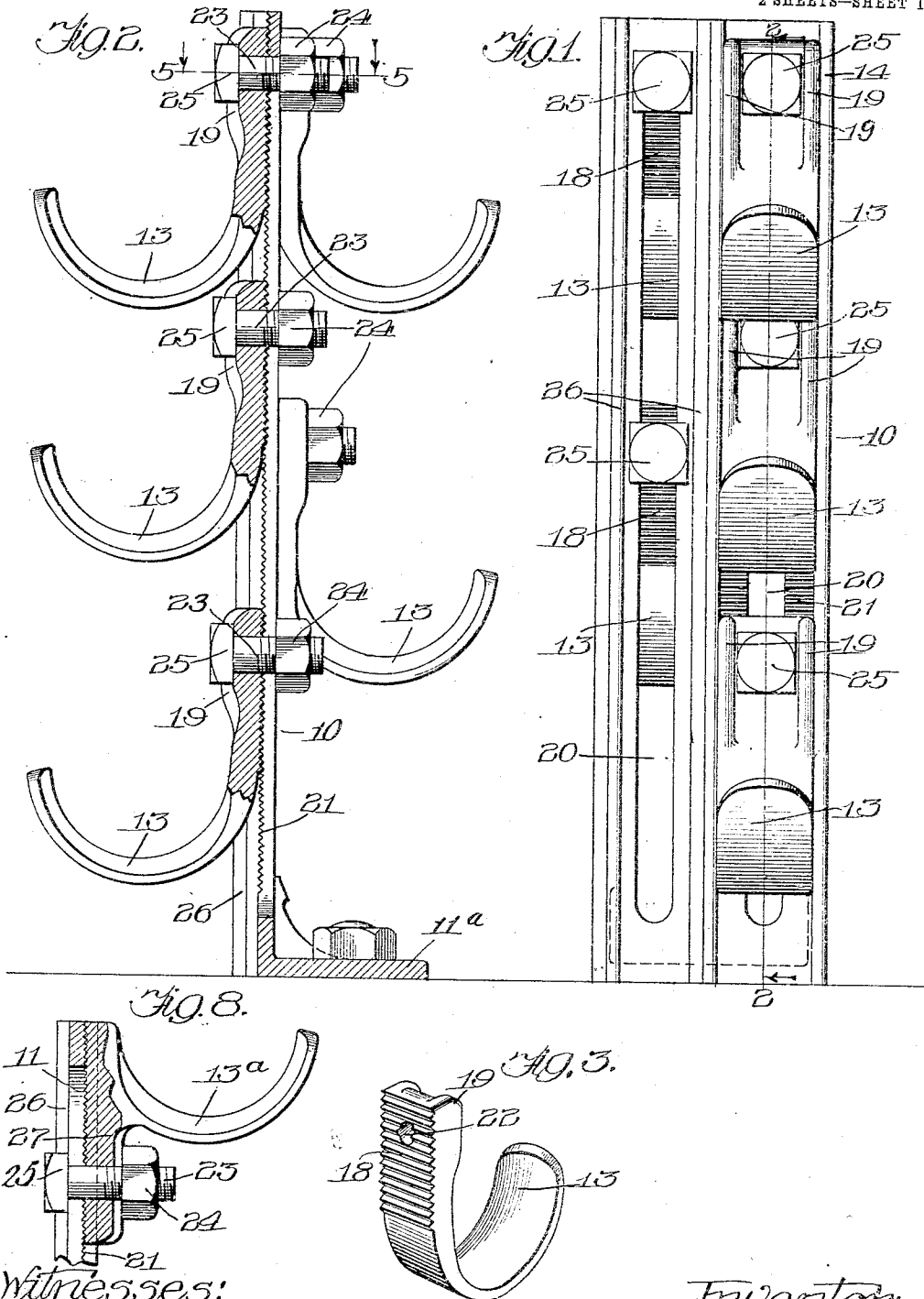


E. H. GOLD.
ADJUSTABLE SUPPORTING DEVICE FOR PIPES.
APPLICATION FILED AUG. 17, 1909.

944,731.

Patented Dec. 28, 1909.

