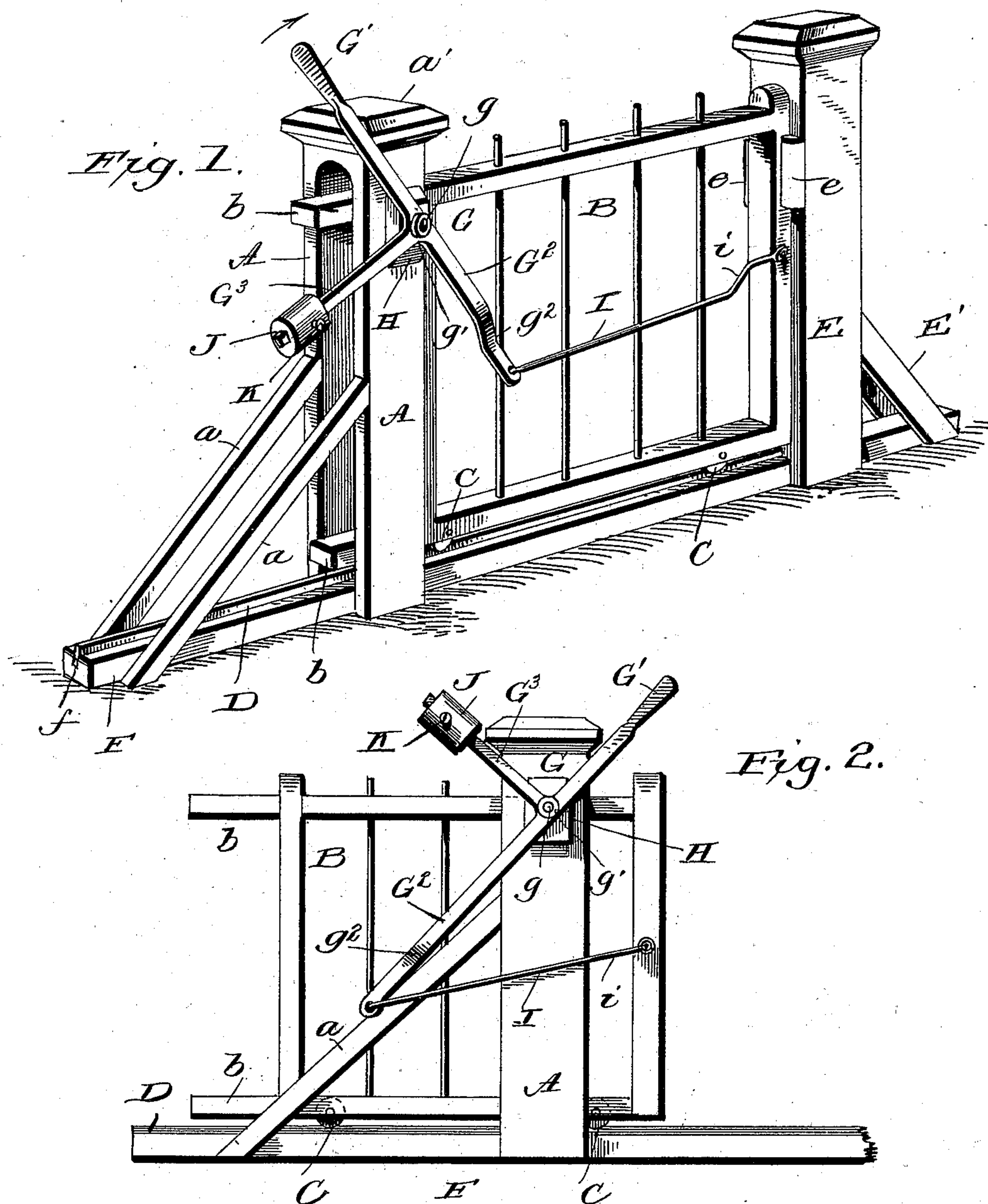


(No Model.)

C. ATWOOD.
GATE.

No. 560,674.

Patented May 26, 1896.



Witnesses:
L. C. Hills.
E. A. Bond

Inventor:
Carroll Atwood,
By Wm. Walker,
Atty.

UNITED STATES PATENT OFFICE.

CARROLL ATWOOD, OF ARKANSAS CITY, KANSAS.

GATE.

SPECIFICATION forming part of Letters Patent No. 560,674, dated May 26, 1896.

Application filed December 17, 1895. Serial No. 572,413. (No model.)

To all whom it may concern:

Be it known that I, CARROLL ATWOOD, a citizen of the United States, residing at Arkansas City, in the county of Cowley and State of Kansas, have invented certain new and useful Improvements in Gates; and I do declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in sliding gates; and it has for its objects, among others, to provide a simple and cheap yet durable gate mounted to slide upon rollers guided by a suitable track, and provided with operating means by which it may be readily opened and automatically locked or held in its open position, and so constructed as to permit of the automatic closing of the gate when the operating-lever has been moved a predetermined distance. I provide a three-armed lever pivoted at the junction of the three arms and one of the latter carrying a weight, the end of one of the other arms being connected with the gate, and the third serving as a handle for its manipulation.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention in this instance resides in the peculiar combinations and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of my improved gate shown in its closed position. Fig. 2 is a side elevation of the gate, showing the position of the parts when the gate is open.

