(No Model.)

W. W. NEWCOMB.

GATE.

No. 265,274. Patented Oct. 3, 1882.

Fig 1.

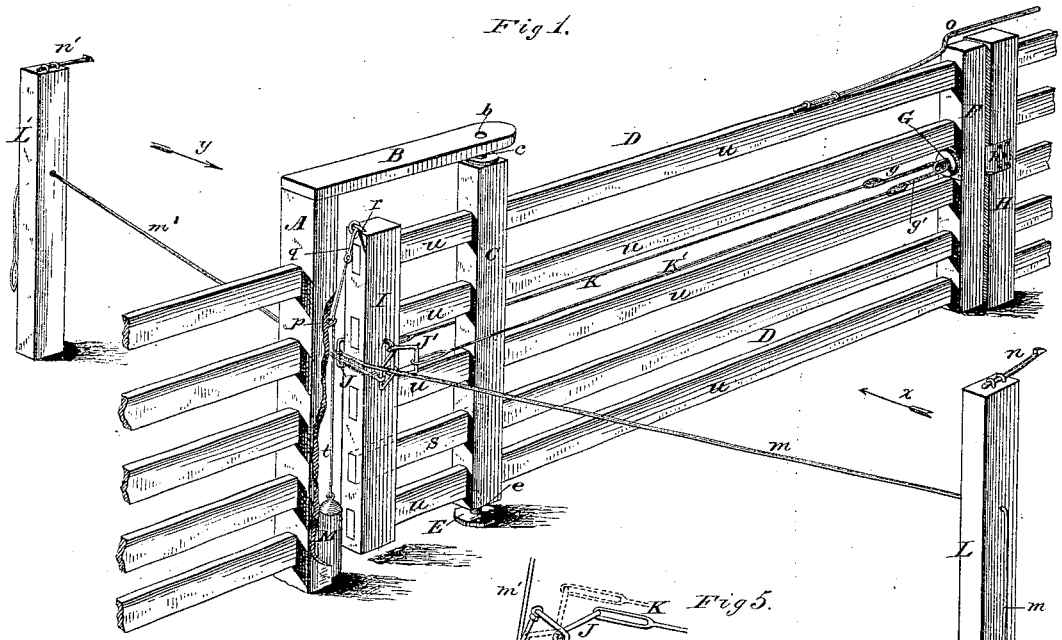


Fig 2.

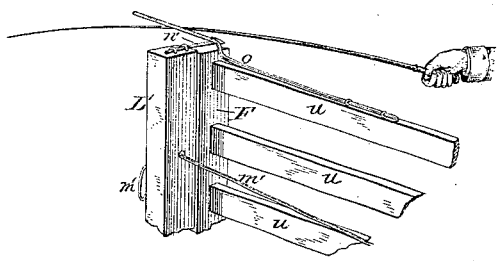


Fig 5.

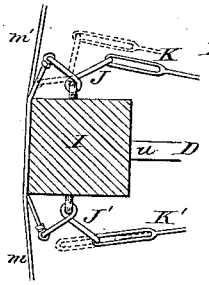


Fig 3.

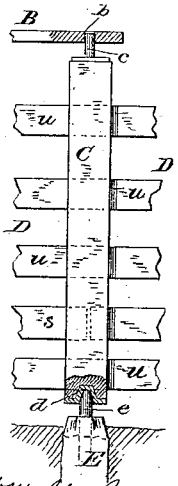
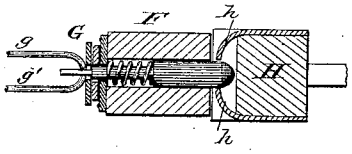


Fig 4.



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UNITED STATES PATENT OFFICE.

WILLIAM W. NEWCOMB, OF LEBANON, KENTUCKY.

GATE.

SPECIFICATION forming part of Letters Patent No. 265,274, dated October 3, 188[illegible].

Application filed May 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. NEWCOMB, a citizen of the United States, residing at Lebanon, in the county of Marion and State of Kentucky, have invented certain new and useful Improvements in Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to gates; and it consists in the construction, adaptation, and application to an inwardly and outwardly swinging gate of certain novel devices, hereinafter more fully set forth and claimed.

In the drawings, Figure 1 is a perspective view of my improved gate. Fig. 2 is a perspective view of the auxiliary latch and surrounding parts. Fig. 3 is a side elevation of the pivoted intermediate post. Fig. 4 is an enlarged horizontal sectional view of the main latch, and Fig. 5 is an enlarged horizontal sectional view of a portion of main-latch-releasing device.

To the top of fence-post A is securely attached an angle-plate or cross-head, B. A socket or trunnion-seat, *b*, is cut through the outer end of the cross-head, in which rides a pivot or trunnion, *c*, constructed upon the upper end of an intermediate fulcrum-post, C, of gate D. A sufficient space is left between the top of the fulcrum-post and cross-head B to admit of the sliding upward in its seat of trunnion *c*, for purposes hereinafter specified. A post or stone, E, is firmly bedded in the ground. In the upper end of this post or stone is rigidly attached a pivot, *e*, located immediately under the trunnion-seat *b* in the cross-head B. In the lower end of fulcrum-post C is constructed an iron or other socket, *d*, which rests on the pivot *e*, as shown in Fig. 3. These pivots and corresponding sockets form the center upon which the gate swings.

