

No. 741,464.

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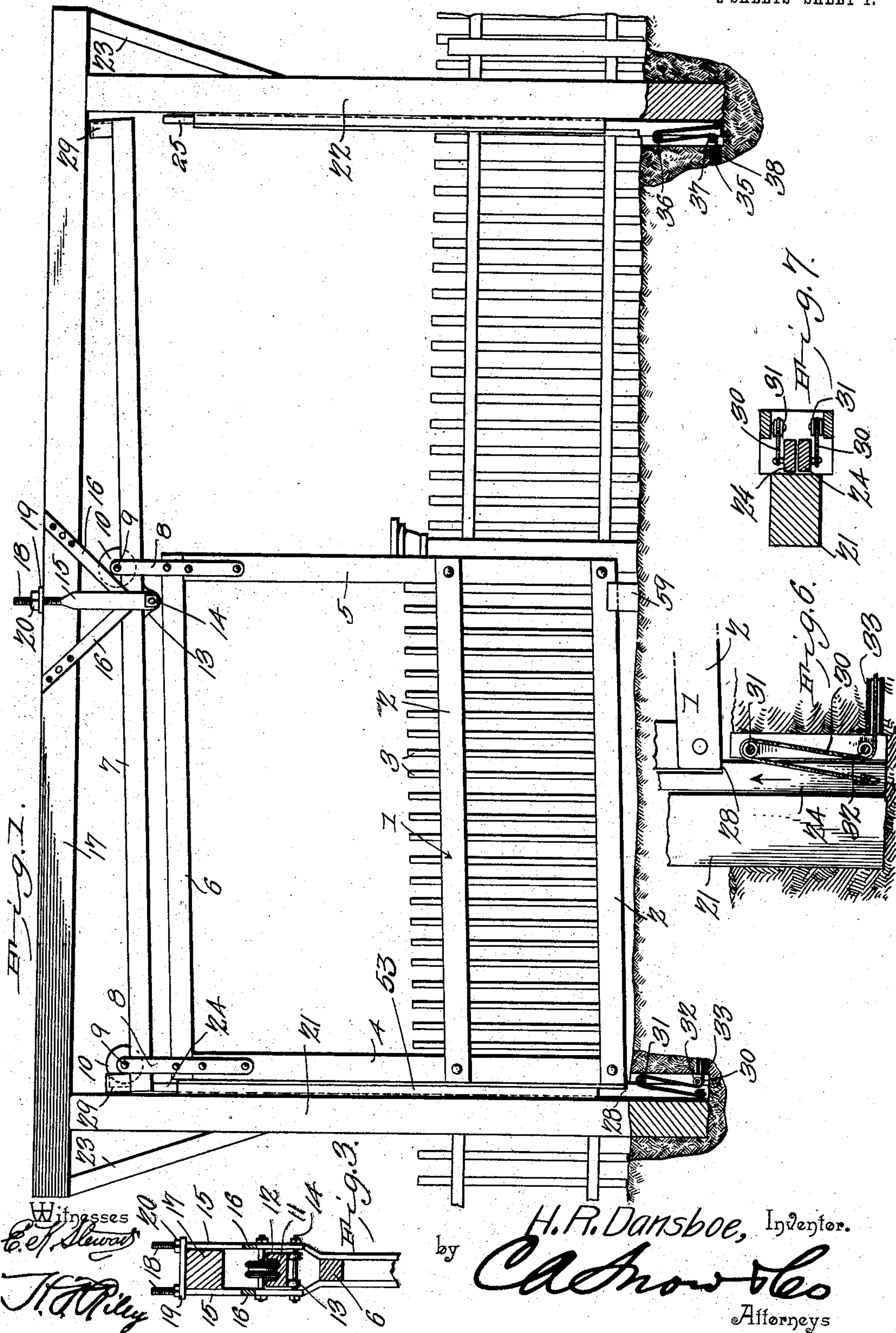
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GATE.

APPLICATION FILED JULY 8, 1902.

NO MODEL.

2 SHEETS—SHEET 1.







# UNITED STATES PATENT OFFICE.

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## GATE.

SPECIFICATION forming part of Letters Patent No. 741,464, dated October 13, 1903.

Application filed July 8, 1902. Serial No. 114,814. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY RASMUSSEN DANSBOE, a citizen of the United States, residing at Marshall, in the county of Harrison and State of Texas, have invented a new and useful Gate, of which the following is a specification.

The invention relates to improvements in gates.

10 The object of the present invention is to improve the construction of gates and to provide a simple and comparatively inexpensive one adapted to be readily operated at a distance from either side of it by a person on horse-  
15 back or in a vehicle without dismounting.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed  
20 out in the claims hereto appended.

