(No Model.) 2 Sheets—Sheet 1.

R. F. HAGEMAN.

GATE.

No. 315,274. Patented Apr. 7, 1885.

Fig. 1.

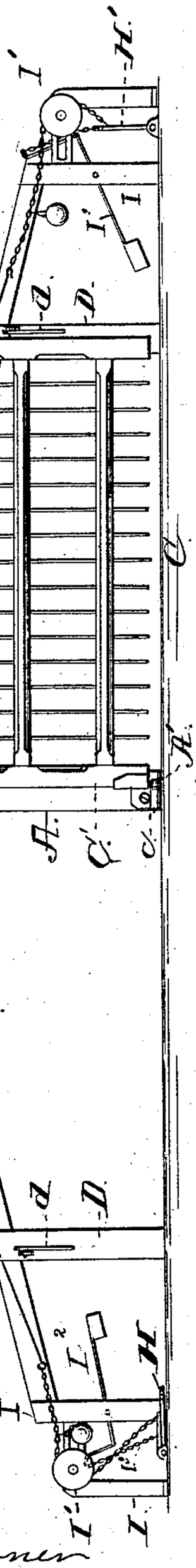


Fig. 2.

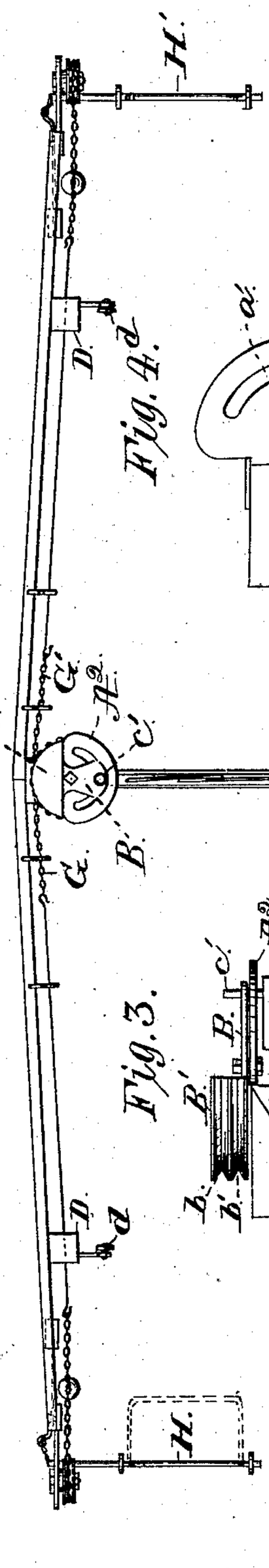


Fig. 4.

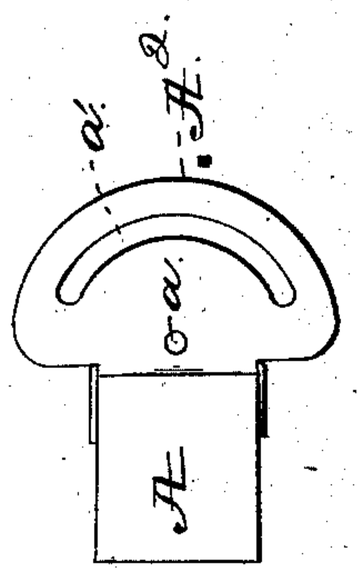
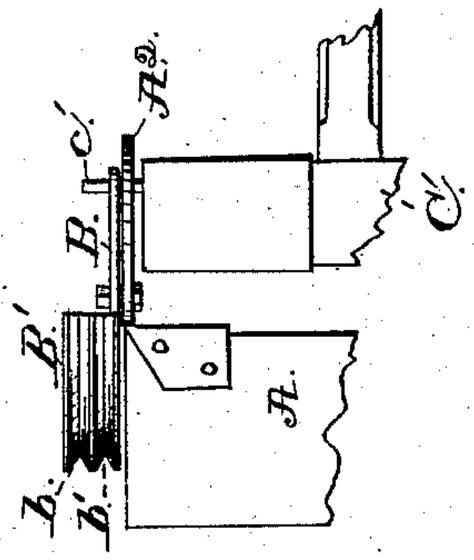


Fig. 3.



