

W. WADE & M. C. PETERSON.
GATE.

APPLICATION FILED FEB. 6, 1912.

Patented Dec. 3, 1912.

2 SHEETS—SHEET 1.

1,046,350.

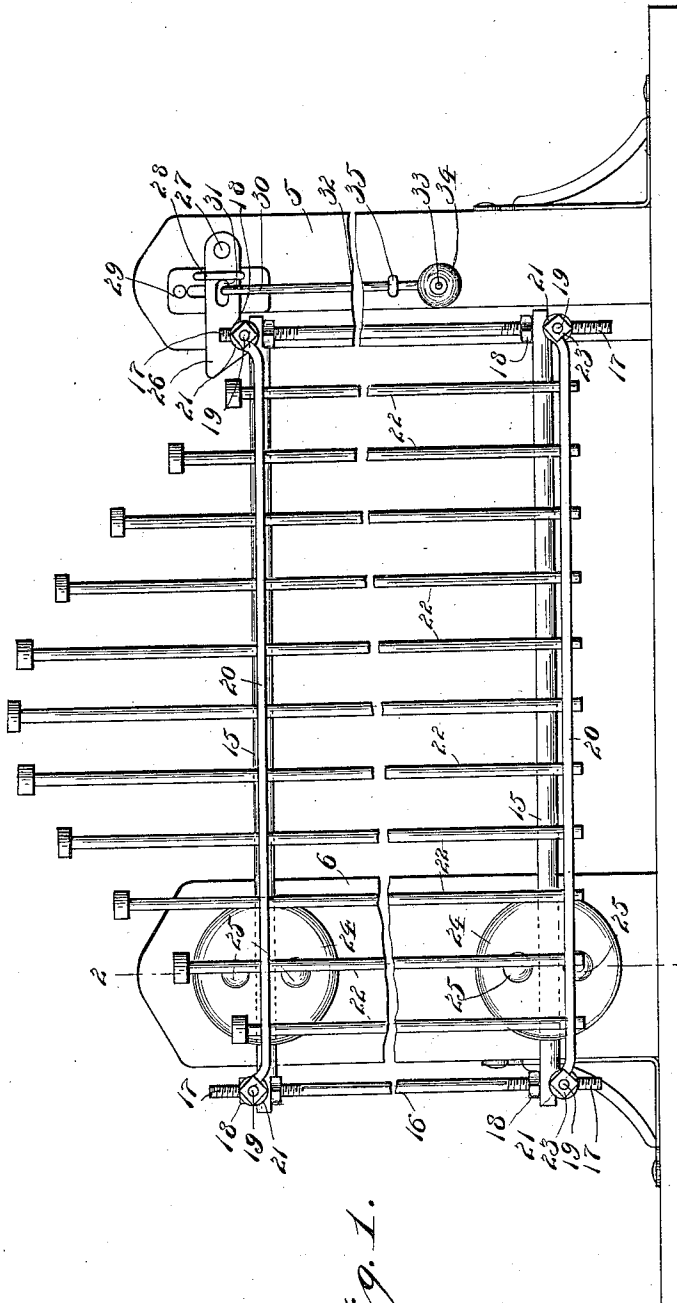


Fig. 1.

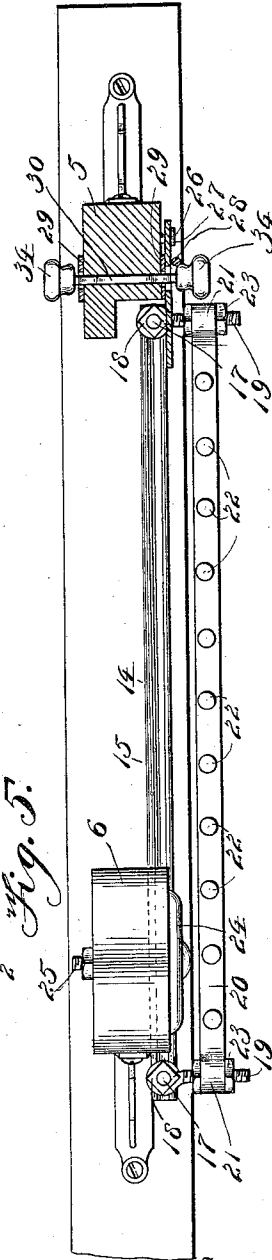


Fig. 5.

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2 SHEETS—SHEET 2.

