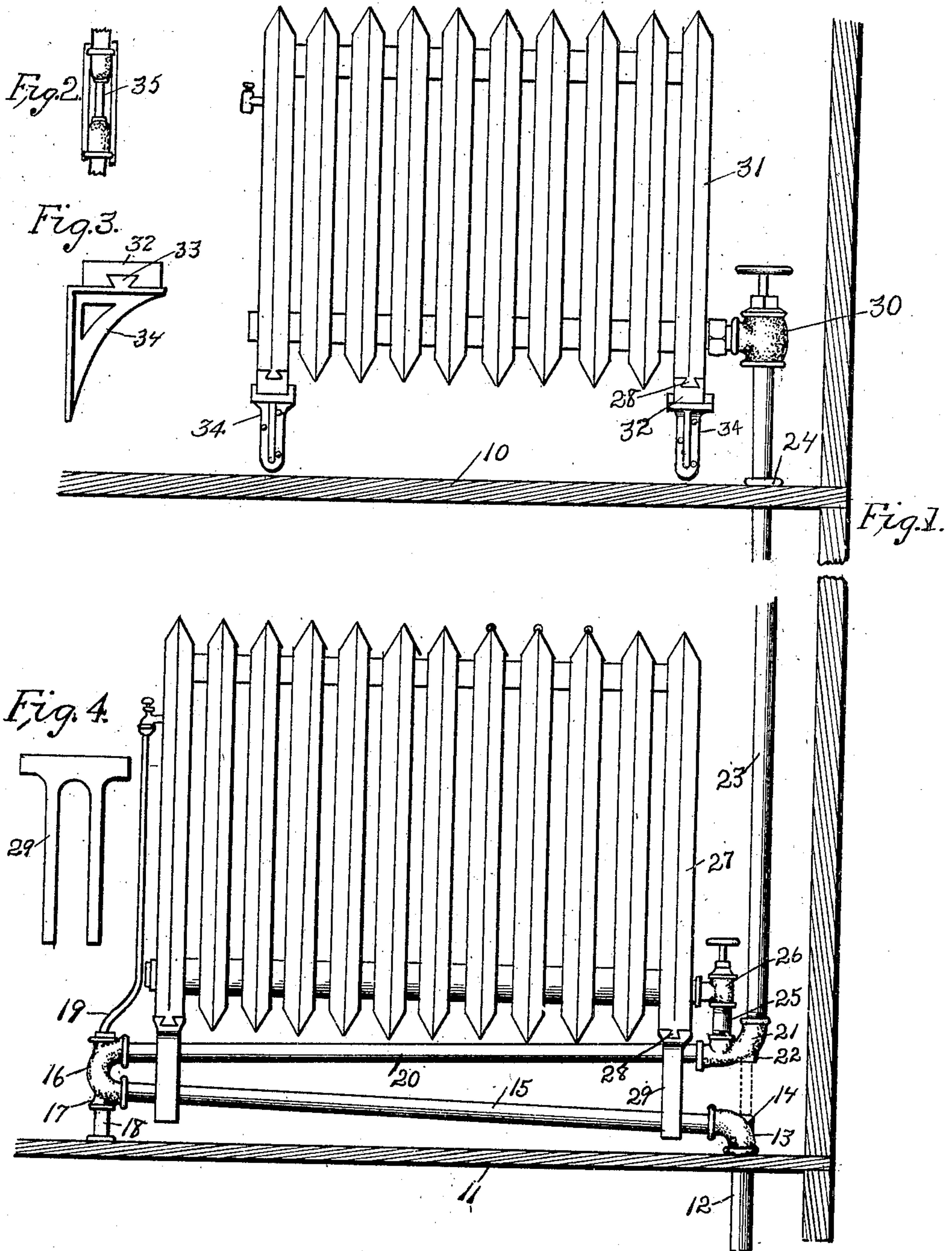


No. 821,787.

PATENTED MAY 29, 1906.

J. COLLIS.
RADIATOR SUPPLY PIPE AND BRACKET.
APPLICATION FILED MAY 29, 1905.



Witnesses:
S. F. Christy
A. E. Moody.

Inventor John Collis.
By *Quig & Lane* Attys

UNITED STATES PATENT OFFICE.

JOHN COLLIS, OF DES MOINES, IOWA.

RADIATOR SUPPLY-PIPE AND BRACKET.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN COLLIS, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have
5 invented a certain new and useful Radiator Supply-Pipe and Bracket, of which the following is a specification.