Witnesses.
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Julius Lorger

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per. H. Abbott
Atty.

(No Model.) 2 Sheets—Sheet 2.

R. F. HAGEMAN.

GATE.

No. 315,274. Patented Apr. 7, 1885.

Fig. 5.

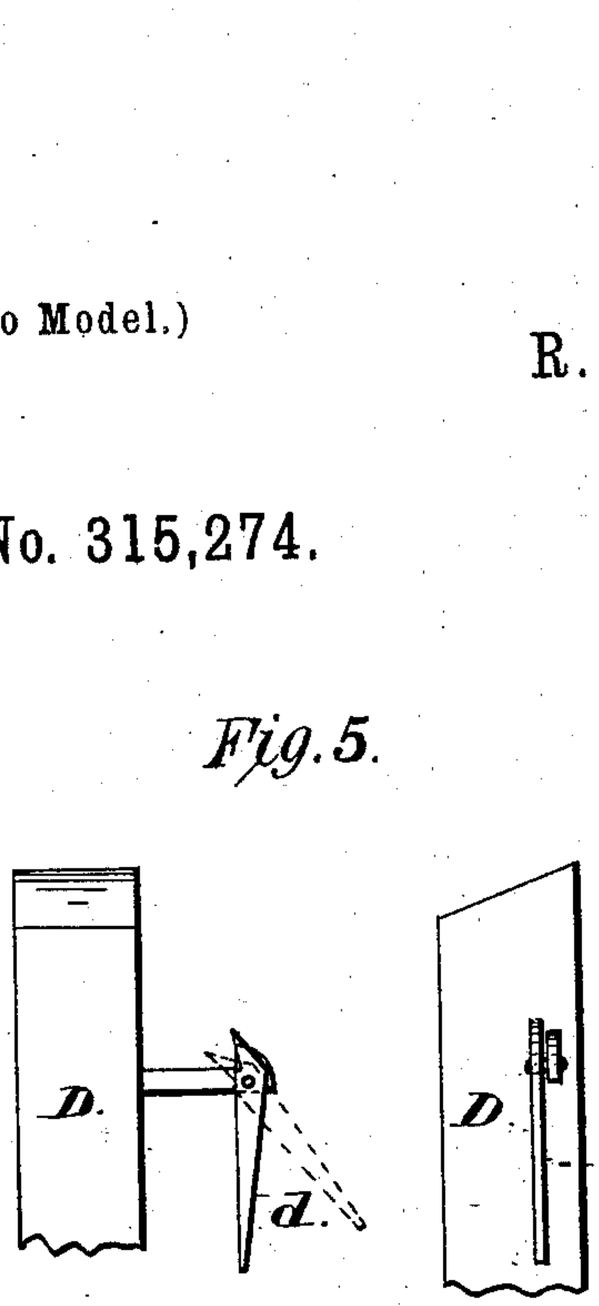


Fig. 6.