2 SHEETS—SHEET 1.



Witnesses:

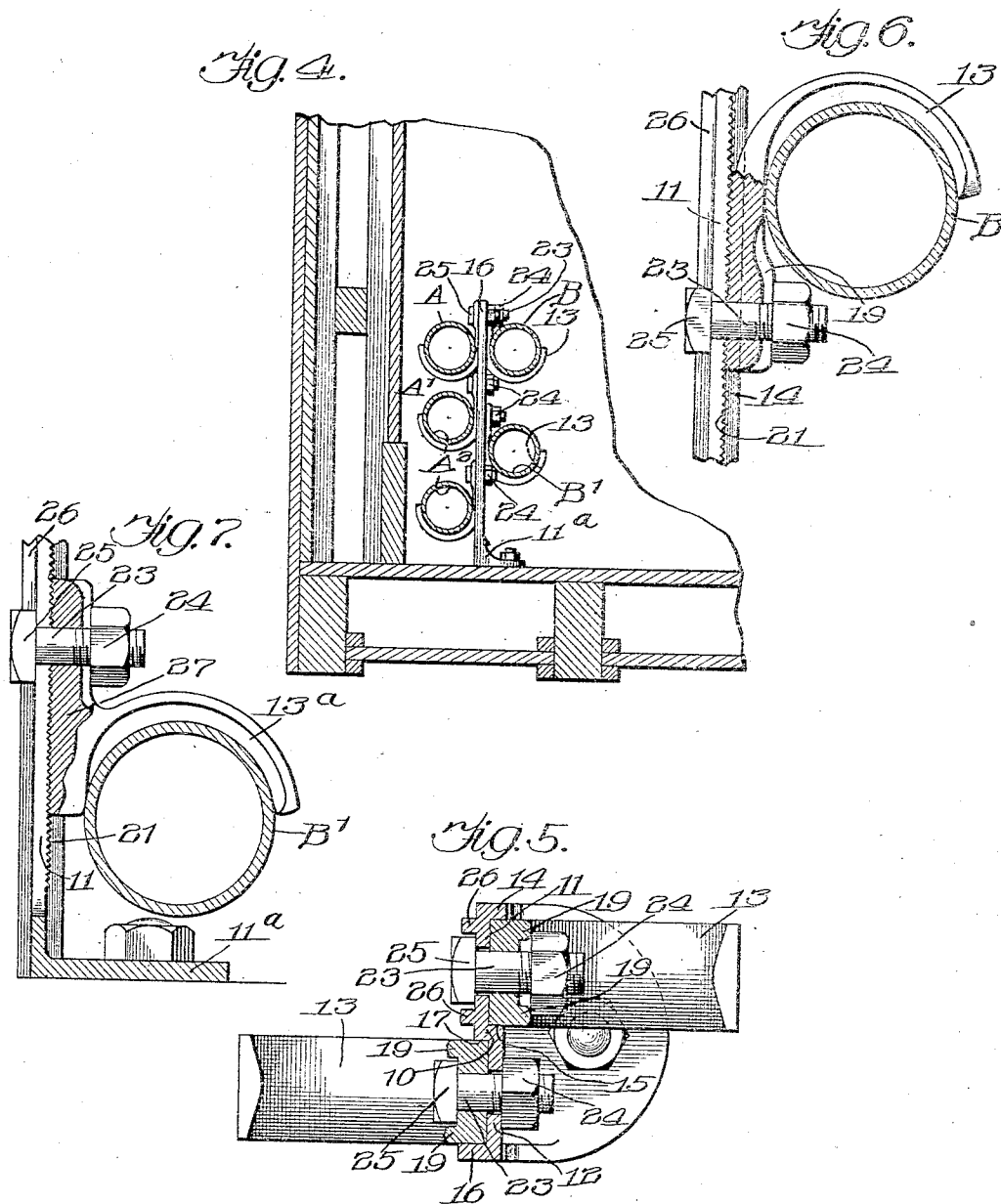
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UNITED STATES PATENT OFFICE.

EGBERT H. GOLD, OF CHICAGO, ILLINOIS.

ADJUSTABLE SUPPORTING DEVICE FOR PIPES.

944,731.

Specification of Letters Patent. Patented Dec. 28, 1909.

Application filed August 17, 1909. Serial No. 513,283.

To all whom it may concern:

Be it known that I, EGBERT H. GOLD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Adjustable Supporting Devices for Pipes, of which the following is a specification.

