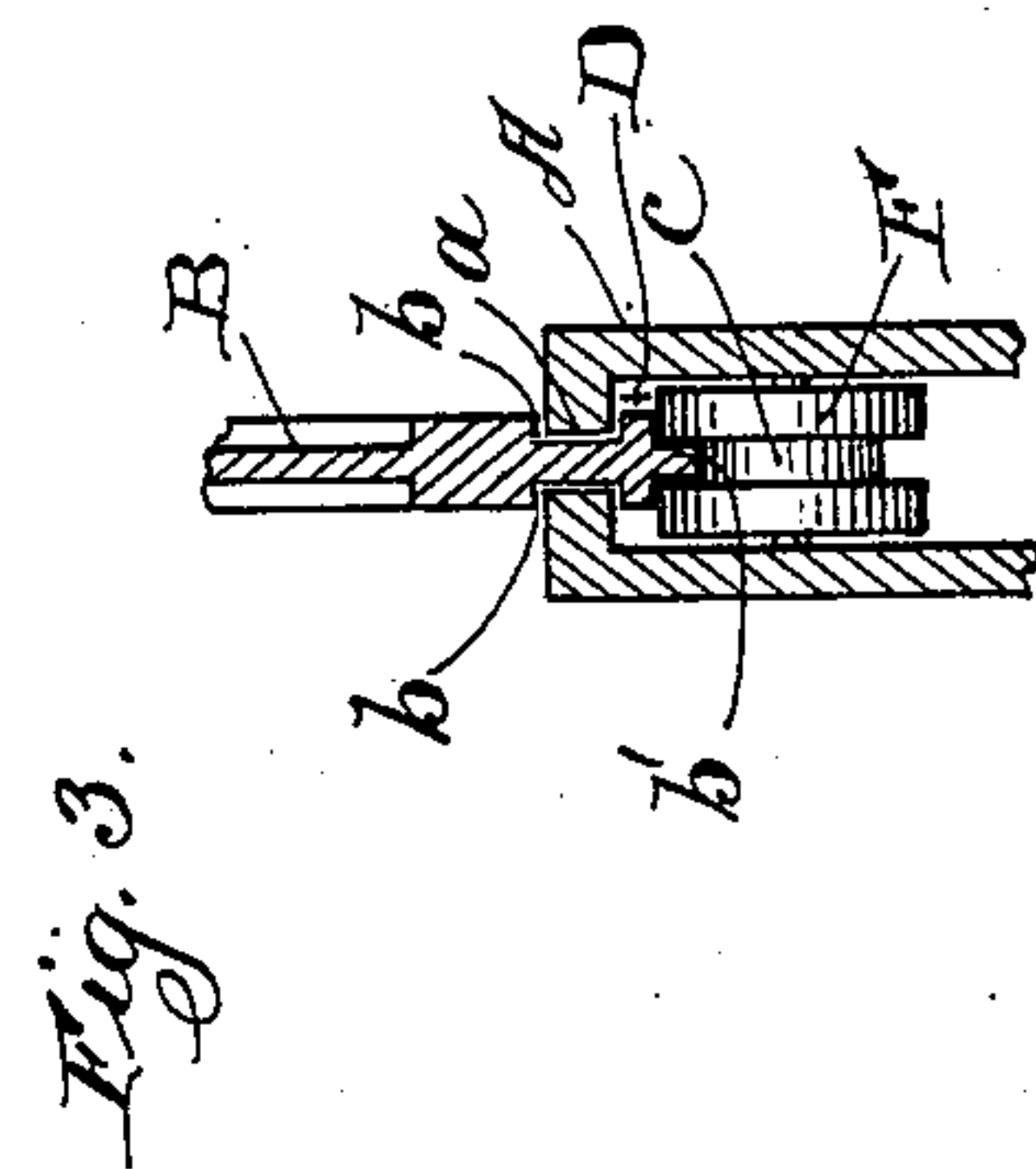
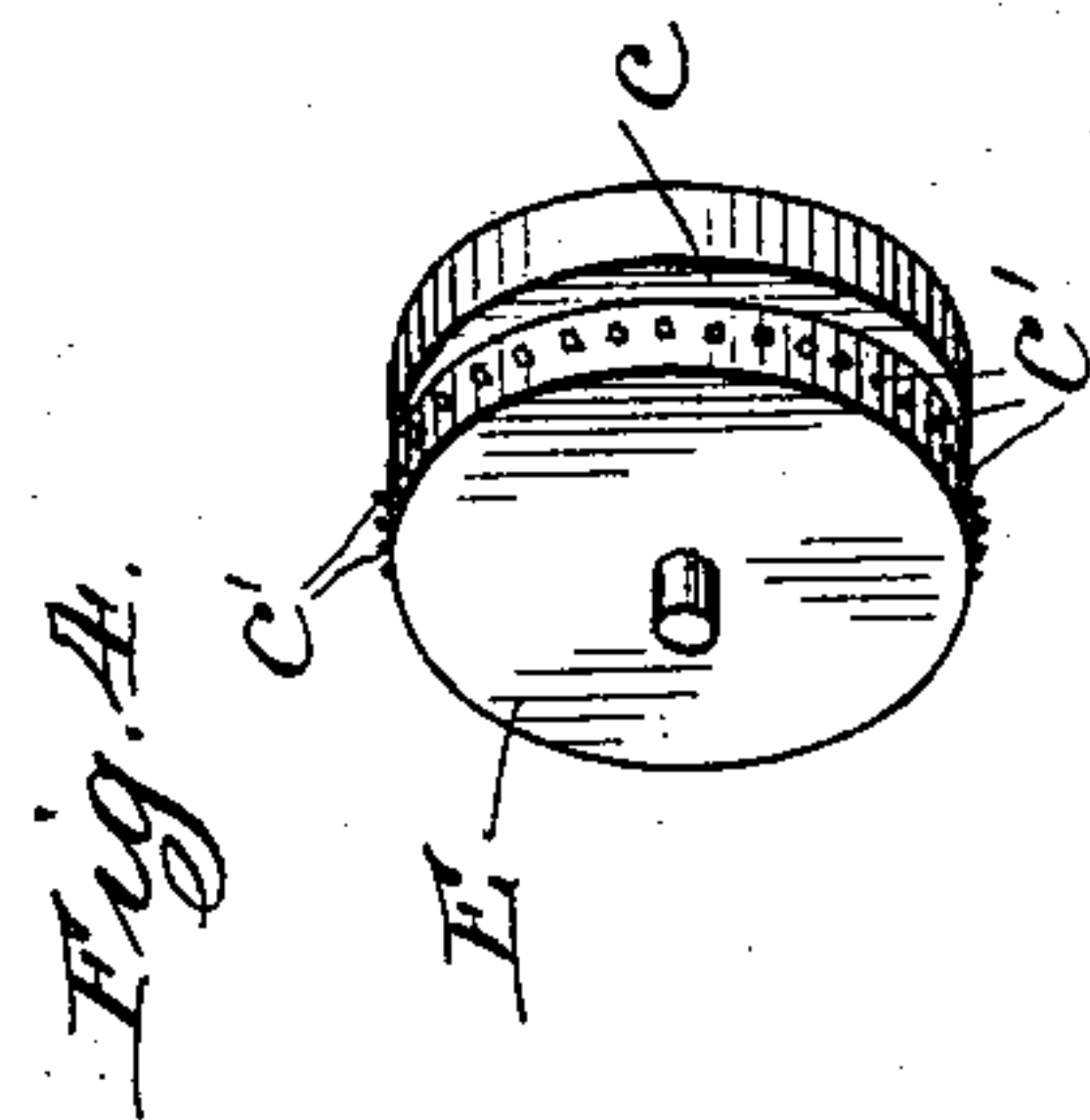