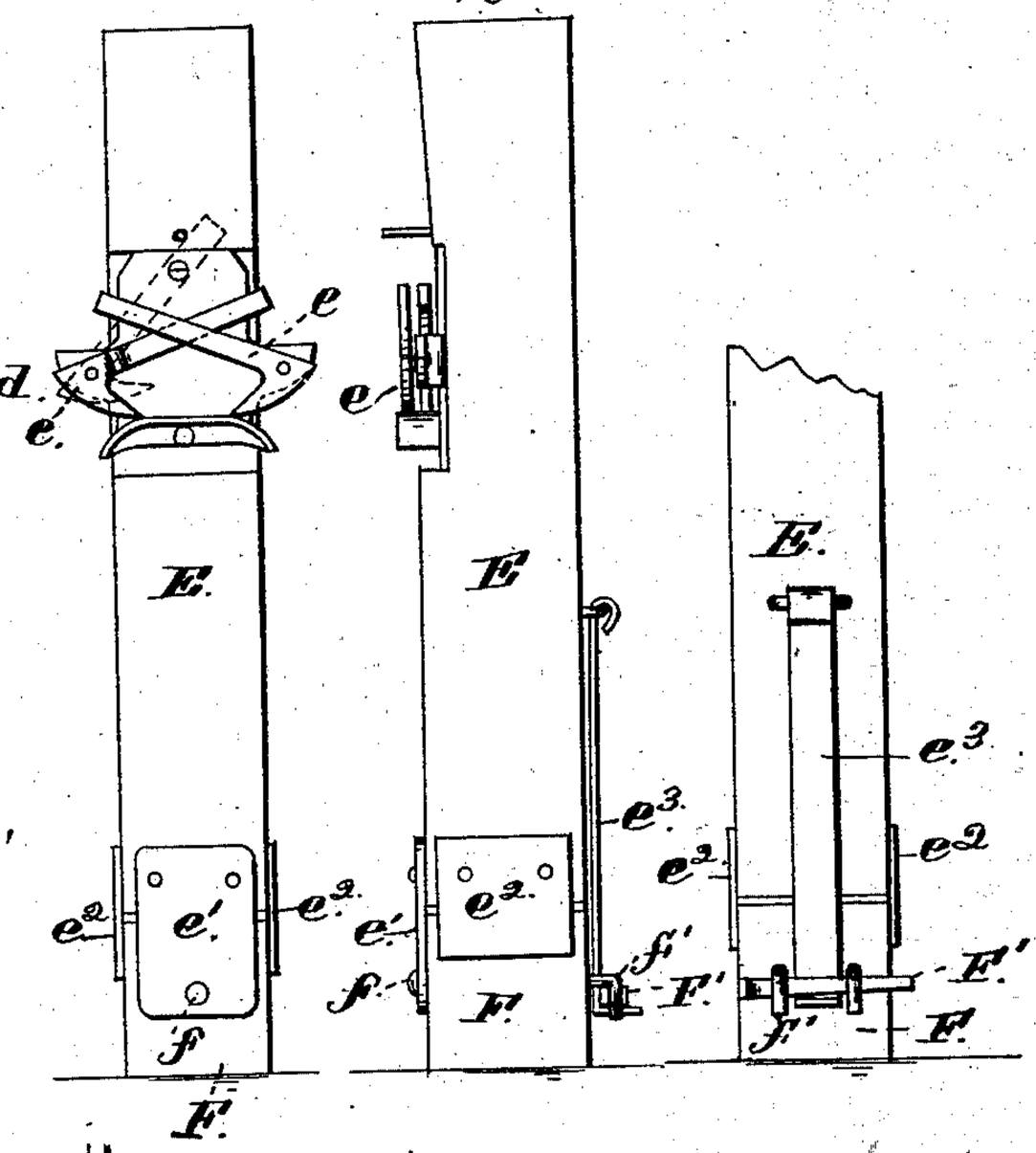


Fig. 7.

