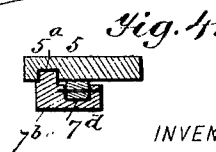
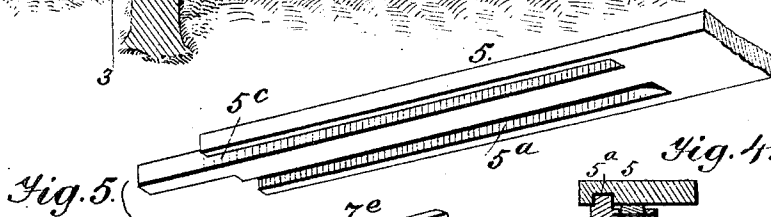
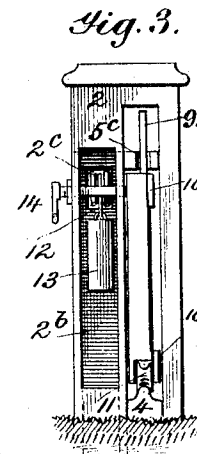
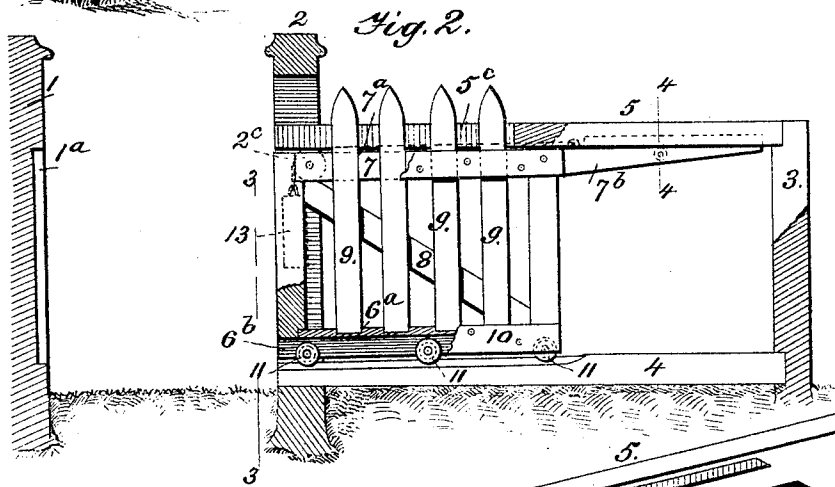
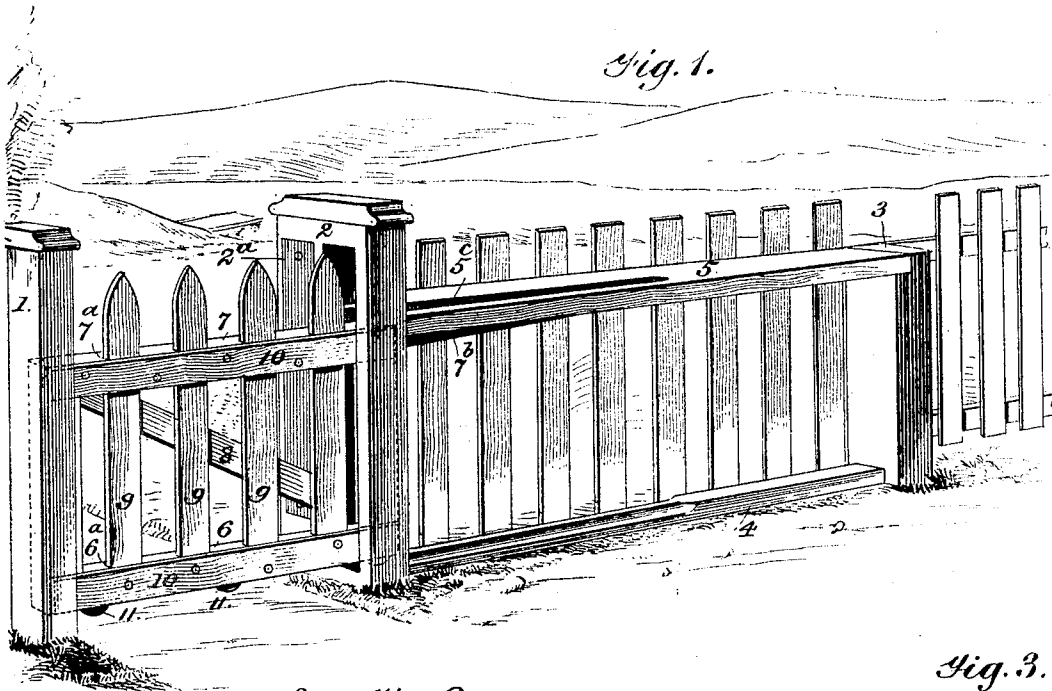


(No Model.)

J. S. HILLMAN.
GATE.

No. 581,723.

Patented May 4, 1897.



WITNESSES:

J. Ed. Luckett
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UNITED STATES PATENT OFFICE.

JAMES S. HILLMAN, OF HOMESTEAD, PENNSYLVANIA.

GATE.

SPECIFICATION forming part of Letters Patent No. 581,723, dated May 4, 1897.

Application filed February 10, 1897. Serial No. 622,825. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. HILLMAN, residing at Homestead, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Gate, of which the following is a specification.

