C. S. McKINLEY.

PIPE HANGER.

APPLICATION FILED OCT. 24, 1914.

1,156,241. Patented Oct. 12, 1915.

FIG. 1.

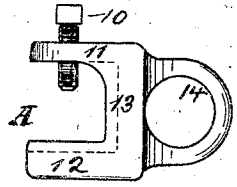


FIG. 2.

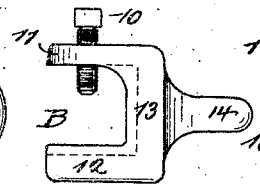


FIG. 3.

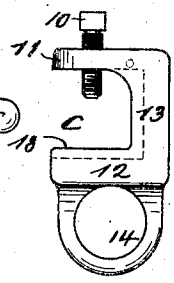


FIG. 4.

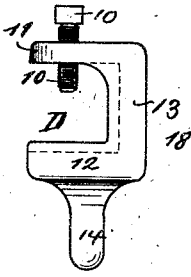


FIG. 5.

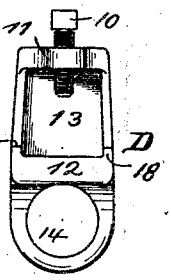


FIG. 6.

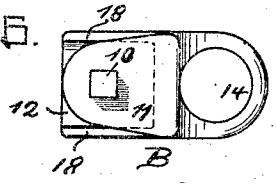
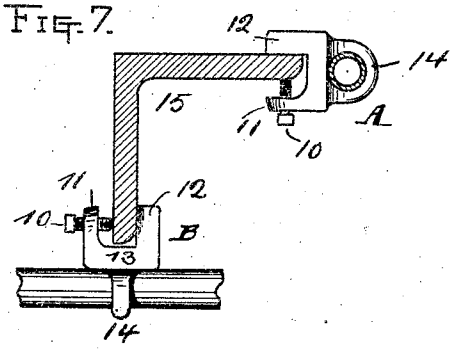


FIG. 7.



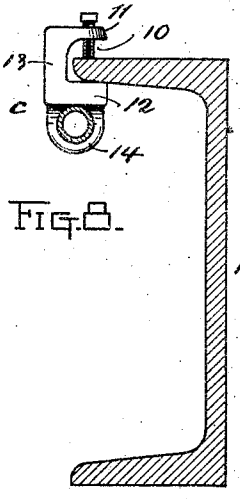


FIG. 8.

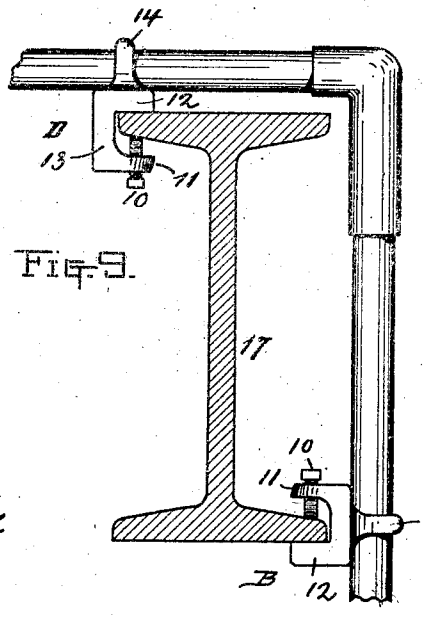


FIG. 9.

WITNESSES

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PIPE-HANGER.

1,156,241. Specification of Letters Patent. Patented Oct. 12, 1915.

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To all whom it may concern:

Be it known that I, CLYDE S. McKINLEY, residing at East St. Louis, St. Clair county, State of Illinois, have invented certain new and useful Improvements in Pipe-Hangers, of which the following is a clear, full, and exact description, attention being called to the drawing, which accompanies this application and forms a part thereof.

This invention concerns devices known as pipe hangers and used for securing service piping in position in buildings. It is particularly designed for use in buildings where structural iron enters into the construction or is used to serve as a frame or skeleton about which the walls are formed. In the construction of such buildings the pipes used to convey gas, water, or serving as conduits to carry electric wiring are placed in position and connected to the iron frame before the walls are built in and placed in position.

My pipe hanger is constructed in a manner to permit its ready and quick attachment to any part of the structural members of the iron skeleton frame of the building so that pipes may be secured in any desired position and horizontal or vertical.

