

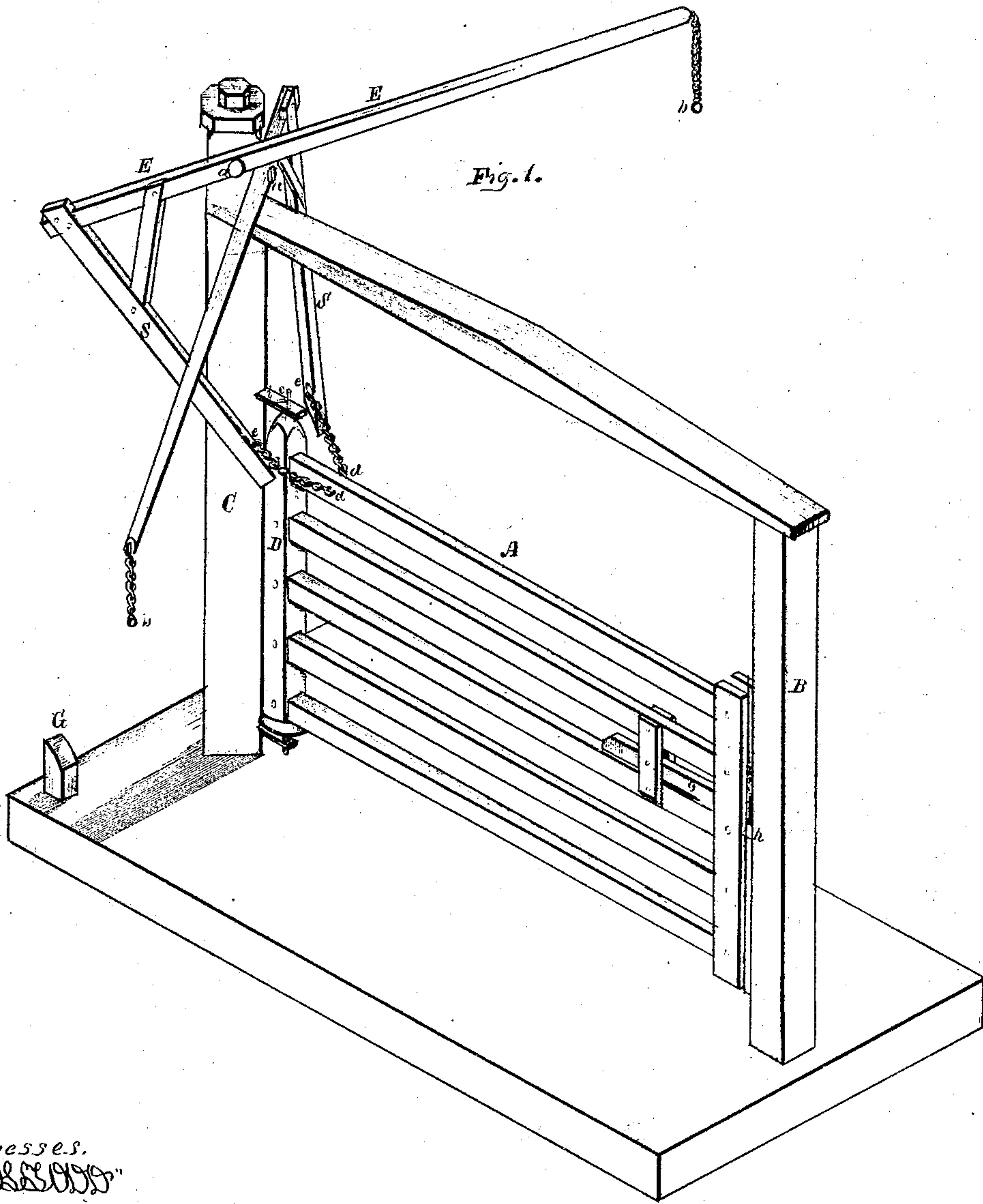
S.H. Cole,

2. Sheets, Sheet 1.

Gate.

No. 106330.

Patented Aug. 16. 1870.



Witnesses.
J. B. [Signature]

Inventor.
Stephen H. Cole
by his Atty.
A. M. [Signature] & Co.

2. Sheets, Sheet 2

Patented Aug. 16, 1870.

