

(No Model.)

2 Sheets—Sheet 1.

E. H. R. EVANS.
GATE

No. 557,305.

Patented Mar. 31, 1896.

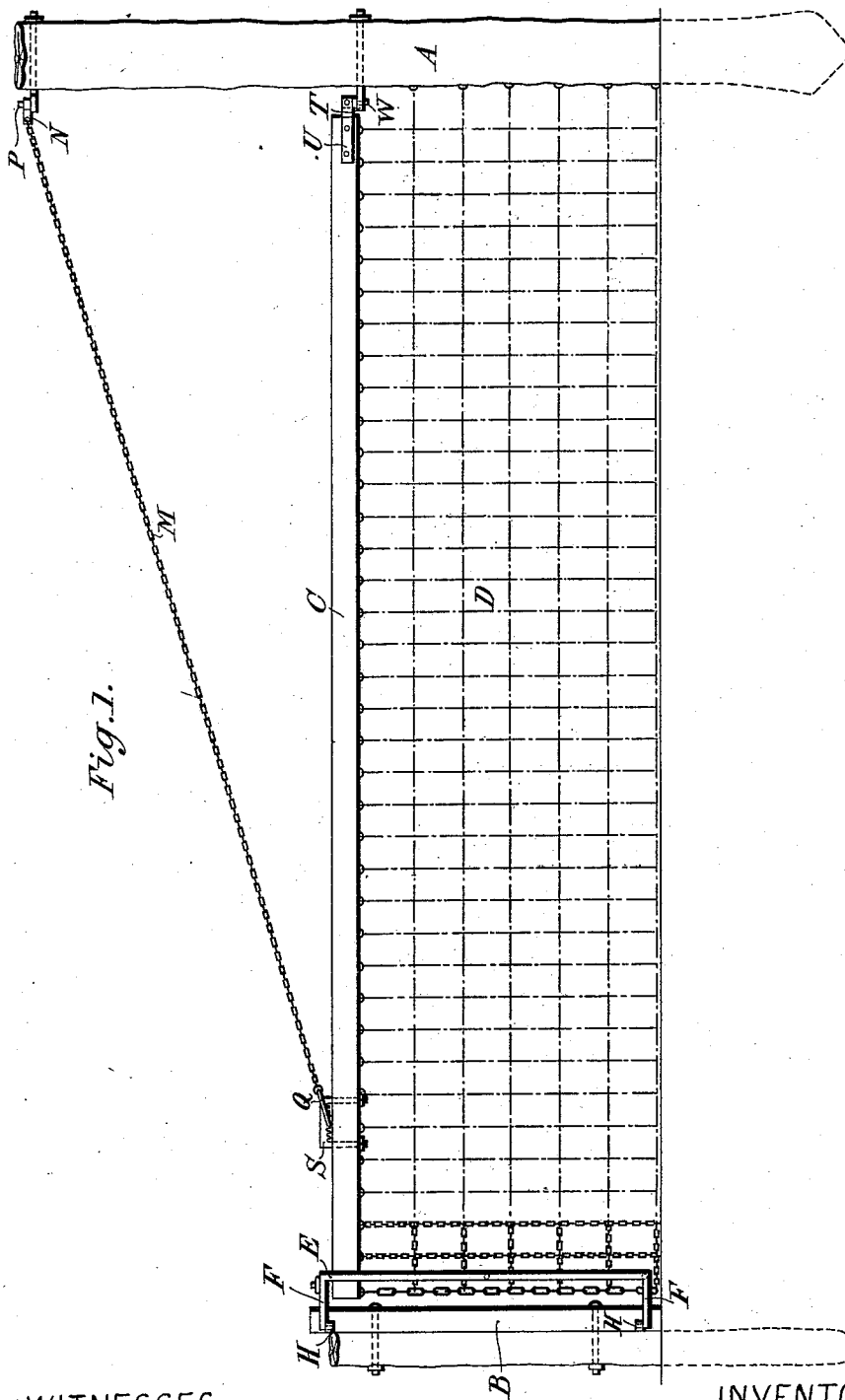


Fig. 1.

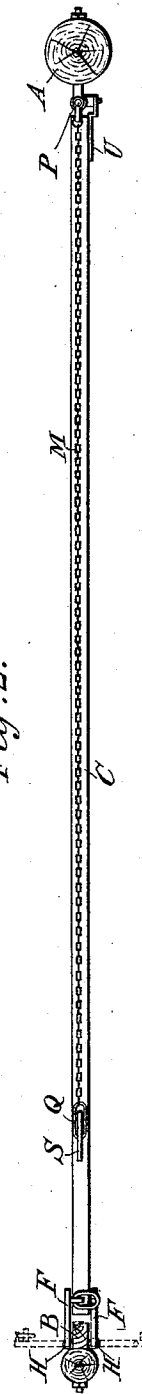


Fig. 2.