Extending through an upright, F, of the gate is a spring-latch, G, which engages with a keeper, *h*, constructed upon fence-post H and beveled upon both sides, as shown in Fig. 4. The form of latch I prefer to use in connection with my improved latch-releasing device consists of a shouldered bolt and spiral spring. (Also shown in Fig. 4.) Upon the rear end of this latch are constructed two arms, *g g'*, to which is attached a novel releasing mechanism, hereinafter described.

For the purpose of more clearly describing the construction and manipulation of certain duplicate devices, hereinafter mentioned, it is assumed that the side of the gate presented to view in Fig. 1 is the inner and the other the outer side, and for the same purpose that portion of the gate upon which is constructed the main latch, above described, I term the "front" and the other the "rear" end of the gate.

Constructed upon the rear end of the gate is an upright, I. To staples driven in the inner and outer sides of this upright are pivoted oscillating angle-links J J'. These links are connected at their forward ends to the arms *g g'* of the catch by rods or ropes K K'.

Lateral posts L L' are planted upon the inside and outside respectively of the inclosure formed by the fence and gate at a distance from the fulcrum-post C equal to that between the latter and upright F in the front end of the gate. Through holes, pulleys, or eyes in posts L L' run wires or ropes *m m'*, which are attached at one end to the rear ends of links J J', the other end hanging within easy reach of the operator, whether walking or riding. Constructed upon these posts are also lateral hooks or keepers *n n'*, which, when the gate is thrown open either inwardly or outwardly, engage with an auxiliary spring-latch, *o*, located upon and extending some distance beyond the front end of the gate. Horizontal unbroken rails *u u* extend from upright F through mortises in fulcrum-post C to upright I.

When the gate is swung open in either direction the rear end thereof, in swinging around on the gate-pivots, raises a counter-weight, M. The rope *t*, attaching the weight to the gate, passes through a pulley or staple, *p*, driven into post A, and is secured at its upper end to a pendulum-like link, *q*. This link swings in an eye, *r*, driven obliquely into the top of upright I, and prevents the edges of the post from wearing or cutting the weight-rope when the gate is swung open. Assuming the operator to be traveling in the direction indicated by arrow *x*, the free end of the rope or wire *m* should be grasped and pulled. The first part

of the strain on this rope or wire will release from its keeper the latch G through the medium of angle-link J and connecting-rod K. The last part, after the latch is released, will pull the rear end of the gate toward the operator, causing the forward end to swing around in an outward direction until the upright F comes in contact with post L′, when the latch *o* will engage with keeper *n*′. The gate is thus held open until the operator, having passed through, lifts the outer projecting end of latch *o* with his whip, cane, or stick, as shown in Fig. 2, when the gate is released, and afterward automatically closed through the instrumentality of counter-weight M. Should the operator travel in the direction designated by arrow *y*, the rope or wire *m*′ is pulled, when, through the medium of angle-link J′ and rod K′, the latch G is withdrawn from its keeper, and the gate is swung around inwardly until it comes in contact with post L, the latch *o* engaging with keeper *n*. The projecting end of the latch *o* is afterward lifted by the whip, as above described, and the gate automatically closed. It will be observed that this operation does not at any time require the operator to dismount from the horse or vehicle or otherwise cause him to be delayed in his progress.

When desired the gate can be readily removed by lifting the same from its lower fixed pivot, *e*, and afterward withdrawing the pivot or trunnion *c* from its seat, the weight and pull ropes *m m*′ having been previously detached.

For the purpose of enabling sheep, swine, or other small stock to freely pass from one field to another the rear portion of one of the lower gate-rails, as at *s*, Figs. 1 and 3, is severed from the other portion of the rail, and is made removable.

As the horizontal rails *u* of the gate extend unbroken from upright I to upright F through mortises in fulcrum-post C, the pressure of the weight M upon the rear portion of the gate equalizes the otherwise preponderating weight of the front end, and thus causes the gate to swing evenly on its pivots.

This device also obviates the usual strain or torsion so common to gates, and prevents consequent "swagging" at the front end of the gate.

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

1. In a gate, the combination, with a latch-releasing and an inwardly and outwardly gate-swinging device, as described, the auxiliary projecting latch, lateral keepers, and counter-weight, substantially as set forth, whereby the gate, after being automatically held open until the operator, on horseback or in a vehicle, passes through, is made to close by the operator without having to dismount or being retarded in his progress.

2. In combination with an inwardly and outwardly swinging gate, D, the post A, staple or pulley *p*, weight M, weight-rope *t*, pendulum-link *q*, and obliquely-resting eye *r*, substantially as described.

3. In combination with an inwardly and outwardly swinging gate, D, the lateral posts L L′, fulcrum-post C, uprights F and I, ropes *m m*′, elongated latch *o*, and keepers *n n*′, substantially as described.

4. In combination with an inwardly and outwardly swinging gate, D, the fulcrum-post C, uprights F and I, unbroken horizontal rails *u u*, and removable rail-section *s*, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM W. NEWCOMB.

Witnesses:
J. A. BOWMAN,
WM. SEVERANCE.