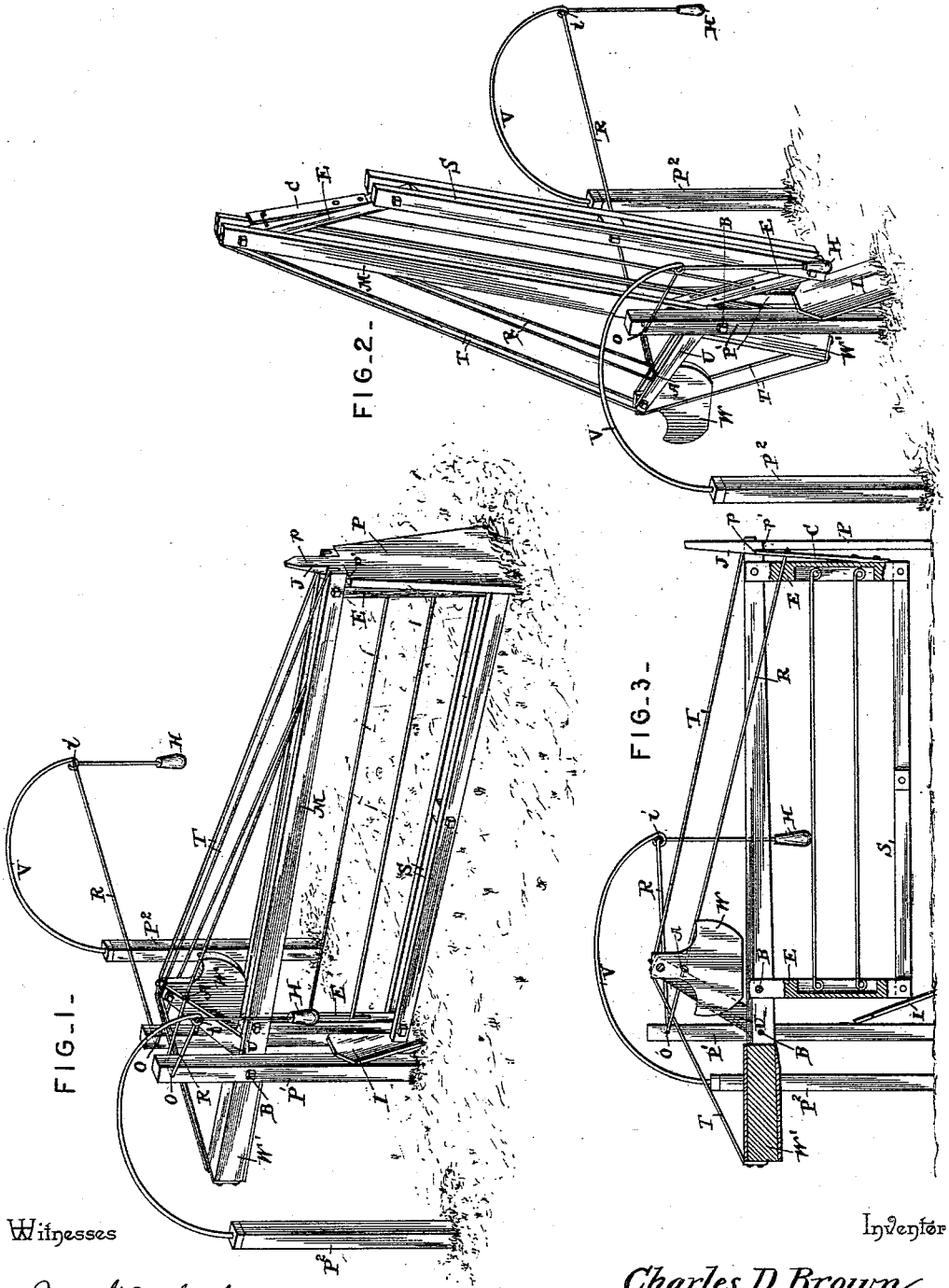
(No Model.)

C. D. BROWN.

GATE.

No. 457,701. Patented Aug. 11, 1891.



Witnesses

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CHARLES D. BROWN, OF AMES, IOWA.

GATE.

SPECIFICATION forming part of Letters Patent No. 457,701, dated August 11, 1891.

Application filed December 30, 1890. Serial No. 376,282. (No model.)

To all whom it may concern:

Be it known that I, CHARLES D. BROWN, a citizen of the United States, residing at Ames, in the county of Story and State of Iowa, have invented a new and useful Gate, of which the following is a specification.

This invention relates to gates; and the object of the same is to effect improvements thereon.

To this end the invention consists of a gate constructed as hereinafter more fully described and claimed, and as illustrated on the sheet of drawings, wherein—

Figure 1 is a perspective view of this gate closed. Fig. 2 is a similar view of the same open. Fig. 3 is a central longitudinal section showing the gate closed.

