C. B. STEVENS.

GATE.

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905,603. Patented Dec. 1, 1908.

Fig. 1

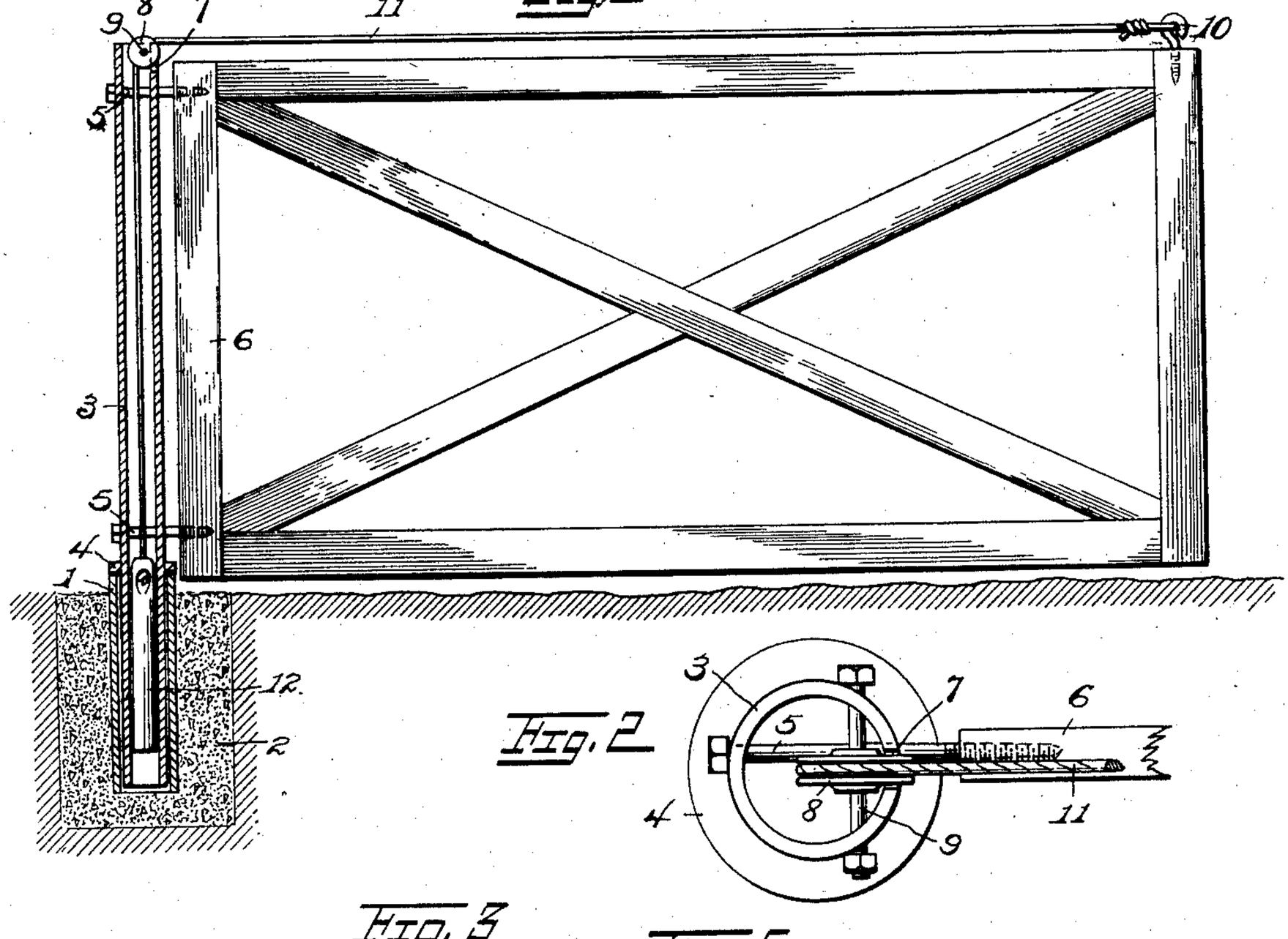


Fig. 2

Fig. 3