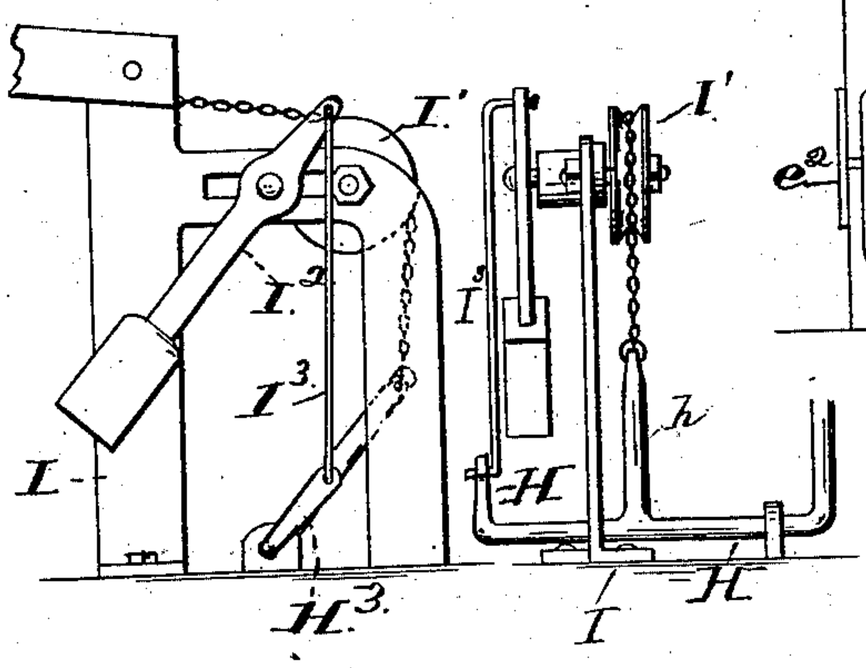
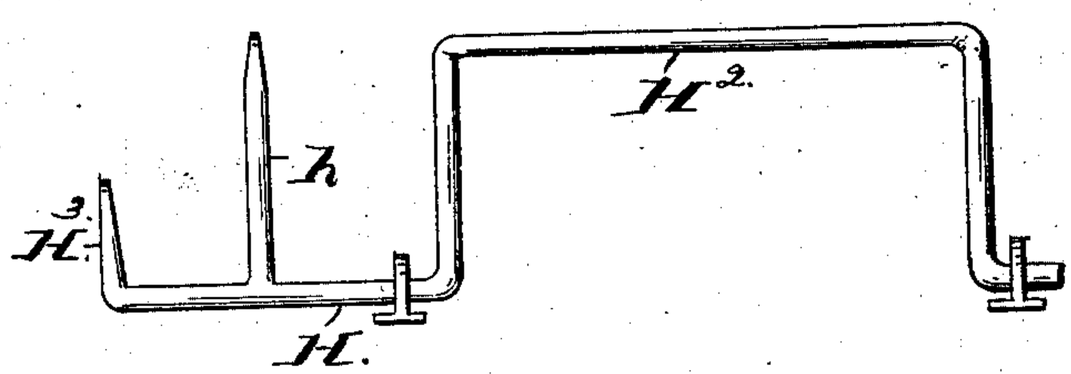


Fig. 8.



H.

Witnesses.
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Inventor
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by H S Sims & Co
Atty's

UNITED STATES PATENT OFFICE.

RANDOLPH F. HAGEMAN, OF NEW MADISON, OHIO.

GATE.

SPECIFICATION forming part of Letters Patent No. 315,274, dated April 7, 1885.

Application filed March 25, 1884. (No model.)

To all whom it may concern:

Be it known that I, RANDOLPH F. HAGEMAN, of New Madison, in the county of Darke and State of Ohio, have invented a new and useful Improvement in Gates; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use it, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to improvements in automatic gates; and it consists in the construction, combination, and arrangement hereinafter described and claimed.

In the drawings, Figure 1 is an elevation showing the gate open. Fig. 2 is a plan view of the gate closed. Fig. 3 is a detail view showing the upper hinge of the gate. Fig. 4 is a detail view of the slotted plate. Fig. 5 shows the open latch in detail. Fig. 6 shows the swing-post; Fig. 7, the trip and weighted balancing-lever; and Fig. 8, the trip, all of which will be described.

The hinge-post A is provided at its lower end with a socket, A′, and at its upper with a plate, A^2, extended forward therefrom, as shown. This plate is provided with a pivot-opening, *a*, for the lever, presently to be described, and in advance of said pivot-opening I form a slot, *a′*, curved, as shown, in an arc struck from said pivot-opening. The lever B is pivoted in the opening *a*, and is extended forward over the slot *a′*, and provided with an opening to receive the upper pintle of the gate, which is passed up through slot *a′*, as clearly shown in Figs. 2 and 3. The rear end of this lever is formed or provided with the block B′, made half-round on its outer side, and having grooves *b b′* formed therein, as shown. The gate C has its pivot-post C′ provided with lower pintle, *c*, resting in socket A′, secured at the base of the hinge-post, and pintle *c′*, projected up through curved slot *a′* and through the opening in the forward end of the lever. The outer post, C^2, of the gate is provided with the pin c^2, which engages the latches, hereinafter described.