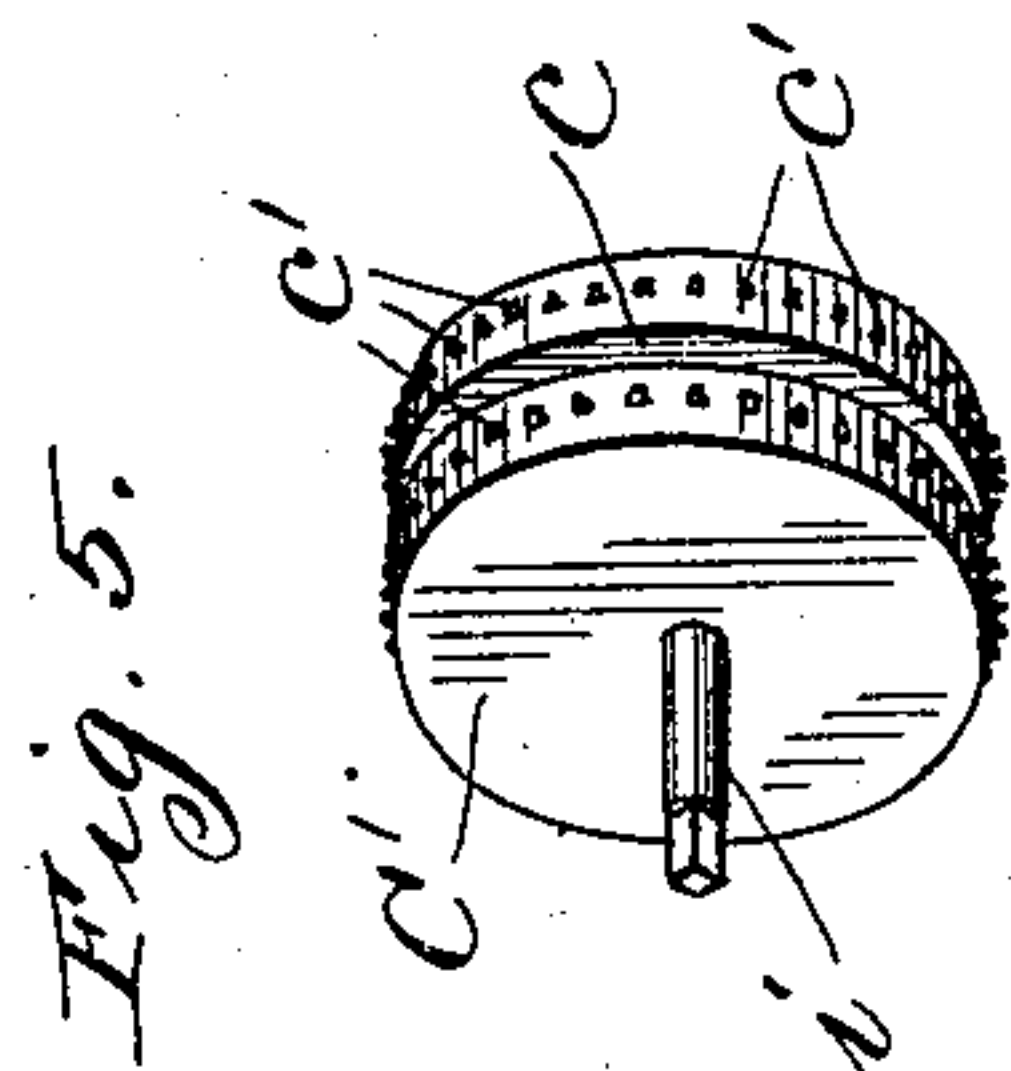