In the drawings, Figure 1 is an elevation of a gate, partly in section, constructed in accordance with this invention. Fig. 2 is a plan view. Fig. 3 is a detail sectional view illustrating the manner of mounting the gate.  
25 Figs. 4 and 5 are sectional views illustrating the construction of the depressible platforms. Figs. 6 and 7 are detail views illustrating the manner of mounting the vertically-movable  
30 bars for actuating the tilting track. Fig. 8 is a detail view illustrating the arrangement of the inner ends of the locking-rods when the gate is closed.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a sliding gate constructed in any desired manner and preferably composed of horizontal bars or rails 2 and connecting  
40 pickets 3, pivotally connected at their upper and lower portions to the rails; but they may be secured to the horizontal bars or rails in any other desired manner. The gate is provided with front and rear end bars 4 and 5,  
45 which are extended vertically and which are connected at their upper ends by a top bar 6. The top bar 6 is arranged beneath a pivoted track 7, from which the gate is suspended by hangers 8, consisting of upwardly-extending  
50 bars or straps having divergent upper portions and connected by transverse bolts or

spindles 9, upon which rollers 10 are mounted. The rollers, which are grooved, are arranged to run on the pivoted track 7, which is provided with central longitudinal grooves 11 and side flanges 12, as clearly shown in Fig. 3 of the drawings. 55

The tilting track is provided at its center with depending bearings 13, consisting of suitable castings secured to the lower face of the track by suitable fastening devices and forming opposite eyes or ears for the reception of a transverse pivot-bolt 14, which also passes through side bars 15 of an adjustable hanger. The adjustable hanger is composed of the said  
60 side bars 15, which are provided with oppositely-inclined braces 16, as clearly shown in Fig. 1. These braces are perforated for the reception of screws or other suitable fastening devices and are secured by the same to a horizontal top bar 17 of a supporting-frame. The upper portions of the bars 15 are reduced and threaded, and these threaded portions 18 extend through perforations of a transverse  
65 plate 19 and are secured to the same by nuts 20. The nuts 20 are adapted to be adjusted to raise and lower the sides of the hanger to position the tilting track properly and to obtain the necessary drop to secure a positive opening-and-closing movement of the gate. 80  
The upper ends of the braces may be secured to the top bar 17 of the supporting-frame at any desired point, and the fastening devices are removed from the braces when the sides of the adjustable hanger are adjusted. The supporting-frame is composed of the said horizontal top bar and front and rear uprights 21 and 22, which are connected with the top bar 17 by braces 23, as clearly shown in Fig. 1 of the drawings; but the supporting-frame may  
90 be constructed in any other suitable manner. The pivotally-mounted track is adapted to be tilted by the means hereinafter described to arrange it at an inclination and to lift the gate to cause the same to roll down the inclined track, whereby the opening and closing of the gate is effected. The tilting of the track is effected by means of vertically-movable bars 24 and 25, arranged in pairs at the uprights 21 and 22 and mounted in suitable  
95 ways, preferably consisting of bars or cleats secured to the uprights and connected by hori- 100



zontal pieces. The bars 24 and 25, which are capable of vertical movement, are provided at their lower portions with shoulders 28, adapted to receive and support the lower end of the gate, and the upper ends of the vertically-movable bars are also arranged beneath the ends of the tilting track and are in contact with the lower end of the track, as clearly shown in Fig. 1. The tilting track is provided at its ends with upwardly-extending blocks 29, which are arranged to engage the top of the supporting-frame and which assist in limiting the movement of the track.

The vertically-movable bars 24 for actuating the front end of the track are connected at their lower ends with flexible connections 30, which may consist of ropes, chains, cables, or the like, and these flexible connections extend upward a short distance and pass over upper guide-pulleys 31 and then extend downward to lower guide-pulleys 32, which are arranged adjacent to the lower ends of the bars 24. The flexible connections, which are located beneath the surface of the ground, extend from the lower pulleys 32 through pipes or tubes 33 to inner platforms 34, located at opposite sides of the gate. The other vertically-movable bars 25 are connected at their lower ends with flexible connections 35, arranged on upper and lower pulleys 36 and 37 and extending from the lower pulleys 37 through pipes or tubes 38 to outer depressible platforms 39, which are also located at opposite sides of the gate. Each depressible platform is preferably rectangular, and in practice is designed to be painted white or to be provided with other suitable coating to enable it to be readily distinguished on a dark night. The platform is provided near its outer edge with a depending flange 40, consisting of side and end boards and arranged in a suitable way 41, consisting of inner and outer rectangular shells or casings, as clearly shown in Fig. 4. The inner shell or casing is connected with a vertical rectangular frame or casing 42 by vertical bars 43, spaced apart and located at opposite sides of the device and forming wells for weights 44, which are connected by cords 45 or other suitable flexible connections with the platform and which are adapted to maintain the platform normally in an elevated position. The weights are preferably four in number, as shown in Fig. 4, and the cords 45, which pass over guide-pulleys 46, are connected with cleats 47, secured to a depending portion 48 of the platform. The depending portion of the platform consists of a rectangular boxing supported by suitable braces 49 and provided with the said cleats 47, which form guide-flanges and which are arranged in ways 50. The ways 50 consist of cleats or bars secured to the inner rectangular frame or casing 42. The central portion 48, which depends from the platform, is provided with a depending arm 51, which is connected with the adjacent

flexible connection 30 or 35, which passes over a guide-pulley 52. The depending arm 51 is arranged adjacent to the guide-pulley 52, and when the depressible platform is forced downward the flexible connection is pulled upon and one of the vertically-movable bars will be raised to tilt the platform. The inner depressible platforms 34 are connected with the front vertically-movable bars 24, and when forced downward under the weight of the horse one of the front vertically-movable bars will be raised and the front end of the tilting track will be lifted and the gate will open by gravity. After the vehicle has passed through the gateway the horse steps upon the outer platform 39 and the tilting track is reversed to close the gate. The uprights 21 and 22 are provided with oppositely-disposed projections or blocks 53, which are spaced apart to form keepers for supporting the gate against lateral movement.

