C. COLEMAN.

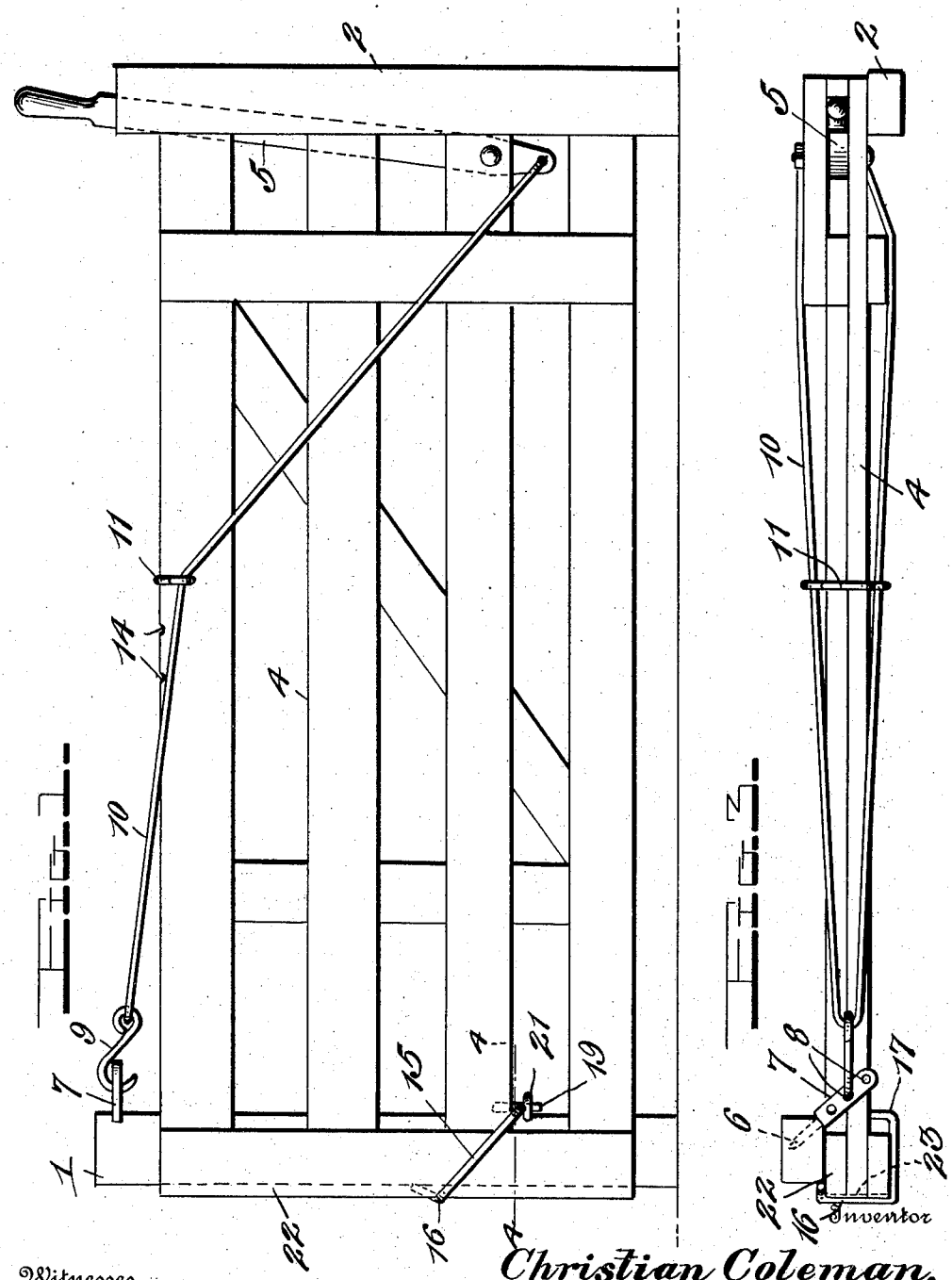
GATE.

APPLICATION FILED JULY 5, 1911.

1,025,370.

Patented May 7, 1912.

2 SHEETS—SHEET 1.



Witnesses

Chas. L. Griebauer.