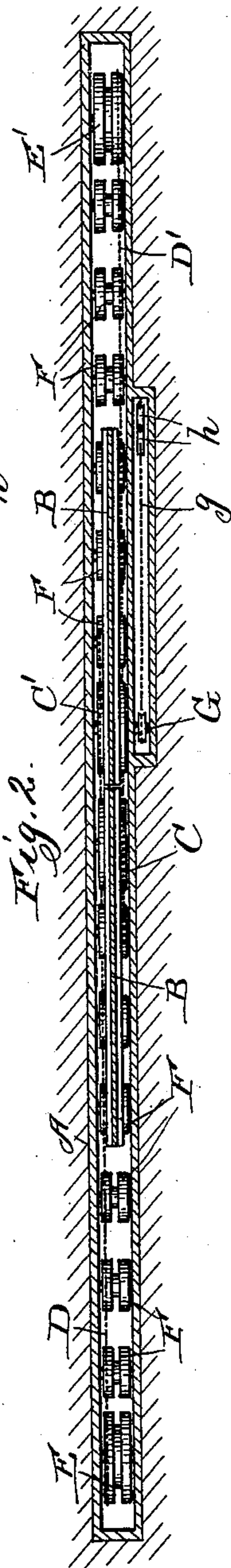
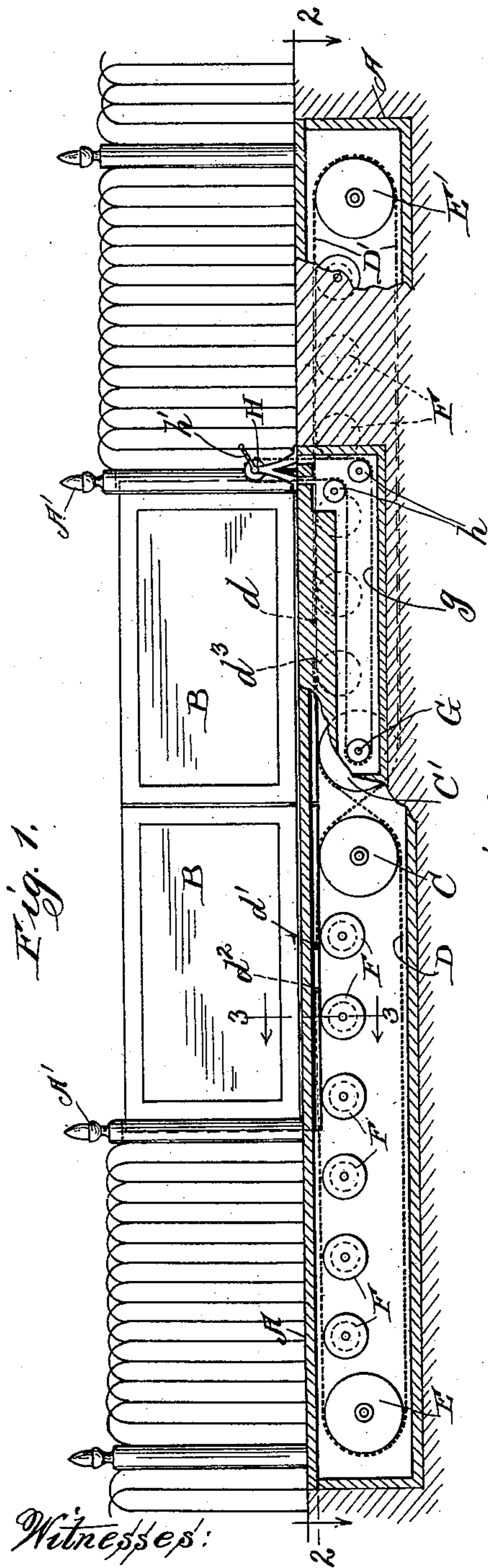


