No. 864,897. PATENTED SEPT. 3, 1907.

J. E. JONES.

PIPE HANGER.

APPLICATION FILED FEB. 11, 1907.

Fig. 1.

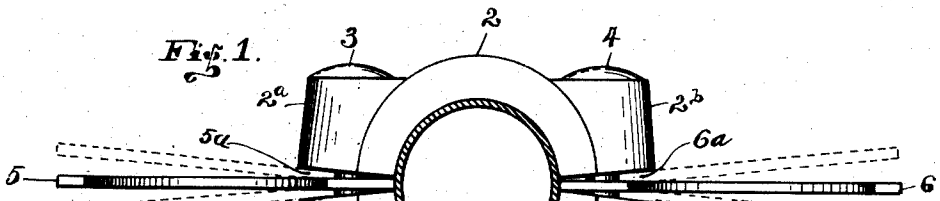


Fig. 2.

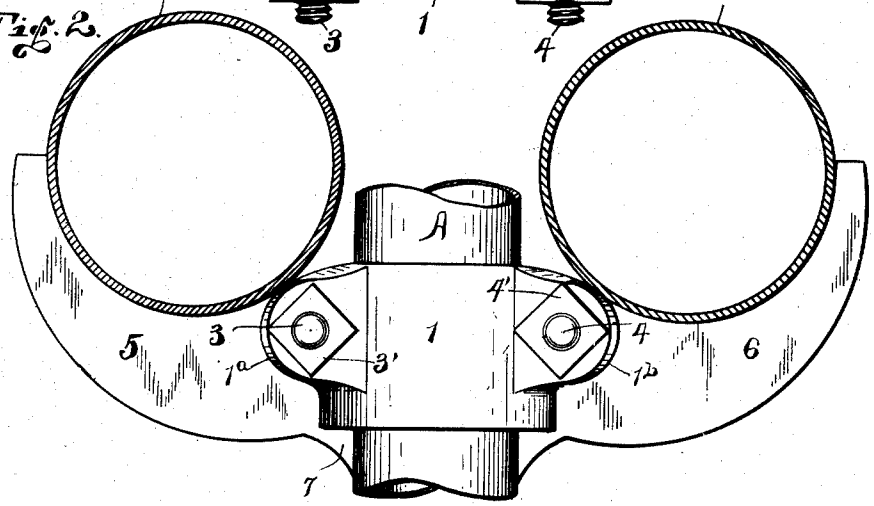


Fig. 3.

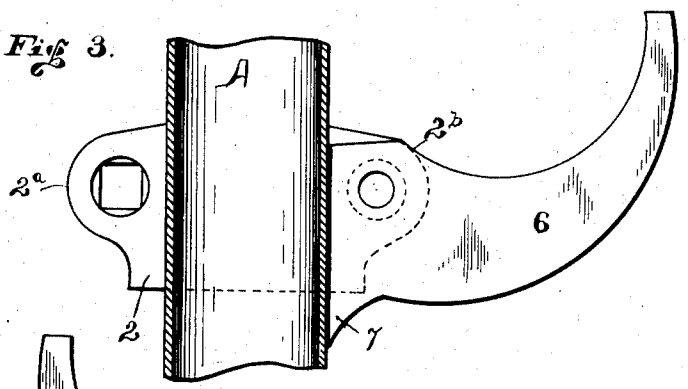
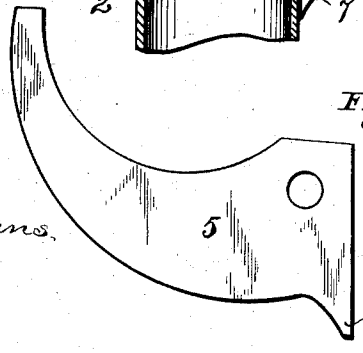


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES E. JONES, OF RICHMOND, INDIANA.

PIPE-HANGER.

No. 864,897. Specification of Letters Patent. Patented Sept. 3, 1907.

Application filed February 11, 1907. Serial No. 356,665.

To all whom it may concern:

Be it known that I, JAMES E. JONES, a citizen of the United States, residing at Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Pipe-Hangers, of which the following is a full and accurate specification, being such as will enable others to make and use the same with absolute exactitude.

My present invention relates to pipe-hangers, designed particularly for supporting a line of steam or other pipe in greenhouses, factories, or other buildings where conduit pipes are employed.

The object of my invention, broadly speaking, is to provide an improved pipe-hanger of new and novel construction, which will be neat and attractive in appearance, strong and durable in construction, and which can be manufactured and sold at a comparatively low price.

Another object is to provide pipe-hangers adapted to be attached to vertical posts or the like, to provide means whereby the hanger may be easily and quickly attached and detached, to reduce the number of parts required to the minimum, and to minimize the space required for the hangers and the supported pipes, when the supporting posts are in position.

More specifically stated my object is to provide pipe-hangers in which the parts are interchangeable, thereby reducing the number of different parts necessary to be carried in stock; to provide means whereby the pipe being carried thereby may have an endwise movement, as required by expansion and contraction, without friction between the hangers and the pipe; to provide means for supporting either one or two lines of pipe by a single series of clamps; and to provide means whereby the weight of the pipes being carried on the arms of the clamps will contribute to holding the clamps in position on the vertical supports.

Other objects and particular advantages will be suggested by the following specification and by an inspection of the drawings forming a part thereof.

