W. LOUDEN.

GATE HINGE.

APPLICATION FILED DEC. 23, 1913.

1,168,523.

Patented Jan. 18, 1916.

FIG. 1

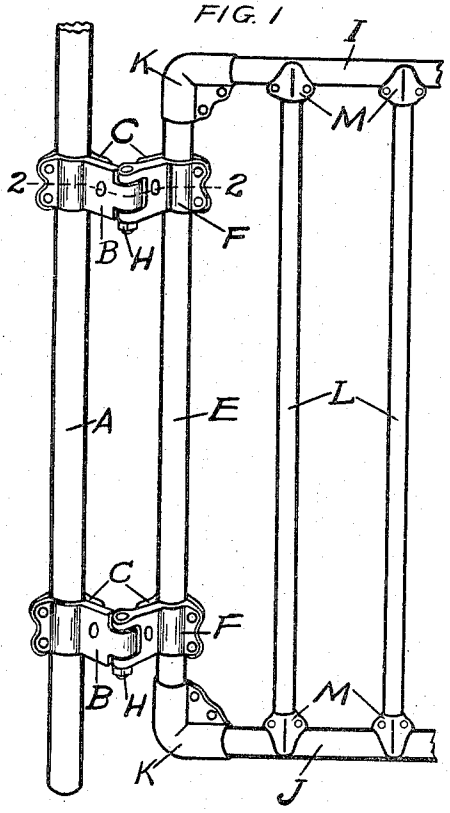


FIG. 2

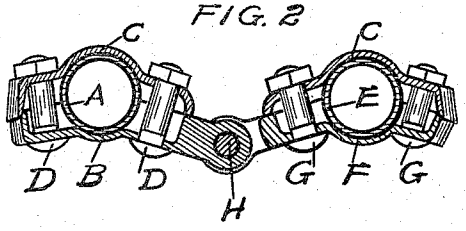


FIG. 3

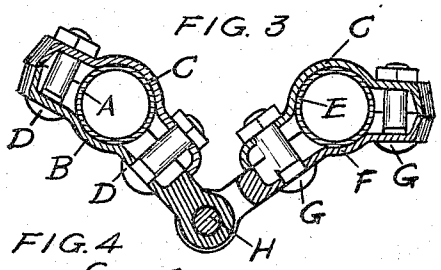


FIG. 4

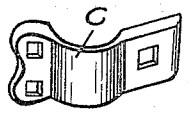


FIG. 5

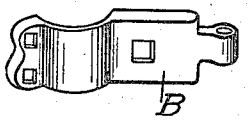
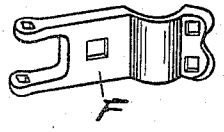


FIG. 6



WITNESSES:

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GATE-HINGE.

1,168,523. Specification of Letters Patent. Patented Jan. 18, 1916.

Application filed December 23, 1913. Serial No. 808,306.

To all whom it may concern:

Be it known that I, WILLIAM LOUDEN, a citizen of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented a new and useful Improvement in Gate-Hinges, of which the following is a specification.

My invention relates to hinges for gates and the like which are constructed with cylindrical side-rails and are hung to cylindrical posts, and it consists of an improvement whereby the hinge may be readily adjusted on said side rails and posts, and also of other features which are set forth in this specification and more specifically defined in the claims.

In the accompanying drawings which form a part of this specification, Figure 1 is a perspective of a portion of a gate hinged to a post and embodying my invention. Fig. 2 is an enlarged horizontal section on line 2—2 of Fig. 1. Fig. 3 is the same showing the hinge members set at a greater angle and the post and side rail of the gate set closer together. Figs. 4, 5 and 6 are detail views.

Referring to the drawings, A represents a cylindrical post to which hinge castings B and C are clamped by means of bolts D.

E is an adjoining side-rail of a gate preferably made of a pipe or tube, to which hinge castings F and mates C are clamped by means of bolts G. The hinge ends of the castings F are preferably bifurcated while the hinge ends of the castings B are made to form a single knuckle which is adapted to fit in between the bifurcated ends of the castings F. The hinge ends of the castings are fitted with knuckles through which hinge bolts H are passed, thus pivoting the castings together and forming the hinge. The castings C are preferably made all alike so they will fit the castings F as well as the castings B.

The inner faces of the clamping ends of the castings B and F as well as the central portions of the castings C are made concave and are adapted to fit the cylindrical post A and side-rail E, and when the bolts D and G are drawn tight the castings will be rigidly clamped thereon. When the bolts are slightly loosened the castings B and F may be readily adjusted to any desired angle on the post A and side-rail E by tapping them with a hammer or otherwise shifting their location so as to set the hinged ends in or out. By this means the post A and side-rail E may be set different distances apart as shown by Figs. 2 and 3, or they may be set in different alinements as may be required by the position the gate should occupy in relation to the post or to the railing of a pen of which the post A may be a part. Both hinges being alike, adjustable, the proper vertical position of the gate may always be maintained and the position of the gate may be otherwise adjusted in relation to the post. The hinges are also readily adjustable upward or downward on the post or on the side-rail or on both. The ends of the hinge members are preferably set at an angle to each other, because in their normal positions, as shown by Figs. 1, 2 and 3 the pivoted ends of the member will stand more or less to one side of the plane of the gate and the post to which the gate is hung. It is desirable that the ends of the hinge members which are attached to the side rail and post, should be as nearly in line with the gate and post as practical. The ends of the hinge members are set at an angle to each other to secure this result. Furthermore, the castings B and F may be interchanged, the casting B being applied to the side-rail E, and the casting F to the post A, provided the post and side-rail are the same size, or the concave portions of the castings are made the proper sizes to fit the different sizes of the post A and side-rail E. Therefore the hinges are completely adjustable and may be made interchangeable with relation to the post A and side-rail E.

The gate is preferably made of tubular top and bottom rails I and J joined to the side-rail E by clamping elbows K, and intermediate pipes or bars L are connected to the top and bottom rails by grip clamps M. It is not essential so far as this invention is concerned that any part of the gate be constructed of cylindrical material except the side-rail to which the hinge castings are connected.

In practice the gates are made at a factory in certain sizes supposed to fit the opening in the pen or panel where they are to be used. Sometimes, however, the opening is not made the exact size to fit the gate and in such cases to properly locate the gate it is especially important that the hinges be made adjustable which is readily done by setting them at different angles on the post and side-rail.

The entire arrangement is extremely simple and effective in operation and is readily adapted to suit the many requirements encountered in the construction of animal pens of tubular or cylindrical material and is adapted to various uses as will readily occur to those skilled in the art.

What I claim is:

1. In hinges for gates having a cylindrical side rail and a cylindrical post for the attachment of the hinges, a pair of hinge members pivotally connected at their adjacent ends, and means to clamp their other ends on the side-rail and post, and to adjust them thereon.

2. In hinges for gates having a cylindrical side rail and a cylindrical post for the attachment of the hinges, a pair of hinge members pivotally connected at their adjacent ends, their other ends being set at an angle to their bodies and means to clamp said other ends to the side-rail and post, and to adjust them thereon.

3. In hinges for gates having a cylindrical side rail and a cylindrical post for the attachment of the hinges, a pair of hinge members pivotally connected at their adjacent ends, their other ends having concave sides adapted to fit adjacent sides of the side-rail and post, clamping members having concave sides adapted to fit the other sides of the side-rail and post, and bolts to draw said clamping members toward said hinge members, and to clamp them on the side-rail and post.

Fairfield, Iowa, December 20, 1913.

WILLIAM LOUDEN.

Witnesses:

CARRIE L. BEEDLE,

HENRY H. NIEMANN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."