

No. 612,039.

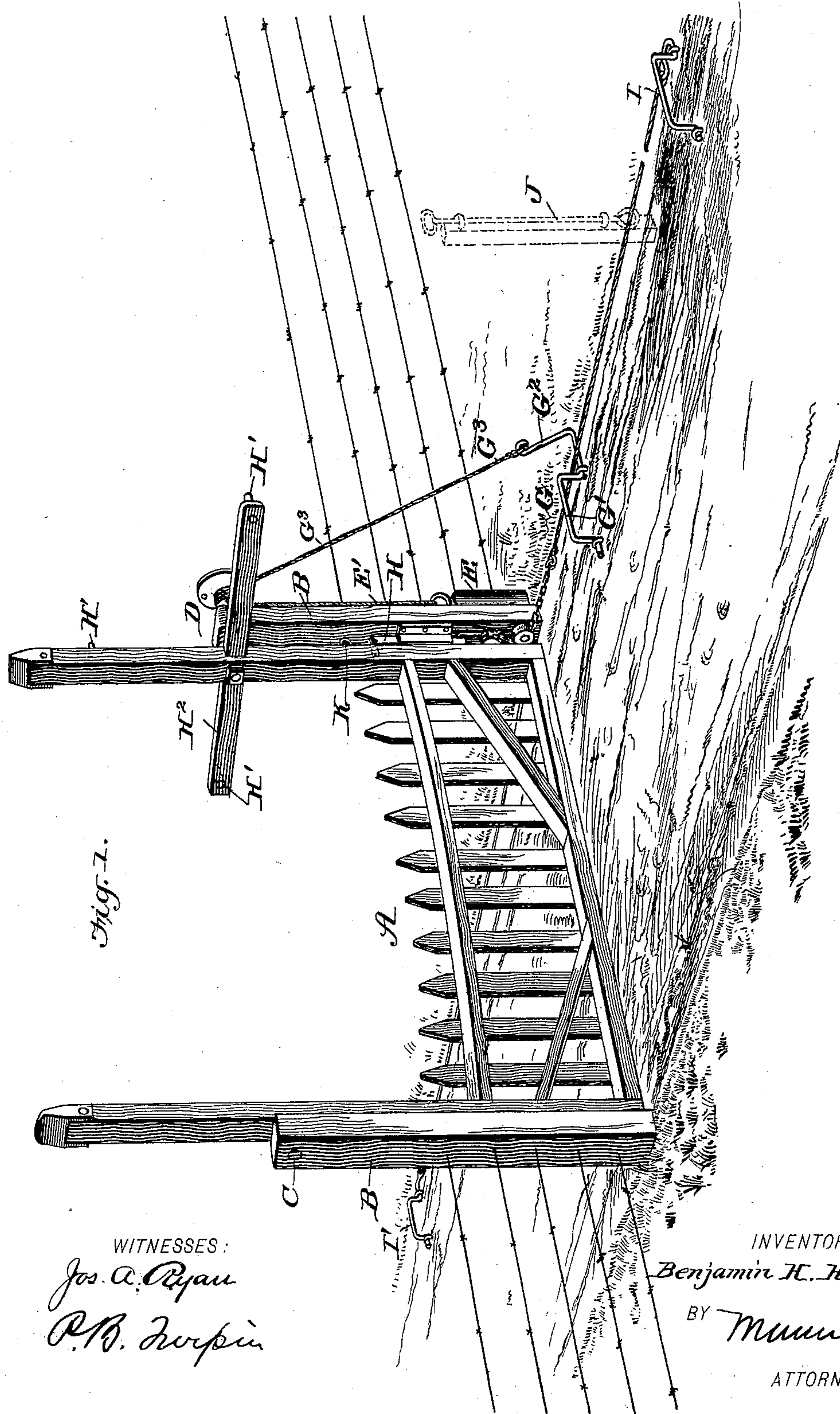
Patented Oct. 11, 1898.

B. H. HESTER.
GATE.

(Application filed Oct. 26, 1897.)

(No Model.)

