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P. C. HALLMARK ET AL

2,432,881

VEHICLE-OPERATED GATE

Filed July 25, 1945

2 Sheets-Sheet 1

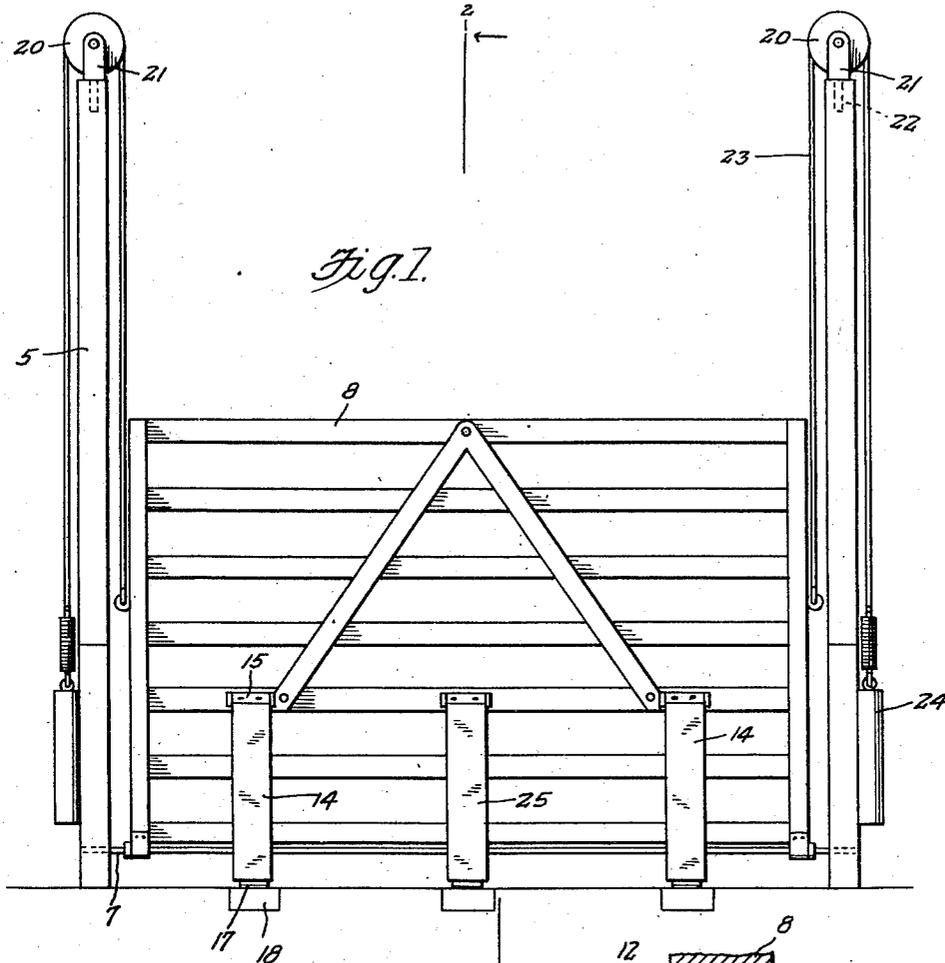


Fig. 1.

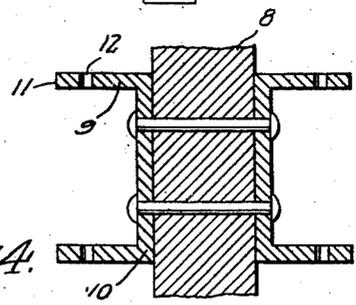
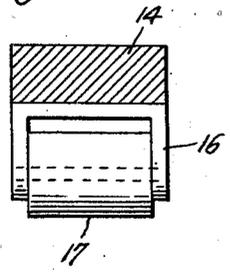


Fig. 4.

Fig. 5.