The preferred embodiment of my invention and that which in practice has been found to be the most practical and economical is fully illustrated in the accompanying drawings, in which—

Figure 1 shows a plan view of my invention; Fig. 2 is a side elevation, as arranged for carrying two lines of pipes; Fig. 3 is a side elevation of same as arranged for carrying one line of pipe; and Fig. 4 is a detail elevation of one of the supporting arms or hooks.

Similar reference characters denote like parts throughout the several views of the one sheet of drawings.

My present invention is in reality very simple, although it comprises a multitude of advantages not previously attained in devices of this general character, but in order that the construction and operation thereof may be more fully understood I will now take up a detail description, in which I will refer to the several parts and their utility and operation as comprehensively and as briefly as I may.

The letter A designates a vertical post or the like, of any preferred form and construction of which there are usually a plurality set up in alinement with each other depending on the direction the pipe to be carried is to be projected.

The letters B and C denote two conduit pipes to be supported, and which are usually disposed at right-angles to the post A.

The numerals 1 and 2 designate the two members of the clip or clamp, each being identical with the other, and together being adapted to almost surround the post A, as shown in Fig. 1. Extending out from the member 1 are the oppositely disposed lugs 1^a and 1^b, and extending out from the member 2 are the oppositely disposed lugs 2^a and 2^b. Formed horizontally through the lugs 1^a and 2^a are bolt apertures which are in alinement with each other, and formed through the lugs 2^a and 2^b are bolt apertures which are also in alinement with each other.

The numeral 3 denotes a bolt detachably disposed through the said apertures in the lugs 1^a and 2^a, while the numeral 4 denotes a bolt detachably disposed through said apertures in the lugs 1^b and 2^b. The indices 3′ and 4′ denote the nuts for the respective bolts 3 and 4.

The *vis-a-vis* faces of the lugs 1^a—2^a, and 1^b—2^b, are designed to be located a slight distance apart when the clamp is secured in position, and also said faces are formed somewhat flaring outwardly, thereby forming outwardly diverging spaces 5^a and 6^a, as shown in Fig. 1.

The figures 5 and 6 denote two arms, identical with each other, which are formed "concavo convex" or hook shape, having each a vertical base and a downwardly extending tooth 7, and each having a bolt aperture therethrough, all substantially as is clearly shown in Fig. 4. Said arms are formed, preferably, of sheet metal and are cut into the form shown in the drawings.

Operation: It should be noticed that one pattern will be sufficient for both members of the clamp and also that one pattern will answer for the arms, thereby requiring only two patterns for each size of the invention, the bolts being of ordinary stock construction.

Desiring now to position my invention one has only to take the members 1 and 2 and place them around the post A, placing the arms 5 and 6 in position between the lugs of said members 1 and 2, and then insert the bolts 3 and 4, said bolts of course passing through the respective apertures of the arms 5 and 6, thereby bringing the bases of said arms in contact with the post A, or nearly so, after which the nuts 3′ and 4′ are run on the bolts to hold the members in position.

The pipes B and C may now be rested in the upper

concave edge of said arms, the weight thereof inclining to press the downwardly extending teeth of the arms against the post A whereby the more weight there is placed on the arms the tighter the clamp will be held in position.

After the pipes B and C are in position it is apparent that they may have a slight endwise movement without friction on the bearings, as the arms 5 and 6 will be free to move laterally a limited distance, as indicated by the dotted lines in Fig. 1.

If it should be desired to carry only one line of pipe then in that instance one of the arms, as the arm 5 for instance, may be omitted, as shown in Fig. 3, it being apparent that no mechanical changes will be required to convey either one or two lines of pipe. And again, after one line of pipe has been installed should it be desired to add another line of pipe all that will be required will be to add the additional arm therefor which will require very little expense, and the original hangers will not have to be dispensed with.

Another feature that I would accentuate is that the pipes being carried will fit up near the supporting post, thereby making the appearance more snug and occupying less space than if the pipes were carried out some distance from the post, and also by this the strain on the arms will not be so great. And finally I would call attention to the fact that the arms 5 and 6 are not liable to become broken, as would be the case if they were integral parts of the castings forming the clamping members, this by reason that they are free to move laterally and also by reason of the material of which they are formed. But if perchance one of said arms should become inoperative it may be easily removed and replaced by a new one without removing the device from the post, and with a minimum of expense.

I reserve the right to make various changes in the details of construction and in the shape and configuration of the parts without departing from the spirit and principle of my invention or sacrificing any of the advantages thereof.

Having now fully shown and described my invention and the best manner for its construction to me known at this time, what I claim and desire to secure by Letters Patent of the United States, is—

1. In a pipe-hanger, the combination of a support, a clamp therefor embracing the support and comprising oppositely disposed spaced lugs and a bolt connecting said lugs, and a supporting arm loosely pivoted for lateral movement on said bolt within said space, the base of said arm being extended downwardly to form a tooth adapted to engage said support, substantially as and for the purpose set forth.

2. In a pipe-hanger, the combination of a vertical supporting post, a plurality of similar clamp members each having bolt lugs at its opposite ends, bolts securing the clamp members to the post, there being outwardly diverging spaces between adjacent bolt lugs, and pipe-supporting arms pivoted on said bolts and having lateral play in said spaces, substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses, this the 28th day of January, 1907.

JAMES E. JONES.

Witnesses:
R. W. RANDLE,
R. E. RANDLE.