April 12, 1927. G. M. HORNER 1,624,169

GATE

Filed July 10, 1925 2 Sheets-Sheet 1

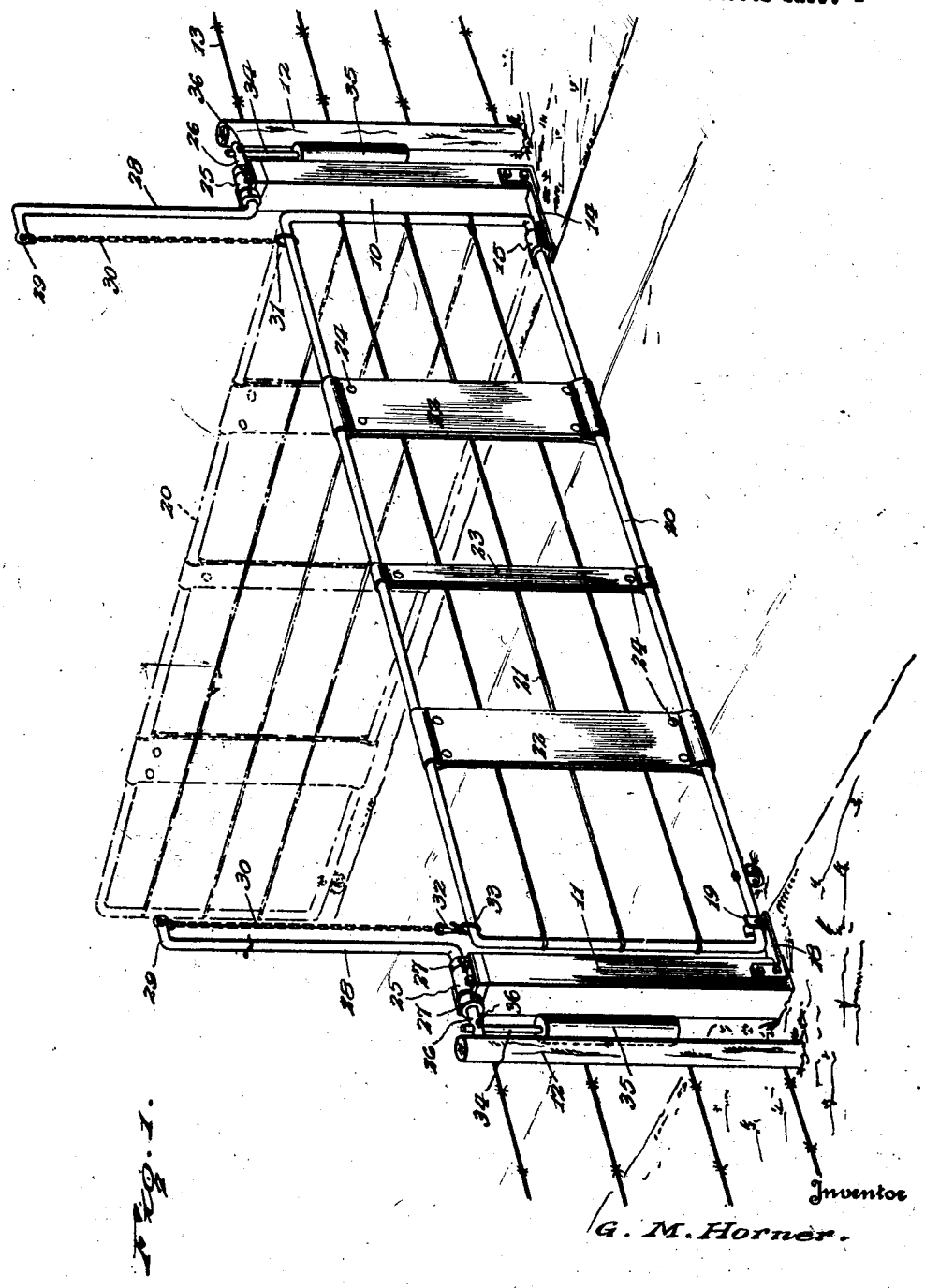


Fig. 1.

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Fig. 2.

