R. H. HUDGIN. 2 Sheets—Sheet 1.

GATES.

No. 194,682. Patented Aug. 28, 1877.

Fig. 1.

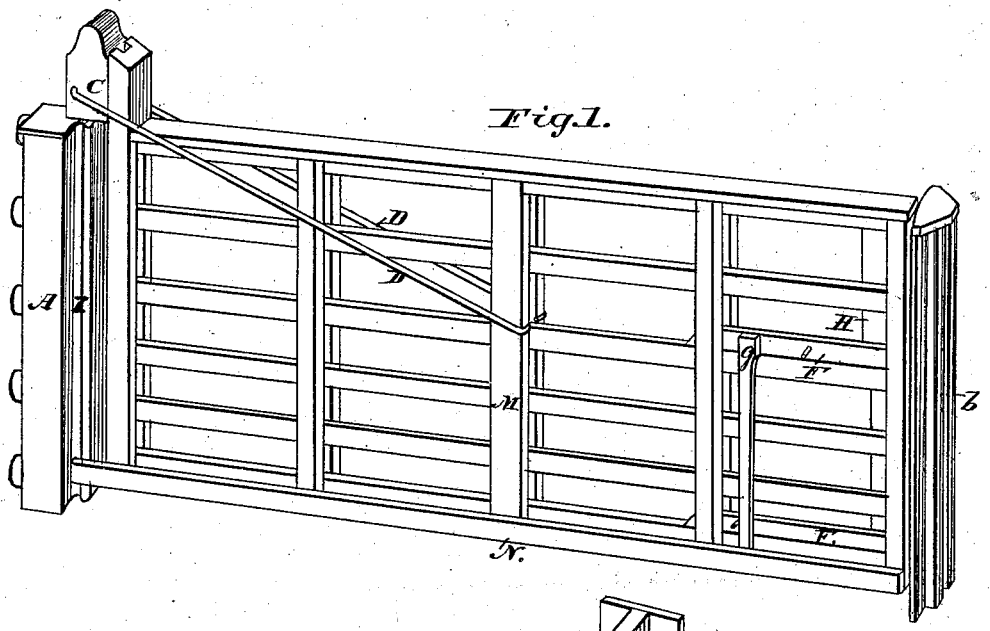

Fig 2

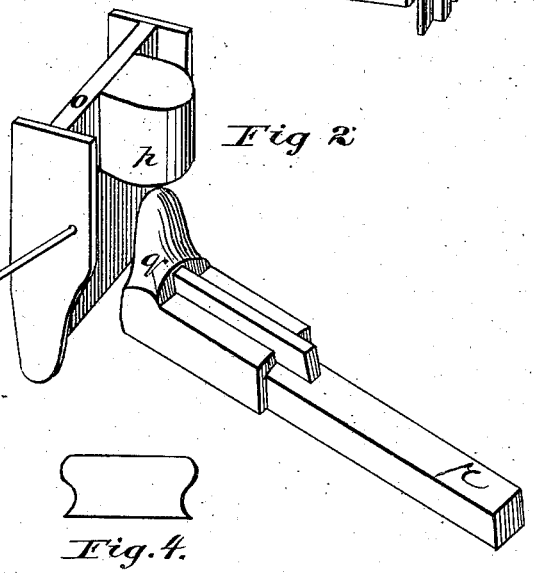

Fig. 3.

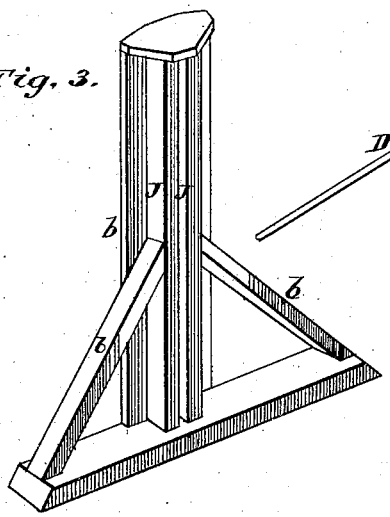

Fig. 4.

Witnesses:

Homer A. Allen

J. H. Long

Inventor:

Robert Henry Hudgin

R. H. HUDGIN. 2 Sheets—Sheet 2.

GATES.

No. 194,682. Patented Aug. 28, 1877.

