

(No Model.)

C. HANSEN.
GATE.

No. 411,437.

Patented Sept. 24, 1889.

Fig. 1.

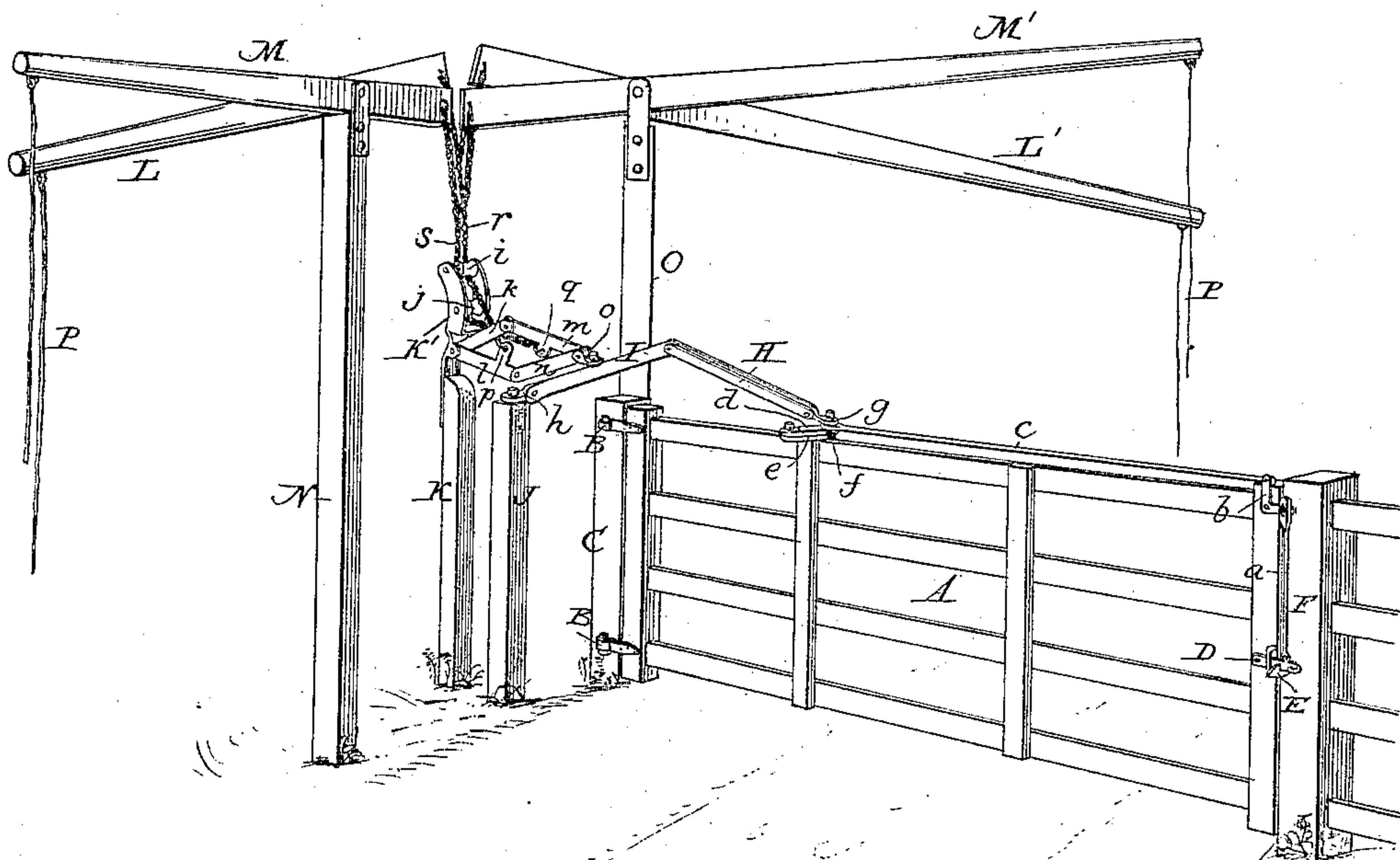
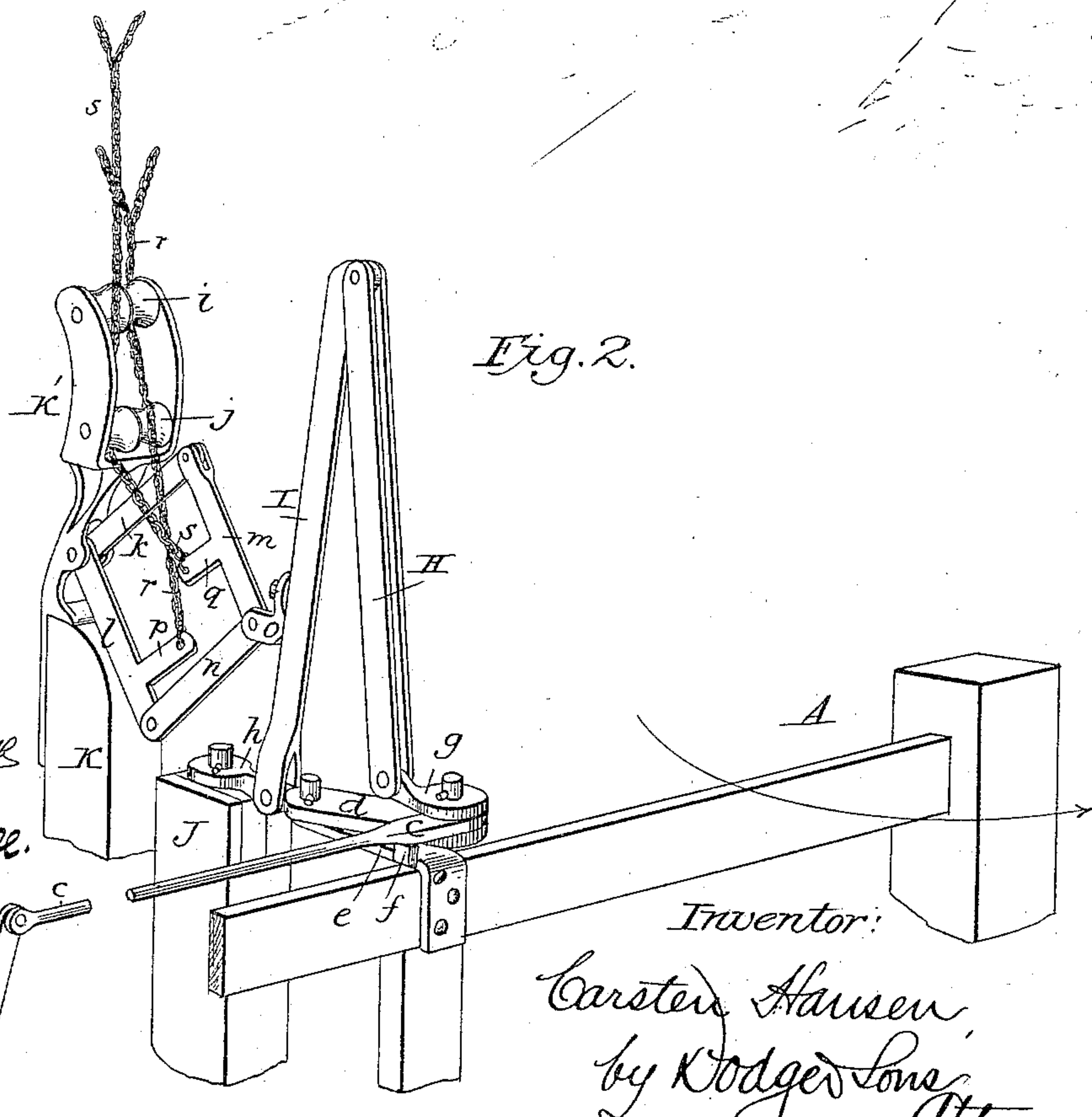


