

S. COLE.

Gate.

No. 17,202.

Patented May 5, 1857.

Fig. 1.

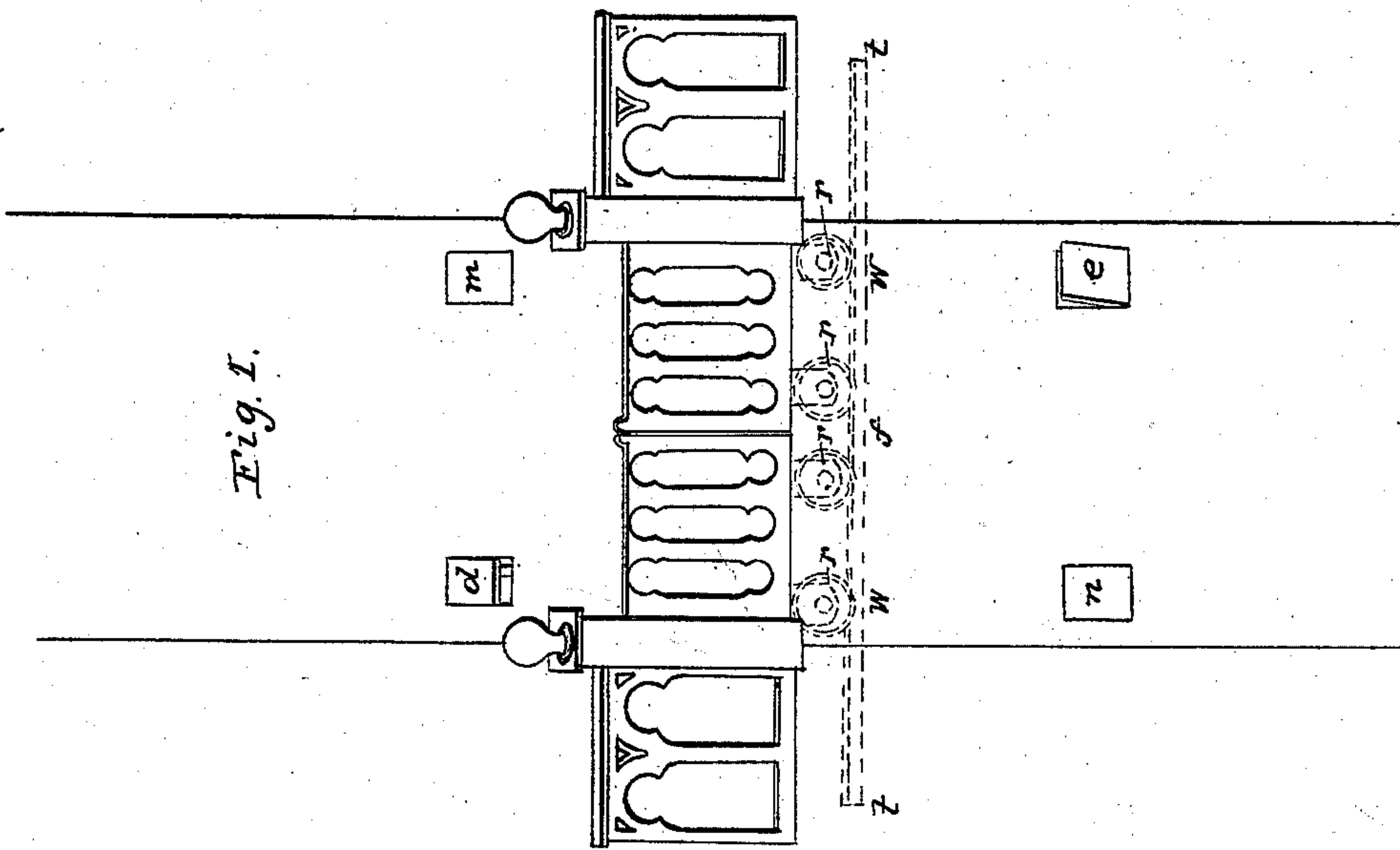
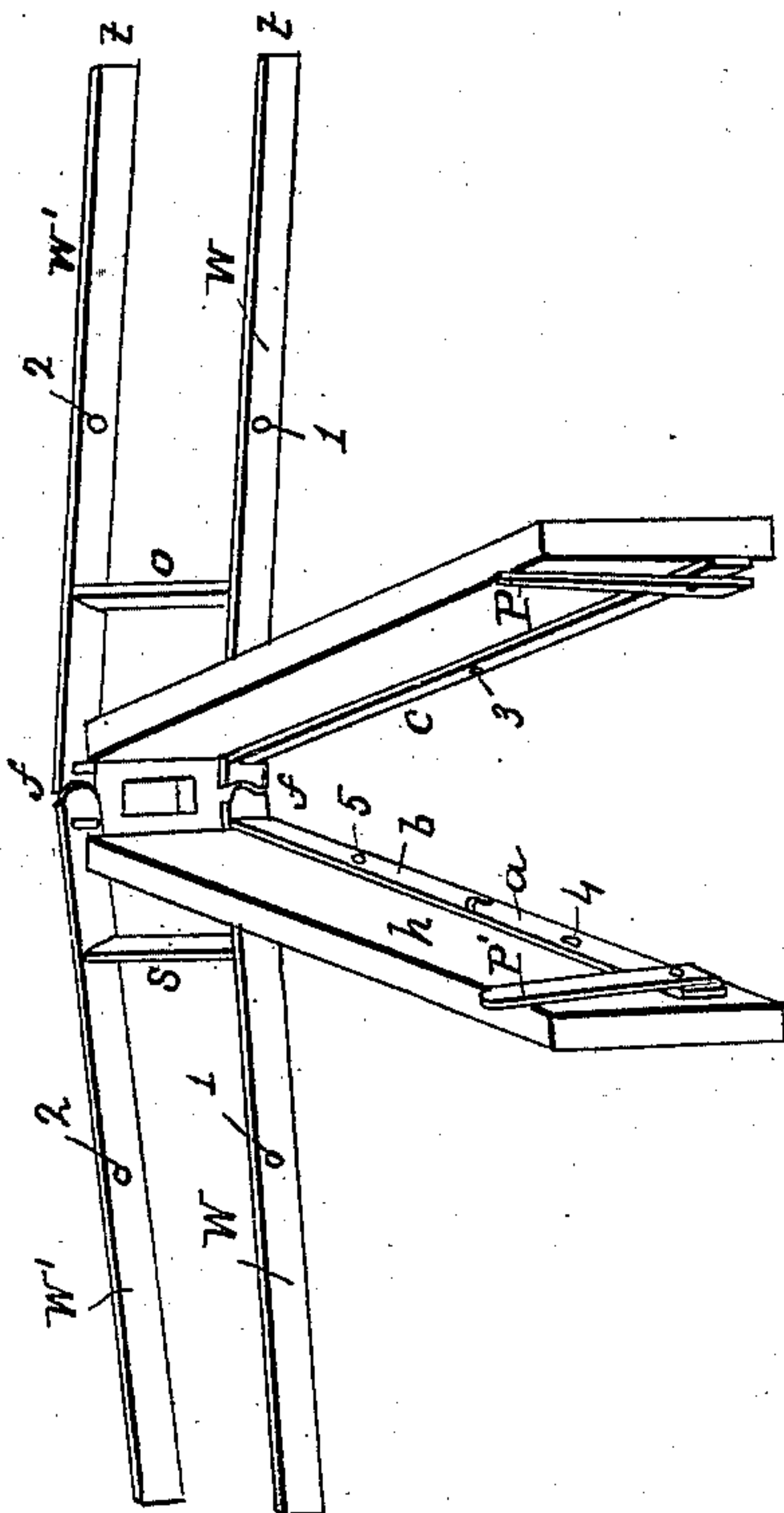


