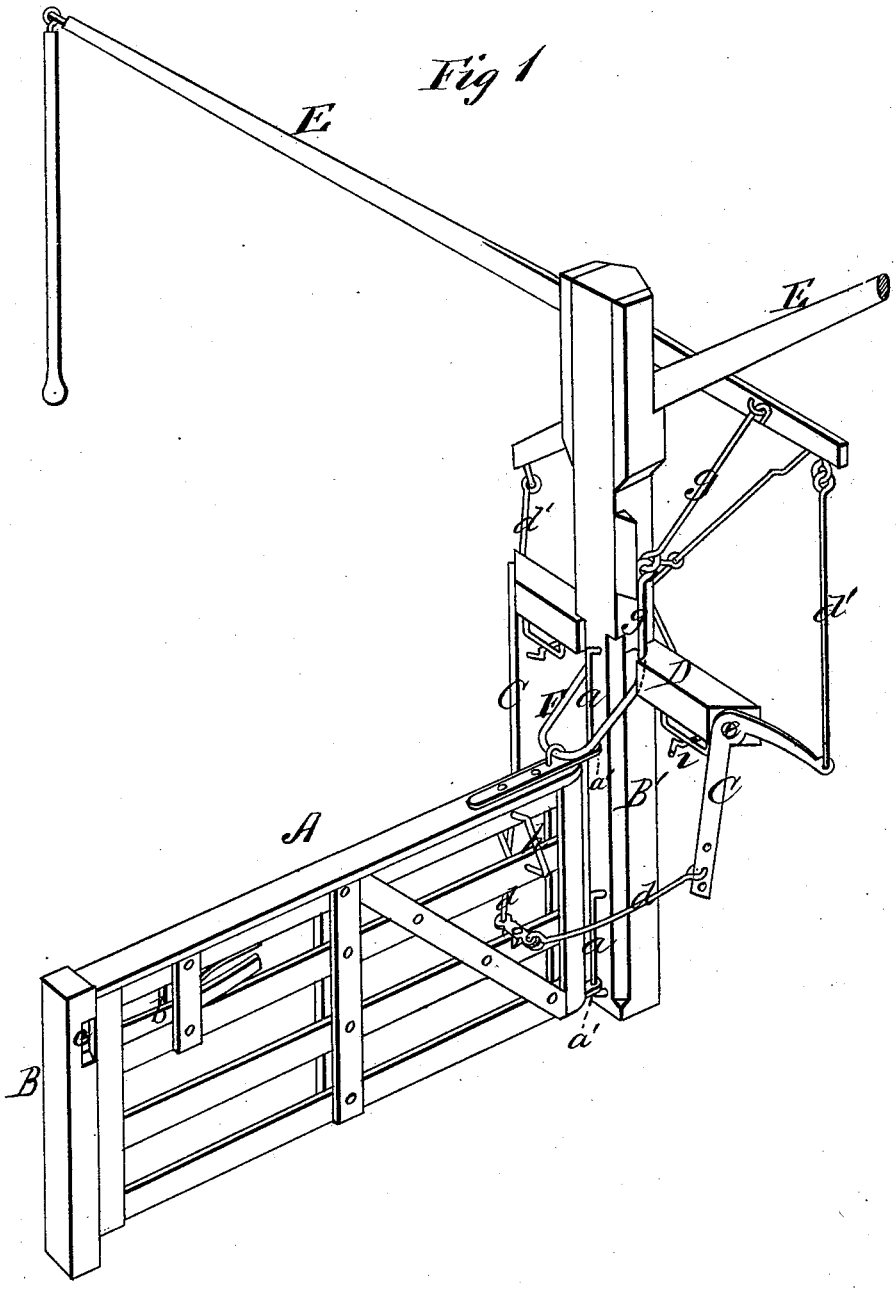
2 Sheets--Sheet 1.

# H. L. FERRIS & C. LEWIS.

## Automatic Gate.

No. 166,866. Patented Aug. 17, 1875.

Fig 1

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2 Sheets--Sheet 2.