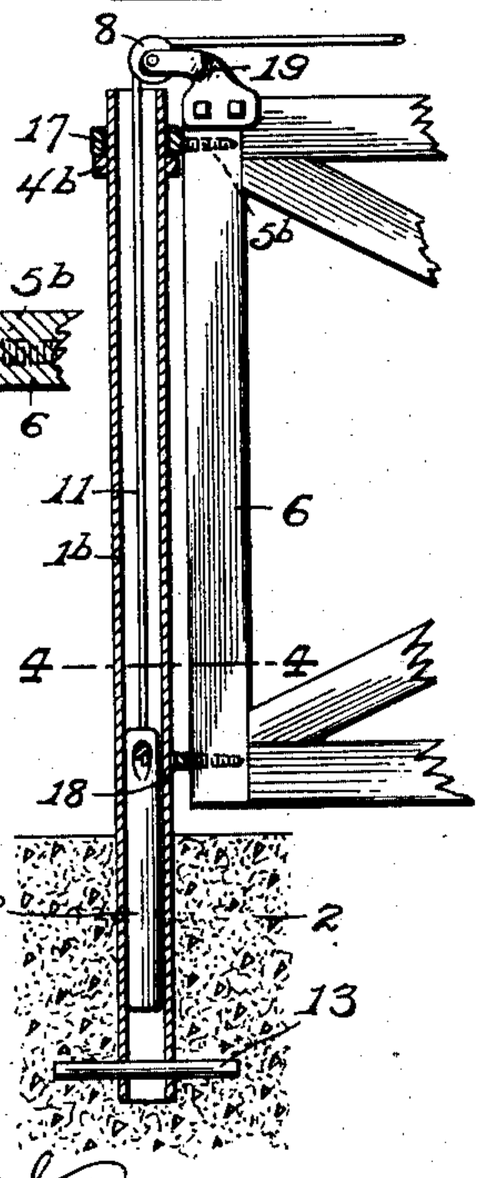


Fig. 4

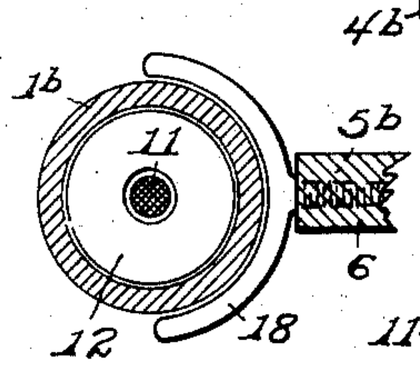


Fig. 5

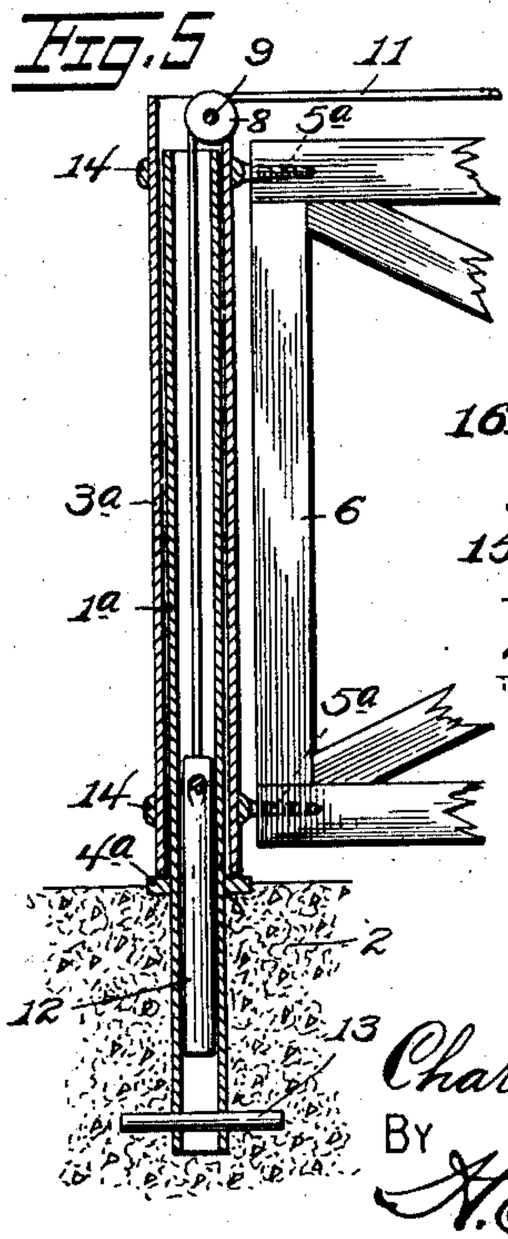
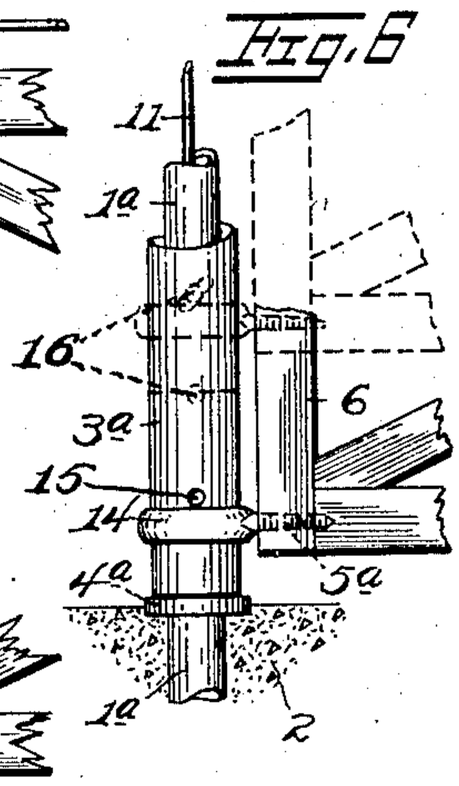


