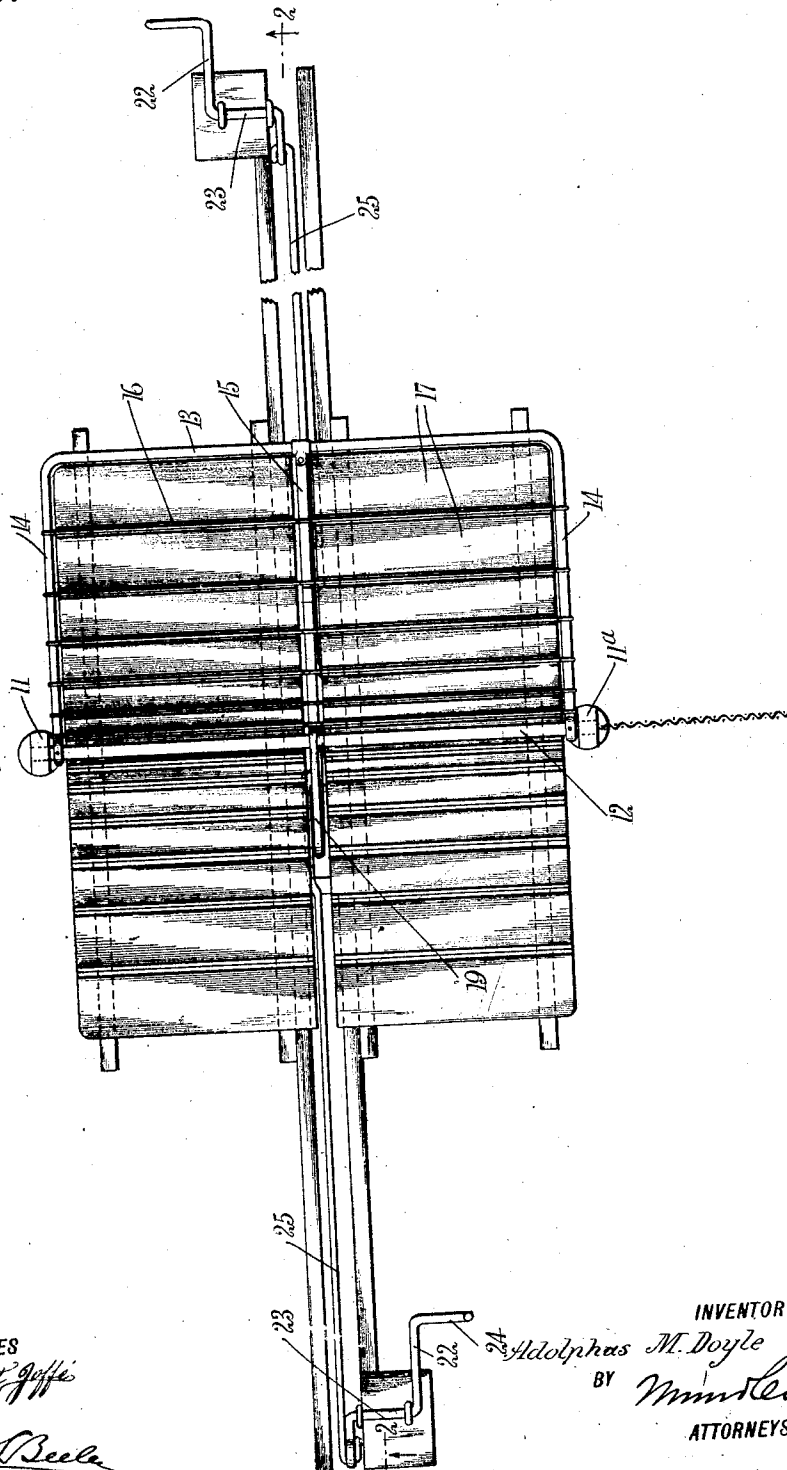


1.047,925.

॥ श्रीगणेशाय नमः ॥



WITNESSES
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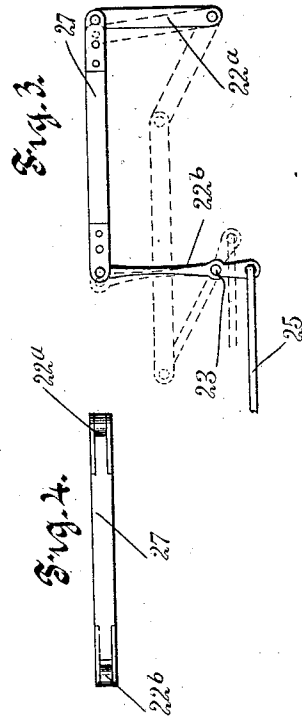
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Fig. 2.

11, 10, 16, 15, 12, 19, 20, 21, 18, 25, 22, 23, 24, 26, 17, 17, 25, 22, 23, 24

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UNITED STATES PATENT OFFICE.

ADOLPHUS M. DOYLE, OF LEOTI, KANSAS.

FARM-GATE.

1,047,925.

Specification of Letters Patent.

Patented Dec. 24, 1912.

Application filed April 10, 1912. Serial No. 689,760.

To all whom it may concern:

Be it known that I, ADOLPHUS M. DOYLE, a citizen of the United States, and a resident of Leoti, in the county of Wichita and State of Kansas, have invented a new and Improved Farm-Gate, of which the following is a full, clear, and exact description.

This invention relates to operating devices for gates, such as are used specially in rural places and where it is desirable to avoid the inconvenience and frequent danger of a person traveling alone from dismounting from his horse or vehicle to open the gate.

