(No Model.)

# C. BAYER & P. SCHERBNER.

## FOLDING GATE.

No. 455,960. Patented July 14, 1891.

Fig. I.

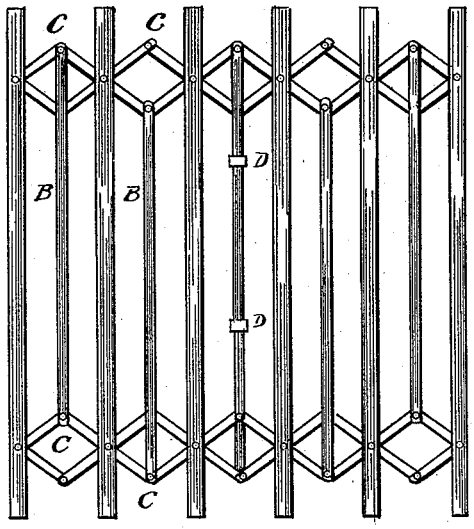



Fig. II.


Fig. III.

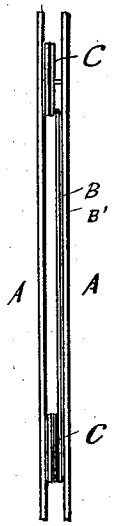
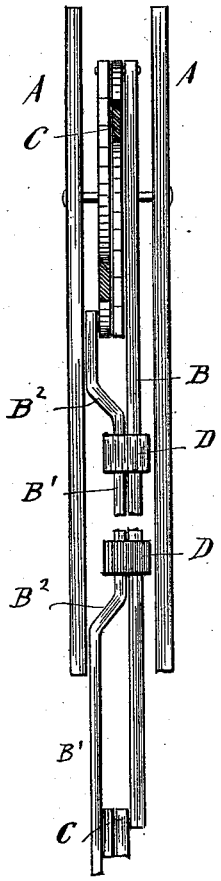



Fig. IV.

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# UNITED STATES PATENT OFFICE.

CHARLES BAYER AND PAUL SCHERBNER, OF NEW YORK, N. Y.

## FOLDING GATE.

SPECIFICATION forming part of Letters Patent No. 455,960, dated July 14, 1891.

Application filed April 3, 1891. Serial No. 387,485. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES BAYER and PAUL SCHERBNER, citizens of the United States, and residents of the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Folding Gates, of which the following is a specification.

This invention relates to improvements in folding gates, which when opened completely fill the opening with which they are provided and when closed occupy a very small space.

The object of our invention is to provide a new and improved gate of this kind, which is simple in construction, light, strong, and durable, and the parts of which at all times remain parallel and open and close without binding, whether the power is supplied to the top, center, or bottom.

The invention consists in a folding gate, constructed with main bars, lazy-tongs at the top and bottom connecting the main bars, and auxiliary bars arranged between the main bars, which auxiliary bars are adapted to fold in between the main bars when the gate is closed.

The invention also consists in the construction and combination of parts and details, which will be fully described hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure I is an elevation of our improved gate open. Fig. II is an elevation of the same closed. Fig. III is an end elevation of the same; and Fig. IV is a detail view, partly in section, showing the parallel guide-piece.

Similar letters of reference indicate corresponding parts.

The gate is composed of a series of vertical main bars A and intermediate auxiliary bars B, the main bars A having greater width, length, and thickness than the auxiliary bars B, which can be made quite light. The main bars A are connected at the bottom and top by a series of pivoted levers C, crossing each other and forming lazy-tongs, the said levers being pivoted to the main bars A at the intersections of said levers and pivoted to each other at the ends. The auxiliary bars B connect the bottom and top lazy-tongs, and in the alternating fields are connected with the top and bottom joints of said lazy-tongs.

In order to insure an absolute parallelism of movement, two auxiliary bars B B′ are arranged in one space between two main bars. One of the auxiliary bars B connects the top pivots of the lazy-tong sections and the other bar B′ connects the bottom edges, the said bar B′ being provided at the upper and lower ends with the bends $B^2$ $B^2$, as shown in Fig. IV, so as to pass the lazy-tong levers. The said auxiliary sliding bar B′ is provided with two fixed collars D D, through which the corresponding bar B can slide.

When the gate is opened, the parts are in the position shown in Fig. I, and when it is closed the parts are in the position shown in Fig. II, the lazy-tongs and the auxiliary bars B being folded in between the main bars A. To permit of this folding of the auxiliary bars in between the main bars, the width of the auxiliary bars must not be greater than one-half the width of the main bars. The main bars, which form the main support of the gate, can be spaced a considerable distance from each other, thus materially reducing the weight of metal required in the gate, and at the same time the interstices or openings in the gate will not be very large, as the light intermediate or auxiliary bars B are arranged between said main bars. As the double auxiliary bars B B′ slide on each other parallelism is maintained in all the main and auxiliary bars, and thus the gate can be opened or closed without binding by applying the power required to open or close the gate either at the top, bottom, or middle, or at any desired point.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In a folding gate, the combination, with main bars, of lazy-tongs connecting said main bars at the top and bottom, and auxiliary bars arranged between the main bars and connecting the top and bottom lazy-tongs, substantially as set forth.

2. In a folding gate, the combination, with main bars and lazy-tongs connecting them at the top and bottom, of auxiliary bars arranged

between the main bars and connecting the top and bottom lazy-tongs, said auxiliary bars being connected in the fields between the main bars alternately with the top and bottom joints of the lazy-tongs, substantially as set forth.

3. In a folding gate, the combination, with main bars, of lazy-tongs connecting the main bars at the top and bottom, auxiliary bars arranged between the main bars and connecting the lazy-tongs, some of said auxiliary bars being made double, of which double bars one connects the upper joints of the lazy-tongs and the other the lower, and collars fixed on one of said double auxiliary bars, substantially as set forth.

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

CHARLES BAYER.
PAUL SCHERBNER.

Witnesses:
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