No. 801,324. PATENTED OCT. 10, 1905.

F. LICHTFELDT.

GATE.

APPLICATION FILED APR. 27, 1901. RENEWED MAR. 20, 1905.

Fig. 1.

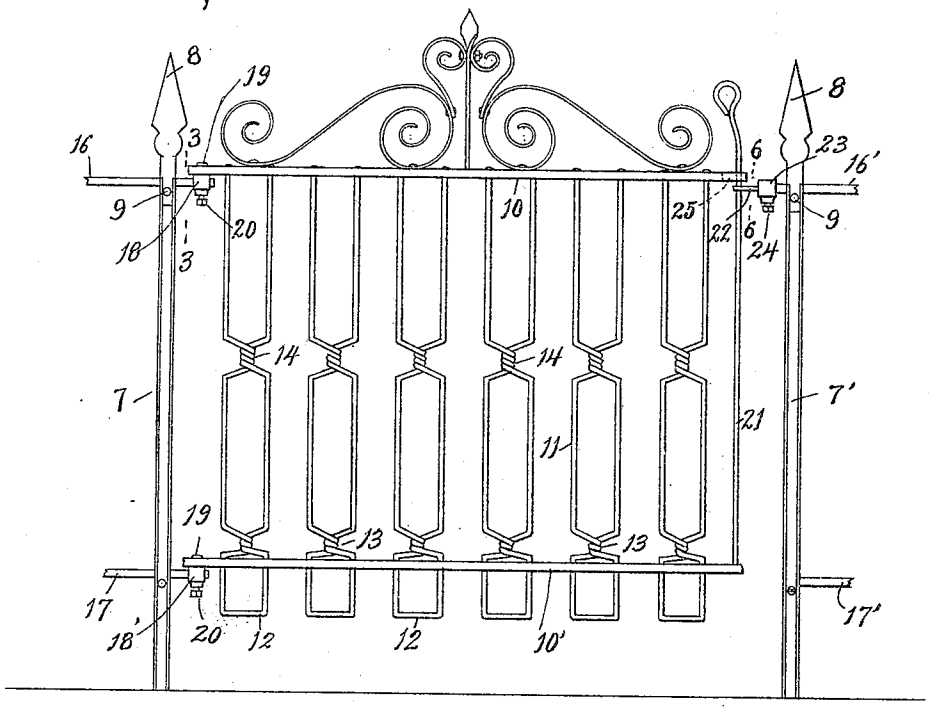


Fig. 2.

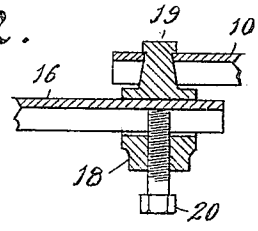


Fig. 3.

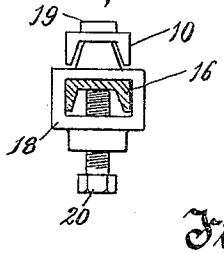


Fig. 4.

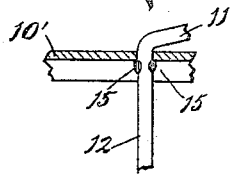


Fig. 5.

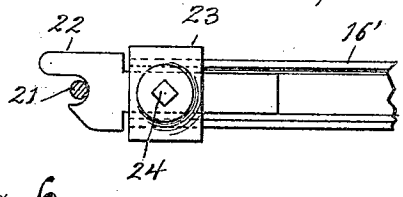
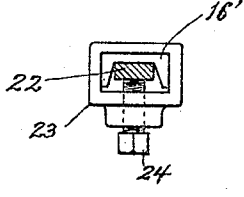


Fig. 6.



Witnesses.

A. Keeney.

Anna C. Faust.

Inventor.

Frederick Lichtfeldt.

By Benedict & Morsell

Attorneys.

UNITED STATES PATENT OFFICE.

FREDERICK LICHTFELDT, OF MILWAUKEE, WISCONSIN.

GATE.

No. 801,324. Specification of Letters Patent. Patented Oct. 10, 1905.

Application filed April 27, 1901. Renewed March 20, 1905. Serial No. 251,003.

To all whom it may concern:

Be it known that I, FREDERICK LICHTFELDT, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Gates, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in gates.

The primary object of the invention is to provide an improved form of gate of such construction that said gate shall possess great strength and rigidity throughout, while at the same time an ornate and finished appearance is given thereto.

With the above primary object and other incidental objects in view the invention consists of the devices and parts or their equivalents, as hereinafter set forth.

In the accompanying drawings, Figure 1 is a side elevation of my improved gate. Fig. 2 is a cross-section through the hinge. Fig. 3 is a section on the line 3 3 of Fig. 1 looking toward the right. Fig. 4 is a longitudinal section of a fragment of the lower rail of the gate, showing the burs which form a stop against the uplifting of a picket. Fig. 5 is an inverted plan view of one of the upper rails of the fence, showing the adjustable catch connected thereto; and Fig. 6 is a section on the line 6 6 of Fig. 1 looking toward the right.

Referring to the drawings, the numerals 7 7′ indicate the two gate-posts, which are anchored in the ground and extend upwardly above the surface of the ground for desired distances. These posts may be of any desirable construction, although the form shown in the drawings is preferred—*i. e.*, each post consisting of a channeled bar of metal integral throughout its length and consisting of two parallel legs or members arranged such a distance apart as to receive between them the rails of the fence in connection with which the gate is employed. Metal finial ornaments 8, provided with furcate lower ends, are conveniently secured to the tops of the posts by placing their furcate ends in the channels of the legs of the post and held in place therein by means of a bolt 9 passing through the furcate ends of the ornament. The furcate ends of the ornaments are of such width as to fit snugly in the channels of the legs of the post, and thus prevent the tilting of the ornaments on the bolts 9 as pivots.

