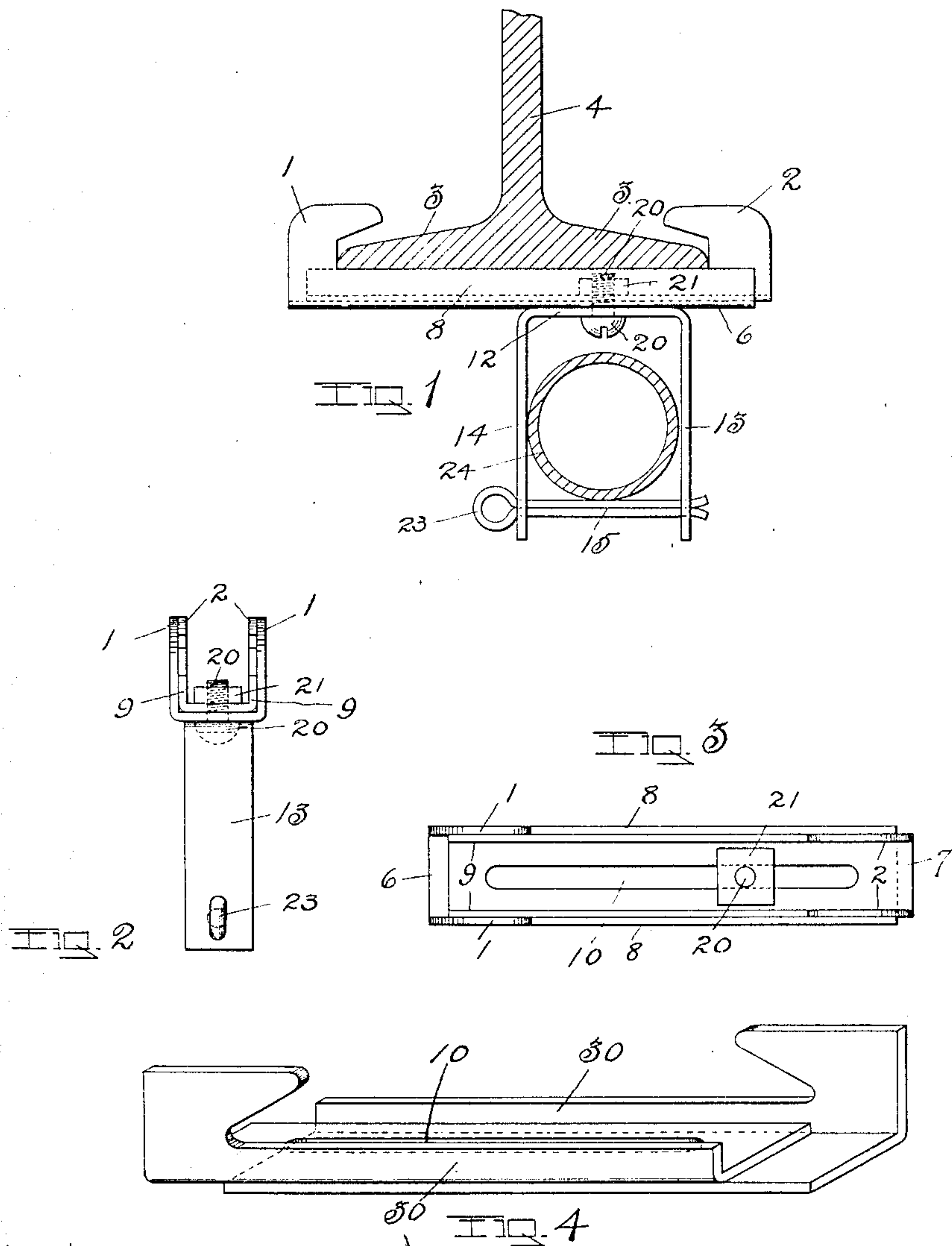


J. H. DORAN.
BEAM CLAMP FOR PIPE HANGERS.
APPLICATION FILED JUNE 29, 1908.

919,558.

Patented Apr. 27, 1909.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN H. DORAN, OF SCHENECTADY, NEW YORK.

BEAM-CLAMP FOR PIPE-HANGERS.

No. 919,558.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed June 29, 1908. Serial No. 440,848.

To all whom it may concern:

Be it known that I, JOHN H. DORAN, a citizen of the United States, residing at Schenectady, county of Schenectady, and State of New York, have invented certain new and useful Improvements in Beam-Clamps for Pipe-Hangers, of which the following is a specification.

The invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the reference characters marked thereon, which form a part of this specification. Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a side elevation of the improved clamp and hanger secured to the lower web of an I-beam. Fig. 2 is an edge-view of the clamp and hanger detached from the I-beam. Fig. 3 is a top-plan view of the clamp mechanism detached. Fig. 4 is a view in perspective showing a modified form of the clamping members detached.