WITNESSES:

C. K. Fraser.
Thomas F. Wallace

INVENTOR:

Edgar Howell Rex Evans,
By his Attorney,
Julius C. Jones, 1896

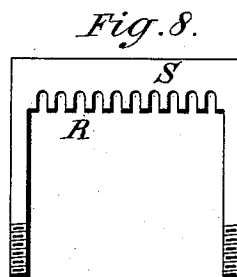
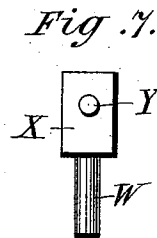
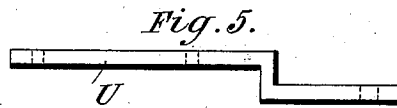
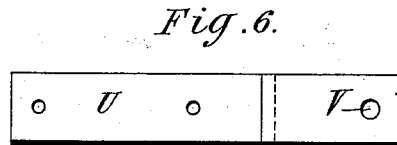
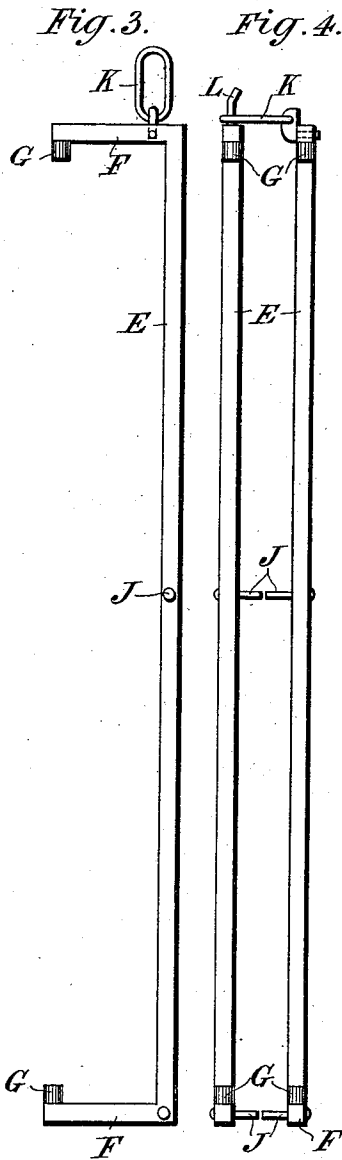
(No Model.)

2 Sheets—Sheet 2.

E. H. R. EVANS.
GATE.

No. 557,305.

Patented Mar. 31, 1896.



WITNESSES:

C. K. Fraser.
Thomas F. Wallace

INVENTOR:

Edgar Howell Rex Evans,
By his Attorney,
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UNITED STATES PATENT OFFICE.

EDGAR HOWELL REX EVANS, OF MELROSE, CAPE COLONY.

GATE.

SPECIFICATION forming part of Letters Patent No. 557,305, dated March 31, 1896.

Application filed August 10, 1895. Serial No. 558,808. (No model.) Patented in Cape Colony March 25, 1895, No. 1,002.

To all whom it may concern:

Be it known that I, EDGAR HOWELL REX EVANS, of Melrose, District of Bedford, Cape Colony, have invented certain new and useful Improvements in and Connected with Gates, of which the following is a specification.

This invention has been patented in Cape Colony, No. 1,002, dated March 25, 1895.

This invention has reference to gates; and its object is to construct a strong, durable and efficient gate without the usual four-cornered rigid and bolted or mortised framework which exists in gates as hitherto generally constructed.

The invention consists, first, of a flexible gate-body in combination with a horizontal bar or beam, from which said flexible body depends or is suspended; also, in the combination, with a flexible gate-body and a horizontal bar or beam, from which said flexible body depends or is suspended, of locking-bars movable in a horizontal plane, so as to lock the gate when in the closed position and to unlock the same when required.

The invention also comprises other improvements, which will be understood from the description hereinafter given.

In the accompanying drawings, Figure 1 is a front elevation of a gate constructed in accordance with this invention. Fig. 2 is a plan of the same. Fig. 3 is a side elevation of one of the locking-bars. Fig. 4 is an elevation of the inside face of the two locking-bars in the closed position. Figs. 5 and 6 are respectively a top view and a front view of the strap of the hinge of the gate. Fig. 7 is an elevation of the pintle of the said hinge. Fig. 8 is a front elevation of the regulating-plate S. Figs. 3 to 8 are drawn to a larger scale than Figs. 1 and 2.

Referring to the drawings, A is the hinge-post, and B is the latch-post. These posts may be made of any suitable wood, as indicated, or of metal, solid or hollow.

C is a horizontal bar or beam forming the carrier of the gate-body.

D is the gate-body, which is made flexible and depends from the carrier-bar C, to which it is securely connected. The gate-body may be made of any suitable material and in any suitable way which will insure the required flexibility and strength, and it is obvious that

its construction may be modified in various ways. The preferred construction is a barless, slatless, reticulated body, flexible in all directions, as is that shown in the drawings, which consists of vertical chains set a few inches apart and secured at their upper ends by staples or other like devices to the bar C, and of horizontal chains also set a few inches apart and secured to the vertical chains by wire fastenings or otherwise at the places where they cross them. The horizontal chains are secured at one end to the hinge-post A by staples or otherwise. The vertical chain nearest the latch-post is preferably made larger and heavier than the other flexible chains, so as to steady the flexible body at the latch-post end.