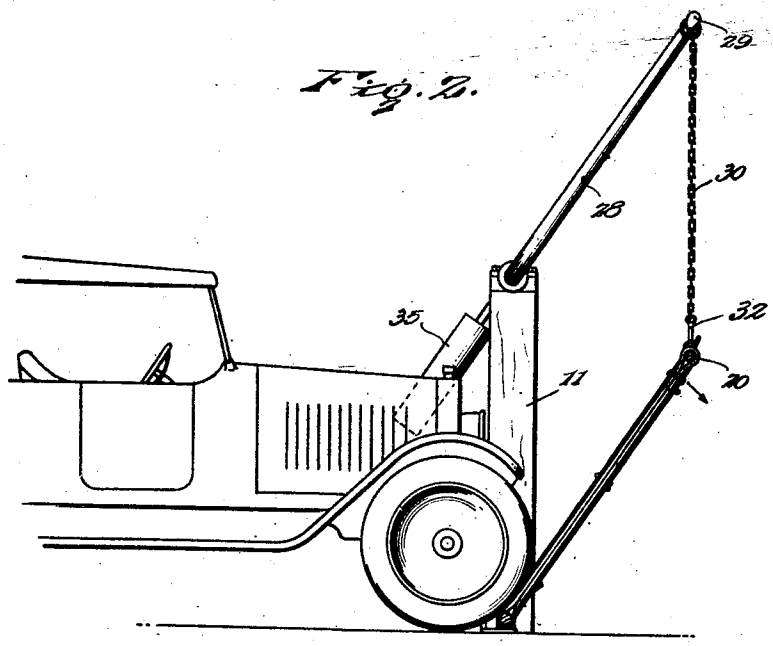



Fig. 3.

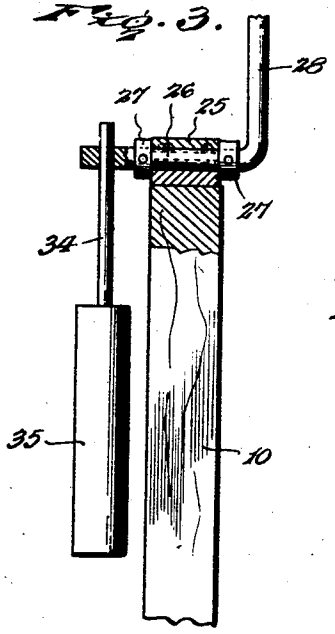



Fig. 4.

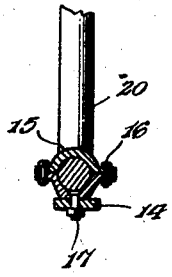
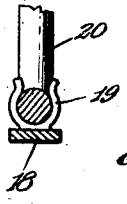



Fig. 5.




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# UNITED STATES PATENT OFFICE.

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## GATE.

Application filed July 10, 1925. Serial No. 42,824.

This invention relates to an improved fence gate particularly, although not exclusively, designed for use at garage driveways or the like, and seeks among other objects, to provide a gate which may be swung downwardly and opened by driving a motor vehicle thereagainst so that the vehicle may pass over the gate, when the gate will automatically be returned to closed position.

The invention seeks, as a further object, to provide a gate which may be swung horizontally to open position, when so desired.

And the invention seeks, as a still further object, to provide novel means for mounting the gate as well as retracting the gate when swung downwardly.

Other and incidental objects will appear hereinafter.

In the accompanying drawings:

Figure 1 is a perspective view showing my improved gate closed, this view also showing, in dotted lines, the manner in which the gate may be swung horizontally to open position.

Figure 2 is a vertical sectional view through the gate and showing the manner in which the gate may be opened by driving a motor vehicle thereagainst.

Figure 3 is a detail sectional view showing the mounting of the crank shaft of the gate upon a gate post.

Figure 4 is a detail sectional view showing the swivel bearing of the gate.

Figure 5 is a detail sectional view showing the spring retainer for the free end of the gate.

In carrying the invention into effect, I employ a pair of gate posts 10 and 11 which, as suggested in Figure 1, are erected at opposite sides of a driveway or the like, and disposed in spaced alinement the posts 10 and 11 are posts 12 to which the fence wires 13 are connected.

Fixed to the post 10 near the ground is a horizontally extending bracket 14, and mounted to turn upon said bracket is a bearing 15 comprising mating bearing plates detachably connected by bolts 16. Extending through the lowermost of said bearing plates and through the bracket, as shown in Figure 4, is a bolt 17 or other suitable fastening device rotatably connecting the bearing with the bracket. Fixed to the lower end of the post 11, near the ground, is a bracket 18 which alines with the bracket 14 and is similar thereto. Suitably fixed to the bracket 18 is a substantially U-shaped spring retaining clip 19.