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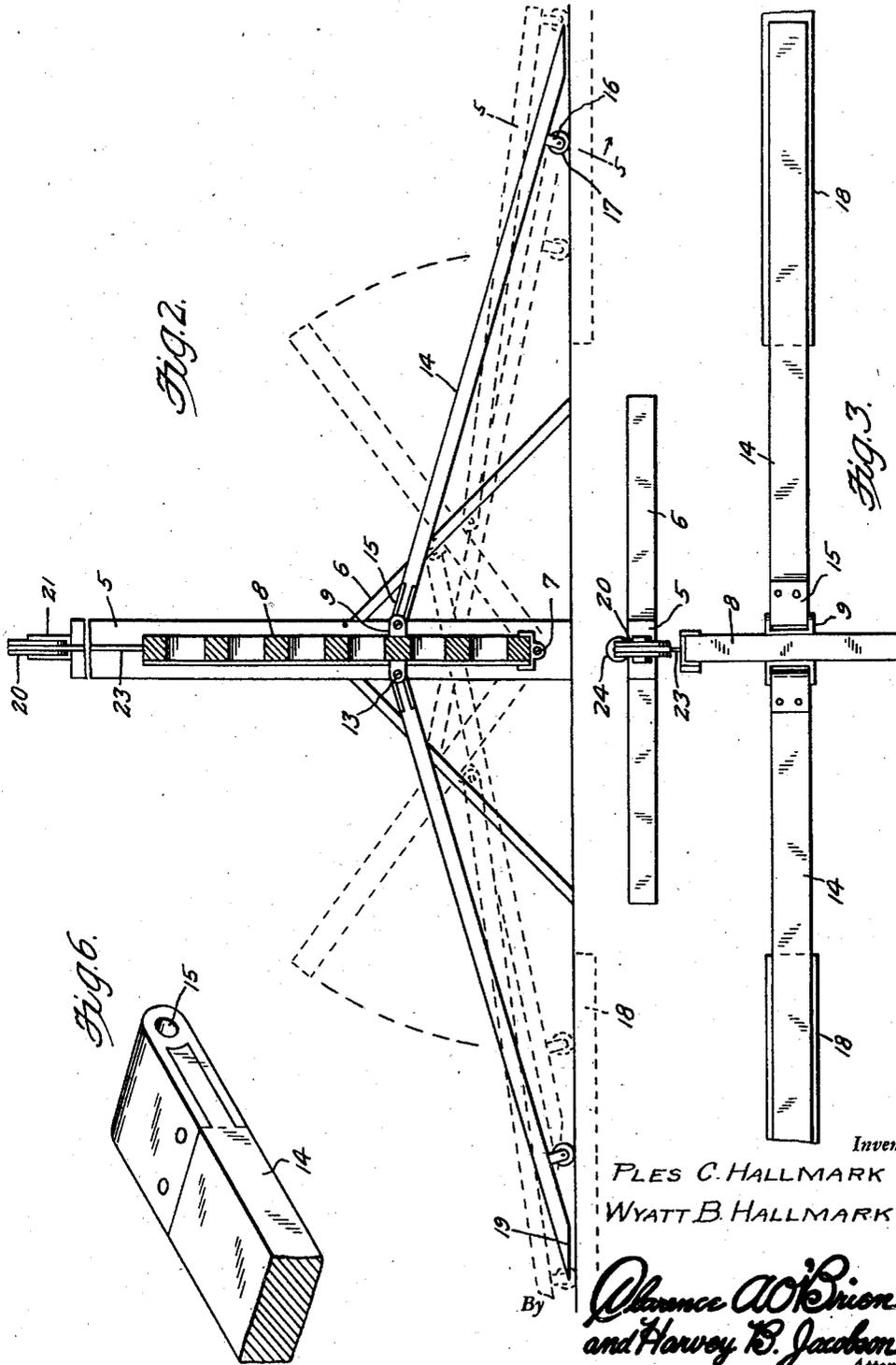
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VEHICLE-OPERATED GATE

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,432,881

VEHICLE-OPERATED GATE

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Application July 25, 1945, Serial No. 606,954

1 Claim. (Cl. 39—24)

1

The present invention relates to new and useful improvements in gates, such as farm gates, and the like, and more particularly to a vehicle-operated gate of this character pivotally supported at its lower edge for vertical swinging movement and adapted to be moved into a horizontal or open position by driving a vehicle against either side of the gate and maintained in open position during the passage of the vehicle through the gate and embodying means for automatically raising the gate into its closed position after the vehicle has passed therethrough.

An important object of the present invention is to provide a gate of this character adapted for opening movement by the approach and contact of a vehicle with the gate from either side so that the vehicle may pass through the gate without stopping and which will be restored to its closed position after the vehicle passes.