The object of my invention is to provide a device of the class described designed for use
10 in buildings having a number of stories, and so arranged that the contraction and expansion of the radiator-pipe will not tear it loose at its joints or from the floors of the several stories, and also to provide a pipe of this
15 class provided with an expansion-joint for each radiator, said joint standing above the floor to thereby avoid the cutting away of the floor to receive said joints.

A further object is to provide means for
20 supporting a radiator on top of an expansion-joint of this kind so that the radiator may stand close to a wall and protect and partially conceal the expansion-joint.

My invention consists in the construction,
25 arrangement, and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

30 Figure 1 shows a sectional view of a part of a building in which is placed a radiator pipe and bracket embodying my invention and applied to a radiator and also a radiator-bracket above the upper floor with a radiator supported thereby. Fig. 2 shows an end
35 view of the expansion-joint of the radiator-pipe with the temporary brace-rod in position therein. Fig. 3 shows a detail side view of one of the radiator-brackets designed to be
40 secured to a wall, and Fig. 4 shows a side view of one of the radiator-brackets designed to be supported on an expansion-joint of the radiator-pipe.

45 Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate the top floor of a building and 11 one of the lower floors.

The numeral 12 indicates the radiator-pipe,
50 which is passed through the floor 11. At its upper end is an elbow 13, resting upon the floor and provided with a lug 14 at its top.

The numeral 15 indicates a straight-pipe section connected with the elbow 13 and inclined upwardly away from the floor. At its
55 outer end is a U-fitting 16, having a lug 17

at its lower end to receive a brace 18, the lower end of which rests upon the floor, and the top of the fitting 16 is provided with a branch to receive a radiator air and vapor
60 pipe 19. Connected with the upper part of the U-fitting 16 is a straight-pipe section 20, which inclines upwardly from the said fitting to a point above the elbow 13, at which point it is connected with an elbow 21, which elbow
65 is provided with a lug 22, designed to receive a temporary brace-rod, as will hereinafter appear. Connected with the upper end of the elbow 21 is the radiator-pipe 23, extending upwardly through the floor 10 and provided with a collar 24, formed on or fixed
70 thereto and resting upon the top of the upper floor. Communicating with the elbow 21 is a short pipe 25, connected to a radiator-valve 26, which valve communicates direct with
75 the radiator 27, which is of the ordinary construction, except the two end sections thereof are each provided with a dovetailed rib 28 at their lower ends, which ribs are designed to enter the dovetailed grooves provided for
80 them in the radiator-supporting brackets 29, which brackets are formed with two lugs designed to fit over the pipe-sections 20 and 15 of the expansion-joint, their lower ends being spaced apart from the floor. 85

It is not necessary to provide an expansion-joint for the top floor of the building, and hence the pipe 23 is connected directly with a radiator-valve 30, which communicates with the top radiator 31. The bottoms of
90 the end sections of this top radiator are provided with the dovetailed ribs 28, which ribs are designed to enter the blocks 32, provided with grooves to receive said ribs and also provided with transverse dovetailed grooves
95 on their lower surfaces. These grooves are designed to receive the dovetailed ribs 33 of the brackets 34, which brackets in turn are mounted upon a wall to support the radiator. The temporary supporting-brace 35 (illus-
100 trated in Fig. 2) is designed to enter the lugs 14 and 22 to hold the expansion-joint spaced apart the proper distance during the time the radiators are being placed in a building, after which the braces are removed. 105

In practical use the radiator-pipe for each floor is passed through the floor and connected with the floor, so that it cannot move downwardly. Immediately above each of the floors except the top one I place an expansion-joint of the kind shown, and when
110 constructing the heating apparatus I place a

temporary brace-rod 35 between the elbows 13 and 21 to hold them spaced apart properly. After the expansion-joint is placed in position I place the brackets 29 upon the pipes 15 and 20 and move them along the pipes to proper position for receiving the coupling of the valve 26. In this way the radiators will be firmly secured in position, their upper ends being prevented from tilting outwardly by the legs 29 of the brackets fitting against the pipes 15 and 20, which pipes are firmly held in their position by the upright pipes 12 and 23 and the support 18. The radiator may, if desired, be placed close to a wall, because it is not necessary to run any supply-pipe behind it. Obviously the radiator may be adjusted to and from the wall by sliding the ribs 21 in their grooves, or it may be moved longitudinally by sliding the brackets 19 along the supporting-pipes. The upper radiator may be adjusted longitudinally by sliding the blocks 32 along the tops of the brackets 34. The weight of the supply-pipe 23 and the radiator 27 on each floor is partly borne by the collar 24 on the pipe 23 and resting upon the floor above the radiator, which is thus supported, and since the radiator for each floor is partly supported by the floor above it it does not matter how high the building may be, because the radiator for each floor is supported independently of all others. When the supply-pipe 23 expands considerably when subjected to heat, the pipes 15 and 20 will both yield slightly and move toward each other sufficiently to allow for this expansion without in any way interfering with the operation of the radiator, and when the pipes 23 contract the pipes 15 and 20 of the expansion-joint will move away from each other. Furthermore, by connecting the air and vapor pipe 19 with the U-coupling of the expansion-joint a very short return-pipe may be used, as it is not necessary to run it to the end of the radiator to which the radiator-pipe is attached.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. In a device of the class described, a radiator-pipe formed with a lateral extension to form an expansion member and a radiator supported upon said extension.