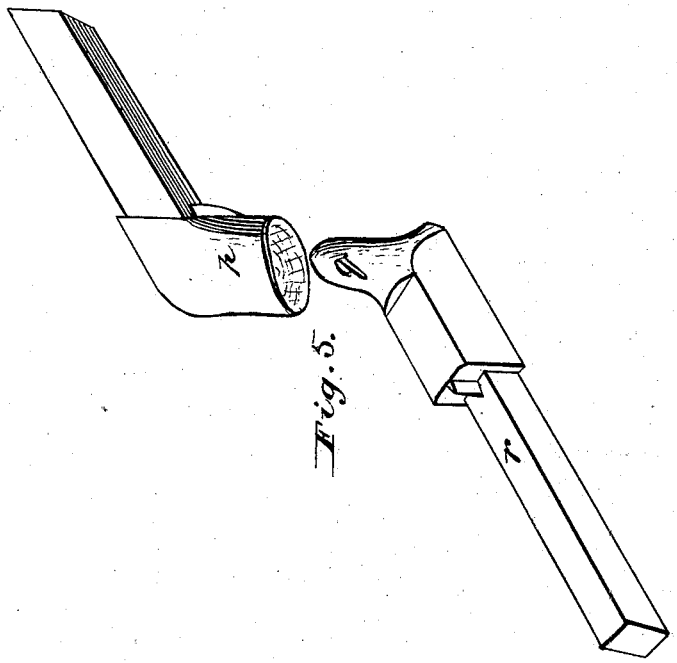

Fig. 5.

Witnesses:
Elmer A. Allen.
J. H. Long.

Inventor:
Robert Henry Hudgin.

UNITED STATES PATENT OFFICE.

ROBERT HENRY HUDGIN, OF WHITBY, ONTARIO, CANADA.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **194,682**, dated August 28, 1877; application filed April 16, 1875.

To all whom it may concern:

Be it known that I, ROBERT HENRY HUDGIN, of the town of Whitby, county of Ontario and province of Ontario, Canada, have invented Improvements on Farm and Garden Gates, of which the following is a specification:

My invention relates more particularly to certain improvements in that class of gates upon which I have already secured patents on the 24th of January and 13th of February, 1871, and 2d of July, 1872; and is designed with the view of providing a strong farm-gate which can be instantaneously raised and lowered, as desired.

In Figure 1, Sheet 1, of the accompanying drawing, A is a rear gate-post, on which the gate hangs. *b* is the front or latch post; C, a head-block, about ten or twelve inches in length, a trifle thicker than the gate, and about five inches broad, with a tongue on the middle of the front side, designed to work in a suitable groove in the rear upright bar of the gate, which steadies the block when the gate is being raised or lowered. I is a pintle-bar, of tough, hard wood, spiked or bolted onto the face of the rear gate-post A.

Fig. 4 is a cross-section of the pintle-bar, the grooves being next to the post. These grooves receive the ends of the bars N, holding them in place, and are shaped so as to suit the curve described by the bars as the gate is opened and closed.

D D are light rods of iron, called suspension-arms, fitting in the head-block C near the rear edge, and extending thence diagonally to where they engage with the gate on the upright M, the front edges of which are suitably beveled. H is a drop, designed to prop the gate open. F F are latch-bars.

It will be seen that the gate is held up by the suspension-arms D D, and steadied at the bottom by the bars N. The rear part of the gate, being the heavier, freely slides down between the arms D D till it bears against the block C, which tightens the gripe of the arms and prevents it sinking further. The acute angle of the arms when inserted in the head-block, and the weight of the gate upon them, causes them to be drawn firmly against the sides of the block C, and their connection being near the rear edge, they act like a band, effectually securing the block against being split by the weight of the said gate.

Fig. 2 is a modification of my iron head-block C and pintle. O is a web connecting two sides of the block, and is about three and one-half inches long by three inches in width and three-fourths of an inch thick. In the center of this web, and extending about one-half way down, is the projection *p*, which is cup-shaped at the bottom to suit the point *q*, being a cast-iron pintle with the shank *r*, to be inserted into a post at an angle of thirty degrees downward to the dovetailed shoulders, as seen to the left-hand side of the letter *r*. On each side of the web O the sides of the block C extend about three-fourths of an inch in front and rear of it. The front projections form a recess in which the rear of the gate is steadied, while the rear projections form a base, into which holes are made for connecting the iron arms D, as seen in the same figure. The iron pintle, as seen to the right in Fig. 2, is also shown in Fig. 5 on a smaller scale, designed for a small garden-gate. The shank *r* is to be driven in a suitable hole till the dovetailed shoulders to the right bed or interlock with the wood of the post, which leaves the point *q* in a perpendicular position.

It will be readily seen that the pintle thus diagonally inserted cannot be withdrawn by the weight of the gate, which only increases its adhesion to the post.

p is the cup-shaped projection described in Fig. 2, having a shank formed to the right, which is to be inserted in the rear upright of the gate at an exact reversed angle to the shank *r* in the post.

I will only add that the gate opens both ways and closes automatically, is a snow-gate, and cannot droop at the point, and can be constructed at one-half the cost of any other rotating gate without the use of the suspension-arms.

The post shown in Fig. 3, Sheet 1, and fence exhibited in Fig. 5, Sheet 2, were specially designed by me for the gate herein described,

and I reserve the right to secure them in a future application.

I claim as my invention—

The head-block C, or its equivalent, pivoted upon the pintle I, and provided with suspension-rods D D, as described, in combination with the stud M of a gate having lower rails, with projecting ends to fit upon the said pintle I, substantially as and for the purpose specified.

ROBERT HENRY HUDGIN.

Witnesses:

ALMER A. ALLEN,

J. H. LONG.