Fig. 2.



Attest:

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UNITED STATES PATENT OFFICE.

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GATE.

SPECIFICATION forming part of Letters Patent No. 411,437, dated September 24, 1889.

Application filed July 30, 1889. Serial No. 319,202. (No model.)

To all whom it may concern:

Be it known that I, CARSTEN HANSEN, a citizen of the United States, residing at Morgan, in the county of Crawford and State of Iowa, have invented certain new and useful Improvements in Gates, of which the following is a specification.

My invention relates to that class of swinging gates which are opened and shut positively by means of levers on opposite sides of said gate; and it consists in various features and details hereinafter set forth and claimed.

In the drawings, Figure 1 is a perspective view of my improved gate and its operating mechanism; Fig. 2, a perspective view showing the parts as they appear when the gate is opened.

A indicates the gate proper, secured by hinges B B to a post or support C, the gate having a pivoted latch D to engage a keeper E on a second post or support F. Latch D is connected by a link *a* with one arm of an elbow-lever *b*, the other arm of the lever being connected by means of a rod *c* with the free end of an arm *d*, pivotally secured to the top of the gate or to a plate *e* fastened thereon. This plate *e* has a lug *f* to limit the throw of the arm *d*, as shown.

H indicates a bar pivotally connected at one end to a loose collar *g*, encircling a stud on the outer or free end of arm *d*, the other end of the bar being pivotally connected to a second bar I, which is likewise pivotally secured to a collar *h*, mounted upon the upper end of a post or standard J. This construction permits the two bars H and I to swing laterally and to move toward and away from each other as the gate opens and shuts.

K indicates a post or standard, to the upper end of which is secured a bracket K', carrying double-grooved rollers *i* and *j*, which are arranged horizontally therein, as shown in Fig. 1. Pivotally secured to the bracket are two bars *k* and *l*, which are pivotally connected, respectively, with similar bars *m* and *n*, the latter being pivotally connected with each other and with a swivel-block *o*, carried by the bar I. The bars *k l m n* form, in effect, a lazy-tongs connection between the bracket and bar I. Bars *l* and *m* are provided with arms *p* and *q*, to which are secured the

chains *r* and *s*, each of which is connected with a pair of operating-levers L L' or M M', pivoted to posts or standards N and O and provided at their free ends with chains or cords P.

Supposing, now, the gate be closed and it is desired to open the same, the operation will be as follows: By pulling down upon the free end of lever M or M' the chain *s*, secured thereto, will be moved with the lever, and as it is attached to the arm *m* of the lazy-tongs it brings the pivot of the bars *m n* toward the pivot of the bars *k l*. Of course as the bars *m n* thus move they carry with them the bars H I, one of which H is connected to the arm *d* and moves said bar far enough to cause the latter, through the connections *c, b*, and *a*, to raise the latch D out of engagement with the keeper. A further movement or downward pull upon the lever M or M' brings the arms or bars *m n* still closer together, and as the connections *a b c d* can move no farther independently of the gate the latter will be moved bodily upon its hinges. Now, when it is desired to close the gate the lever L or L' is pulled downward, when the action described will be reversed and the gate closed positively.

Having thus described my invention, what I claim is—

1. In combination with a gate having a latch, the bars H I, serving to operate the latch, the lazy-tongs connected with the bars H I, and a pair of levers L M, connected with and serving to operate the lazy-tongs.

2. In combination with a gate having a latch, bars H I, serving to actuate the latch, lazy-tongs connected with the bars H I, levers L L' M M', arranged in pairs, and chains or cords *r* and *s*, connecting the lazy-tongs with the levers.

3. In combination with a gate having a latch, post or standard J, bars H I, serving to operate the latch and connected with a swivel-collar *h*, secured to the post or standard, lazy-tongs connected with bar I by means of a swivel-block *o*, levers L M, and connections between the levers and lazy-tongs.

4. In combination with a gate having a latch, post or standard J, bars H I, mounted upon the post and connected with and serving to actuate the latch, bracket K', bars *k l*, pivot-

ally connected with the bracket, bars *m n*, pivotally connected with bar *I* and with the bars *k l*, levers *L M*, and chains or cords connecting the levers with the arms *l m*.

- 5 5. In combination with gate *A*, having latch *D*, post or standard *J*, bars *H I*, mounted upon the standard and connected with the latch through intermediate mechanism, bracket *K'*, bars *k l m n*, arranged substantially as shown,
10 arms *p q*, secured to bars *l m*, levers *L M*, and chains *r s*, all arranged substantially as shown.

6. In combination with gate *A* and latch *D*, block or arm *d*, mounted upon the gate and

connected with the latch, arms *H I*, connected, respectively, with the arm *d* and a post or 15 standard *J*, bracket *K'*, bars *k l m n*, connected in pairs with each other and with the bracket and arm *I*, levers *L M*, and chains or cords *r* and *s*.

In witness whereof I hereunto set my hand 20 in the presence of two witnesses.

CARSTEN HANSEN.

Witnesses:

GEORGE NAEVE,

HENRY WEDEMEYER.