

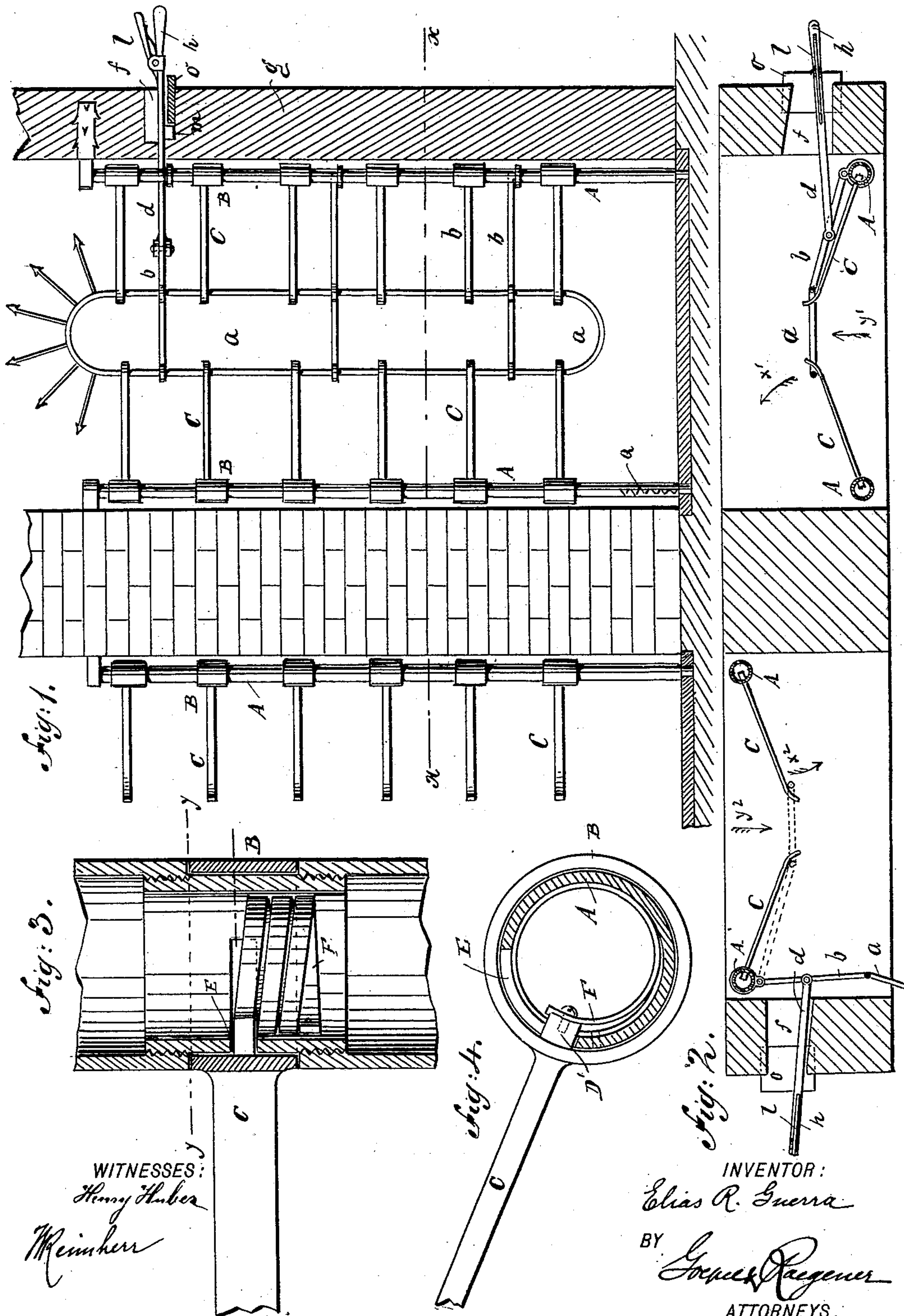
(No Model.)

2 Sheets—Sheet 1.

E. R. GUERRA.
GATE.

No. 428,905.

Patented May 27, 1890.



