(No Model.)

J. J. JOHNSTON.

IRON GATE.

No. 265,822. Patented Oct. 10, 1882.

Fig. 1.

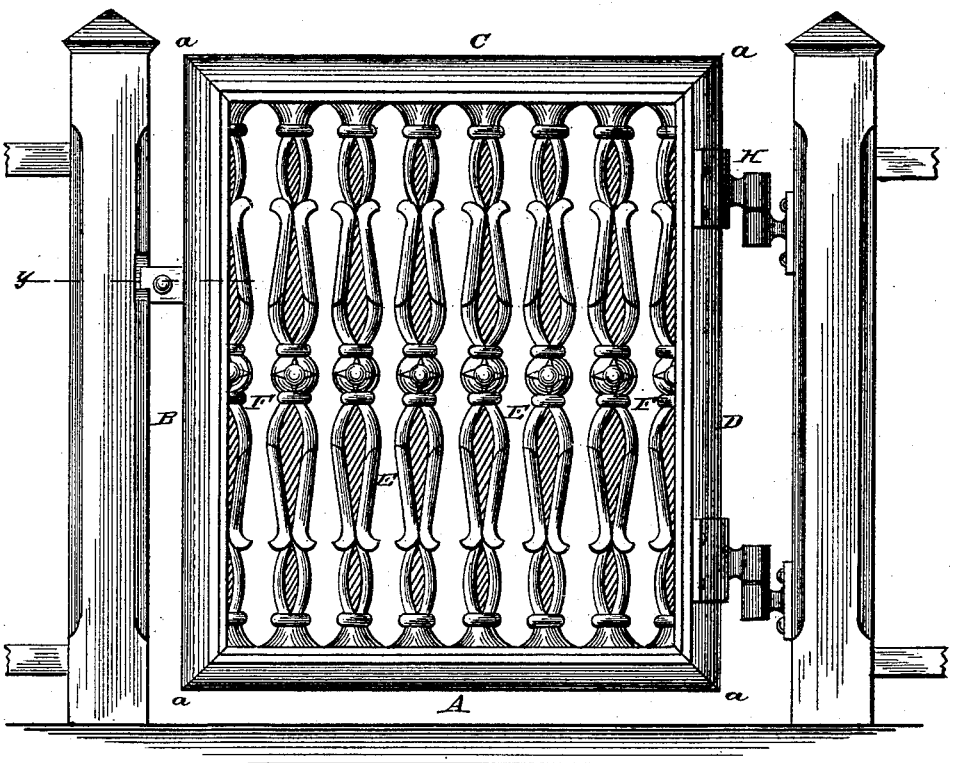

Fig. 2.

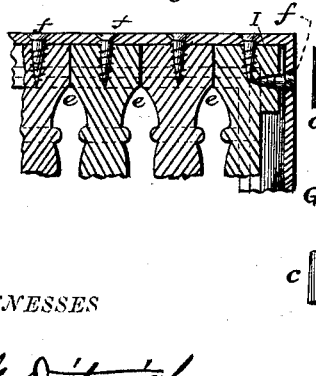

Fig. 5.

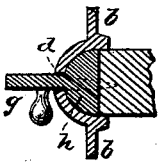

Fig. 3.

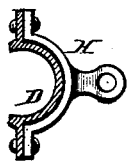

Fig. 4.

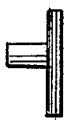

Fig. 6

WITNESSES

Fred. L. Dieterich.

P. C. Dieterich.

INVENTOR

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UNITED STATES PATENT OFFICE.

JAMES J. JOHNSTON, OF COLUMBIANA, OHIO, ASSIGNOR TO THE UNITED STATES IMPROVEMENT COMPANY, (LIMITED,) OF SAME PLACE.

IRON GATE.

SPECIFICATION forming part of Letters Patent No. 265,822, dated October 10, 1882.

Application filed February 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. JOHNSTON, of Columbiana, in the county of Columbiana and State of Ohio, have invented a certain new and useful Improvement in Iron Gates; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in iron gates; and it consists of a frame made in sections of U-shaped iron, having side flanges, and combining therewith vertical rails, the ends of which are fitted to the groove of the upper and lower section of the frame, and two side vertical rails having side projections fitted to the grooves in the side sections of said frame, the knuckle portion of the hinges fitted to the outer wall of the frame and riveted to the side projecting flanges, all of which will hereinafter more fully and at large appear.

To enable others skilled in the art with which my invention is most nearly connected to make and use it, I will proceed to describe its construction and operation.

In the accompanying drawings, which form part of this specification, Figure is a front elevation of my improvement in iron gates. Fig. 2 is a vertical section. Fig. 3 is transverse section at line *y*, Fig. 1. Fig. 4 is a top view of the knuckle part of the hinge, and a transverse section of the side section of the frame to which said knuckles are secured. Fig. 5 is a front elevation of the side vertical rails. Fig. 6 is a side view of the latch of the gate.

Reference being had to the accompanying drawings, A B C D represent the four sections of the frame of the gate, which are constructed from U-shaped iron, having side flanges, *b*, which sections form miter-joints at *a*. The side sections, B D, are secured to the projections *c* of the side vertical rails, F, by means of screws *f*, said projections fitting neatly in the grooves of said sections. The side projections, *c*, at the bottom and top of the rails F, in connection with the ends I, form corner-blocks for the miter-joints *a*, which corner-blocks are indicated by the dotted lines in Fig. 5. The upper end pieces, I, of the vertical rails E F are fitted to the grooves of the sections A and C of the frame, and are so constructed as to form close joints at *e*, as indicated in Fig. 2, said sections being secured to the ends of the rails by means of screws *f*. The section B of the frame is provided with a slot, *d*, in which latch *g* moves vertically. The part *h* of the latch is fitted to the groove in said section and moves in the recess G in the vertical rail F, and is held in place by said rail. The knuckle part H of the hinges is fitted to the outer wall of the section D of the frame of the gate, and is riveted to the flanges *b*, as indicated in Figs. 1 and 4. The contour, configuration, and ornamentation of the vertical rails E F may be changed to suit the taste and judgment of the manufacturer; and for economy of material and lightness of the gate said vertical rails may be convex on the front side, with corresponding concavity on the rear side, which will be well understood by the skillful molder. In all cases the ends I must be of the form indicated in Fig. 2, with close-fitting joints between them, and fitted neatly to the grooves of the frame for the purpose of securing firmness of the gate as a whole. The frame, consisting of the sections A B C D, is constructed of wrought-iron of the form hereinbefore described, and said iron manufactured by the rolling process. The vertical rails E F are constructed of cast-iron by the molding and casting process.

A gate constructed as hereinbefore described will be strong, durable, ornamental, and can be manufactured cheaply and with great facility.

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

In an iron gate, the combination of a wrought-iron frame constructed of U-shaped iron, with side flanges, *b*, said frame being made in sections, with miter-joints *a*, vertical rails E F, of cast-iron, having end pieces, I, and projections *c*, said end pieces and projections fitted to the groove in the sections of the frame and secured therein through the medium of screws *f*, the section B, furnished with the latch G, and the section D, provided with knuckle part H of the hinge, fitted to its outer wall and secured to the flanges *b*, substantially as herein described, and for the purposes set forth.

JAMES J. JOHNSTON.

Witnesses:
T. D. D. OURAND,
DE WITT C. ALLEN.