Like letters of reference indicate like parts in both the views.

Referring now to the details of the drawings by letter, A designates a post suitably braced, as by the braces *a*, and formed with a passage-way A' therethrough for the passage of the gate. This post may be provided with a cap *a'* of any desired shape.

B is the gate, of any preferred construction, in this instance shown as formed of the wooden top and bottom rails, end stiles or uprights, and the metal pickets or rods held in the top and bottom rails, which latter project at one end, as seen at *b*, and extend within the passage of the post A when the gate is closed, as seen in Fig. 1. This gate is provided with the rollers C, journaled in the lower rail thereof and adapted to travel upon the track or guide D, as shown in both the views. This track or guide may be fixed in position in any suitable manner and extends through the passage-way in the post A and to the latch-post E, as shown. It is preferably formed of a piece of metal set on edge and held in a groove or kerf *f* in the timber F, as seen in Fig. 1. This makes a very cheap yet strong and efficient track or guide.

The latch-post should be suitably braced, as by the braces E', and is provided with the blocks *e*, between which the end stile of the gate is designed to be held when closed.

The gate is mounted to slide freely upon the track and is actuated by the following means: G is a three-armed lever pivotally mounted on the post A by a pivot *g*, passed through a hole in the said lever at the junction of the three arms thereof, the said pivot being held in the block H, secured to the post so as to throw the lever out a sufficient distance to enable it to clear the cap and post in its movements. A washer *g'* is provided between the head of the pivot and the lever, as shown. One arm of this lever constitutes the handle G', by means of which it may be manipulated. The arm G², extending in the same general direction from the opposite side of the pivot, is offset at *g*² to throw the free end inward, and this end has pivotally connected thereto the rod or link I, the other end of which is attached to the end stile of the gate, as shown, at about the mid-height thereof. This rod is offset at *i*, so that the main portion of the rod shall lie in a plane substantially parallel with the gate, so as to prevent any side

strain on the parts in operation. The arm G^3 extends at a right angle to the other arms of the lever and has slidingly mounted upon it a weight J, which may be adjusted thereon and held in its adjusted positions by a screw K, as shown.

From the foregoing description, when taken in connection with the annexed drawings, the operation will be readily understood. When the gate is closed, it is held with the parts in the position in which they are shown in Fig. 1, the weighted arm holding the arm G^2 and the rod I forward. When it is desired to open the gate, the handle G' is pushed in the direction of the arrow in Fig. 1, and but little power is required to open it. As soon as the handle has been moved so far that the parts assume the position in which they are shown in Fig. 2 the gate will be automatically locked or held against closing until a short angular movement has been given to the lever, when the weight acts to throw the gate forward into its closed position. It will be observed that when the gate is open the rod I will be thrown into an inclined position with the end that is connected to the end stile of the gate the higher. This further tends to hold the gate in its open position. The weight can be easily adjusted to counterbalance the gate if any adjustment is necessary, or to adapt it for use in connection with gates of varying sizes and weights. The automatic locking of the gate is brought about by the proportions between the arms G^2 and G^3 of the three-armed lever, and also that between the vertical distances from the pivot g to the two ends of the rod I when the gate is fully open.

What is claimed as new is—

1. The combination with the gate mounted to slide, of a gate-post and a three-armed lever pivoted near the upper end of said post at the junction of its three arms with two of its arms in the same straight line, one of them extending above the gate, forming a handle the opposite arm connected with the end stile of the gate near its center and the arm at right

angles thereto provided with a weight, substantially as and for the purpose specified.

2. The combination with a sliding gate, of a post having a passage-way therethrough for the passage of the gate, a three-armed lever with two of its arms in the same straight line and one extended above the gate, forming a handle, said lever being pivoted on said post near its upper end and having its third arm at a right angle to the other two, a rod connecting the second arm of the lever with the gate with the end secured to the gate at all times the highest, and a weight adjustable upon the other arm of said lever, substantially as specified.

3. The combination with a sliding gate, of a gate-post having a passage-way therethrough, a three-armed lever with two of its arms in the same straight line one of them extended above the gate, forming a handle, and the lower arm offset, a rod connecting said arm with the end stile of the gate near its center and offset, and a weight adjustable on the arm that extends at a right angle to the two arms, said rod having the end attached to the gate always highest, substantially as specified.

4. The combination with the post having a passage-way therethrough and having its top and bottom rails extended as at b , of a three-armed lever pivotally mounted at the junction of its arms on the upper end of the post having two of its arms in the same straight line with one arm extended above the gate, forming a handle and the other connected with the end stile of the gate by a rod with the end thereof which is secured to the gate always the highest and the arm at right angles thereto provided with a weight, substantially as and for the purpose specified.

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

CARROLL ATWOOD.

Witnesses:

H. H. DRAPER,
M. C. COPPLE.