Instead of chains, as shown, the flexible body D may be made of metal rings, squares, triangles, or other figures, joined together so as to make a flexible reticulated structure.

E E are two vertical locking-bars hinged, respectively, to opposite sides of the latch-post B by means of top and bottom horizontal arms F F and pintles G G, which latter engage with gudgeons H H on said latch-post. These bars can, as required, be made either to close against and clasp the nose of the bar C between them, as seen in full lines in Figs. 1 and 2, or to unclasp from the nose and open out into the position shown in dotted lines in Fig. 2. The bars E E have teeth or pins J J, which in the closed position of the bars pass behind the end vertical chain of the flexible body and prevent it from being pushed aside or open by animals trying to get through, and thus securely hold the dangling end or edge of the flexible body. The two bars E E can be secured together in their closed position in any suitable way. The drawings show them as secured by a loop K on the top of the one bar engaging with a pin L on the other bar.

M is a chain which serves to support the carrier-bar C and flexible gate-body D. The upper end of this chain has an eye N engaging with a hinge-pintle P fixed to the hinge-post A, which is made sufficiently high for the purpose. The lower end of the chain has a long link Q, which engages with one or other of a number of notches R in a plate S fixed to the carrier-bar C. This plate S serves to regulate or adjust the position of the bar C.

Should this bar drop or sink a little in course of time, it can be restored to position by simply shifting the link Q in the notches R a little nearer to the latch end of the bar C.

5 In addition to the hinge formed by the eye N and pintle P already described the carrier-bar is hinged directly to a gudgeon T on the post A, and the construction of this hinge is such that it permits, in addition to the ordinary hinge movement in a horizontal plane, a movement in a vertical plane, so that in case the chain M should break, the hinge on the carrier-bar C will not be broken by the downward wrench caused by the falling bar C, but will permit the bar to drop its nose on the ground without any strain on the hinge. For this purpose the hinge is constructed as follows: To the carrier-bar C is fixed a strap U having a horizontal hole V, Figs. 5 and 6: 20 The pintle W, Fig. 7, which engages with the gudgeon T, is formed with a part X, in which is a hole Y corresponding with the said hole V in the strap U. The pintle W and strap U are secured together by a pin passed through the holes V and Y, and this pin serves as an axis for the carrier-bar C to turn upon in a vertical plane in case of need.

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

30 1. In a gate, the combination of a horizontal bar and a flexible gate-body suspended from said bar, consisting of a number of vertical and horizontal chains crossing each other and connected together at their crossing-points, substantially as set forth.

35 2. In a gate, the combination with a horizontal bar and a flexible gate-body suspended from said bar as set forth, of two vertical locking-bars hinged respectively to opposite sides of the latch-post and movable in a horizontal plane to lock the gate when they are in the closed position, and to unlock the gate when they are in the open position, substantially as set forth.

45 3. In a gate, the combination with a hinge-post, of a horizontal bar carried thereby, and a barless, slatless, reticulated gate-body, flexible in all directions, suspended from said bar and connected with the hinge-post, said bar and said reticulated body moving on said hinge-post in an approximately horizontal plane as the gate opens and shuts, substantially as set forth.

50 4. In a gate, the combination with a hinge-post, of a horizontal bar, and a flexible gate-body, consisting of vertical and horizontal flexible strands, suspended from said bar and

connected with the hinge-post, said bar and said flexible body moving on said hinge-post in an approximately horizontal plane as the gate opens and shuts, substantially as set forth. 60

5. In a gate, a flexible body consisting of a series of flexible strands extending in one direction, and another series of flexible strands extending in another direction angular to the direction of extension of said first series, the strands of one series connected to those of the other series at their crossing-points, and a stiff longitudinal member extending from end to end of and carrying said series of strands and holding them in position and distended, and means carrying said body throughout the movements of the gate and holding it in position. 75

6. In a gate, the combination with a horizontal bar, of a flexible gate-body consisting of two angularly-disposed series of flexible strands crossing, and intermeshing, suspended from said bar and movable therewith, and means holding said body in position when the gate is closed. 80

7. In gates, a hinge-post, in combination with a gate swinging horizontally, and having a top bar pivotally connected to the post, and a flexible body depending from said bar and connected at its portion adjacent to said post to the latter below said bar, whereby when said bar swings on its pivotal connection said body can flex beneath said connection to permit its movement with the bar. 90

8. In a gate, a substantially horizontal and movable top bar and a flexible body depending therefrom and moving therewith, in combination with means engaging the lower portion of said flexible body and limiting flexure thereof when the gate is closed. 95

9. In a gate, a hinge-post and a latch-post, in combination with a substantially horizontal top bar and a flexible gate-body depending from the latter between said posts, means movably connecting said bar and body to said hinge-post, and latch provisions holding said bar to said latch-post, and holding the lower portion of said flexible body against flexure below said bar. 105

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

EDGAR HOWELL REX EVANS.

Witnesses:

JOHN SIMPSON,
H. R. MURRAY.