(No Model.)

J. W. HARLAND.

GATE.

No. 430,577. Patented June 17, 1890.

Fig. 1

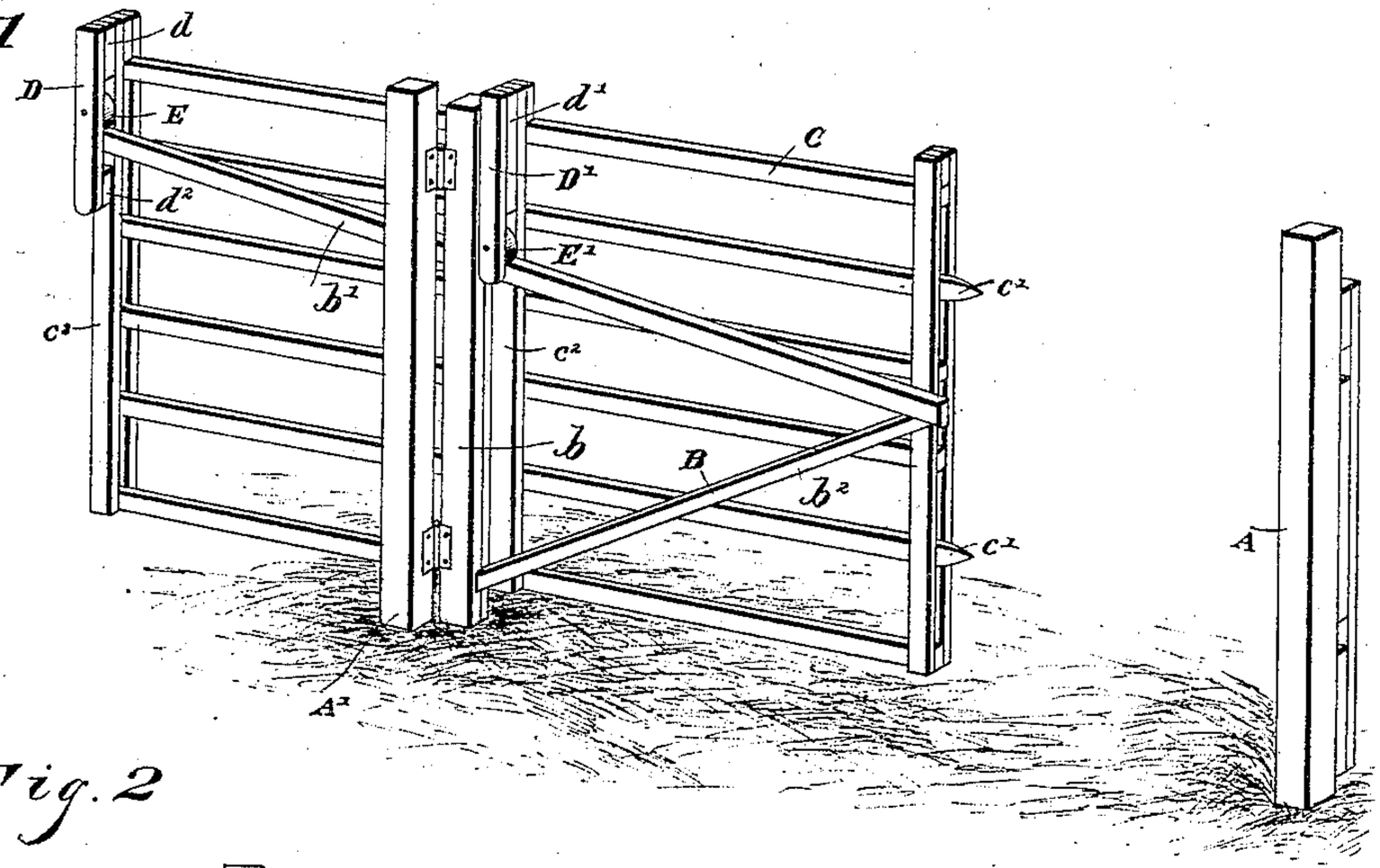


Fig. 2

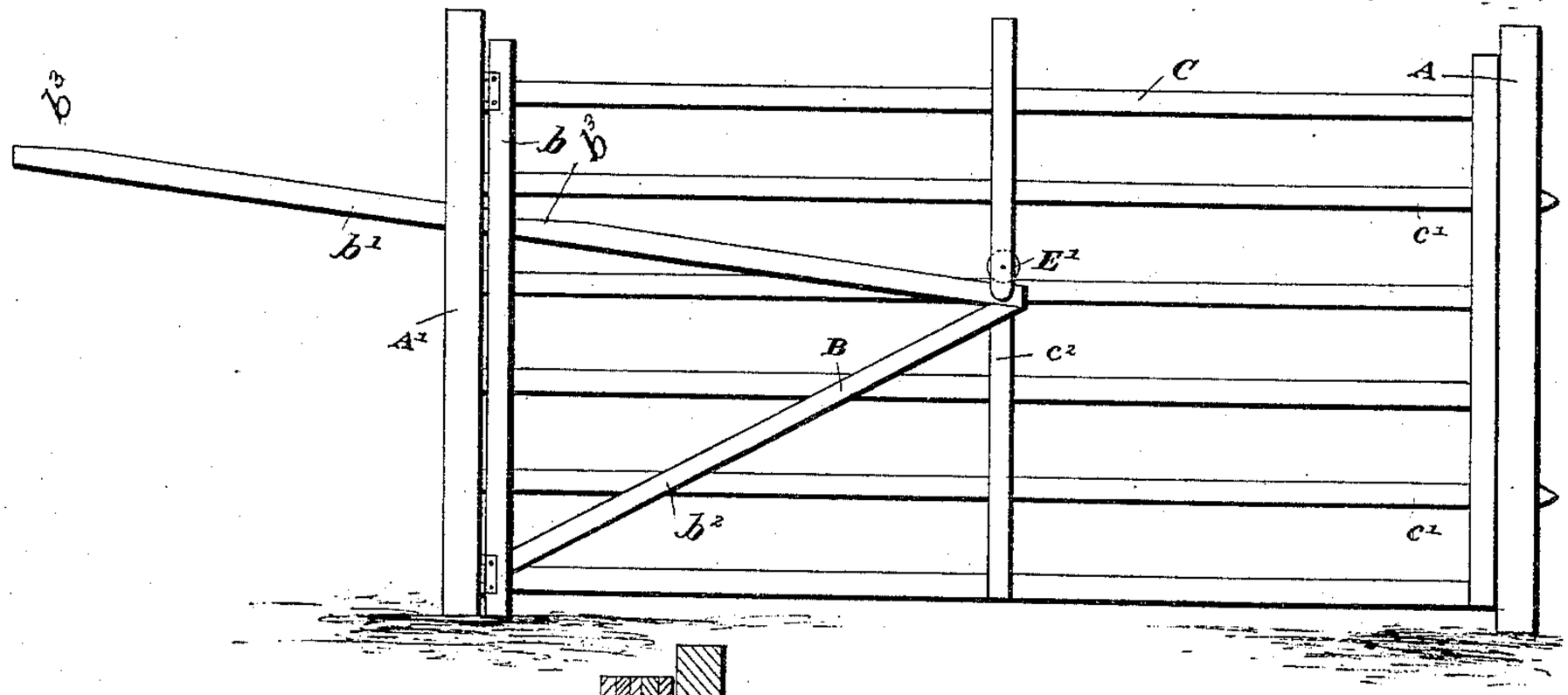
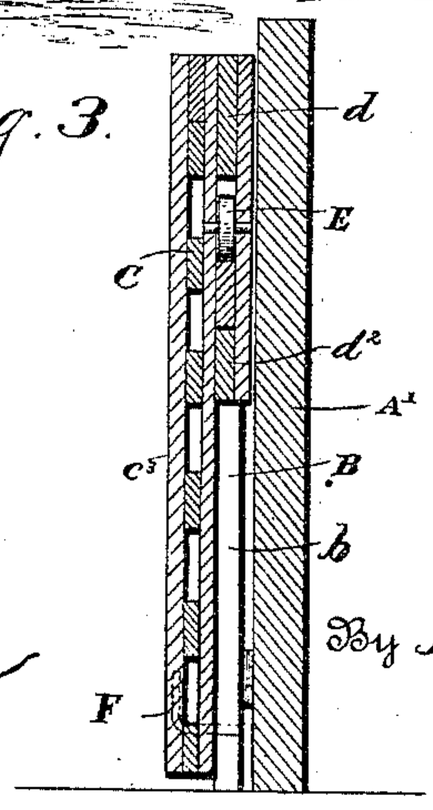


Fig. 3.



Witnesses,
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UNITED STATES PATENT OFFICE.