The clamping mechanism comprises a pair of jaws, 1 and 2, adapted to engage with the lower web 3 of an I-beam 4. The jaws are provided with supporting shanks, 6 and 7, the shank 6 being provided at its longitudinal edges with the upturned angle-flanges 8, and the shank 7 with the similar flanges 9 so arranged and proportioned that the shank 7 and its flanges will loosely fit the space between the flanges 8, on shank 6, whereby the shanks are free to slide longitudinally one upon the other to enable the jaws to fit webs of different widths. The shanks are provided with a slot, 10, along their longitudinal middle, so arranged as to register one with the other. The pipe-hanger comprises a yoke, 12, and hanger-arms, 13 and 14, which arms are apertured at their lower ends to receive a pipe-supporting bar or pin, 15. The hanger is secured to the clamping mechanism by means of a screw-bolt, 20, passed up through the registering slots 10 and inserted in the screw-threaded nut, 21. When the clamping jaws have been adjusted upon the web of the I-beam, they are secured in place by clamping the shanks tightly together, which is accomplished by the screw-threaded bolt and nut. The screw-threaded bolt also passes through an aperture in the yoke of the hanger and holds the hanger tight to the shanks of the clamping jaws.

The bar 15 may be made like an ordinary cotter-pin, as shown in Fig. 1, which can be easily inserted and withdrawn from the apertured hanger-arms. One of the pin apertures is shown at 23 in Fig. 1. It is obvious that different sized hangers may be used in connection with the clamping mechanism and adapted to approximately fit pipes of predetermined size. A pipe is shown which fills the space between the hanger-arms 13 and 14.

The clamping jaws 1 and 2 and their shanks are preferably formed from heavy sheet metal by stamping or pressing in suitable dies; and when desired, they can be made in modified form, as shown in Fig. 4, in which form both the members are just alike, thereby requiring only one set of dies to form both members; whereas in the form shown in the other figures of the drawings where one shank is smaller than the other so as to fit therein, a separate die is required for each member. As shown in Fig. 4, the shanks have a single angle-flange, 30, along one edge, instead of an angle-flange along the two opposite edges. Consequently it is necessary to make the single-flange shanks heavier than those having an angle-flange on each of the opposite edges. Where the channel-formed shank is used, one shank fitting within the other, as shown, the clamping members can be made much lighter, as the channel-form affords great strength in proportion to the weight of metal employed.

It is obvious that a hanger of given size may be used to support pipes of differing sizes within certain limits, but hangers differing in size may be employed for pipes differing largely in size. For example, a comparatively small sized hanger may be employed for the smaller sizes of pipe, and a larger hanger may be used for the larger sizes of pipes. The hangers being comparatively simple and inexpensive, several different sizes may be provided, and the most suitable size used for any size of pipe. The use of the cotter-pin makes it possible to easily and quickly attach the hanger to a pipe. The hanger being connected with the clamping mechanism by the screw-bolt 20, which passes through a middle aperture in the yoke of the clamp, the hanger can be rotated to any angular position relatively to the I-beam which adapts the construction herein described to the support of pipes running in any angular direction relatively to the line of

the beam supports. When desired, the slots 10 in the shanks 6 and 7 may be made in the form of a series of shorter slots, or bolt-holes, adapted to receive the screw-bolt 20, there-
5 by affording greater strength to the shanks.

By having the angle-shank of each member which contains the longitudinal slot occupy a horizontal plane instead of a vertical plane, as heretofore practiced, the bolt which
10 clamps the two members together can be made to perform the additional function of supporting the pipe-hanger, as shown, which enables the operator to easily and quickly adjust the pipe-hanger in a position to hold
15 the pipe at any desired angle, relatively, to the beam, and after the desired adjustment is once obtained, to securely clamp the hanger in such angular position by tightening up the screw-bolt, which securely clamps
20 the two shanks of the beam-clamp and the yoke of the pipe-holder together, so that the parts will be securely held in place.

What I claim as new and desire to secure by Letters Patent is—

25 1. A beam-clamp for pipe-hangers, comprising two adjustable members, each consisting of an angle-iron shank provided at one end with a clamping-jaw and having one

of its angle-flanges in a horizontal plane and containing a longitudinal slot, the slots registering one with the other, and means for securing the two members together and to a pipe-hanger in differing positions, relatively, one to another. 30

2. A beam-clamp for pipe-hangers, comprising two adjustable members, each consisting of a shank provided with oppositely-disposed angle-flanges, and at one end with a clamping-jaw, and having a longitudinal middle-slot, the shank of one member being
40 narrower than the shank of the other member, whereby the narrower shank may be inserted within the wider shank and slide longitudinally of the same with the respective angle-flanges of one member in juxtaposition with the angle-flanges of the other member, and the two slots register with each
45 other, and means for securing the two members in differing positions relatively to each other. 50

In testimony whereof, I have hereunto set my hand this 16th day of June, 1908.

JOHN H. DORAN.

Witnesses:

ANNA DORAN,
EDWARD COOKE.