My invention relates to improvements in the class of sliding gates; and it primarily has for its object to provide a gate of this character of a very simple and inexpensive construction which can be easily moved to its open position and which will automatically move to a closed position.

My invention also seeks to provide a gate having neither guideways across the gateway or entrance, rods or levers to operate the same, nor latch or other locking means to hold it to a closed position.

With other objects in view, which will hereinafter be referred to, the invention consists in a gate embodying the peculiar arrangement and combination of parts, such as will be first described in detail and then be specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved gate. Fig. 2 is a longitudinal section of the same, the gate being in its open position. Fig. 3 is an end view of the same as seen on the line 3 3 of Fig. 2. Fig. 4 is a transverse section taken on the line 4 4 of Fig. 2, and Fig. 5 is a view illustrating the guide member of the gate and the upper guide-rail.

In the accompanying drawings, 1 indicates the main or abutting post, 2 the guide-post, and 3 one of the fence-posts, which is of a suitable width so as to form a rest or attaching-post for a lower guide-rail 4 and an upper guide-rail 5, as clearly shown in Fig. 1.

The gate proper consists of the upper and lower rails 7 and 6, the diagonal brace-bar 8, and the pickets 9, the lower ends of which seat in sockets 6^a in the top of the rail 6 and in side sockets 7^a in the upper rail 7, they being securely held in such sockets by the facing-strips 10.

The lower rail 6 has a channel way or ways 6^b to accommodate a series of rollers 11, which are adapted to engage and slide on the base-rail 4, which in practice may be slightly on

an incline with the pitch toward the gateway to facilitate the automatic closing of the gate.

The upper rail 7 has an extension 7^b, provided with a flat bearing-face 7^c, which is provided with one or more friction-rollers 7^d, adapted to bear against the under side of the upper rail 5, it also having a projecting rib 7^e, which fits and slides in a longitudinal groove 5^a in the under side of such upper rail 5, as clearly shown in Figs. 4 and 5. By reference to said Fig. 4 and to Fig. 3 it will be seen the guide-post 2 is extended transversely inward and formed with a chamber 2^b, in the upper end of which is journaled a pulley 2^c, over which passes a cord or cable 12, carrying at one end a weight 13 and having its other end connected to the extension 7^b, which is projected laterally inward, as at 7^f, so that the pull strain of the weight will be in a direct line.

The front of the chamber 2^b has a removable facing 2^a, so that ready access may be had to the weight devices.

14 indicates a set-screw on the guide-post 2, so disposed that by adjusting the same it can be clamped against the upper rail of the gate and thereby hold the gate to its open position.

From the foregoing, taken in connection with the drawings, it is thought the complete operation and the advantages of my invention will be readily understood.

It will be seen that the gate is so adjusted that it can be slid back even by a child, as no strength is required for such operation, and after passing through and releasing the pressure on the same it will be immediately automatically moved to its closed position. By providing the upper gate-rail with a rib to fit a corresponding groove in the upper guide-rail it is manifest the gate will be held from lateral movement and thereby caused to run true on the base-rail. Furthermore, such a connection of the upper rail and the gate dispenses with the necessity of having vertical guides on the main post to hold the front end of the gate from sidewise movement, although if desired to add additional side bearings to the said front end when in a closed position the main post may be socketed, as shown in Fig. 2, for such purpose.

When the pickets extend above the top rail

of the gate, as shown, the guide-rail 5 has a slot extending longitudinally thereof, as indicated by 5^c, to receive the upper ends of the pickets, such slot also forming additional means for holding the gate to move in a true longitudinal direction on its guideways.

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

10 1. The combination of the main post, the guide-post, and the upper and lower guide-rails, the sliding gate having its lower end arranged to engage the lower guide-rail and having a rearwardly-extending upper member held to engage the under face of the upper guide-rail, and the counterweight devices connected to the said gate and the guide-post, substantially as shown and described.

20 2. The combination, of the main post, the guide-post, having a laterally-extending portion having a chamber 2^b, counterweight devices held in such chamber, the upper and lower guide-rails, the gate adapted to slide on the lower guide-rail, and having a rearwardly-extending member to engage the under face of the upper guide-rail, said member being extended laterally in line with the weight devices substantially as shown and for the purposes described.

30 3. The combination with the main and the

guide posts and the lower guide-rail, of an upper guide-rail having a longitudinal groove in its under face, the gate held to slide on the lower rail and having a rearwardly-extending member to engage the under face of the upper rail, said member having a vertical rib to engage the groove in the said upper guide-rail, and counterweight devices for closing the gate, substantially as shown and described.

40 4. The combination with the main and the guide posts, the upper and lower guide-rails, the upper guide-rail having a longitudinal slot and a longitudinal groove in its under face, the gate having upper and lower rails, the lower, having guide-rollers, the upper having a rearwardly-extending member provided with a bearing portion to engage the under face of the upper guide-rail, and a rib to engage the groove of such rail, said gate having its pickets extended above its top rail, the said gate and the upper guide-rail being relatively so arranged, that the pickets will enter the slot in the said guide-rail when the gate is moved to its open position, and means for automatically moving the gate to its closed position substantially as shown and described.

JAMES S. HILLMAN.

Witnesses:

GEO. W. GILES,
E. J. HARE.