My invention relates to an adjustable supporting device for pipes intended particularly to be used in supporting the radiating pipes used in railway cars. In such cases it is very desirable to have the pipes and their supporting device occupy as little space as possible. As the radiating pipes or some of them, in such installations, are usually inclined for drainage and as it frequently happens that the different pipes of the radiating system are not always perfectly straight or in exact parallel arrangement, it is necessary that the supporting means should be adjustable to meet different conditions.

The object of my invention is to provide a form of supporting device for a plurality of pipes in which the brackets supporting the several pipes shall be conveniently adjustable, which will support the pipes within a small space, and which will itself take up but little room and consists of few parts which can be cheaply made and easily assembled within the limited space available under the seats of the car.

The invention has for further objects such other new and improved constructions, arrangements and devices in adjustable pipe supports as will be described in the following specification and particularly set forth in the claims appended thereto.

The invention in a preferred embodiment is shown in the accompanying drawings, wherein—

Figure 1 is an elevation of one side of the device. Fig. 2 a sectional view on line 2—2 of Fig. 1, looking in the direction of the arrows. Fig. 3 a perspective view of one of the brackets. Fig. 4 a cross sectional view through a portion of one side of a car showing the pipe support in elevation. Fig. 5 a sectional plan taken on line 5—5 of Fig. 2. Fig. 6 is a detail view partly in section illustrating a reversed position of the bracket. Fig. 7 is a similar view illustrating a modified form of bracket, and Fig. 8 a view showing the same modified form of bracket in a different position on the standard.

Like characters of reference indicate like parts in the several figures of the drawings.

Referring to the drawings, 10 represents a standard provided with a foot 11^a which can be bolted as shown, to the floor of the car. The standard is formed with longitudinal channels on opposite faces which are on different sides of the center line of the standard; thus constituting of the standard two mutually off-set portions 11 and 12. The pipe supporting brackets 13 are arranged within these channels so that they project in opposite directions from the off-set portions 11 and 12, one set being held between the rib 14 and the shoulder 15, and the other between the rib 16 and the shoulder 17. The brackets are preferably constructed in the form shown in Fig. 3, their backs being formed with the serrations 18 and their faces with the ribs 19. The standard is formed with the vertical slots 20 and the portions of the standard along side of these slots are serrated as shown at 21. The brackets are perforated at 22 and attached to the standard by bolts 23, which extend through the slots 20, and nuts 24. As shown in Fig. 5, the heads 25 of the bolts attaching the brackets to the off-set portion 12 of the standard lie between the ribs 19 on the bracket so as to prevent the bolt from rotating when the nut is screwed up. In order that the nuts for both sets of brackets may be on the same side of the standard (which is a matter of convenience when the pipes are close against the wall as ordinarily happens), the off-set side 11 of the standard has, formed on its face opposite to that to which the brackets are attached, the ribs 26 which prevent the rotation of the bolts. The nuts 24 being larger than the heads 25 of the bolts may be screwed down upon ribs 19.

This form of supporting device, it will be seen, is extremely simple, small in size, is capable of adjustment to accommodate for different arrangements in the pipes which it supports and supports the pipes within a small space. The off-set construction of the standard minimizes the distance between the two parallel sets of pipes A, A', A² and B, B' which the device is shown as supporting in Fig. 4. Each bracket is separately adjustable so that the several pipes may be held at any desired elevation. The arrangement of the fastening devices is such that all of the nuts can be made to be on

one side of the support. It sometimes happens that one or more of the pipes of a radiating system have a tendency to bend upward so that they require being held down rather than supported. In such case the bracket may be turned upside down on the standard as shown in Fig. 6.

In Figs. 7 and 8 I have shown a modified form of bracket having an attaching part 27 extending in the opposite direction from the hook or bracket part 13^a in respect to the relation of these parts in the preceding figures. Fig. 7 illustrates the manner in which a bracket of this form may be used above a pipe for the purpose of holding the same down closer to the floor than is possible with the other form of bracket. In Fig. 8 the bracket is shown at the upper end of the standard and in reverse position. The modified form of bracket makes it possible to support a pipe at a higher position relative to the standard than in the case of the other form.

