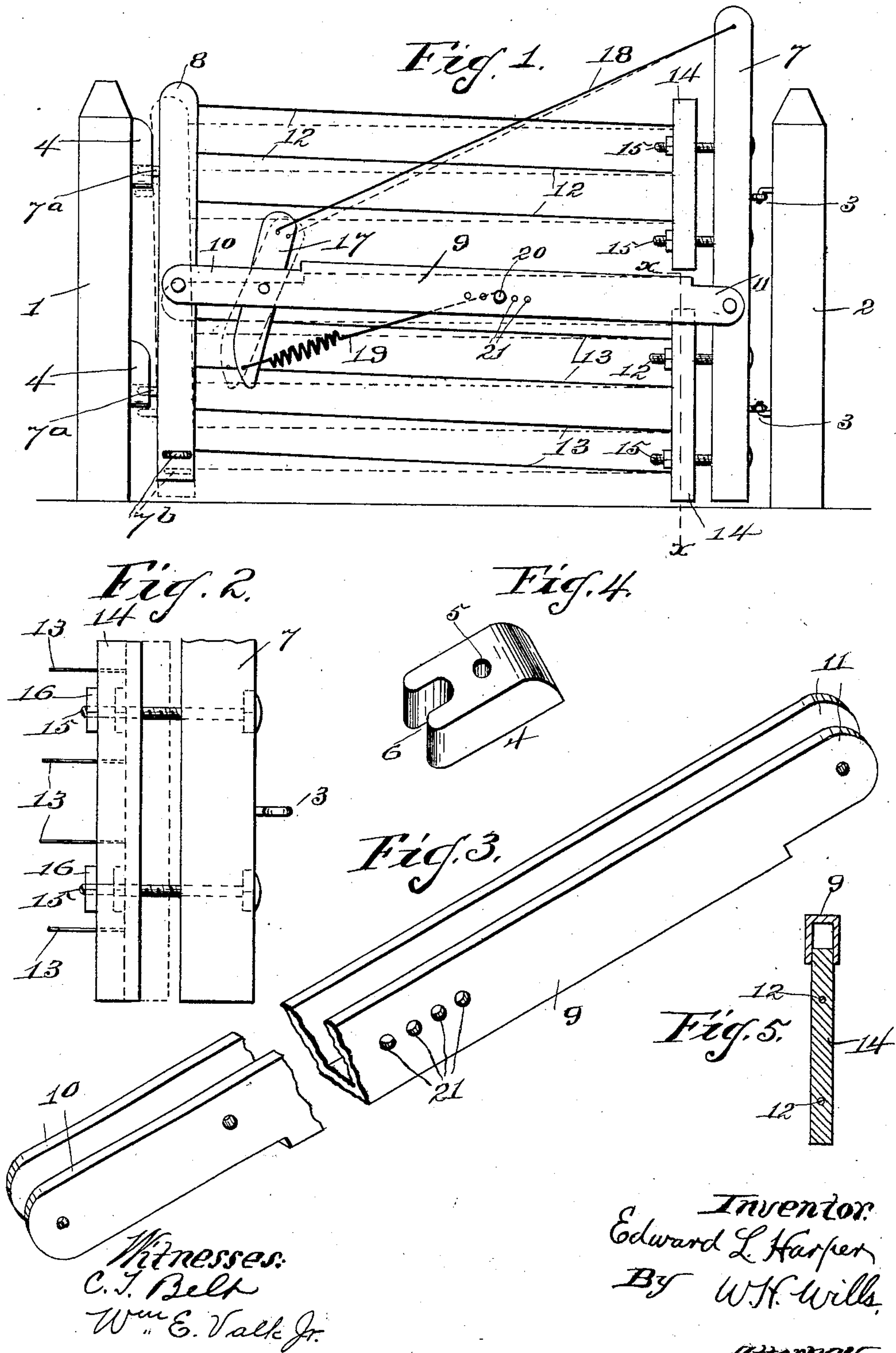


No. 865,386.

E. L. HARPER.  
GATE.

PATENTED SEPT. 10, 1907.

APPLICATION FILED JUNE 15, 1907.



# UNITED STATES PATENT OFFICE.

EDWARD L. HARPER, OF TOPEKA, KANSAS.