2 Sheets—Sheet 1.



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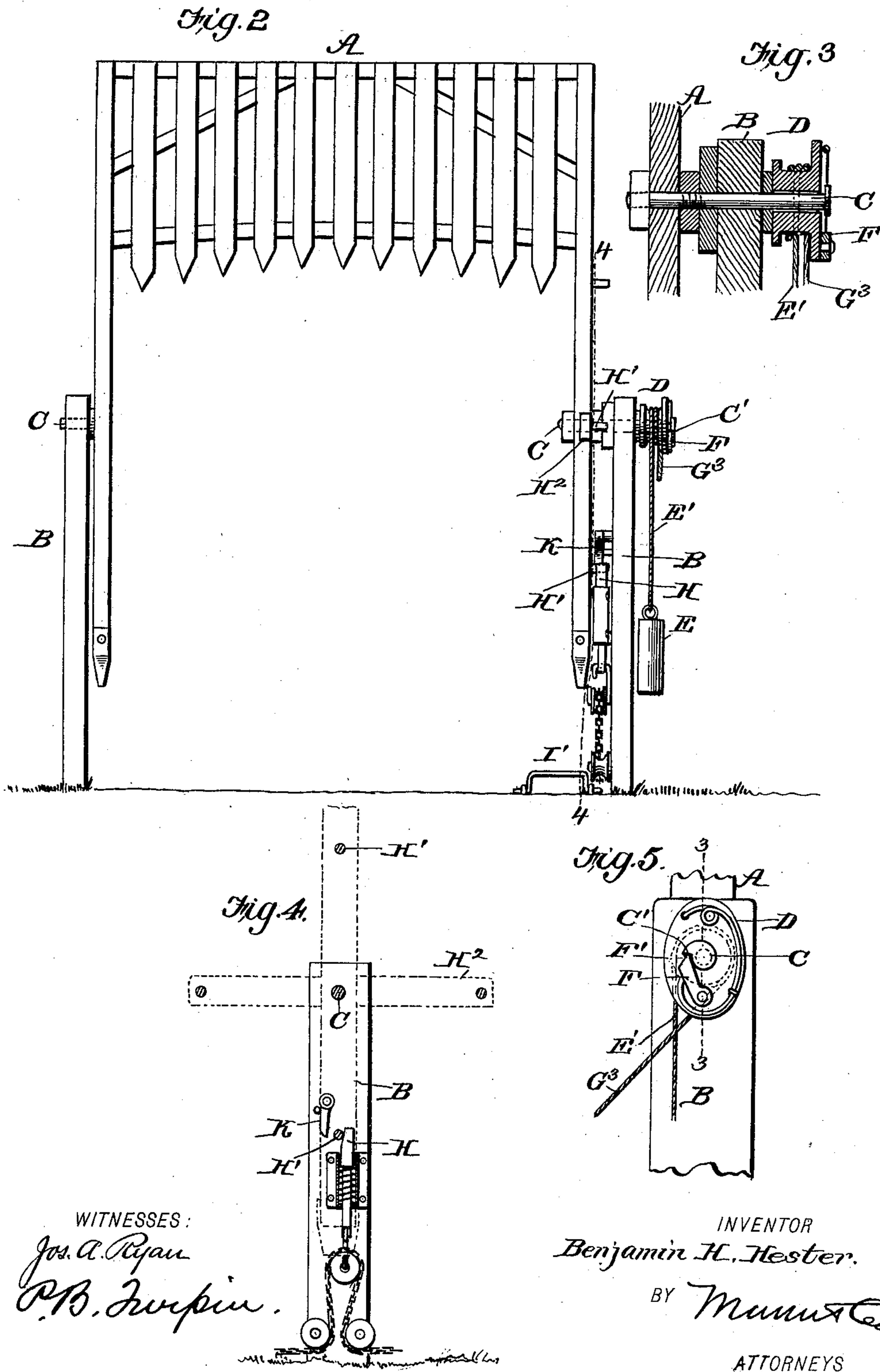
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UNITED STATES PATENT OFFICE.

BENJAMIN HARTWELL HESTER, OF McALESTER, INDIAN TERRITORY.

GATE.

SPECIFICATION forming part of Letters Patent No. 612,039, dated October 11, 1898.

Application filed October 26, 1897. Serial No. 656,443. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN HARTWELL HESTER, residing at McAlester, Choctaw Nation, Indian Territory, have invented a new and useful Improvement in Gates, of which the following is a full, clear, and exact description.

This invention is an improvement in gates, and has for an object to provide a simple construction by which the gate may be automatically operated by the party riding or driving toward and from such gate; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my gate. Fig. 2 is a front view of the gate, and Figs. 3 and 4 are detail views.

The gate A is suspended between the posts B by means of the stub-shafts C, which journal in the posts B, one of such shafts being provided with a drum D, supporting the weight E, and which drum is clutched to its shaft preferably by means of the pawl F, engaging at F' with a notch or shoulder C' on the shaft C. This drum is operated by the weight E, whose suspending-cord E' is connected with the drum, and the weight when run down is readjusted or wound by means of the tripping-levers G, which have crank-arms G' and G², the former being arranged for operation by the wheel of the vehicle and the latter being connected by cord or other connection G³ with the drum to turn the same properly to wind the weight up. Where desired, these tripping-levers G may be provided on opposite sides of the gate, so that the weight may be wound by the approaching and departing vehicle; but ordinarily it is only necessary to provide the lever G on one side of the gate.