# H. L. FERRIS & C. LEWIS.

## Automatic Gate.

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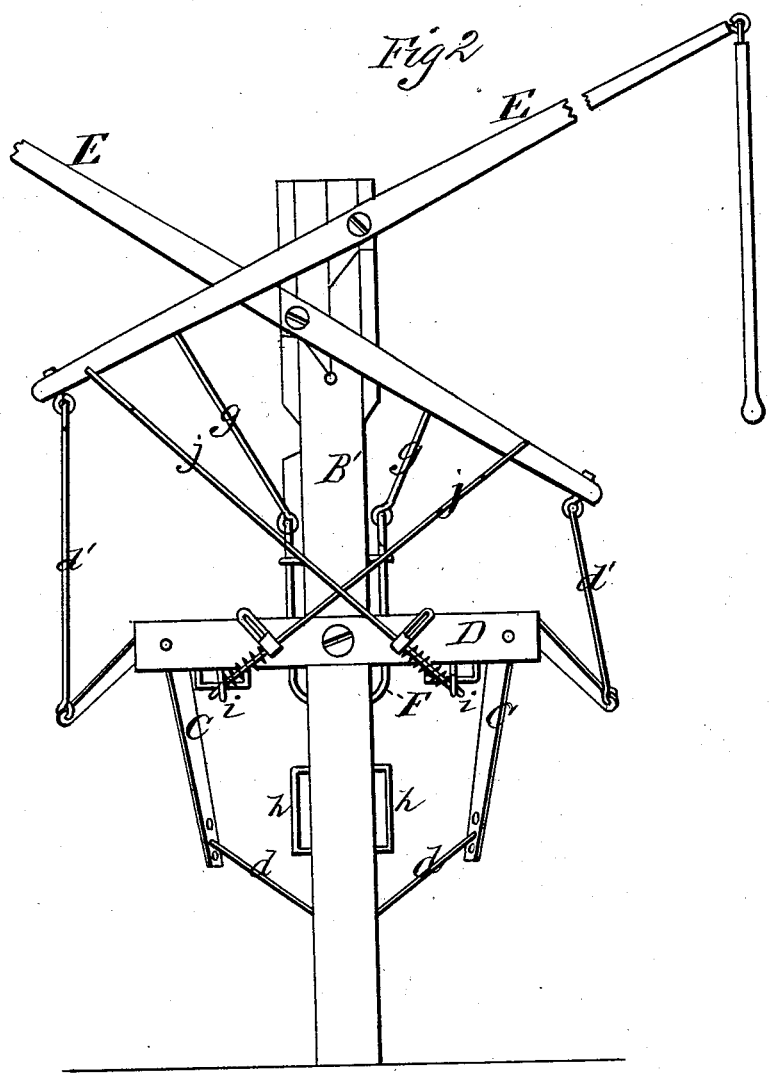
Fig 2

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# UNITED STATES PATENT OFFICE.

HENRY L. FERRIS AND CYRUS LEWIS, OF ALDEN, ILLINOIS.

## IMPROVEMENT IN AUTOMATIC GATES.

Specification forming part of Letters Patent No. **166,866**, dated August 17, 1875; application filed April 24, 1875.

*To all whom it may concern:*

Be it known that we, HENRY L. FERRIS and CYRUS LEWIS, both of Alden, in the county of McHenry and State of Illinois, have invented a new and valuable Improvement in Farm-Gates; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of our farm gate, and Fig. 2 is a plan view of the same.

This invention has relation to improvements in devices whereby a rider is enabled to open a gate without dismounting; and the nature of the invention consists in combining, with means for causing the gate to swing open, a means whereby it may be raised bodily, thus disengaging its latch from the catch in the side post, and thus allowing all the movements necessary for opening a latched gate to be performed simultaneously, as will be hereinafter more fully explained.

In the annexed drawings, A designates a farm-gate of the usual well-known construction, which is suspended between posts B B′, and is adapted, by means of staples *a* driven into posts B′, and eyebolts *a′* secured to the gate, to swing in either direction, and also to be raised, for the purpose of automatically disengaging latch *b* from catch *c* in post B, by the following means: Gate A is connected, by means of rods *d*, to vertically-vibrating angular levers C, having their fulcrums at *e*, at each end of a suitable cross-bar, D, rigidly secured to post B′ in a position slightly above the upper edge of the gate, and these levers are connected by rods *d′* to the ends of vertically-vibrating actuating-levers E, which are relatively so arranged that they cross each other when they are fulcrumed at the upper end of post B′. F represents a bent stirrup-strap, of any suitable metal, which is suitably guided in a vertical movement on post B′, and is connected in any suitable manner to the upper part of the gate. This stirrup-strap is connected by means of a rod, *g*, with each of the actuating-levers E, so that when either of the latter are drawn forcibly downward such an actuation will first raise the gate, causing the latch to be disengaged from the catch in post B through the medium of strap F and rods *g*, and cause the gate to swing open through the medium of angular lever C and its connecting-rods *d d′*.

When the gate has swung open into a position vertical to that it formerly occupied, a latching-staple, *h*, secured thereon, will become engaged with a latch, *i*, thereby holding it open until the driver has passed, when, by drawing upon the other lever E, the gate will be unlatched, and will automatically become closed.

Catches *i* are formed upon the lower ends of endwise-movable rods *j*, and they are returned to a suitable position for subsequently engaging with latches *h* by means of a helical spring, *s*, coiled around their shanks.

What we claim as new, and desire to secure by Letters Patent, is—

The combination, with the catches *i* on the ends of endwise-movable rods *j*, of a spring for returning the said catches to their proper position for engagement with staple-latches *h* on the gate, substantially as specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

HENRY L. FERRIS.
CYRUS LEWIS.

Witnesses:
J. W. MANNING,
LEANDER F. CHAPMAN.