## GATE.

No. 865,386.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed June 15, 1907. Serial No. 379,202.

*To all whom it may concern:*

Be it known that I, EDWARD L. HARPER, a citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, (whose post-office address is the same,) have invented certain new and useful Improvements in Gates, of which the following is a specification.

This invention relates to gates, and especially to the class of gates adapted to lift vertically, and to swing in both directions laterally.

The object of the invention is to provide in swinging lift-gates, certain novel and peculiar features for operating the gate, whereby it may be opened and closed and held in the latter position in a simple and expeditious manner.

A further object of the invention is to provide in a wire-gate, a section or panel having a tightener carried by one end of the gate and adapted to be operated to tighten all the wires of the gate.

Other objects, advantages and improved results will be set forth in the specification and pointed out in the claims to follow.

In the accompanying drawings forming part of this application:—Figure 1 is a side elevation of a closed gate embodying my invention, the dotted lines showing the gate depressed and in position to be opened. Fig. 2 is a detail elevation of the tightening device, the dotted lines showing the movable position of the tightening bar. Fig. 3 is an inverted perspective view of the connecting beam partly broken away. Fig. 4 is a perspective view of one of the catch blocks. Fig. 5 is a section on the line  $x-x$ , Fig. 1.

The same reference numerals denote the same parts throughout the several views of the drawings.

The gate-posts 1 and 2 are of ordinary construction, the latter having suitable hinges 3, for the gate, and the former being provided at its top and near its bottom with a catch-block 4, having one or more apertures 5, for securing it to the post, and a bottom notch, slot or cavity 6.

The gate-frame comprises an upright 7 hinged to the post 2, a front upright 8, and a central longitudinal beam 9, cut away at each end so as to leave extensions 10, pivoted to the upright 8, and projections 11 pivoted to the upright 7. The front upright 8 is provided with projecting pins 7<sup>a</sup>, which fit in the slots 6, of the catch-blocks to lock the gate in closed position, and the lower end of the upright 8, is provided upon each side thereof, with a foot-lug or flange 7<sup>b</sup>, to be engaged by the foot of an operator to depress the gate and release the

pins from the notches for opening the gate. The beam 9 is grooved out longitudinally so as to leave its bottom open and its top closed. Above the beam the gate is provided with ordinary wires 12, and similar wires 13 below the beam. Said wires 12 and 13 have one end secured to the front upright 8, and the other end attached to the bar 14. The bar 14 is preferably used in two parts, but may be in one piece.

The tightening device consists of the bars 14, and screw-stems 15 carried by the rear upright 7 and extending through the bars 14, which is moved along the screws by nuts 16, to tighten one or both sets of wires.

The lifting device comprises a lever 17, pivoted to and between the beam extensions 10, a wire 18 connecting the lever with the top of the upright 7, a spring-wire 19 attached to the lever, and a bolt 20 extending across the groove of the beam 9, and adjustable therein by means of apertures 21, and having the wire 19 attached thereto within the groove.

The whole gate or all the wires thereof may be tightened by simply operating the screw-nuts. The beam is of such shape and construction that the lower set of wires are covered or protected, and such shape and construction is productive of great strength and durability, and provides for centralizing the spring wire, which is important for the reason that it permits free operation of the lifting device.

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

1. In a gate, the combination, with the front and rear uprights, of a central beam pivotally connecting the uprights, wires connected to the uprights above the beam, wires having one end secured to the front upright below the beam, and a tightener carried by the rear upright and having the other end of the said wires secured thereto.

2. In a swinging lift-gate, the combination, with the catch-blocks secured to one of the gate-posts and having a bottom notch, and means to lift the gate, of the pins projecting from the gate and adapted to engage the said notches for locking the gate, and the foot-lugs for depressing the gate to unlock it.

3. In a swinging lift-gate, the combination, of the grooved beam pivotally connecting the gate-uprights, a lift lever pivoted to and between the extensions of the beam, a spring wire attached to the lever and secured centrally of the said groove, and a wire connecting the lever with one of the said uprights.

In witness whereof I hereunto set my hand in the presence of two witnesses.

EDWARD L. HARPER.

Witnesses:

GEORGE M. WILDIN,  
I. BRUBAKER.