It will be noticed that the gate swings vertically between the posts B, and to stop it at different points I provide a detent, which consists in the construction shown of a spring-actuated bolt H, which is normally pressed upward in position to be engaged by projections on the gate and holds such gate from being turned by the stress of the weight E acting upon the drum, which is clutched to the shaft C, as before described. In connection with this detent I provide tripping devices,

whereby it may be operated to release the gate, so that the latter may be turned one step by the weight. These tripping devices may be the crank-levers I and I', connected with the bolt, as shown, and arranged for operation by the wheels of a vehicle, or they may be pull-rods J for manipulation by a horseback-rider, or they may be of other desired construction. This detent locks the gate from movement in one direction, and it is held from movement in the opposite direction by a swinging latch K, which opens freely toward the detent to permit the projections of the gate to swing to and against said detents, but is held from movement in the opposite direction. This construction prevents the gate from being opened by the pressure of stock on either side.

Where a light weight is used, it is ordinarily sufficient to provide the projections H' above and below the shaft C on the side bar of the gate, as the weight will turn the gate so slowly that both wheels will pass over the detent-tripping lever before the gate has swung to full open position; but when a heavy weight is employed the gate will be operated so quickly that intermediate projections H' are necessary, and these I furnish when needed on a cross bar or arm H², set at right angles to the side bar of the gate, as shown.

Now in operation when the gate is supplied with the four stop projections if a vehicle approaches from one direction its front wheel will operate the lever I, release the detent momentarily, and the gate will swing one step, bringing the following projection H' into contact with the detent, which will then be released by the hind wheel of the vehicle and the gate will be opened. These operations of the tripping-lever and the resulting opening of the gate will lower the weight E, which will be rewound by the pressure of the vehicle on the lever G, and such vehicle may pass through the gate. As it moves off from the gate its wheels by proper contact with the tripping-lever I' will actuate the detent-bolt twice, and the weight will tend to readjust the gate to its closed position. It should be understood that the gate is nicely balanced by the weights M, which may be metallic, as shown, or, where desired, ornamental boxes filled with stone may be employed. By thus

balancing the gate I avoid the necessity of a very heavy weight E, as the gate swings easily, and the weight E is only required to overcome friction in turning the gate.

5 By suspending the gate at both sides there is no danger of its sagging, and its motions from time to time prevent the accumulation below it of any obstructions.

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

1. The combination in a gate of the upright posts, the gate having at its sides up-
rights pivoted to said posts, means for turn-
15 ing the gate, a detent for controlling the move-
ments of the gate and a series of projections
on the gate arranged in a circle and adapted
for successive engagement by the detent as
the gate is moved a part of a revolution sub-
20 stantially as set forth.

2. The herein-described improvements in
gates consisting of the gate proper provided
with shafts, the posts in which said shafts are
 journaled, the detent-bolt arranged to con-
25 trol the movements of the gate, tripping de-
vices for releasing said detent, a drum on
one of the shafts of the gate, a pawl on said
drum and engaging with said shaft, a weight
for turning said drum and means for read-
30 justing or winding said gate, substantially
as described.

3. The combination of the upright posts,
the gate having at its sides uprights and pro-
vided with horizontal shafts journaled in the
35 posts, the detent controlling the movements
of the gate, the weight acting upon the gate
to revolve the same, means for readjusting
the weight independent of the movement of
the gate, devices controlling the operation of
40 said weight to turn the gate, and tripping

mechanism for releasing said devices sub-
stantially as described.

4. The combination substantially as de-
scribed of the upright posts or supports, the
suspended gate having horizontal pivots 45
whereby it may swing in a vertical plane, a
drum on one of its pivot-shafts, clutch de-
vices for connecting the drum with the said
shaft, the weight suspended from the drum,
the devices for rewinding said weight, detent 50
devices, and tripping devices for releasing
the detent whereby to permit the operation
of the gate by the weight substantially as de-
scribed.

5. The gate substantially as described com- 55
prising the posts or supports, the gate hav-
ing horizontal pivots in said posts or supports
one of such pivots being a shaft fixed to the
gate, a drum on said shaft, a clutch connec-
tion between the shaft and drum, a weight 60
acting on the drum, a tripping-lever connected
with the drum whereby to turn the same to
wind up the weight, the detent and tripping
devices by which to release the detent sub-
stantially as described. 65

6. The improvement herein described com-
prising the gate having horizontal pivots and
provided at one side with an extension beyond
said pivot in the plane of the gate and with
opposite extensions at right angles to the 70
plane of the gate, a detent engaging coöper-
ating parts on the gate, the extension, and
the arms, devices for releasing the detent,
and means for revolving the gate when the
detent is released.

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Witnesses:

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