A further object of the invention is to provide a device of this character of simple and practical construction which is efficient and reliable in operation, strong and durable, relatively inexpensive to manufacture, and maintain in operative position, and which otherwise is well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like reference numerals refer to like parts throughout, and in which:

Figure 1 is a front elevational view,

Figure 2 is a transverse sectional view taken substantially on a line 2—2 of Figure 1,

Figure 3 is a fragmentary top plan view of one end of the gate,

Figure 4 is an enlarged fragmentary sectional view of the plate attached to opposite sides of the gate for attaching the ramps thereto,

Figure 5 is a sectional view taken substantially on a line 5—5 of Figure 2, and

Figure 6 is an enlarged fragmentary perspective view of the pivoted end of one of the ramps.

Referring now to the drawings in details, wherein, for the purpose of illustration, I have disclosed a preferred embodiment of the invention, the numeral 5 designates a pair of posts supported in upright, spaced apart relation by means of braces 6. A rod 7 has its ends supported in the posts at the lower ends thereof, and on which the lower edge of a gate 8 is pivotally mounted for vertical swinging movement.

To the opposite sides of the gate 8 adjacent its lower edge are secured pairs of U-shaped brackets

2

9 by means of bolts or the like 10, the brackets including spaced parallel, outwardly projecting ears 11 having openings 12 therein for receiving a transversely extending pin 13 on which the inner end of a ramp 14 is pivotally mounted by means of a bearing 15.

The ramps 14 extend outwardly from opposite sides of the gate 8, as shown to advantage in Figure 2 of the drawings, in an inclined position, and to the underside of the ramps adjacent their outer ends are secured U-shaped brackets 16 on which rollers 17 are mounted to facilitate sliding movement of the ramps on the ground. Cement or other hard bases 18 are embedded in the ground under the rollers 17. The outer ends of the ramps 14 are preferably bevelled, as indicated at 19, to lie flatly on the bases 18.

Pulleys 20 are mounted at the upper ends of the posts 5 for horizontal swinging movement by means of bearing brackets 21 having pins 22 recessed in the top of the posts, and cables 23 are trained over the pulleys with one end attached to an adjacent edge of the gate 8 adjacent its upper edge and the other end of the cable having a weight 24 attached thereto.

In the operation of the device, the gate 8 is normally maintained in its upright position between the posts 5 by means of the weights 24.

Upon the approach of a vehicle at either side of the gate, the front wheels of the vehicle will ride on a pair of the ramps 14 and the bumper or front end of the vehicle will strike the gate 8 to swing the gate downwardly in a direction away from the direction of travel of the vehicle, as indicated by the dotted lines in Figure 2, the gate and ramps thus being lowered by the traveling of the ramps on the rollers 17, thus permitting the vehicle to pass over the gate.

After the wheels of the vehicle have completely passed over the gate, the weights 24 will raise the gate to its upright position.

As illustrated in Figure 1 of the drawing, a center ramp 25 is provided on which the front wheels of a tractor may travel.

In view of the foregoing description taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the construction, operation and advantages of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though I have herein shown and described a preferred embodiment of my invention that the same is susceptible to certain changes fully compre-

3

hended by the spirit of the invention as herein described and the scope of the appended claim.

Having thus described the invention, what I claim as new is:

A vehicle-operated gate mounted for vertical swinging movement in either direction into open and closed position by contact with a vehicle approaching from either side of the gate, counterbalancing means for maintaining the gate in its raised or closed position, and ramps pivoted at one end directly to the sides of the gate to guide the wheels of the vehicle onto the gate at the approach side thereof and to hold the gate in its lowered position after the vehicle passes over the gate at its far side, the other ends of the ramps being free to slide along the ground during raising and lowering of the gate, rollers on the free ends of the ramps, and hard-surfaced bases embedded in the ground under said rollers, said

4

ramps operating under the weight of a vehicle thereon after initial opening of the gate to follow said gate and completely open the same.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,759,207	Rose et al. -----	May 20, 1930
1,714,820	Rounsborg et al. ----	May 28, 1929
1,783,579	McGrath -----	Dec. 2, 1930
2,256,662	Blaker -----	Sept. 23, 1941
1,252,754	Wetherington -----	Jan. 8, 1918
1,498,458	Lancaster -----	June 17, 1924
1,944,349	Kincaid -----	Jan. 23, 1934