Fig. 6



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UNITED STATES PATENT OFFICE.

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GATE.

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Application filed January 13, 1908. Serial No. 410,526.

To all whom it may concern:

Be it known that I, CHARLES B. STEVENS, a citizen of the United States of America, and resident of Cumberland, county of Guernsey, and State of Ohio, have invented certain new and useful Improvements in Gates, of which the following is a specification.

This invention relates to improvements in gates, and more particularly to a gate-post, and still more particularly to a post which is especially adapted for supporting farm, or other heavy, gates.

The objects of the invention are to provide an improved supporting post for gates and connections between said post and the gate whereby the latter is permitted to move in either direction; to provide a gate-post of the pivot type which is strong, durable and extremely simple in its construction, and which is consequently but little liable to become out of order; and to provide a gate-post and a mounting therefor which admits of easy swinging of the gate.

With these and other objects in view, all of which will hereinafter be made apparent, the invention finally consists in the particular construction, arrangement and combination of parts which will hereinafter be fully described, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a vertical sectional view of the gate-post, showing a gate mounted thereon; Fig. 2 is an enlarged upper end view of said post; Fig. 3 is a vertical sectional view of a modified form of post; Fig. 4 is an enlarged horizontal section of the same, taken on the line 4—4, Fig. 3; Fig. 5 is a vertical sectional view of another modified form of post; and Fig. 6 is a side elevation of the lower part of the post shown in Fig. 5.

In said drawing, like reference characters designate like parts throughout the several views.

Referring first to Figs. 1 and 2, the numeral 1 indicates a tube which is fixed preferably in a concrete bed or base 2 located in the ground and which has its upper end projecting above the surface or ground level. Rotatably mounted in said tube 1 is the lower end of an upright tubular post 3 which has fixed thereon, as by shrinking, a collar 4 which forms a rotating seat for resting upon the upper end of said tube 1, supporting said post. Projected through the post 3 at points laterally of the center thereof are bolts or screws 5 whose points are in supporting engagement with the rear end of a gate 6. A slot 7 is cut in the upper end of the post on the side adjacent to the gate, and in this slot operates a pulley 8 which is rotatable upon a bolt or pin 9 projected through said post laterally of its center. Passed over said pulley and having its front end attached to an eye-bolt 10 located upon the top of the front end of the gate is a cable 11 whose opposite end depends within said tubular post 3 and has suspended therefrom a weight 12. As is obvious, sagging of the front end of the gate is prevented by the employment of the weighted cable, the weights serving to partially balance said front end.

In Figs. 5 and 6, the relative positions of the post and tube are substantially reversed, a tubular post 1^a being fixed in the concrete bed or base and preferably having an anchor-pin 13 projected horizontally therethrough, said post having fixed thereon above the ground level a collar 4^a which serves as a base upon which rotates the lower end of a tubular post 3^a inclosing the body of said post 1^a. Said post 1^a terminates at its upper end below the top of the post 3^a, admitting of the employment of the pulley in the top of the latter, while the weight carried by the cable lies within the former. In this construction, collars 14 fixed about the pipe 3^a are carried by the outer ends of the gate-supporting bolts 5^a. Provided at an appropriate point in the post 3^a is a hole 15 which is adapted to be brought into register with one or more similar holes 16 appropriately located in the post 1^a when the gate is raised or elevated. Said holes, when in register, are adapted for receiving therein a pin, bolt, or like device, whereby the gate may be located at a height above the ground which will admit of the passage of hogs, sheep, and the like thereunder.