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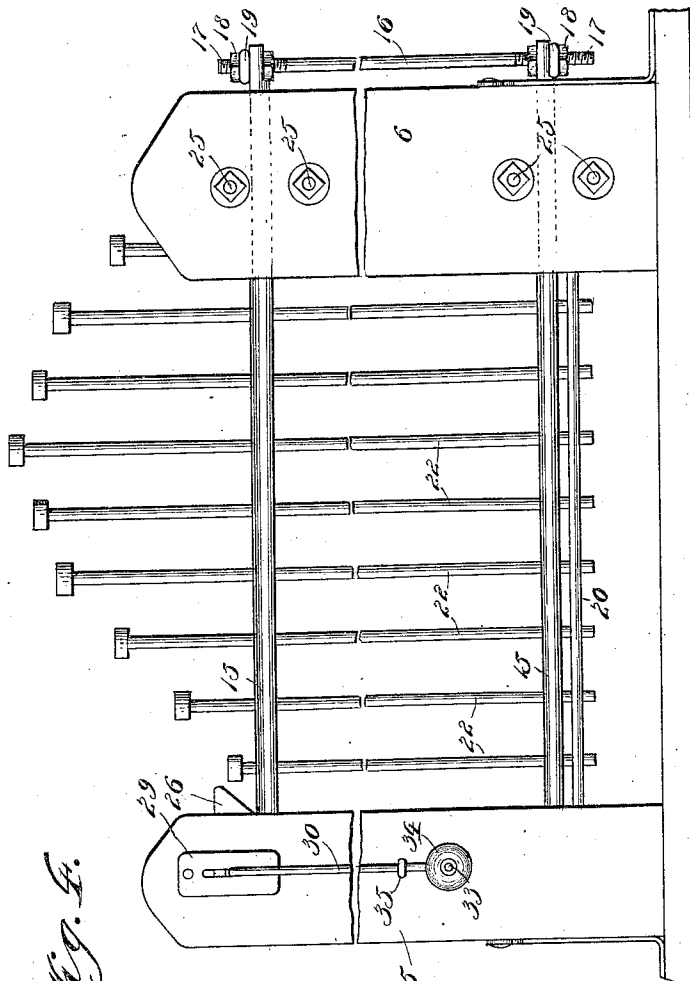


Fig. 1.

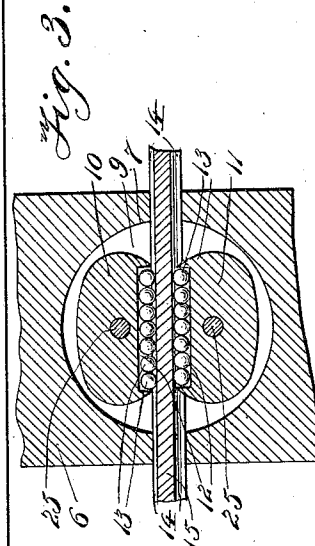


Fig. 3.

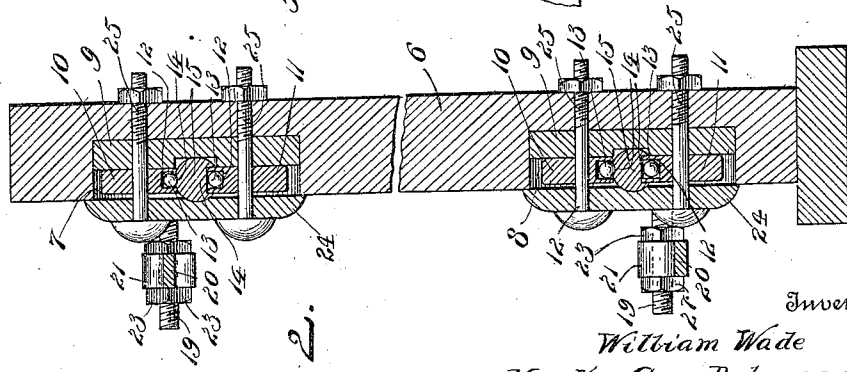


Fig. 2.

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UNITED STATES PATENT OFFICE.

WILLIAM WADE AND MACK C. PETERSON, OF SAN ANTONIO, TEXAS.

GATE.

1,046,350.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, WILLIAM WADE and MACK C. PETERSON, citizens of the United States, residing at San Antonio, in the county of Bexar and State of Texas, have invented new and useful Improvements in Gates, of which the following is a specification.

The invention relates to gates, and more particularly to the class of ball-bearing hangers for gates, or other movable structures.

The primary object of the invention is the provision of a hanger of this character in which a sliding structure may be moved, without undue friction, and that will be supported to prevent the sagging thereof, or the hanging of the same when being moved.

Another object of the invention is the provision of a hanger in which bearing balls will be sustained in working relation to a movable part, so as to minimize friction, when being moved, and to avoid the binding or hanging of the parts, during its movement.

A further object of the invention is the provision of a hanger which is simple in construction, strong, durable, reliable and efficient in operation, and inexpensive in manufacture.

With these and other objects in view, the invention consists in the construction, combination and arrangement of parts, as will be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claims hereunto appended.