Referring to the said drawings, the letter P designates the latch-post, P′ P′ the supporting-posts, and P^2 P^2 other posts located at one side of the roadway considerably remote from the gate. Between the supporting-posts on a main bolt B is pivoted the main bar M, which extends along the top of the gate, as shown. Rising from this bar at its pivotal point and extending slightly forward therefrom is a pair of uprights U, between whose upper ends is pivoted a weight W. The main bar M is preferably composed of two members, as seen in Fig. 1, connected at suitable points and having a heavy weight W′ at their rear ends, and truss-wires T extend from said rear ends over the upper ends of the uprights to the front ends of said members. These truss-wires are preferably used where the main bar is of considerable length, although they are not absolutely essential; but they are obviously for the purpose of preventing the bending of said main bar.

The gate proper comprises end bars E, pivoted at their upper ends between and depending from the members of the main bar, the lower ends of which end bars are pivotally connected by a lower bar S. The end bars may also be connected pivotally by plain or barbed wires or panels. An inclined block I is located at the base of the supporting-posts, which when the gate is open is struck by the weight W′, Fig. 2, and down whose front face the inner end of the sill S slides as the gate is closed. This block also prevents the swinging of the gate between the supporting-posts, which might occur if an animal pushed his nose between the outer end bar and the latch-post. The upper end of the latch-post is reduced, as at *p*, forming shoulders, as at *p′*, Fig. 1, and upon these shoulders rest the outer ends of the members of the main bar when the gate is closed. Upon the inner face of the extension *p*, just mentioned, is located a wedge J, having a flat lower end, and secured to the outer end bar is a spring-catch C, whose upper end springs normally outward and engages this wedge when the gate is closed. Although this is the form of latch I preferably use, experience may teach me that some other form of latch which will operate in substantially the same way will be cheaper, more durable, or less likely to get out of order, to the detriment of the successful operation of the gate as a whole.

The posts P^2 are located along the side of the roadway remote from the gate, and from the upper end of each post rises a curved rod V, having an eye *i* in its free end. H is a handle, preferably slightly weighted, from which leads a rope R through said eye, through a smooth opening O in the upper end of the nearest supporting-post, through a staple A in the nearest upright, and through a hole in the outer end bar E to the upper end of the catch C. A similar rope is arranged at the other side of the gate, and which is not seen in Fig. 3.

Although I have not illustrated it, it will be understood that there may be more than one of the remote posts P^2 at each side of the gate, all carrying rods V, having eyes *i*, and the ropes R may be led through these eyes to points considerably distant from the gate, in order that the latter may be opened by the driver of several horses or pairs hitched tandem and traveling forward of the driver.

In operation, the gate being closed and a team approaching, the driver draws sharply downward on the nearest handle H. This motion imparts tension to the nearest rope R, disengages the catch C from the wedge J, and then raises the gate about its pivot-bolt B to the position shown in Fig. 2. The team then passes through, and the driver pulls upon the handle H at that side of the gate. This motion draws upon the other rope R;

but as the uprights U have passed between the upper ends of the posts P′, the rope R, when pulled upon, draws these uprights forwardly and causes the gate to fall. As it does so the catch C rides down the wedge J until the ends of the members of the main bar M strike upon the shoulders p' of the post P, when the upper end of the catch springs beneath the lower end of the latch and the gate is locked.

A gate of this character is very serviceable and ornamental and may be cheaply built at points where needed. The inclined block I serves an important function by guiding the sill as it slides down the same in the closing of the gate, thereby causing the folded gate to open as it descends; and by leading the ropes from the uprights U through the front end to the catch C the gate is caused to fold when it opens, as shown, and does not extend into the roadway when elevated.

What is claimed as new is—

1. In a gate, the combination, with the supporting-posts, a main bar consisting of two members mounted on a pivot-bolt between said posts, uprights rising from said main bar and extending obliquely forward from its pivot and having staples, and a gate having a spring-operated catch on its front end bar, of ropes leading from remote points through eyes in the upper ends of the supporting-posts and through said staples to the catch, a latch-post having a reduced upper end providing shoulders upon which the free ends of said members rest when the gate is closed, and a wedge upon the reduced portion of said latch-post with which said catch engages, substantially as described.

2. In a gate, the combination, with the supporting-posts, a main bar mounted on a pivot-bolt between said posts, uprights rising from said main bar and extending obliquely forward and having staples, and a gate having a spring-operated catch on its front end bar, of ropes leading from remote points through the upper ends of the supporting-posts and through said staples to the catch, a latch-post, and a wedge with which said catch engages, substantially as described.

3. In a gate, the combination, with the supporting-posts, an inclined block at the base thereof, and a latch-post, of a main bar pivoted between said supporting-posts and engaging said latch-post when the gate is closed, a swinging gate depending from said main bar and resting against the face of said block when the gate is closed, the rear end of said main bar extending beyond its pivot being provided with a counterbalancing-weight and engaging the rear side of said block when the gate is opened, forwardly-inclined uprights rising from said main bar, a swinging weight pivoted between their upper ends, and means for raising and lowering the gate, all substantially as hereinbefore described.

4. In a gate, the supporting-posts, the gate proper hinged at the inner upper corner to the posts, said gate being composed of pivoted panels or bars, which are adapted to be contracted or extended by contact with a part of the supporting-posts in raising or lowering the gate, and a pivoted pendulum-weight W, pivoted in advance of the pivot-point of the gate, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CHARLES D. BROWN.

Witnesses:
A. M. BINGMAN,
M. HEMSTREET.