventor

James D. Young
per
Maion, Brumick, Lawrence
his Attorneys

UNITED STATES PATENT OFFICE.

JAMES D. YOUNG, OF DULUTH, MINNESOTA.

STEAM OR HOT-WATER RADIATOR.

SPECIFICATION forming part of Letters Patent No. 530,317, dated December 4, 1894.

Application filed March 12, 1894. Serial No. 603,347. (No model.)

To all whom it may concern:

Be it known that I, JAMES D. YOUNG, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Steam or Hot-Water Radiators; 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.

My invention relates to improvements in steam or hot water radiators, and consists in certain novel constructions and arrangements of parts as will be hereinafter described and claimed. I accomplish these objects by the devices described in the following specification and illustrated in the accompanying drawings, in which latter—

Figure 1. represents a central vertical section of the devices embodying my invention when used as a hot water radiator. Fig. 2. represents a side elevation of one of the sections of the same showing the screw threaded stud or nipple and the screw threaded socket, the latter formed in a projection of said section; said stud and projection being cast integral with the section, and Fig. 3. represents an end elevation of two radiator sections showing my invention when used as a steam radiator, and also showing the method of placing the sections together when setting the radiator up in place.

A in the drawings, represents a double tubular section of my improved radiator. This section is shown in Fig. 1., with water passages *a* near the top where the two tubes join, to permit the circulation of hot water from one section to the adjoining section, but these passages are omitted, as shown in Fig. 3., when the sections are to be used as a steam radiator as it is not necessary for the steam to pass from one section to another except at the bottom, the steam simply rising in the tubes and heating them. The said passages *a* are formed in cylindrical projections *a'* on each side of the top of each section so that when the said sections are placed together preferably with a suitable packing ring between said projections, a water tight joint will be formed. The bottom of each section is provided with a screw threaded stud or nipple B

on one side and a screw threaded socketed projection *c* on the opposite side, the latter forming an enlarged integral projection C on said section. Both the stud and socketed projection as well as the screw threads of both are cast at the same time with the sections and thus are integral therewith. The ends of both the projection C and the stud B as well as the bottom of the socketed projection *c* are ground smooth so that when the sections are fitted together, these smooth faces will abut and form a steam tight joint. The end sections of each series of sections forming a radiator, are provided with supporting legs D which, when the sections are placed together, support the same.

The pitch of the screw threads of both the stud or nipple B and the socketed projection C is preferably such that a quarter turn of one of the studs in one of the sockets will secure the two sections having the said stud and socketed projection firmly together.

The tops of the sections are secured together by a long rod or bolt E which passes through the center of the passages *a* in the form shown in Fig. 1. and is secured at the ends in plates *d* which close the end passages *a* of the end sections.

In the construction shown in Fig. 3. a small web is left between the tops of the two tubes of a section and a passage *d'* cut in the same to allow the passage of the rod E therethrough.

Any number of sections may be set up together according to the size of the radiator desired in the following manner: One section is set up on its legs and the next section placed beside it in the position shown in Fig. 3. with the stud of one section resting in the socketed projection of the other section. Now by simply raising the section which is lying upon its side upon the floor, into a vertical position, which amounts to a quarter turn, the said screw threads of the stud and socketed projection will engage and lock the sections together. The operation is then repeated with the next section and so on until the entire radiator is complete.

Any suitable pipe connection for supplying steam or hot water may be joined to the stud or socketed projection of the end sections.

By my invention a radiator can be set up in the position that it is ultimately to occupy

with very little trouble as simply a quarter turn is all that is necessary to attach each succeeding section to the preceding one.

One of my sections is complete in itself and
5 needs no nipple or other auxiliary attachment to connect it to another section but is ready for engagement with said section without any extra labor.

What I claim as my invention is—

10 A radiator section for steam or hot water formed on one of its faces with an enlarged socket having an internal screw thread of such a pitch that by a quarter turn of said section
15 upon another section it will be brought to a vertical position and be secured to the other

section, and said section also formed on its opposite face with a projecting stud or nipple having an external screw thread of similar pitch, whereby, by a quarter turn of said section upon another section it will be brought 20 into a vertical position, and secured to said other section, and be held in such position without the use of other fastening means, substantially as described.

In testimony whereof I hereunto affix my 25 signature in presence of two witnesses.

JAMES D. YOUNG.

Witnesses:

JAMES T. WATSON,
J. L. CROMWELL.