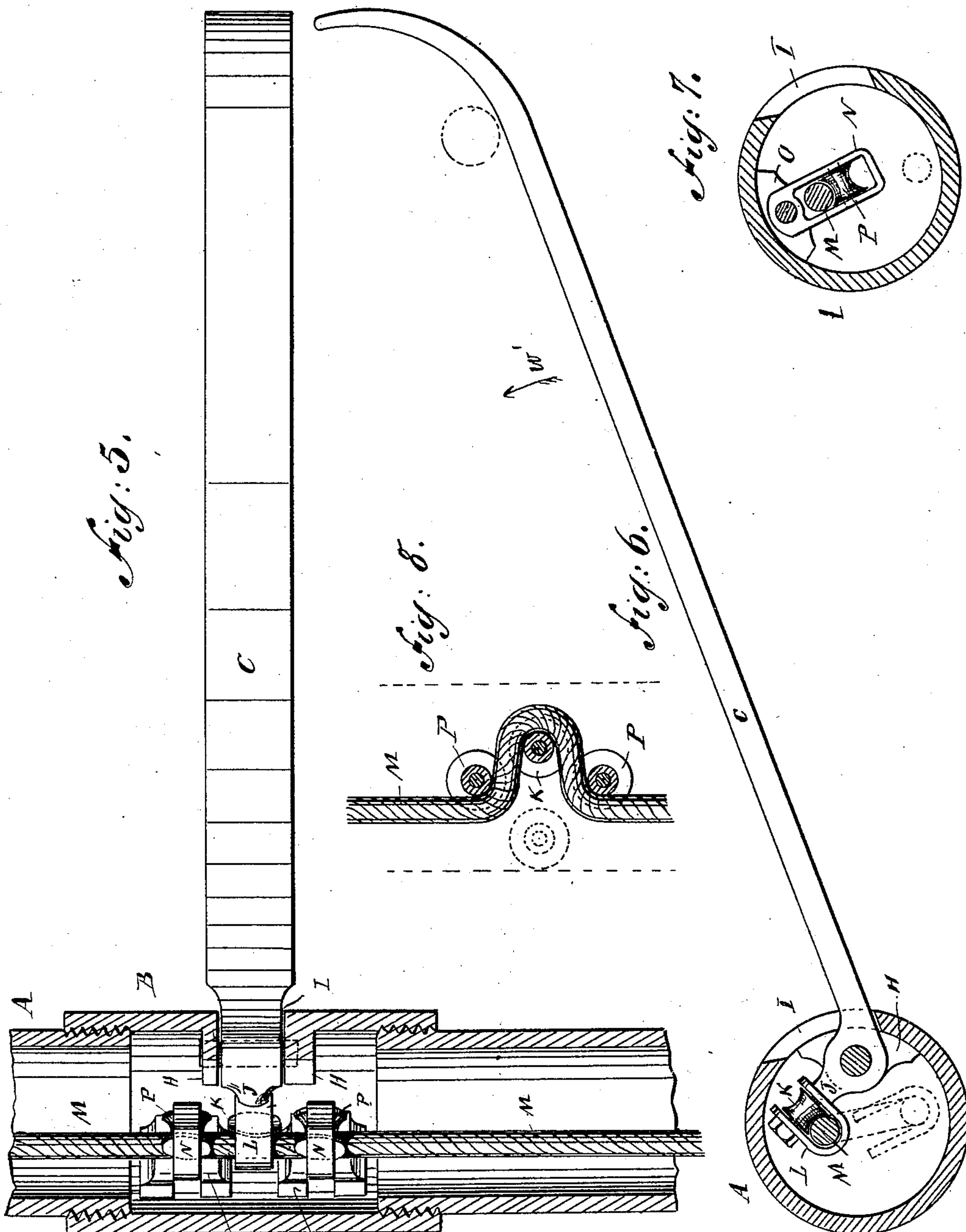
(No Model.)

2 Sheets—Sheet 2.

E. R. GUERRA.
GATE.

No. 428,905.

Patented May 27, 1890.



WITNESSES:
Henry Huber
Meimken

INVENTOR:
Elias R. Guerra
BY *Goetz & Reger*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

ELIAS R. GUERRA, OF HACIENDA DE SAN MATIAS, JALISCO, MEXICO.

GATE.

SPECIFICATION forming part of Letters Patent No. 428,905, dated May 27, 1890.

Application filed March 14, 1890. Serial No. 343,891. (No model.)

To all whom it may concern:

Be it known that I, ELIAS R. GUERRA, of Hacienda de San Matias, State of Jalisco, Republic of Mexico, a citizen of Mexico, have invented certain new and useful Improvements in Gates, of which the following is a specification.

The object of my invention is to provide a new and improved gate for railway and ferry entrances, public grounds, fairs, &c., which gate is so constructed that it will only open in one direction, and can only be opened by acting on all the members composing the same, thus preventing the gate being held open by one person while another enters.

The invention consists in the construction and combination of parts and details as will be fully described and set forth hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation of two of my improved gates, one opening in one direction and the other in the opposite direction, parts of one gate being omitted and other parts being in section. Fig. 2 is a horizontal sectional plan view on the line $x x$, Fig. 1. Fig. 3 is a vertical transverse sectional view of one of the standards of the gate and the inner end of one of the swinging arms. Fig. 4 is a horizontal sectional plan view of the same on the line $y y$, Fig. 3. Fig. 5 is a vertical transverse sectional view of one of the standards and the swinging arm of a modified construction of the device for moving said arm back into its normal position. Fig. 6 is a sectional plan view showing the construction in Fig. 5. Fig. 7 is a similar view showing in detail one of the wire supports, and Fig. 8 is a detail vertical transverse sectional view showing the position of the wire rope when the gate is open.

Similar letters of reference indicate corresponding parts.