JOEL WRIGHT HARLAND, OF MICHIGANTOWN, INDIANA.

GATE.

SPECIFICATION forming part of Letters Patent No. 430,577, dated June 17, 1890.

Application filed November 9, 1889. Serial No. 329,727. (No model.)

To all whom it may concern:

Be it known that I, JOEL WRIGHT HARLAND, a citizen of the United States, residing at Michigantown, in the county of Clinton and State of Indiana, have invented a new and useful Gate, of which the following is a specification.

The invention relates to an improvement in sliding and swinging gates.

The object of the present invention is to provide a sliding and swinging gate of simple and economic construction adapted to be readily removed from a hanger, and which, when in position for swinging, will be sufficiently elevated to clear any obstructions, such as snow-piles and the like.

A further object of the invention is to provide means whereby an ordinary gate may be readily converted into a sliding and swinging gate.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a gate constructed in accordance with this invention, showing the gate rolled back on a hanger-track and partly open. Fig. 2 is a side elevation of the gate in its closed position. Fig. 3 is a transverse sectional view.

Referring to the accompanying drawings by letter, A and A′ designate, respectively, latch and hinge posts, to the latter of which is hinged a vertical bar *b* of a hanger B, which is composed of the said vertical bar *b*, an inclined track-bar *b′*, and a brace b^2, connecting the lower end of the inclined track-bar with the lower end of the vertical bar. The vertical bar *b* is preferably constructed of two parallel pieces, one of which is mortised to receive the brace and the inclined track-bar, upon which a gate C slides. The track-bar *b* may be set at any desired inclination in order to raise the gate C to an elevation sufficient to clear any obstruction, and by inclining the track-bar the gate when brought to its proper position in line with the hinge and latch posts will roll into place by its own weight. Two of the gate-bars *c′* project beyond the edge of the gate and engage suitable openings in the latch-post and retain the gate in its closed position.

The gate may be of any desirable construction, and is provided with a central bar c^2 and an end bar c^3, to which strips D and D′ are secured. The strips are arranged parallel with the central and end bars, and are separated therefrom by blocks *d* and *d′*, which form openings or spaces in the upper ends of which are journaled rollers E and E′, which run upon the inclined track-bar of the hanger. The inclined track-bar is secured to the vertical bar of the hanger about midway its length, and it extends far enough beyond the hinge-post to enable the gate when rolled back for swinging to rest entirely upon the hanger and to be evenly balanced and to be swung without strain upon the parts. The lower end of the strip D has interposed between it and the end bar a block d^2, which closes the lower end of the opening between the end bar and the strip D and prevents the gate from being removed from the hanger until the strip has reached the end of the inclined track-bar.

When it is desired to remove the gate from the hanger, the roller D′ is lifted from the track-bar and the gate is rolled upon the track until the roller E slips off the end of the same, and it is replaced upon the hanger by fitting the end of the track in the openings between the strip D and the end bar and sliding the gate upon the track and then lifting the front end and placing the roller E′ upon the track-bar. The lower end of the vertical bar of the hanger is provided with an L-shaped projection F, whose vertical arm engages the lowermost bar of the gate and prevents its slipping laterally and becoming accidentally unshipped from the hanger. The inclined track-bar is provided with the level portions b^3, arranged at the middle and outer end to receive the rollers when the gate is open and prevent the same accidentally closing.

From the foregoing it will clearly be seen that the improvements may readily be applied to any ordinary gate, converting it into a sliding and swinging one, and that it is unnecessary to employ an entirely new gate, as

the gate is perfectly balanced on the hanger before it is swung and there is little or no strain upon the parts.

Having described my invention, what I claim is—

The combination, in a sliding and swinging gate, of the gate having the central bar c^2 and the end bars c^3, and provided with the parallel strips D and D′, separated from the end and the central bars by blocks d and d', forming spaces or openings, the space or opening at the end of the gate being closed by the block d^2, the rollers journaled in the upper portion of the spaces or openings, and the hanger consisting of the vertical bar hinged to a post, the inclined track-bar secured to the vertical bar about midway its length and extending a considerable distance beyond the hinge-post and having the level portions b^3 arranged at its middle and its outer end to receive the rollers and maintain the gate in its open position, and the brace B, connecting the track and vertical bars, substantially as described.

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

JOEL WRIGHT HARLAND.

Witnesses:
EDGAR O. COSNER,
A. B. CLARK.