Normally supported by the brackets 14 and 18 is a closure 20, the oblong frame of which is preferably formed from metal tubing. Extending between the end bars of said frame are horizontal wires 21, and extending vertically between the top and bottom bars of the frame are tread plates 22 as well as an intermediate reinforcing strap 23. The tread plates as well as said strap are preferably formed of strips of sheet metal which are looped around the top and bottom bars of the frame, and overlapped between said bars, the overlapping thicknesses of the strips being secured together adjacent said bars by rivets or other suitable fastening devices 24. As shown in Figure 4, one end of the bottom bar of the frame is received through the bearing 15 of the bracket 14 while the opposite end of said bar rests in the retaining clip 19 and is yieldably gripped thereby. Accordingly, as will be seen, the closure is supported by the bearing and said clip to rock vertically.

Fixed to the upper ends of the posts 10 and 11 are bearings 25 and journaled through said bearings are crank shafts 26. Adjustably fixed on said shafts, as best seen in Figure 3, are collars 27, disposed to confront opposite ends of the bearings for limiting the shafts against endwise movement, and formed on said shafts at their inner ends are crank arms 28 of a length substantially equal to the height of the closure 20. At their free ends, the arms 28 are provided with laterally directed terminals 29 which extend inwardly toward each other, and connected to said terminals are chains or other suitable flexible elements 30, one of which carries a ring 31 freely embracing the top bar of the frame of the closure while the other of said chains carries a hook 32. At its adjacent end, the top bar of the frame of the closure is equipped with a ring 33 normally engaged by the hook 32 so that the crank arms 28 are thus operatively connected with the closure. Slidable through the outer ends of the crank shafts 26 are rods 34 carrying counterweights 35 freely movable between the gate posts 10 and 11 and the fence posts 12, and adjustable on the shafts 26 to engage said rods are set bolts 36. Thus, the counterweights may be adjustably raised or lowered to suit the

weight of the closure, so that, as will now be seen in view of the foregoing, the counterweights will normally hold the closure in vertical closed position.

The plates 22 of the closure are spaced apart to correspond with the tread of an ordinary motor vehicle so that, as shown in Figure 2, a vehicle may be driven against the closure for rocking the same downwardly to open position, whereupon the vehicle may pass out over said plates. As soon as the vehicle clears the closure, the counterweights 35 will, of course, function to immediately retract the closure to its normal closed position, and, in this connection, it is to be observed that the closure may be swung downwardly in either one direction or the other. Should it be desired to open the gate so that a horse-drawn vehicle, for instance, may pass, the hook 32 is disengaged from the ring 33, when the adjacent end of the closure is lifted out of the retaining clip 19. Should it be found difficult to thus lift the adjacent end of the closure, the closure may be shifted endwise, when the bottom bar of the frame of the closure will slide through the bearing 15 while the adjacent end of the bar will slide from between the prongs of the clip 19. Having freed the adjacent end of the closure, the closure may then, as shown in dotted lines in Figure 1, be swung horizontally to open position and, if found necessary, the free end of the closure may be equipped with a swiveled roller to travel along the ground and support the closure as it is swung horizontally. It will thus be seen that I provide a particularly effective construction for the purpose set forth and a gate which, while being capable of being opened in the usual way, may be opened by driving a vehicle thereagainst and the necessity of manually opening the gate thus avoided.

Having thus described the invention, what I claim is:

1. A gate including spaced posts, a closure mounted at its lower edge between said posts for rocking movement to either side of the vertical plane of the posts, shafts journaled upon the posts above the closure and provided with crank arms normally upstanding in the vertical plane of the closure, flexible connections between said crank arms and the top of the closure, and counterweights carried by and depending from the shafts whereby said weights swing in the opposite direction to the closure when the closure is rocked.

2. A gate including spaced posts, brackets carried thereby, a closure mounted to rock upon said brackets, shafts journaled upon the posts and provided with crank arms, flexible connections between said arms and the closure, and counterweights carried by the shafts and extending therefrom in the opposite direction from the arms for swinging said arms and retracting the closure when rocked, the closure being detachably engaged with one of said brackets and having a swiveled connection with the other bracket and the flexible connection at the same side as the detachably engaged bracket being detachably engaged with the closure whereby the closure may be swung horizontally upon the other of said brackets.

3. A gate including spaced posts, brackets carried thereby, a bearing swiveled upon one of said brackets, a spring clip carried by the other of said brackets, a closure supported for rocking movement by said bearing and clip, shafts journaled upon the posts and provided with crank arms, flexible connections between said arms and the closure, and counterweights carried by the shafts for swinging said arms and retracting the closure when rocked, the closure being detachably engaged with said clip and one of said flexible connections being detachably engaged with the closure, whereby the closure may be swung horizontally about the vertical axis of said bearing.

In testimony whereof I affix my signature.

GLENN M. HORNER. [L. S.]