The purpose of this invention is to improve this class of gates in the particulars hereinafter fully described and claimed and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the device, the gate panel being shown as down or in its open position; Fig. 2 is a vertical longitudinal section substantially on the line 2—2 of Fig. 1; Fig. 3 is a side elevation of a modified form of operating device; and Fig. 4 is a plan view of Fig. 3.

Referring to the drawings particularly, this improvement includes a gate proper, or for convenience of description, a panel 10 adapted in its normal or closed position to occupy the space between the posts 11 and 11^a of the fence. The posts may be of any suitable construction, either wood, metal or composition, and mounted therein near their bases is a pivot bar 12 located at or below the surface of the driveway. Said bar 12 may be secured either positively or movably around its axis in said posts. That is to say, the bar may be fixed and the panel may swing around it, or the panel and bar may be connected to swing together. The gate panel may be constructed in any suitable manner so as to provide the necessary strength and durability to resist the operation of the traffic thereover. As shown, it consists of a top rail 13, side rails 14, a central rail 15, and a plurality of transverse bars 16 secured to the vertical members 14 and 15. The roadbed is arranged and constructed to include a series of planks 17 between or along which the gate elements are adapted to nest when opened, whereby the gate panel will be protected from a large proportion of the damaging traffic. It is, of course, understood that the gate is adapted to operate in either direction, preferably away from the approaching vehicle.

In devices of this character it is essential that the construction shall be of such simple nature as to bring it easily within the reach of the masses of the people, and also that the structure shall be of a nature reliable in operation at all times and of the most durable sort. I therefore dispense with springs and all other features of a delicate nature commonly employed in this kind of devices.

Beneath the panel will be constructed a pit 18 into which projects a yoke 19 of substantially triangular form, the base of the triangle being adjacent the panel and disposed in a plane substantially central and transverse thereto. The apex of the triangle therefore projects downwardly when the parts are in normal position. Said yoke is secured to the panel in any suitable positive manner, and as shown, is made integral with the aforesaid central bar 15. A heavy weight 20 of any suitable, cheap and durable construction is suspended as by an anti-friction roller 21 from said yoke, said roller being adapted to roll along either of the sides of the triangle and to normally rest in the apex to maintain the gate panel upright. The arrangement is such that when the panel is down or away from its normal position in either direction, the tendency of the weight will be to restore it to said normal position automatically.

As one convenient means to open the gate, I provide a crank 22 having a horizontal pivot at 23 and having an upwardly and laterally extending member 24 adapted to be engaged by a vehicle wheel. Said crank 22 constitutes a lever of the first class, and connected to its lower end is a rod or other suitable connection 25 whose other end is connected in one of a pair of eyes formed in an arm 26 connected to or formed as an integral part of the aforesaid yoke 19 and extending inwardly or downwardly from the base thereof toward its center. When the vehicle is approaching the gate in the direction indicated by the arrow *a* in Fig. 2, one of its wheels will engage the member 24 causing the crank to turn on its pivot toward the gate, and bring the parts into the position indicated in dotted lines in said figure. The vehicle, the horse, or horses will open and pass over the panel and the approaching vehicle will prevent it from being restored to its normal position until the last wheel has passed thereover.

It will be noted from what has preceded

that the operating means for the gate will be duplicated on opposite sides so that a team or vehicle approaching in the direction opposite to that before described may operate the gate in the opposite direction but in a manner similar to that above set forth. The loose connection between the crank 22 and the bar 25 provides for a certain amount of flexibility of action upon the gate due to vehicles of different heights and sizes.

That form of the device shown in Figs. 3 and 4 comprises a compound lever including a member 22^a, a lever 22^b, and a connecting bar 27. The lever 22^b is of the first class and is connected to the aforesaid bar 25. The purpose of this construction is to provide an operating means which will be acted upon by the axle of the vehicle, the bar 27 being of suitable length to insure that the panel will be held down sufficiently long for the purpose intended, and this form of the device may be found in practice to be best adapted for automobile traffic. As indicated in Fig. 3 the lever 22^b may be made flexible to a certain extent to prevent damaging shocks or strains incident to the axles of low-built vehicles. Either form of operating device may be used on either side of the gate, but usually the form used on one side will be duplicated on the other in practice.

The several parts of my improved gate may be made of any materials found best suited for their purposes, and the relative sizes and proportion of such parts may be varied according to the exigencies of any particular case without departing from the spirit of the invention hereinafter claimed.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a farm gate, the combination of a horizontal pivot-bar, a gate panel mounted on said bar and movable around the axis

thereof from its normal upright position to a horizontal position, a substantially triangular yoke associated with said bar and connected to said panel, a weight suspended from said yoke and tending to maintain the panel in normal position, said weight being shiftable along the yoke during the movement of the panel, and means to move the panel in opposition to the tendency of said weight.

2. In a farm gate, the combination of a normally vertical panel adapted to swing in either direction on a horizontal axis, a yoke positively connected to said panel and lying in a plane transverse to the plane of the panel and extending below the axis aforesaid, an arm connected to said yoke and extending inwardly toward its center, lever means adapted to be engaged by an approaching vehicle, means connecting said lever means flexibly with the aforesaid yoke and arm whereby the gate panel is moved away from the approaching vehicle, and means connected to said yoke to automatically restore the gate to normal position.

3. In a farm gate, the combination of a panel including a vertical central bar and adapted to swing on a horizontal axis, a yoke beneath the panel, connected rigidly to said central bar and lying in a plane transverse to the plane of the panel, said yoke including an oblique side member, a weight hung on said yoke and adapted to glide along said oblique member and tending to normally close the panel, and means connected to said panel to open the same by means of an approaching vehicle.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ADOLPHUS M. DOYLE.

Witnesses:

JAMES T. FORD,
HUGH REES.