Fig. 2.



UNITED STATES PATENT OFFICE.

SOLOMON COLE, OF ROCHESTER, NEW YORK.

METHOD OF OPENING AND CLOSING GATES BY APPROACHING VEHICLES.

Specification of Letters Patent No. 17,202, dated May 5, 1857.

To all whom it may concern:

Be it known that I, SOLOMON COLE, of the city of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Self-Acting Gates, of which the following is a full and accurate description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective elevation of the gate. Fig. 2 is a perspective plan of the levers, the same letters referring to like parts in both figures.

The nature of this invention consists in so constructing and arranging the levers (*a, b, c,*) and the ways upon which the gates roll, that when a carriage approaches, it will so act upon said levers and ways, that the gate will open; and on the carriage passing through, it will so act on a similar set of levers on the other side of the gate, as to reverse the inclination of the ways, and close the gates; while the levers on each side are so connected with the ways, that the depression of one elevates the other, and thus one tilting pin (*d* or *e*) is always in proper position to be acted upon by a passing vehicle.

It will be seen that the gate shown in the drawings, is in two parts, which move upon the wheels or rollers (*r, r, r, r,*) which wheels roll on the ways (*w w*) seen beneath them. These ways are pivoted at (1, 1) and (2, 2) so that either end may be elevated, and the other end consequently depressed. At the joints (*f f*) are attached the levers (*b*) and (*c*), one of which is a straight bar turning on the pivot (3) and the other, in order to secure a reverse action, is compounded of the two bars (*a*) and (*b*), which move on the two pivots (4) (5) and are connected at the point (*h*). It will now be evident that the weight of a vehicle on the pin (*p*) connected with the straight bar, will tilt the other end of said bar or lever, and elevate the ends (*f*) of the ways on which the gate moves. And the lever or bar (*b*) being also connected with said ways,

a reverse action will be produced on the tilting pin (*p'*) which will be raised as the other is depressed. On the carriage passing through, it will of course pass over the plate (*m*) covering a tilting pin on the other side of the gate, which pin is connected with a set of levers identical with those seen on the left hand side in Fig. 2. These levers are connected with the ways (*w'*) (*w'*) which again are connected with the ways (*w, w*) by means of the cross bars (*o*) and (*s*). Consequently the depression of the tilting pin (*p*) and consequent elevation of the ends (*f*) of the ways, will have elevated the pin (*m*), which however on being depressed by the weight of the carriage passing out, will depress the ends (*t*) of the ways, and cause the gates to roll together and close. It will thus be seen that the elevation of the tilting pins at (*d*) and (*e*) will depress those at (*m*) and (*n*) and vice versa, and thus, from whatever direction a carriage may approach, it cannot fail to open the gates provided it keep on the proper side of the road. There are two pair of ways as seen in Fig. 2, and the gates roll on four wheels each, two only, being seen in the drawing Fig. 1.

The construction and arrangement of the wheels, ways and levers on the other side, are precisely similar to those seen in Fig. 1, the action of the levers being merely reversed, to correspond with the change of direction of approach.

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

The arrangement of levers (*a, b, c,*) and ways or rails (*w, w'*) and tilting-pins (*p'* or *n, p* or *e, d, m*) whereby the gate is not only opened and kept open, but the tilting pins on the other side of the gate are placed in proper position to tilt the rails and close the gate on the passage of the vehicle.

SOLOMON COLE.

Witnesses:

A. K. AMSDEN,
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