In the drawings: Figure 1 is a side elevation of a gate, showing the same mounted in hangers constructed in accordance with the invention. Fig. 2 is an enlarged sectional view on the line 2—2 of Fig. 1. Fig. 3 is a vertical longitudinal sectional view through one of the hangers, showing a fragmental portion of the gate mounted therein. Fig. 4 is a view similar to Fig. 1, looking toward the opposite side of the gate. Fig. 5 is a top plan view, showing one of the posts in section.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

Referring to the drawings by numerals, 5 and 6 designate spaced vertical gate posts, respectively, which may be of any desirable

shape and constructed from any suitable material, although in this instance, they are shown made of wood. The post 6 is formed with upper and lower alining recesses 7 and 8 for receiving the hangers, presently described.

The hangers comprise base plates 9, on which are formed upper and lower elliptical shaped guide blocks 10 and 11, respectively, the adjacent inner edges of which are provided with ball raceways 12, in which are arranged series of bearing balls 13 engaged in channels 14 formed in the upper and lower sides of movable bars 15 which are arranged in a horizontal plane and adapted to support a gate, presently described.

The opposite ends of the movable bars 15 are connected together by means of adjustable tie rods 16 provided with threaded ends 17, on which are engaged nuts 18 arranged at opposite sides of the said bars 15, the outer nuts 18 being designed to fasten to the bars 15 eye bolts 19 engaging and supporting the gate, which comprises upper and lower longitudinal bars 20 having eye terminals 21, through which are passed the shanks of the eye bolts 19, the bars 20 being connected together by means of spaced vertical pickets 22. The eye terminals 21 of the bars 20 are fastened on the shanks of the eye bolts 19 by means of jam nuts 23 threaded on said shanks, so as to mount the gate in spaced relation to the movable bars 15 engaged in the hangers, the base plates 9 of the said hangers being fitted in the recesses 7 and 8 in the post 6, and fixed to the guide blocks 10 are face plates 24, through which are passed bolt members 25, the same being also passed through the blocks 10, base plates 9, and the post 6, thereby securing the hangers to the latter. It will be evident that the gate may be moved to opened or closed position by sliding the bars 15 in the hangers. The face plates 24 of the hangers will prevent the movable bars 15 from jumping from the bearing balls 13, or the disengagement thereof from the hangers when sliding the gate to opening or closing position.

Carried on the post 5 is a latch 26 which is connected thereto by means of a pivot 27, the latch working in a staple 28 mounted in and projecting from one of a pair of escutcheon plates 29 fixed to the opposite sides of the said post 5, the post and likewise the plates 29 being provided with suitable guide

slots, in which works the closed end of an inverted U-shaped releasing bail 30, the same being also engaged in arcuate-shaped slots 31 formed in the latch 26. The limbs 5 32 of the bail 30 are formed with outturned crank ends 33, carrying finger knobs 34, and these limbs 32 are disposed at opposite sides of the post 5 and are passed through guide eyes or staples 35 mounted in the said post, so that the latch 26, when in position for locking the gate closed, may be released or raised to unlocked position, from either side of the gate, it being only necessary for a person to grasp one of the knobs 35 and by pulling 15 upwardly on the bail 30, the latch will be raised, thereby unlocking the gate, so that the same may be moved to open position. Of course, it is understood that the use of the hangers is not limited to their particular application to a gate, but they may be used 20 for any other purpose and other forms of structures. Furthermore, it is to be understood that changes, variations, and modifications may be made in the invention, such as come properly within the scope of the claims, hereunto appended, without departing from the spirit of the invention, or sacrificing any of its advantages.

What is claimed is:

30 1. In a gate, a pair of vertical gate posts, one of said gate posts being provided with recesses in one face, hangers mounted in said recesses, each hanger comprising spaced elliptical shaped guide blocks having ball re-

ceiving channels in adjacent edges, slide bars 35 arranged between said blocks and having channels longitudinally disposed therein, bearing balls engaging the channels in the blocks and slide bars, adjustable tie rods 40 connecting the slide bars together at opposite ends, spacer members connected with the tie rods, and a gate frame mounted on the spacer members spaced from the slide bars.

2. In a gate, a pair of vertical gate posts, one of said gate posts being provided with 45 recesses in one face, hangers mounted in said recesses, each hanger comprising spaced elliptical shaped guide blocks having ball receiving channels in adjacent edges, slide 50 bars arranged between said blocks and having channels longitudinally disposed therein, bearing balls engaging the channels in the blocks and slide bars, adjustable tie rods connecting the slide bars together at opposite ends, spacer members connected with the 55 tie rods, a gate frame mounted on the spacer members spaced from the slide bars, and facing plates carried by the blocks to prevent displacement of the sliding bars engaged therebetween. 60

In testimony whereof we affix our signatures in presence of two witnesses.

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Witnesses:

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