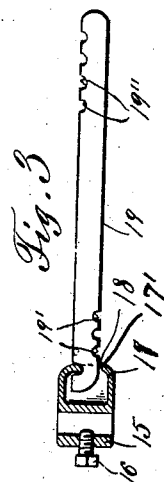
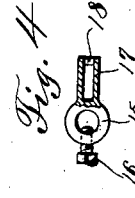
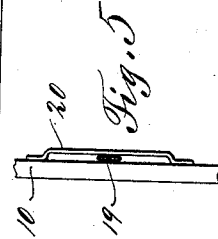
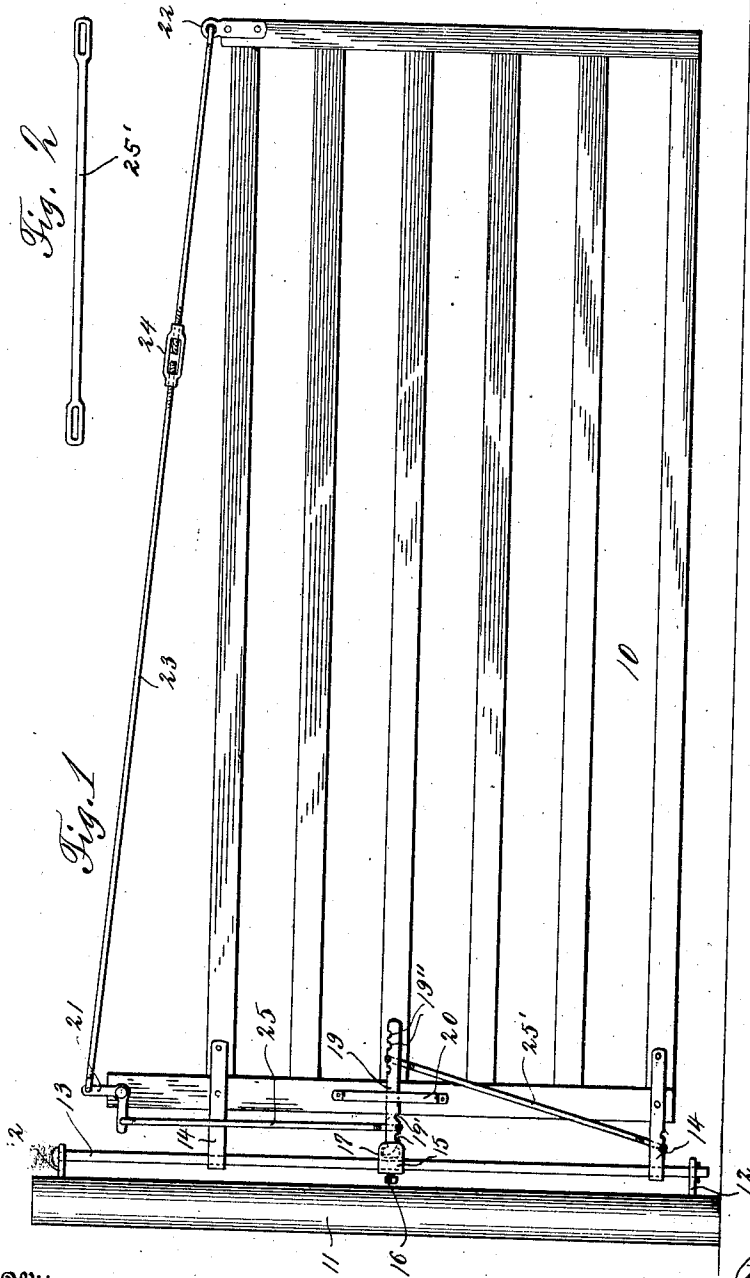


P. LINGWALL, JR.
GATE.
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1,021,613.

Patented Mar. 26, 1912.



Witnesses
E. Larson
Charles H. Wilson

Inventor
P. Lingwall, Jr.
By Decker & Cobb
Attorneys

UNITED STATES PATENT OFFICE.

PETER LINGWALL, JR., OF STRATFORD, IOWA.

GATE.

1,021,613.

Specification of Letters Patent.

Patented Mar. 26, 1912.

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To all whom it may concern:

Be it known that I, PETER LINGWALL, JR., a citizen of the United States, residing at Stratford, in the county of Hamilton and State of Iowa, have invented certain new and useful Improvements in Gates, of which the following is a specification.

This invention is primarily designed to provide a means whereby the hang or mounting of farm gates and the like may be adjusted and thereby prevent any unnecessary sagging which usually hinders the operation of the same. By the use of the present invention, the weight of the gate may be entirely taken off the hinges, thus making the same of a desirable nature for, should the hinges break, it will in no way hinder the use of the gate.

It also contemplates the provision of various adjustments which will regulate and promote the operation of a gate of this nature.