2. In a device of the class described, a radiator-pipe formed with a lateral extension to form an expansion member, a radiator and a bracket connected to the radiator and to said lateral extension.

3. In a device of the class described, a radiator-pipe formed with a lateral extension to form an expansion member, a radiator and a bracket adjustably connected with the radiator and supported upon said extension.

4. In a device of the class described, a radiator-pipe formed with a lateral extension to form an expansion member, a radiator,

and a bracket adjustably connected with the radiator and adjustably supported upon said extension.

5. The combination of a radiator, brackets connected to the radiator and capable of adjustment transversely thereof and supports for the brackets slidably connected therewith to be capable of movement longitudinally of the radiator.

6. The combination of a radiator formed with dovetailed ribs at the bottom of its end sections, brackets having dovetailed grooves therein to receive said ribs and a supporting device for the bracket arranged to permit the brackets to move longitudinally of the radiator but not laterally.

7. The combination of a radiator formed with dovetailed ribs at the lower ends of its end sections, brackets formed with dovetailed grooves to receive them, said brackets formed with legs at their lower ends spaced apart.

8. The combination of a radiator formed with dovetailed ribs at the lower ends of its end sections, brackets formed with dovetailed grooves to receive them, said brackets formed with legs at their lower ends spaced apart, a radiator supply-pipe formed with a lateral extension designed to enter between the legs of said brackets.

9. In a device of the class described, an upright radiator-pipe, a lateral extension thereon having upper and lower portions designed to receive a temporary supporting-brace between them.

10. In a device of the class described, a radiator-pipe comprising an upright portion, a part extended laterally and upwardly and communicating at one end with said upright portion, another part extending laterally and upwardly and communicating at one end with the first-mentioned lateral portion and an upright portion at the other end of the last-mentioned inclined portion, said upright portions designed to receive a detachable temporary supporting-piece between them.

11. In a device of the class described, a radiator-pipe comprising an upright portion, an elbow formed with a lug, an inclined portion communicating with the elbow, a U-coupling, a second inclined portion communicating with the U-coupling, a second elbow in the other end of the last inclined portion and an upright portion communicating with said elbow, said elbow formed with a lug, said lugs designed to receive a temporary detachable supporting-brace between them.

12. In a device of the class described, a radiator-pipe comprising an upright portion, an elbow formed with a lug, an inclined portion communicating with the elbow, a U-coupling, a second inclined portion communicating with the U-coupling, a second elbow in the other end of the last inclined portion, an upright portion communicating with said elbow, said elbow formed with a lug, said

lugs designed to receive a temporary detachable supporting-brace between them, a radiator-valve connected with the last-mentioned elbow, a radiator, and brackets mounted upon the said inclined portions and supporting said radiator.

13. In a device of the class described, the combination of a horizontally-arranged support or floor, a radiator-pipe resting thereon, an expansion-joint in the radiator-pipe below said floor and comprising upper and lower inclined portions and a radiator supported on said inclined portions.

14. In a device of the class described, the combination of two floors, one above the other, a radiator-pipe fixed to the upper floor and also to the lower floor against downward movement, an expansion-joint in said pipe

adjacent to the lower floor, a radiator supported on said expansion-joint and communicating with the radiator-pipe.

15. In a device of the class described, the combination of two floors, one above the other, a radiator-pipe fixed to the upper floor and also to the lower floor against downward movement, an expansion-joint in said pipe adjacent to the lower floor, a radiator supported on said expansion-joint and communicating with the radiator-pipe and a leg supporting the outer end of the expansion-joint upon the lower floor.

JOHN COLLIS.

Witnesses:

J. RALPH ORWIG,
A. E. WOODY.