Attest.
JESSIE B. BROWN

Inventor:
Stephen H. Cole
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United States Patent Office.

STEPHEN H. COLE, OF EAST ENTERPRISE, INDIANA.

Letters Patent No. 106,330, dated August 16, 1870.

IMPROVEMENT IN APPROACH-GATE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, STEPHEN H. COLE, of East Enterprise, in the county of Switzerland and State of Indiana, have invented an Improved Approach-Gate; and I do hereby declare the following to be a full and complete description of the same, reference being had to the accompanying drawing making part of this specification—

Figure 1 being an isometrical perspective of the gate as closed.

Figure 2, a plan of the gate open.

Figure 3 is a view of the triangular eye enlarged.

Like letters of reference designate corresponding parts in all the figures.

This invention has for its object a simple, cheap, and durable gate, one perfect in its action, and not liable to get out of order. It belongs to that class known as approach-gates, which are opened by equestrians, or those riding in vehicles, without dismounting, and possesses features of novelty and utility over all others now known.

One important feature in my invention consists in allowing the upper pintle of the hanging stile of the gate to turn in a triangular eye in a plate attached to the main or back gate-post, which allows the front stile of the gate to be raised, so as to release the latch from its catch when opening the gate, and also serves to release it from the beveled stops when the gate is to be closed.

Another important feature of my invention consists in the use of elbow-levers pivoted to the oblique faces of the back gate-post, which is set obliquely to the roadway. The short suspended arms of these levers are secured to the top bar of the gate by means of chains, and the long horizontal arms project obliquely from their fulcrums to the axis of the roadway, or nearly so, so as to enable the rider to reach the short chains suspended from their ends, and open the gate without dismounting.

In the drawing—

A represents the gate.

B, the front gate-post.

C, the main or back gate-post.

The hanging stile D of the gate is pivoted at the bottom in the usual manner, and is provided with a pintle at the upper end, which turns in an eye, *e*, in a plate, *i*, secured to the post C. This eye is in the form of an equilateral triangle, with the corners rounded, so as not to bind on the pintle.

E E represent the long arms of the levers, to the extremities of which the hand-chains *b b* are attached.

To the rear ends are framed the levers S S, making the proper angle therewith, as shown.

To the lower ends of these latter are attached chains of suitable length, at *e e*, the other ends of the said chains being secured to the upper bar of the gate, as at *d d*.

In the front part of the gate is pivoted the latch *g*, which wipes into the catch *h*, secured to post B.

G G are beveled stops, for holding the gate open, and

a a are the pivots on which the levers E E are fulcrumed.

The Operation of the Mechanism.

The rider, on a load of hay, for instance, drives under the end of the lever, and, taking hold of the end of the chain suspended therefrom, pulls down. This action, through the medium of the chain connected with the lever on the other side of the gate, and to the top rail of the gate, lifts the forward stile, thus releasing the latch from the catch, and, at the same time, pulls the gate open until the bottom rail catches behind the beveled stop, which holds it open. After passing through, a similar pull on the other lever disengages the gate from the stop in the same manner that the latch was released, and draws it shut, the latch wiping into its catch, as will be seen.

The action required in opening and closing the gate is positive, and does not, in any degree, depend on gravity.

The triangular-shaped eye in which the pintle turns I consider novel, and its action peculiar.

When the gate is closed, the pintle rests in the forward corner of the triangle, (see fig. 3;) but when the chain which connects the lever with the gate is drawn upon, it will be seen that the strain, owing to the oblique position of the levers, is in the direction of the side of the triangle. This draws the pintle to the next adjoining corner.

When the gate is to be closed, and the other lever is pulled, the pintle passes to the third corner, and releases the gate from the stop.

It will be seen that, as the lever-chains hang almost directly over the axis of the road, and not at one side, as in other gates of this class. They may, at all times, and under all circumstances, be within reach from a loaded vehicle, which they could not be if at the side of the road.

Having thus described my invention,

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

1. The elbow-levers, composed of the arms E E and S S, when arranged to operate substantially as shown and for the purposes set forth.

2. In combination with the triangular eye *e* and elbow-levers E E, the main or back post C, when the same is set obliquely to the roadway, so as to form faces on which to pivot the said levers, substantially as shown, and for the purposes specified.

STEPHEN H. COLE.

Witnesses:

O. V. FLORA,

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