With the above and other objects in view, this invention consists in the construction, combination, and arrangement of parts, all as hereinafter more fully described, claimed, and illustrated in the accompanying drawings, wherein:—

Figure 1 is a side elevation of a gate constructed in accordance with the present invention; Fig. 2 is an elevation of one of the operating links; Fig. 3 is a central section of the sleeve and the rod cooperating therewith which cooperate with the links illustrated in Fig. 2; Fig. 4 is a top plan view of said sleeve, parts thereof in section; Fig. 5 is a fragmentary elevation of an inner extremity of the gate.

Referring more particularly to the drawings, 10 indicates a gate of the usual construction cooperating, as will be hereinafter more fully described, with the post 11. This post 11 is provided with the eyes 12 at the opposite terminals thereof, said eyes having mounted for rotation therein the rod 13. The gate 10 is connected to the rod 13 by the strap hinges 14 which are slidably mounted on said rod.

A circular sleeve 15 is slidably mounted on the rod 13 and is retained in various positions thereon by a set screw 16. This sleeve 15 has an off set bearing 17 which is provided with an opening 18. A bar or lever 19 is mounted in said bearing 17 for movement upwardly, said bar having a

notch adjacent to its inner terminal which engages the upper side of the opening 18. The bar 19 is limited in its downward movement and by means of this bar and the connecting link 25, the weight of the gate is supported from the bearing member 17. Adjacent to the bearing 17 the rod 19 is provided with a series of notches 19' on the under side thereof while at the opposite terminal the rod 19 is provided with a series of notches 19'' on the upper side. The rod 19 is reciprocatingly mounted in a keeper 20 centrally carried by the adjacent terminal of the gate 10.

A bell crank 21 is pivotally mounted on the upper terminal of the inner vertical bar of the gate, and has interposed between one arm thereof and an eye 22 carried by the outer terminal of the outer bar of the gate, a rod 23, said rod having a turn-buckle 24 therein through the instrumentality of which the length of said rod may be regulated. A link 25 connects the opposite arm of the bell crank 20 to the notches 19' of the bar 19, while a similar link 25' connects the notches 19'' of the bar 19 to the lower hinge 14.

In hanging the gate the rod 13 is inserted through the bearings 12, the hinges 14, and the bearing 15. The bar 19 is then mounted in the bearing 15 and rests on the shoulder 17' after which the link member 25' is correctly located, as illustrated in the drawings, whereby a rigid structure is obtained. The link member 25 is connected to the bar 19.

From the foregoing it will be observed that on tightening the turn buckle 24, the outer end of the gate will be raised, while the weight of the gate is removed from the hinges 14 at their pivotal connection with the post and all the weight placed on the rod 19 carried by the bearing 15.

Having thus fully described my invention, what is claimed as new is:—

1. In a device of the class described, the combination with a gate and cooperating gate post, of a vertical rod carried by said gate post, hinges slidably connecting said gate to said rod, a stationary bearing carried by said rod, a bar mounted for movement in said bearing, and means carried by the gate cooperating with said bar for taking up all sagging of the gate.

2. In a device of the class described, the combination with a gate and a cooperating

gate post, of a vertical rod carried by said gate post, hinges slidably connecting said gate to said rod, a stationary bearing carried by said rod, a bar mounted for movement in said bearing, a bell crank pivotally carried by the gate, a link connecting said bell crank with said bar, a connection between said rod and the lower of said hinges, and means secured to said bell crank for adjusting the hang of the gate, as specified.

3. In a device of the class described, the combination with a gate and a cooperating gate post, of a vertical rod carried by said gate post, hinges slidably connecting said gate to said rod, a stationary bearing carried by said rod, a bar mounted for movement in said bearing, a bell crank pivotally carried by the gate, a link connecting said bell crank with said bar, a link connecting said rod to the lower of said hinges, and an adjustable rod connecting said bell crank to the outer end of said gate.

4. In a device of the class described, in combination, a movably supported post, a gate mounted thereon, a bearing carried by said post, a bell crank pivoted on said gate, a link member connecting one arm of said bell crank to said bearing, an adjustable connection between the other arm of said bell crank and the outer portion of said gate,

and a second link member connecting said bearing to said gate, as herein specified.

5. In a device of the class described, in combination, a movably supported post, a gate mounted thereon, a bearing carried by said post, a bell crank pivoted on said gate, a link member adjustably connecting one arm of said bell crank to said bearing, means connecting the other arm of said bell crank to the outer portion of said gate, and a second link member adjustably connecting said bearing to said gate, as herein specified.

6. In a device of the class described, in combination, a movably supported post, a gate mounted thereon, a bearing carried by said post, a rod pivotally mounted in said bearing, a bell crank mounted on said gate, an adjustable connection between one arm of said bell crank and the outer portion of said gate, a link member connecting the other arm of said bell crank with said rod, and a second link member adjustably connecting said rod with said gate, as herein set forth.

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

PETER LINGWALL, JR.

Witnesses:

CHAS. W. NELSON,

G. E. ERICKSON.