L. G. Ellis

Inventor

Christian Coleman,

By Watson E. Coleman.

Attorney

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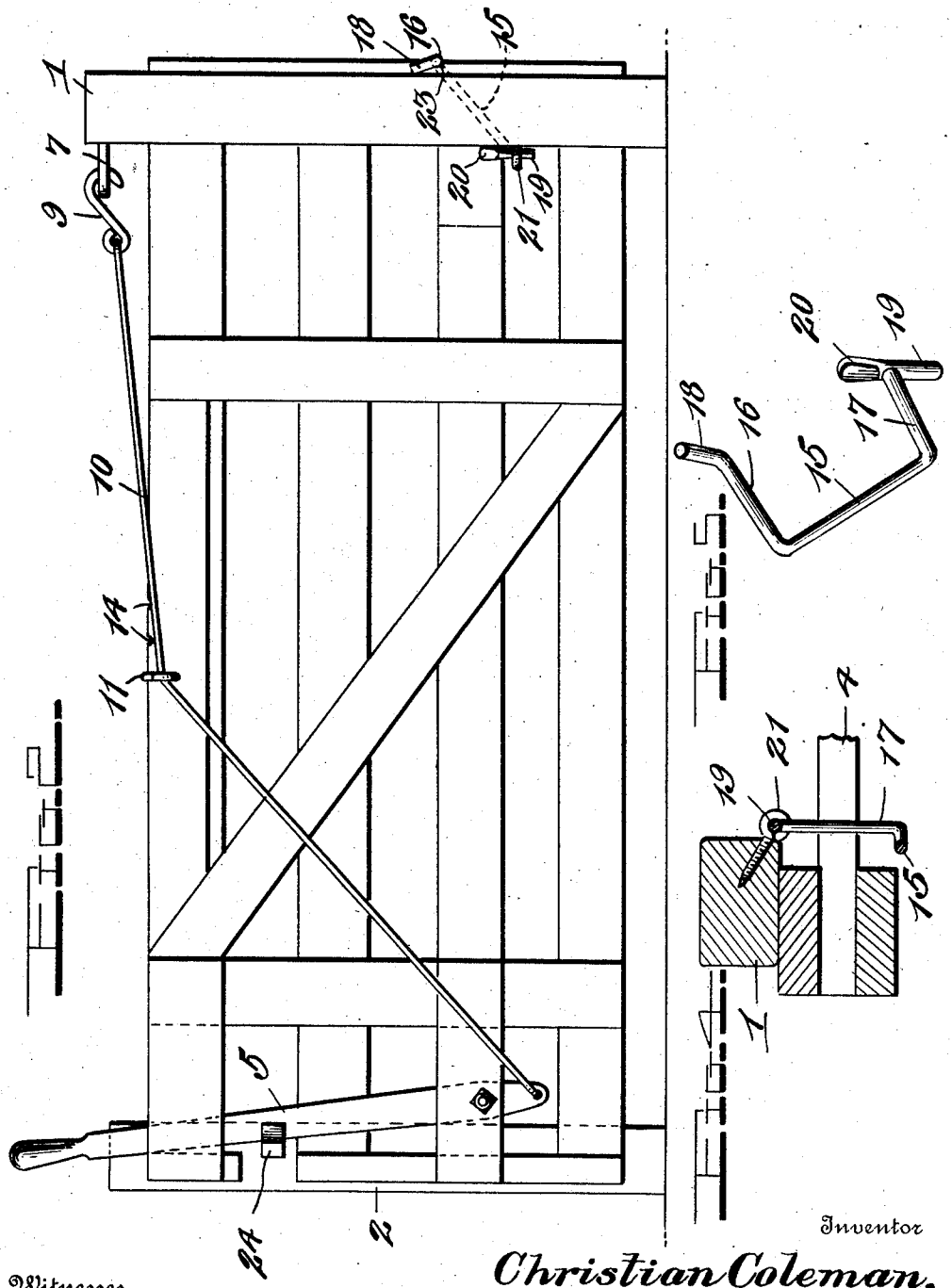

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UNITED STATES PATENT OFFICE.