In the operation of the gate, as the lever B is swung on its pivot b^2 it moves the upper pintle of the gate in the slot *a′*, slightly raising the outer end of the gate and swinging it open to the side to which the pintle is moved. It is held open by the latches *d*, pivoted on the posts D, and having their lower ends heavier, so as to rest normally in the position shown in Figs. 1 and 5, so that their upper ends will be tripped by the pin c^2 as it turns, as indicated in dotted lines, Fig. 5, to permit the said pins to pass as the gate is swung open. When the gate is drawn to, it is first elevated sufficiently at its outer end to escape over the latch *d*, as will be understood. The swing-post E is provided with two latch-bars, *e*, arranged opposite each other, so as to receive the pin c^2 from either side, and so as to permit the same to escape when the outer end of the gate is elevated slightly, as before described. This swing-post is mounted on a base-block, F, having a short stud, *f*, projected forward therefrom, as shown, and hooks *f′* are projected from its rear side and turned down, as shown. The swing-post E is set down on the block F, and has the front plate, *e′*, and the side plates, e^2, which extend down alongside the block F, as shown. The front plate, *e′*, is provided with a hole which catches over the stud *f*. A strap, e^3, is pivoted at its upper end to the rear side of the swing-post E, and its lower end rests between the hooks *f′*, and is turned out, as shown. The key F′ is slipped in between the hooks *f′* and the turned end of the strap, as clearly shown in Fig. 6. By this means the post is securely held in place, and may be readily removed to permit an extra wide vehicle—such as some mowing-machine—to pass through. Chains G G′ are secured to the opposite ends of the block B′, and extend around the same in opposite directions, resting in the grooves *b b′*. The opposite ends of these chains are carried to and secured to crank-rods *h* of the shafts H H′, having trip-cranks H^2, as shown. A bracket, I, is arranged alongside each of the trip-cranks, and has a guide-pulley, I′, over which the chain passes in its passage to the trip-shaft. A lever, I^2, is pivoted to the bracket, and has its lower arm weighted, as shown, and its short or upper arm is connected by link I^3 with a crank-rod, H^3, extended from shaft H, parallel with the trip-crank H^2. This device, it will be seen, brings the trip-crank up after the wheel has passed over it, as will be understood.

In Fig. 1 the gate is shown as opened by a

vehicle coming from the direction of trip H and before it reaches trip H′. When the wheel strikes the last-named trip, the gate is released from latch *d* and swung back to the swing-post, where it is caught by the latch *e*.

In operation it will be seen that the gate may be opened from either direction and always swings away from the approaching vehicle; also, that the operating devices are arranged at the upper end of the hinge-post and gate, so that snow or mud will not interfere with or clog the same; also, that as the opening and closing of the gate is accomplished by a drawing action a flexible chain or rod can be used, and a certain easy action is secured.

What I claim as my invention is—

1. In an automatic gate, the combination of the trip-shaft having the trip-crank H^2, and provided with the crank H and crank-arm *h*, with the lever I^2, pivoted to a suitable support, and having a weight at its lower end, and a pitman connecting the upper end of said lever with the rod H^3 and with the chain G, secured to arm *h*, and connected at the opposite end to the gate-operating mechanism, substantially as and for the purpose set forth.

2. In a gate, and in combination therewith, the base-block F, having stud *f* and hooks *f′*, the swing-post E, having perforated plate *e′* and strap e^3, and the key F, all arranged and operating substantially as described, whereby the swing-post may be removed, as and for the purposes specified.

In testimony that I claim the foregoing I append my signature.

RANDOLPH F. HAGEMAN.

Witnesses:
GEORGE BACON,
C. B. NORTHROP.