It is desirable that the means for attaching the brackets to the standard should be as simple as possible, both to save space and also to make the adjustments of the brackets as simple as may be. The brackets, nevertheless, are subject to a considerable lateral strain due to the expansion and contraction of the radiating pipes, which in the long railway car of modern construction is very considerable. In my device the brackets are held to the standard by a single screw each, and are kept from displacement or rotation on these bolts by the ribs or shoulders 14, 15, 16 and 17. Obviously, if but a single set of pipes arranged in one plane were to be supported, the brackets on one side or the other of the standard might be omitted.

I do not limit myself to the exact forms and constructions shown as modifications might be devised which would come within my invention as defined by the claims.

I claim:

1. In an adjustable device for supporting pipes, the combination with a standard, of a plurality of brackets and means for adjustably attaching said brackets on the opposite faces of said standard with the brackets on one face at one side thereof and those on the other face on the other side thereof, the portion of said standard to which the two sets of brackets are attached being off-set with respect to each other so as to diminish the distance between the vertical planes of the respective sets of pipes supported thereby.

2. In an adjustable device for supporting pipes, the combination with a standard formed with two longitudinal slots, of a plurality of brackets and means for adjustably attaching said brackets through said slots upon the opposite faces of said standard, the portions of the standard to which

the two sets of brackets are attached being off-set with respect to each other so as to diminish the distance between the vertical planes of the respective sets of pipes supported thereby.

3. In an adjustable device for supporting pipes, the combination with a standard formed with two longitudinal slots, of a plurality of brackets and means for adjustably attaching said brackets through said slots upon the opposite faces of said standard, the portions of the standard to which the two sets of brackets are attached being off-set with respect to each other so as to diminish the distance between the vertical planes of the respective sets of pipes supported thereby, the faces of said standard along said slots and the parts of the brackets engaging the same being serrated.

4. In an adjustable device for supporting pipes, the combination with a standard formed with two longitudinal slots, of a plurality of brackets and means for adjustably attaching said brackets through said slots upon the opposite faces of said standard, the portions of the standard to which the two sets of brackets are attached being off-set with respect to each other so as to diminish the distance between the vertical planes of the respective sets of pipes supported thereby, the faces of said standard along said slots and the parts of the brackets engaging the same being serrated, and ribs on the opposite faces of said standard forming channels for said brackets.

5. In an adjustable device for supporting pipes, the combination with a standard having a supporting foot, and formed on opposite faces and on different sides of its center line with longitudinal channels and with longitudinal slots centrally of said channels, the bottoms of said channels being serrated, of a plurality of pipe supporting brackets, the backs of which are serrated and which fit into said channels, bolts and nuts for attaching the several brackets at any desired position along the slots, ribs on the faces of said brackets adapted to engage the heads of said bolts, and ribs on the part of the face of the standard opposite one of said channel portions adapted to engage the heads of one set of bolts, whereby the bolts of both sets of brackets may extend through the standard in the same direction and held against rotation when the nuts are applied thereto.

6. In an adjustable device for supporting pipes, the combination with a standard having a supporting foot, and formed on opposite faces and on different sides of its center line with longitudinal channels and with longitudinal slots centrally of each of said channels, of a set of pipe supporting brackets adjustably arranged in each of said channels, bolts and nuts for separately attaching

the brackets to the standard, ribs on the faces of one set of said brackets adapted to engage the heads of the attaching bolts of said brackets and ribs on the part of the face
5 of said standard opposite the other set of brackets adapted to engage the heads of the bolts of that set of brackets, substantially as and for the purpose described.

7. An adjustable pipe support comprising
10 the combination of a standard, a plurality of separable hangers, a plurality of headed bolts for adjustably securing said hangers to said standard, said standard being provided with openings arranged in lines parallel
15 with each other to receive said bolts, and being provided on one side with abutments

to non-rotatively engage said hangers and bolt heads, and on the other side with an abutment to engage others of said hangers, said hangers being provided on their outer
20 faces with an abutment to non-rotatively engage the heads of said bolts, whereby said hangers may be interchangeably and non-rotatively mounted in offset rows upon opposite sides of said supports, and when so
25 mounted said bolts may be inserted through said hangers and said support from one side thereof and held against rotation.

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Witnesses:

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H. L. PECK.