The gate is locked in its closed position by oppositely-disposed reciprocating locking-rods 54, arranged in guide-tubes 55 and connected at their outer ends with short operating-levers 56, fulcrumed between their ends on posts or supports 57, and provided with handle portions adapted to be readily grasped by a person on horseback or in a vehicle. The tubes extend to points at opposite sides of the gate when the latter is closed and the said gate is provided with an opening 58, arranged to receive the inner ends of the rods. Either rod is adapted to lock the gate against accidental movement, and each rod is capable of sufficient movement to extend entirely through the gate for displacing the opposite locking-rod should the same be in engagement with the gate. Both rods might be in engagement with the gate, and the gate may be released by moving either of the locking-rods inward to displace the other rod and then withdrawing it. The locking-rods prevent the gate from being opened accidentally by cattle stepping upon the depressible platforms.

The rear end of the gate when closed is supported by a bottom guide 59, provided at opposite sides with flanges and adapted to hold the gate against lateral movement. The guide tubes or pipes 55 are supported at intervals by posts 60, as clearly shown in Fig. 2.

In practice the tilting track will be provided with a covering or housing of galvanized iron or other suitable sheet metal to exclude snow and rain and to protect the parts; but in the accompanying drawings this sheet-metal casing or covering has been omitted for convenience of illustration. Also the gate may be locked in an open position by means of a pin arranged substantially the same as one of the locking-rods. By arranging a locking-pin in a perforation of the gate and in a perforation of the fence or other fixed portion the gate may be securely held in its open position; but any other form of locking



device may be employed. When the gate is locked in its open position, a funeral procession or a number of other vehicles may pass through the gateway without operating the gate.

What I claim is—

1. The combination of a track pivotally mounted between its ends, a sliding gate suspended from the track, a pair of vertically-movable bars located beneath one end of the track and movable independently of the same and of each other, and means for operating the bars independently of each other, substantially as described.

2. The combination of a tilting track provided with bearings, an adjustable hanger composed of vertical sides having threaded upper portions, braces supporting the sides, a plate or bar connecting the upper ends of the sides, nuts arranged on the threaded portions of the sides and engaging the plate or bar, and a pivot carried by the sides and arranged in the bearings of the tilting track, and a gate suspended from the tilting track, substantially as described.

3. The combination of a tilting track, a gate suspended therefrom, vertically-movable bars arranged in pairs and located beneath the ends of the track, upper and lower guide-pulleys arranged adjacent to the lower ends of the bars, flexible connections secured to the lower ends of the bars and arranged on the guide-pulleys, and inner and outer depressible platforms connected with the flexible connections, substantially as described.

4. The combination of a tilting track, a gate suspended therefrom, vertically-movable bars arranged beneath the ends of the track, guides located adjacent to the ends of the bars, flexible connections arranged on the guides and secured to the bars, and depressible platforms connected with the flexible connections, substantially as described.

5. The combination of a tilting track, a gate suspended therefrom, vertically-movable bars arranged beneath the track, depressible platforms, frames receiving the platforms and provided with means for guiding the same, connections between the platforms and the vertically-movable bars, and weights for

maintaining the platforms normally in an elevated position, substantially as described.

6. The combination of a tilting gate-track, a gate suspended therefrom, vertically-movable bars arranged beneath the track, depressible platforms having depending portions provided with guide-flanges, frames having ways receiving the guide-flanges, weights connected with the platforms for maintaining the same normally in an elevated position, and connections between the platforms and the vertically-movable bars, substantially as described.

7. The combination of a tilting track, a gate suspended therefrom, vertically-movable bars arranged beneath the track, depressible platforms provided with depending central portions and having depending outer flanges, inner and outer frames or shells forming ways and receiving the depending flanges of the platforms, a centrally-arranged frame receiving the depending portion of the platforms, wells arranged between the central frame and the inner frame or shell, connections between the platforms and the vertically-movable bars, and weights arranged within the wells and connected with the platforms, substantially as described.

8. The combination of a tilting track, a gate suspended therefrom, a vertically-movable bar, a platform having a depending flange and provided with a central depending portion having vertical flanges, a frame receiving the depending portion of the platform and provided with ways receiving the vertical flanges, inner and outer shells spaced apart and receiving the depending flange of the platform, wells located between the central frame and the inner shell, means for connecting the platform with the vertically-movable bar, and weights arranged within the wells and connected with the vertical flanges, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HARRY RASMUSSEN DANSBOE.

Witnesses:

M. TURNEY,  
BEN. S. POPE.