CHRISTIAN COLEMAN, OF REEDY, WEST VIRGINIA.

GATE.

1,025,370. Specification of Letters Patent. Patented May 7, 1912.

Application filed July 5, 1911. Serial No. 636,842.

To all whom it may concern:

Be it known that I, CHRISTIAN COLEMAN, a citizen of the United States, residing at Reedy, in the county of Roane and State of West Virginia, have invented certain new and useful Improvements in Gates, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to new and useful improvements in swinging gates and my object is to so improve the gate of this character as to simplify the construction, lessen the amount of material used and increase the strength and durability, cheapen the cost and provide a construction which will give the greatest convenience.

A further object of this invention resides in the provision of an improved hinge mechanism for a gate.

With these and other objects in view, my invention consists in the novel features of construction, combination and arrangement of parts as will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawings forming a part of this application, Figure 1 is a side elevation of the gate. Fig. 2 is an opposite side elevation thereof. Fig. 3 is a top plan view. Fig. 4 is a horizontal section as seen on line 4—4, Fig. 1, and Fig. 5 is a detail perspective of my improved form of hinge.

In carrying out my invention, I shall refer to the drawings in which similar reference characters designate corresponding parts throughout the several views and in which 1 and 2 indicate, respectively, a pair of posts secured in the ground in the usual or any desired manner, and adapted to swing between said posts, is the gate 4. This gate comprises a plurality of vertical and horizontal strips of any desired material, preferably wood, and fulcrumed to one of the horizontal strips adjacent one end thereof, is a lever or the like 5.

Extending through a corner of the post 1 so as to be disposed at an angle to the vertical plane thereof, is a bolt 6 having an elongated flat head 7 thereon, which head is provided with a plurality of openings 8. These openings 8 are adapted to receive in engagement therewith, one end of a compound hook 9, while the opposite end of said hook receives the ends of an endless suspension wire 10, the strands of said endless wire 10 extending on opposite sides of the gate 4 and passing through an opening in the lower end of said lever 5. The strands of the suspension wire 10 are intercepted by the arms of the movable clevis member 11, said member being slidably mounted on the upper of the horizontal strips of the gate and adapted to rest in grooves or channels 14 therein. This suspension wire 10 and the parts to which it is attached, form a means of suspension for the gate between the posts, and in order to provide a hinge whereby the gate may swing between said posts, the U-shaped member 15 is provided, upon the free ends of the arms 16 and 17 of which are formed the angularly bent projections or lugs 18 and 19, respectively. These projections 18 and 19 extend at an oblique angle to the plane of the arms 16 and 17, and the projection or extension 19, which extends on both sides of the arm 17, thereby differentiating from the extension 18 which only extends to one side of its respective arm, has the portion thereof on one side of said arm 17 flattened, as shown at 20, the purpose of which will be hereinafter and more particularly described. The post 1 has also mounted therein, an eye bolt 21 which is disposed in alinement with the bolt 7, and in applying this improved hinge to use, said member 15 is first applied to the vertical bars 22 at the end opposite that carrying the lever 5, so that the same partly encircles said bars, and the arms 17 thereof is disposed immediately below the under or lower edge of one of the horizontal bars or strips of the gate, this horizontal bar being preferably near the lower edge of the gate proper. The length of the arms 16 and 17 is substantially equal to the thickness of the gate from the outer face of one of said vertical bars 22 to the outer face of the other, and in applying the gate to the post, the lower portion of the projection or extension 19 on the arm 17 is disposed in the eye of the bolt 21. In this position, the arm 17 will engage the under face of one of the vertical bars under which it is disposed, the base portion of the substantially inverted U-shaped member 15 will be disposed at an oblique angle across the front face of one of the vertical bars 22, as shown in Fig. 1,

the arm 16 will be disposed across the outer edges of the bars 22, and the extension or lug 18 on the free end thereof, will engage the opposite face of the other vertical bar 22.