(No Model.)

A. WESTIN & O. S. MAGNUSON.  
GATE OR DOOR HANGER.

No. 599,083.

Patented Feb. 15, 1898.



Witnesses:  
R. J. Jaeger,  
E. A. Duggan.

Inventors:  
Anton Westin and  
Oscar S. Magnuson.  
By Chas. C. Titman, Atty.



# UNITED STATES PATENT OFFICE.

ANTON WESTIN AND OSCAR S. MAGNUSON, OF CHICAGO, ILLINOIS.

## GATE OR DOOR HANGER.

SPECIFICATION forming part of Letters Patent No. 599,083, dated February 15, 1898.

Application filed June 12, 1897. Serial No. 640,420. (No model.)

*To all whom it may concern:*

Be it known that we, ANTON WESTIN and OSCAR S. MAGNUSON, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Gate or Door Hangers, of which the following is a specification.

This invention relates to improvements in hangers for gates or doors, and is more especially applicable to heavy doors and gates, such as are used in machine-shops and on farms; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The objects of our invention are, first, to provide a hanger for gates and doors which shall be simple and inexpensive in construction, strong, durable, and effective in operation, and, second, such a hanger which may be readily placed in position and will support the gates or doors in such a manner as to render it an easy matter to open and close them, which may be done by means of a suitable crank connected to our apparatus.