In the modification illustrated in Fig. 3, but one post 1^b is employed, said post being stationary or fixed in the concrete bed or base, and the gate is so mounted as to rotate thereon. A fixed collar 4^b located on said post at a suitable point adjacent to the upper end of the latter serves as a base upon which rotates a loose collar 17 encircling said post and carried on the outer end of a gate-supporting bolt 5^b. A second rotatable collar similar to the collar 17 may be employed at the lower part of the gate, but instead, a substantially semicircular post-embracing

yoke 18, as shown in Fig. 4 is preferably employed. In this construction, since the post is not rotatable, the pulley is not located upon the top of the post but is carried by a bracket 19 mounted upon the upper part of the rear end of the gate, said bracket supporting said pulley over the top of said post so that the weight suspended from the cable will lie within said post.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a gate, of a tubular post, gate-supporting means carried by said post, a pulley located at the top of said post and laterally of the center thereof, a cable having one end attached to the free end of the gate passing over said pulley, and a weight suspended within said post from the opposite end of the cable.

2. The combination with a gate, of a tubular post fixed in the ground, a tubular post in rotating engagement with said fixed post, a bearing-collar on which said rotatable post rotates, gate-supporting means carried by the rotatable post, a pin projected through the upper end of said rotatable post, a pulley on said pin, a cable passed over said pulley and having one end attached to the free end of the gate, and a weight suspended within said rotatable post from the other end of said cable.

3. The combination with a gate, of a tubular post fixed in the ground, a tubular post in rotating engagement with said fixed post, a bearing-collar on which said rotatable post rotates, gate-supporting means carried by the rotatable post, a pin projected through the upper end of said rotatable post laterally of the center thereof, a pulley rotatable on said pin, a cable passed over said pulley, said cable being attached at one end to the top of the free end of the gate, and a weight suspended within said rotatable post from the other end of said cable.

4. The combination with a gate, of a tubular post fixed in the ground, a tubular post in rotating engagement with said fixed post, a bearing-collar on which said rotatable post rotates, gate-supporting means carried by the rotatable post, said post having a slot in the upper end thereof on the side adjacent to the gate, a pulley journaled in the top of said post and partially lying within said slot, a cable passed over said pulley and having one end attached to the free end of the gate, and a vertically-movable weight suspended within said rotatable post from the opposite end of said cable.

5. In combination with a gate, a hollow supporting element, means to support said gate from said element, a vertically disposed pulley arranged adjacent the top end of said element so as to have a part of its periphery to extend adjacent the central portion of said hollow element, a weight on the interior of said hollow element, and a cable connected at one end to said weight, passing over said pulley and being connected to said gate at a point adjacent the free end of the latter.

6. In combination with a gate, a short tubular post rigidly fixed in the ground and projecting above the surface thereof, a hollow element rotatably received at its lower end in said tubular post, a collar rigidly secured to said hollow element and rotating on the upper end of said post, means to support said gate from said hollow element, a weight movable vertically in said hollow element, a cable connected to said weight and to the gate and means to guide said cable disposed at the upper end of said hollow element.

7. The combination with a gate, of a tube fixed in the ground and projecting thereabove, a tubular post rotatably held in said fixed tube and having its lower end projecting downwardly for a considerable distance within the fixed tube, a collar fixed upon said tubular post and constituting a rotating seat for resting upon the top of the projecting end of the fixed tube, and bolts projected through said post into the gate.

8. The combination with a gate, of a tube fixed in the ground and projecting thereabove, a tubular post rotatably held in said fixed tube, a collar fixed upon and constituting a rotating seat for resting upon the top of the projecting end of the fixed tube, bolts projected through said post laterally of the center thereof and having their points fixed in the rear end of the gate for supporting the latter, a pulley mounted in the top of said post, a cable passed over said pulley and connected at one end to the front end of the gate, and a weight suspended within said post from the opposite end of said cable.

9. The combination with a gate, of a tube fixed in the ground and projecting thereabove, a tubular post rotatably held in said fixed tube, a collar fixed upon and constituting a rotating seat for resting upon the top of the projecting end of the fixed tube, bolts projected through said post laterally of the center thereof and having their points fixed in the rear end of the gate for supporting the latter, said post having a slot in its top on the side adjacent to the gate, a pulley mounted in said slot, a cable passed over said pulley and connected at one end to the front end of the gate, and a weight suspended within said post from the opposite end of said cable.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

CHARLES B. STEVENS.

Witnesses:
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E. A. LENKARD.