In order to retain the hinge or U-shaped member 15 in the position heretofore described, a notch or channel 23 is provided on the outer edges of these bars 22 to receive the arm 16 therein, and when so positioned with the gate between the posts, as shown in Figs. 1, 2 and 3, said gate will swing readily therebetween. When the U-shaped member 15 has been properly positioned, as heretofore described, on the gate and in the eye bolt 21, the upper portion of the projection 19 will fit tightly against one face of the horizontal strip under which the arm 17 is disposed, whereby it will be seen wherein it is necessary to have that upper portion of said extension 19 flattened, as shown at 20, and thus, the member 15 may be termed a clamping hinge. The clamping hinge 15, it will be seen, supports the weight of the gate at its inner end, while the suspension wire 10 with its adjunctive parts, supports the outer or free end of the gate, and it will be seen that this suspension wire 10 also acts as a spring means for the lever 5, and mounted on the post 2, is a laterally disposed catch or the like 24 adapted to receive in engagement therewith, the lever 5 to lock the gate in its closed position. It will be seen that as the lever is brought into engagement with the outer end of said catch, the weight of the gate will be sufficient to cause the tension of the suspension wire on said lever to yield and allow the lever to be locked in said catch, and it will further be seen that by moving the clevis 11 which intercepts the suspension wire 10 toward the post 2, the tension of said wire 10 will be increased and the outer or free end of the gate will be slightly raised.

From the foregoing, it will be seen that I have provided an improved gate and hinge therefor which may be quickly and easily applied to use or removed when desired. It will further be seen that I have provided means whereby the gate may be locked upon the closing thereof and the closing will be automatic. Although I have stated that the free or outer end of the gate may be raised through the adjusting of the clevis in the notches or grooves in the upper face of the upper strip of the gate 4, it will also be seen that this free or outer end of the gate may be additionally raised through the adjusting of the hook 9 in the openings 8 of the bolt 6, and in this connection, it will be seen that when the gate is used on pens and the like for retaining animals therein, the same may be readily raised to allow certain of the animals to make their exit while others remain penned. Furthermore, it will be seen that I have provided an improved form of hinge which is of simple design, being formed of a single piece of metal which may be readily, quickly and effectively applied to use. Furthermore, it will be seen that the complete device is simple and durable in construction, inexpensive to manufacture, and one which will be of great convenience and effective in operation.

What I claim is:—

1. In a gate construction, the combination with a pair of spaced apart posts; of a gate proper adapted to swing therebetween, an eye bolt carried on one of said posts, a U-shaped member encircling one of the vertical end bars of said gate and provided with projections at the ends thereof, one of the projections being adapted to engage one face of the end bar and the other engage said eye bolt to form a hinge between said gate and post, and additional suspension means between the free end of the gate and the hinge post.

2. The combination with a pair of spaced apart posts, an eye bolt carried by one of said posts adjacent the bottom thereof, said bolt being disposed at an angle to the vertical plane of said posts; of a gate, a U-shaped member partially encircling the vertical end bar of said gate, said U-shaped member being provided with projections on its ends, one of the projections engaging one face of said end bar and the other of said projections being engaged in said eye bolt, and additional suspension means between the free end of the gate and the hinge post.

3. In a device of the class described, the combination with a support and a gate adapted to swing thereon, said gate having a notch formed on the inner end bar thereof; of an eye bolt carried on said support, a U-shaped member partially encircling said end bar of the gate and having one arm thereof entered in the notch of said end bar, projections formed on the free ends of the arms of said U member, one of said projections contacting with the one face of said end bar and the other engaged with said eye bolt to form a hinge between the gate and support, and additional suspension means between said support and the free end of said gate.

4. In a gate construction, the combination with a supporting post, said post being rectangular in cross section and having an eye bolt extending from one corner thereof; of a gate proper comprising vertical end bars and horizontal intermediate bars, a substantially U-shaped member partially encircling the end bar at one end of said gate and having one arm thereof disposed immediately below one of the intermediate bars of said gate, a projection formed on the last referred to arm of said U-shaped mem-

ber having a portion thereof loosely disposed within said eye bolt, an additional projection formed on the opposite arm of said member engaged with the one face of the adjacent end bar of the gate, and additional suspension means between said post and the free end of said gate.

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

CHRISTIAN COLEMAN.

Witnesses:
V. L. DOOLITTLE,
N. L. LEDSOME.