In order to enable others skilled in the art to which our invention pertains to make and use the same, we will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a view in side elevation, partly in section, of a pair of gates or doors, showing a doorway closed thereby and illustrating the construction of our hanger. Fig. 2 is a plan sectional view taken on line 2 2 of Fig. 1. Fig. 3 is a cross-sectional view of a portion of one of the gates or doors and a part of the slotted base. Fig. 4 is a perspective view of one of the chain-wheels located at the ends of the slotted base, and Fig. 5 is a similar view of one of the chain-wheels located near the middle of said base.

Similar letters refer to like parts throughout the different views of the drawings.

A represents a base, floor, or casing, which is provided in its upper surface with a slot *a* to receive the lower portion of the doors or gates B, which, as shown in Fig. 3 of the drawings, are usually provided with longitudinal horizontal grooves *b* to receive the

edges of the casing or floor A, by means of which the gates are held in position, so that they may slide back and forth with accuracy and ease. The bottom part of each of the doors is formed or provided with a tongue *b'*, adapted to operate in the grooves *c* of the chain wheels and idlers, as will presently be explained. On the upper surface of the casing or floor A are secured in an upright position posts *A'*, which are formed with guide-ways, preferably vertical slots, to admit of the passage of the doors therethrough, and which posts constitute the posts or jambs of the gate or doorway. Journaled near the middle of the doorway are chain-wheels C and C', which are formed with circumferential grooves *c* on their peripheries and are also provided with teeth or projections *c'* on each side of said grooves to engage the chains D and D', which are connected at their ends to the doors or gates. Suitably journaled near the ends of the casing or floor A are chain-wheels E and E', which are likewise provided with circumferential grooves *c* on their peripheries and with teeth *c'* on one side of said grooves only.

Between the wheels C and E and the wheels C' and E' are journaled in suitable bearings just below the slot in the floor or casing A a number of idlers F, which, as shown in Fig. 3 of the drawings, are provided with circumferential grooves *c* to receive the lower portion of the gates or doors. On the shaft of the chain-wheel C' is fixed a sprocket-wheel G, over which passes an endless chain *g*, which operates on the pulleys *h* and passes over a sprocket-wheel H, journaled above the casing or floor and which is provided with a crank-handle *h'*, used for turning the same. As shown in Fig. 1 of the drawings, the chain D' is secured at one of its ends, as at *d*, to one of the doors and passes around the chain-wheel E', and then under the wheel C', and then over the wheel C, and is secured at its other end, as at *d'*, to the other door or gate, while the chain D is secured at one of its ends, as at *d*<sup>2</sup>, to one of the doors and passes around the wheel E, and then under the wheel C, and over the wheel C', and is secured at its other end, as at *d*<sup>3</sup>, to the other door.

Instead of using the sprocket-wheel G on the shaft of the wheel C' and the chain *g* to



drive the same we may provide the shaft *i* of the wheel C' with a crank or other means for turning the same, in which case the pulleys *h* and sprocket-wheel H and its crank H' may  
5 be omitted.

From the foregoing and by reference to the drawings it will be seen and clearly understood that by turning the wheel C' in the direction indicated by the arrow the doors or  
10 gates B will be slid apart and that by reversing the revolution of said wheel they will be drawn together. It is also apparent that as the lower part of each of the doors rest on the idlers F and are guided by the grooves there-  
15 in and the groove *a* of the floor or casing they will be moved with ease and great accuracy. The teeth *c'* on the chain-wheels serve to engage the chains and to prevent them slipping or their dislocation.

20 Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination with a base or support

having a guideway, with the doors or gates located therein and vertically supported, of 25 a series of idlers journaled below the base and adapted to support the lower portion of the doors or gates, the chain-wheels C, and C', journaled near the middle of the doorway, and the chain-wheels E, and E', journaled 30 near the ends of the base, the chain D, secured at one of its ends to one of the doors and passing around the wheel E, and under the wheel C, and over the wheel C', and secured at its other end to the door, and the 35 chain D', secured at one of its ends to the last-named door, and passing around the wheel E', and under the wheel C', and over the wheel C, and secured at its other end to the other door, and means for turning the wheel C', 40 substantially as described.

ANTON WESTIN.

OSCAR S. MAGNUSON.

Witnesses:

E. A. DUGGAN,

CHAS. C. TILLMAN.