Each gate is constructed with two tubular side standards A A, permanently secured at the top and bottom, and on said standards a series of sleeves B are mounted to rotate, which sleeves can project beyond the faces of the tubular standards, as shown in Fig. 1, or may be arranged to turn in recesses of the same, as shown in Fig. 3. Each sleeve is provided with an arm C, extending approximately to near the vertical central line be-

tween the two standards. From each sleeve B a stud D' projects through a horizontal segmental slot E in the tubular standard, and to said stud one end of a coiled spring F is secured, the opposite end of which is secured to the interior of the tubular standard, so that when an arm C is pressed in the direction of the arrow x' , Fig. 2, and is then released, the spring F, which has been brought in tension by turning the arm in the direction of the arrow x' , immediately swings said arm in the inverse direction of the arrow x' until the stud D' strikes against the end of the slot E. The arms C can only be swung in the direction of the arrow x' —that is, the gate will only open in that direction, but cannot open in the inverse direction—and it thus follows that the gate will only open for persons passing in the direction of the arrow y' , Fig. 2, and not for persons passing in the opposite direction.

The gate shown on the left-hand side of Fig. 2 is reversed, and the arms C can only swing in the direction of the arrow x^2 , and the gate can be opened only in the direction of the arrow y^2 .

In the construction shown in Figs. 5, 6, 7, and 8 the arm C passes through a segmental horizontal slot I in the tubular standard and is pivoted between two jaws H on the inner surface of the standard. The arm C is provided at its inner end with a wing J, on which the grooved pulley K and the stirrup L are mounted, said stirrup embracing a wire rope M, holding it against said pulley K. Above and below the pulley K the cable or wire rope M passes through two stirrups N, pivoted to brackets O on the inner surface of the standard, in which stirrups N grooved pulleys P are pivoted, against which the cable rests. A spring Q is connected with the lower end of the wire rope M, as shown in Fig. 1, and the upper end of said wire rope or cable is fixed in some suitable manner. If the arm C is pressed in the direction of the arrow w' , Fig. 6, the cable M will be bent by the pulleys K between the pulleys P of each arm, as shown in Fig. 8, and thereby the spring Q is extended and brought in greater tension. If now the arms C are released, the contracting spring Q draws the wire rope or cable M downward and straightens it, whereby the

arms C are swung in the inverse direction of the arrow w' and the gate is closed.

In Fig. 6 the full lines show the normal position of the cable and the pulley K, and the dotted lines show the position of the pulley K and the cable when the arms have been swung inward to open the gate. Each arm on each standard is independent of the other, and the uppermost arm is about four and one-half feet from the ground.

When a person enters, he need not manipulate the gate, but simply walks straight on until his body comes in contact with the several arms C, which are pressed inward more or less until a space is formed between their free ends to permit the body to pass, when they swing back and the gate is again closed.

The gate cannot be held open by one person for another to pass—that is to say, if a person has passed through the gate he cannot hold the gate open so as to permit another to pass without coming in contact with the bars, for the reason that said arms C are all independent of each other. For the same reason it is impossible for one person to hold open the gate while another passes out in a direction that is the reverse of the one in which the gate opens.

When the gate is not to be used, it is locked by means of a frame a , that rests against the free ends of the arms C, and is connected at its top and bottom with the arms b , that are mounted to turn on one of the standards A. To one of the arms b a rod d is pivotally connected and passes through an opening f in the wall g . Said bar d is provided on its inner end with a handle h and above said handle with a spring-catch l , the hook-lug m of which can catch on the inner edge of the plate o in the wall g .

As shown in the right-hand side of Fig. 2, the gate is locked, the frame a engaging the inner ends of the several arms C, and said frame a is locked in position by the latch l on the bar d .

When the gate is to be unlocked, the latch l is disengaged from the inner edge of the plate o and pulled outward, so as to swing the frame a into the position shown on the left-hand side of Fig. 2, said frame being locked in this position by the hook-lug m of the latch l engaging the outer edge of the plate o .

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

1. In a gate, the combination, with two standards, of a series of spring-arms on each standard and an independent swinging frame for locking said arms in place, substantially as set forth.

2. In a gate, the combination, with two standards, of a series of independent spring-arms on each standard, a swinging frame for locking said arms in place, and a latch for locking said frame in place, substantially as set forth.

3. In a gate, the combination, with two standards, of a series of independent spring-arms on each standard, a frame for locking the arms in place, a bar connected with said frame for swinging the same, and a latch for locking said bar and frame in place, substantially as set forth.

4. In a gate, the combination, with tubular standards, of arms mounted to swing on said standards, projections on said arms passing through segmental slots in the standards, and a spring tension device connected with the inner ends of the arms within the standards, substantially as set forth.

5. In a gate, the combination, with a standard having a series of segmental horizontal slots, of arms pivoted in the standards and passing through said slots, a wire rope or cable engaging the inner ends of the arm, guides in the standard for said wire rope, and a spring connected with said wire rope, substantially as set forth.

6. In a gate, the combination, with a tubular standard having horizontal segmental slots, of arms pivoted in the standard and passing through said slots, pulleys on the inner ends of the arms, pivoted stirrups in the standard, pulleys in the stirrups, a wire rope passing through said stirrups, a pulley on the inner end of each arm, and a spring connected with said wire rope, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ELIAS R. GUERRA.

Witnesses:

OSCAR F. GUNZ,
W. REIMHERR.