The improved gate consists of the top and bottom rails 10 10′ and the connecting-pickets 11. The rails are preferably channeled, the channels being undermost. Each picket 11 is constructed of a single integral wire, preferably of steel, and bent so as to form the picket with two legs or members. The lower bend 12 of each picket is preferably of U-shaped form, the two members of the U extending upwardly through the lower rail of the gate, with the greater portion of the U formation below the lower rail. Just above the lower rail the legs or members of the picket are bent inwardly and twisted about each other to form a coil 13. From the upper end of the coil 13 the two legs are bent outwardly and thence continued upwardly in parallel lines to about the center of the picket, where they are again bent inwardly and twisted about each other to form a central coil 14. From the upper end of the central coil the legs are bent outwardly for short distances and are then continued upwardly in straight parallel lines, the upper extremities thereof passing through the upper rail and being riveted down on the top surface of said rail. In order to prevent any uplifting of the pickets, I provide the legs of the lower U-shaped portions 12 with burs 15, which bear against the under side of the lower rail and act as stops. The twists 13, which are just above the lower rail 10′, draw the stops 15 upwardly against the under side of said rail. The top surface of the upper rail has preferably secured thereto an ornamental scrollwork in order to impart a finished and ornate appearance to the gate.

The top rails of the fence, in connection with which the gate is preferably employed, are indicated by the numerals 16 16′ and the lower rails by the numerals 17 17′. These rails are preferably in the form of inverted-U-shaped bars and pass between the parallel members of the fence-post, as hereinbefore set forth. The hinges of the gate are formed by collars 18 18′, which are respectively provided with upwardly-extending rigid pivots 19, which pivots project, respectively, freely through openings therefor in the upper and lower rails of the gate, the extremities of said pivots being upset, so as to prevent their withdrawal from the openings. These pivots therefore form pintles upon which the gate swings. A set-bolt 20

is adapted to pass through a threaded opening in the lower thickened portion of each collar and at its end to impinge against the under side of the rail. By loosening the set-bolts 20 it is obvious that the collars may be readily adjusted on the rails, and when the proper adjustment is obtained said collars are held firmly in their adjusted position by again tightening the set-bolts. By this provision for the adjustment of the collars 18 on the rails longitudinally the gate can be readily alined when it is mounted in the fence.

At the free edge of the gate is a spring-latch 21, which is adapted to releasably engage a notch, and thereby secure the gate releasably in a closed position. The notch may be formed in the projecting end of the top rail 16′; but I prefer to form said notch in the outer end of a supplemental bar 22, which is adjustably secured in the channel of the rail 16′ by means of a collar 23, surrounding said rail, and a set-bolt 24, passing through a threaded opening in said collar and engaging at its end against the under side of the bar 22. By the construction described the said bar 22 forms an adjustable catch, so that when the adjustment at the hinged edge of the gate is changed the catch may be adjusted so that the latch will still be adapted to properly engage the notch notwithstanding the new adjustment of the hinge. Of course when it is desired to change the adjustment of the catch all that is necessary to be done is to loosen the bolt 24, then slide the bar 22 longitudinally, and when the desired adjustment is obtained again tighten the bolt.

It will be noticed that the upper portion of the spring-latch passes through a slot 25, formed in the end of the top rail 10 of the gate. By this provision a keeper or guide is formed in the end of the rail of the gate without the necessity of providing an extra slotted piece, as has heretofore been customary.

It will be seen from the foregoing description that my improved gate is composed solely or entirely of the top and bottom rails and the connecting-pickets. Heretofore in the construction of gates it has been necessary to provide connecting end pieces for the gate in addition to the top and bottom rails, one of said end pieces having the hinge of the gate connected thereto and the other of said end pieces having the keeper for the spring-latch connected thereto. In my improved construction the necessity of providing the end pieces is entirely avoided, and the requisite strength of the gate is preserved by providing pickets of the peculiar construction described, and at the same time the top and bottom rails are utilized, respectively, for the hinged connections and for the keeper for the spring-latch, the top and bottom rails each having one extended end provided with an opening for the hinge and the top rail having the other end thereof provided with a slot through which the spring-latch passes and is adapted to work, the opposite end of said spring-latch being secured to the end of the bottom rail. This spring-latch, therefore, in a certain sense answers the purpose of an end bar.

What I claim as my invention is—

1. A gate comprising the top and bottom rails and the connecting wire pickets having two legs or members, one end of each picket being bent into a loop, with the legs of the loop extending through the rail, and said legs being bent inwardly and twisted about each other just above the rail to form a coil, the legs being next bent outwardly from the upper end of the twist, and thence continued upwardly from the outwardly-bent portions in straight parallel untwisted lines to a medial point, where they are again bent inwardly and twisted about each other to form a medial coil, and then bent outwardly from the medial coil, and finally upwardly in straight parallel untwisted lines from the outward bends, the terminal ends of the legs being secured to the other rail of the gate.

2. A gate comprising the top and bottom rails and the connecting wire pickets having two legs or members, one end of each picket being bent into a loop with the legs of the loop extending through the rail, said legs being provided with stops below the rail bearing against the under side of said rail, and said legs being bent inwardly and twisted about each other just above the rail to form a coil, the legs being next bent outwardly from the upper end of the coil and thence continued upwardly from the outwardly-bent portions in straight parallel untwisted lines to a medial point where they are again bent inwardly and twisted about each other to form a medial coil, and then bent outwardly from the medial coil, and finally upwardly in straight parallel untwisted lines from the outward bends, the terminal bends of the legs being secured to the other rail of the gate.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK LICHTFELDT.

Witnesses:

A. L. MORSELL,

ANNA V. FAUST.