The invention consists of the particular construction of my pipe hanger as it is hereinafter described and claimed and as illustrated in the accompanying drawing in which:

Figures 1, 2, 3 and 4 show in side elevations four modified forms of my hanger and designated respectively by letters A, B, C and D. Fig. 5 illustrates the form shown in Fig. 4, as viewed from the left of said figure. Fig. 6 shows a top view of the hanger illustrated in Fig. 2. Figs. 7, 8 and 9 on a smaller scale show application of the hanger in various ways, Fig. 7 showing a hanger of form A, and one of form B, secured to an angle iron which latter is shown in profile section. Fig. 8 shows a hanger of the form C, secured to one of the flanges of a channel iron shown in profile section. Fig. 9 shows a hanger of the form D, and one of the form B attached to the flanges of an I-beam shown in profile section.

The hanger is secured in position by clamping action and consists broadly considered, of the means for carrying out this action and of means for holding a pipe. The clamping action is produced by a set-screw 10 seated in a flange 11, and co-acting with a similar flange 12 opposite flange 11 and opposite the end of the set-screw seated therein and substantially parallel to said flange. These flanges project from the body 13 of the hanger.

The pipe-holding means consist of a ring-shaped bearing 14, the diameter of its clear opening being adapted to fit the pipes to be supported. It is contemplated in order to accommodate pipes of various sizes, to provide hangers with bearings of various diameters. The positional relation of this bearing with reference to the clamping means differs in the several forms shown. In the form A it projects from body member 13 and in a plane parallel to the plane in which the clamping means act. In the form B it projects in a plane at right angles to the position in which it is shown in form A. In form C it projects from flange 12 and in a plane similar to that shown for form A. In form D it projects in a plane at right angles to this plane and in all cases it is located in the center of the particular surface from which it projects. The effect of this variation is that pipes may be secured to the structural members in various positions, planes and angles. For instance in Fig. 7, form A is shown connected so that the axis of the pipe bearing 14 is parallel to angle-iron 15 there shown, and form B is secured so as to have this axis at an angle thereto. Pipes contained in these bearings will be supported accordingly and if two are supported at the same time, one in each bearing they will be supported in spaced parallel planes but at right angles to each other and both pipes may be horizontal or one may be horizontal and the other vertical according to the position of the angle-iron.

In Fig. 8, form C is shown as being used to attach a pipe parallel to one of the flanges of the channel-iron 16 and so as to be between these flanges. In Fig. 9 two pipes positioned in the same plane but disposed at right angles to each other are shown as connected to the flanges of I-beam 17 by forms D and B respectively. Of course any or all of the four forms may be used, one in place of the other so as to meet all possible and different conditions as required.

In order to permit the clamping part of the hanger to seat itself snugly upon the

member to which it is to be attached, the contact as to flange 12 is limited to two parallel marginal ridges 18.

Cast or malleable iron are preferable materials to be used in the manufacture of these hangers and all parts, the set-screw excepted, are integrally formed in one casting. It will be noted that this one-piece hanger is very compact, being reduced substantially to a block-shape and the distance between the pipe bearing and the attaching means is very limited, so that when pipes are to be concealed or inclosed by the material of the walls, plastering, etc., the hanger does not interfere by obstructing or projecting.

In using the hangers they are by means of pipe-bearing 14, first slipped on the length of piping to be supported so that they hang on these pipes and after the pipes are positioned, the hangers are moved on the pipes, sliding in the pipe-bearing, to the places where the hangers are to be clamped to the supporting structures to make connection therewith. In order to permit this sliding adjustment to be freely made, pipe-bearing 14 is substantially ring-shaped, that is to say its thickness in an axial direction is very limited to limit its contact with the pipe.

Having described my invention, I claim as new:

A pipe-hanger consisting of a structure which comprises a body-part and two spaced parallel flanges which project from two opposite edges of this body-part and of which they form integral parts, all three being of substantially equal dimensions so as to produce a compact, block-shaped structure, a ring-shaped bearing adapted to have limited contact with a pipe to be supported and projecting at right angles outwardly from the center of one of the sides of the structure and midways between two of the opposite edges of this particular side and a set-screw seated in one of the flanges and adapted to effect clamping attachment of the structure by co-action with the other flange.

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

CLYDE S. McKINLEY.

Witnesses:

EDW. C. ZULLERS,

HARRY CHANDLER.