E. W. BAERWALDT.

HINGE.

APPLICATION FILED JUNE 22, 1920.

1,387,962. Patented Aug. 16, 1921.

Fig. 1.

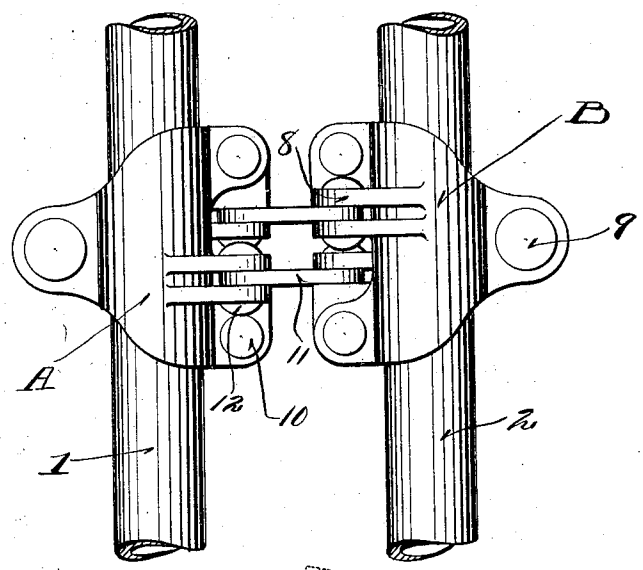
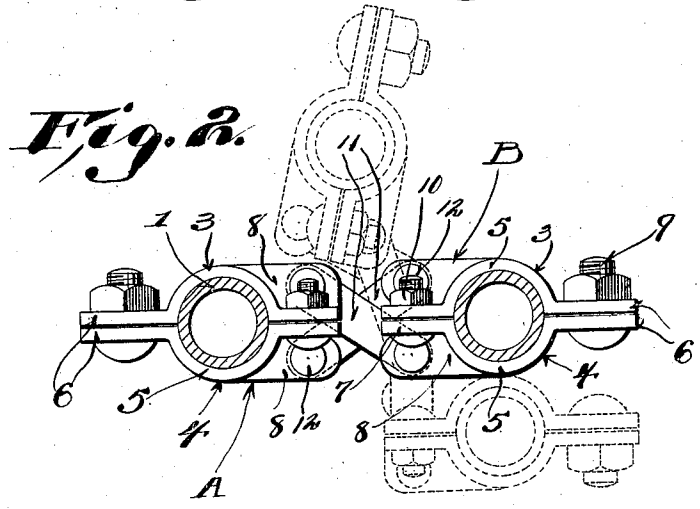


Fig. 2.



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HINGE.

1,387,962. Specification of Letters Patent. Patented Aug. 16, 1921.

Application filed June 22, 1920. Serial No. 390,819.

To all whom it may concern:

Be it known that I, ERWIN W. BAERWALDT, a citizen of the United States, and resident of Stevens Point, in the county of Portage and State of Wisconsin, have invented certain new and useful Improvements in Hinges; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention relates to new and useful improvements in hinges, and pertains particularly to a device of this nature for use on stock pen and alley gates.

The principal object of the invention is to provide a hinge for use in connection with dairy barn equipment which is so constructed that gates, such as stock pen and alley gates, may be swung to either side of a supporting post and into positions substantially parallel thereto. As such structures are now sometimes constructed, it is impossible for the gate to lie parallel when the side of the fence or the like supporting the same, it standing at an angle thereto so that it interferes with the movement of stock along an alley or into a pen.

It is likewise an important object of this invention to provide a simply constructed hinge which will perform the foregoing functions and which may be largely constructed of four like castings together with the necessary connecting and clamping elements. Obviously by having the main parts of identical construction, a relatively inexpensive device can be made.

With these general objects in view, the invention consists in the novel features of construction, combination and arrangement of parts which will be hereinafter more particularly described and claimed.

In the accompanying drawing,

Figure 1 represents a side elevational view of a hinge constructed in accordance with the invention, and

Fig. 2 is a plan view of the hinge shown in Fig. 1, several positions of the swinging portions thereof being indicated.

Although the invention is designed primarily for use in connection with dairy barn equipment and particularly with stock pen and alley gates, it is obvious that it can be employed wherever a hinge of this character is necessary. Consequently, various changes may be made in the different parts of the invention and in the proportions thereof, without departing from the principles or sacrificing any of its advantages.

Referring more particularly to the drawing, the reference character 1 denotes a portion, such as the hinge bar, of a gate or other swinging element, and 2 denotes an upright supporting post to which the gate or the like is hinged. My improved hinge comprises a gate engaging member A and a support engaging member B, each of which is of identical construction, and each consists of a pair of like clamp plates 3 and 4. When the plates 3 and 4 are secured together the parts 1 and 2 are clamped therebetween.

In its preferred embodiment the plates of each of the members A and B each has a substantially semi-cylindrical channel 5, a pair of outer clamp ears 6 and a pair of inner clamp ears 7 longitudinally spaced with respect to the axis of the channel. Likewise, each of said clamp plates has a bifurcated pivot ear 8 disposed adjacent one of the clamp ears 7. The pivot opening of the ear 8 is parallel to the axis of the channel 5, but the openings of the other ears 6 and 7 are positioned at right angles thereto. Each pair of coöperating clamp plates 3 and 4 is secured together by means of a clamp bolt 9 extended through the ears 6, and clamp bolts 10 disposed in the openings of the ears 7. However, any other means may be used for connecting the clamp plates 3 and 4 together, and if necessary, the channels therein may be of other than semi-cylindrical shape to accommodate other than cylindrical parts 1 and 2.

Inasmuch as each of the plates 3 and 4 is of identical construction, it is obvious that when two of such plates are assembled and arranged with their corresponding clamp ears 6 and 7 in engagement, the pivot ears 8 are spaced apart and disposed one on each side of a longitudinal plane passing through the engaging faces of said ears 6 and 7. Likewise when the two members A and B are assembled, the clamp ears 7 of the same are disposed adjacent each other, and as a result, although the pivot ears 8 of one member are alined horizontally with the pivot ears of the other member, the ears of the first member are adapted to coöperate with the remote ears of the other member. In other words, when the centers of each of

the members A and B are alined as indicated in Fig. 2 in full lines, the pivot ear 8 of one of the clamp plates 3 will be in the plane of the pivot ear of the clamp plate 4 of the opposite member, and likewise the pivot ear 8 of the clamp plate 4 of the first mentioned member will be in the same plane as the ear 8 of the other clamp plate 3.

Thus the corresponding pivot ears 8 of the clamp plates 3 and 4 of the opposite members may be connected by crossed links 11. The opposite ends of these links 11 are pivoted to the ears 8 as at 12, the same being first disposed between the furcations of said ears as is most clearly shown in Fig. 1. By such an arrangement the member A is permitted to swing to either side of the member B and into parallelism therewith. This feature together with the fact that each of the several clamp plates is of identical construction makes a hinge which will be not only extremely efficient in operation but which will be capable of being relatively inexpensively manufactured.

I claim:

A hinge including a pair of clamps, one forming a support engaging member and the other a gate post engaging member, each clamp comprising a pair of like post embracing plates, a bifurcated ear extending from each of the plates at one side of a transverse plane through the center thereof, means for clamping the pairs of plates together to engage the gate post and support respectively, and a pair of links, each link being pivoted at one end to the ear of one of the support engaging plates and pivoted at its other end to the ear on the diagonally opposite post engaging plate.

In testimony that I claim the foregoing I have hereunto set my hand at Stevens Point, in the county of Portage and State of Wisconsin.

ERWIN W. BAERWALDT.