

W. R. PITT.
FOLDING GATE.

No. 494,823.

Patented Apr. 4, 1893.

Fig. 1.

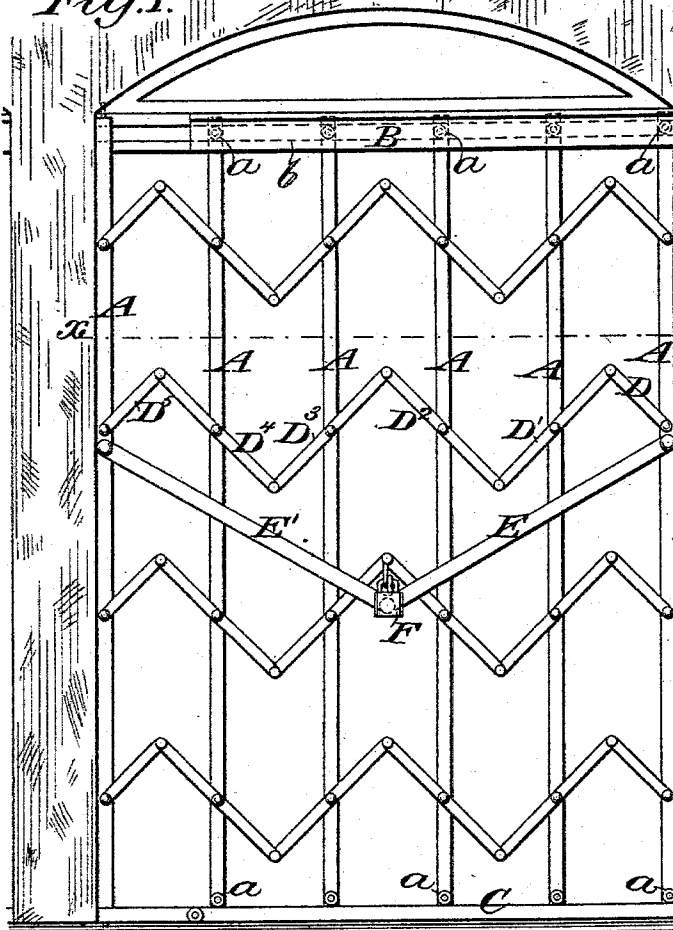


Fig. 2.

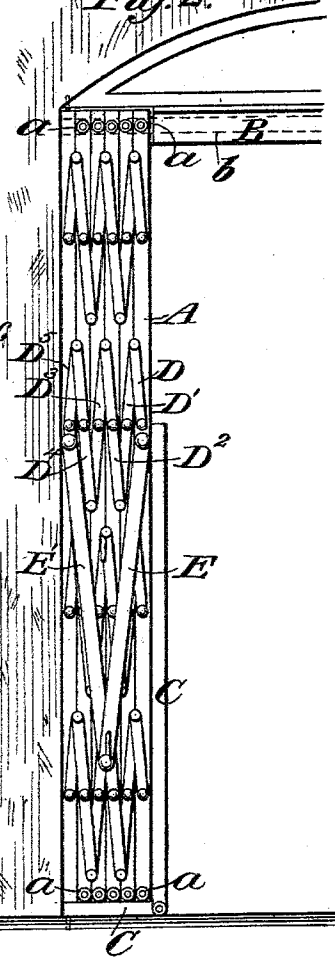
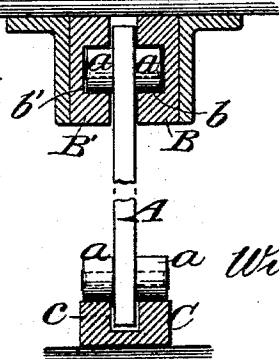


Fig. 3.



Fig. 4.



Witnesses:-
D. H. Kaybrook
O. Sundgren

Inventor:-
William R. Pitt
by attorneys
Brown & Howard

(No Model.)

2 Sheets—Sheet 2.

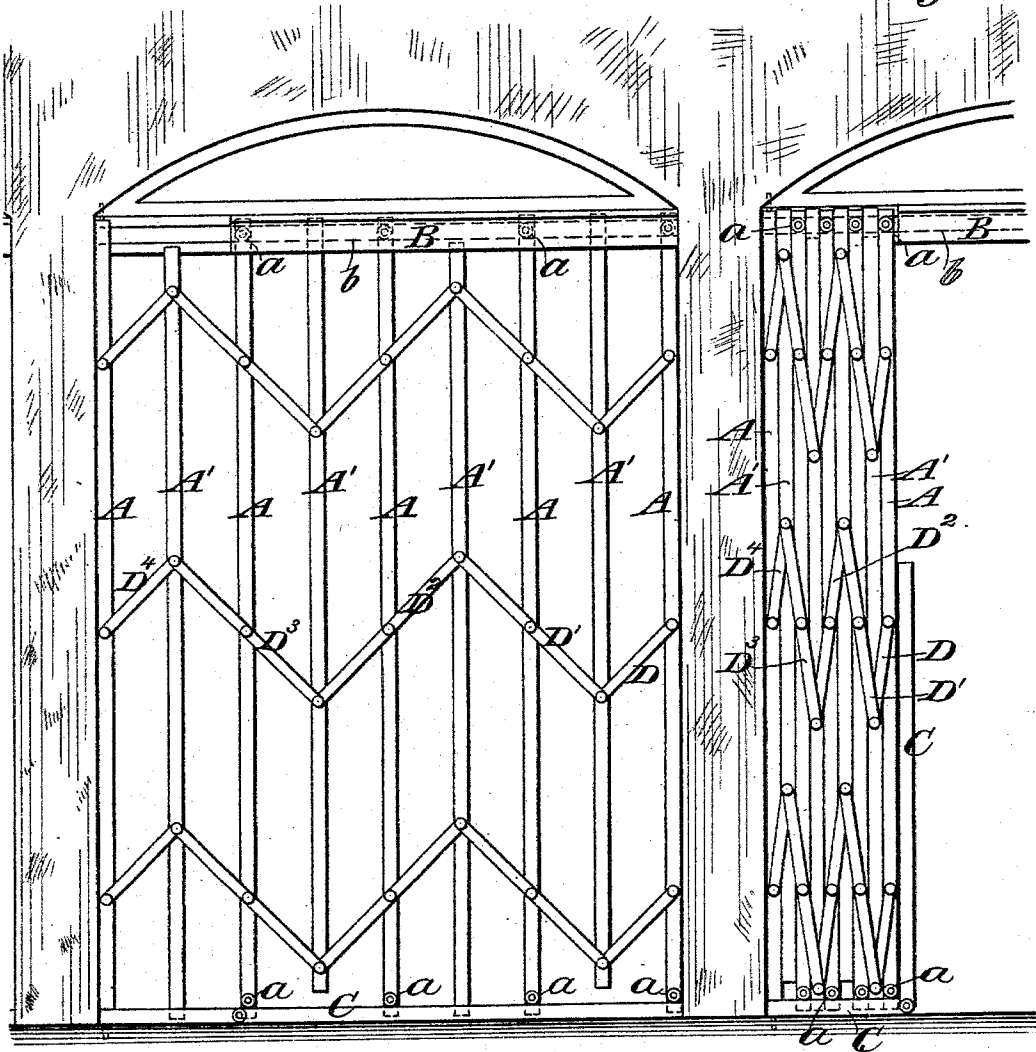
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Fig. 5.

Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM R. PITT, OF NEW ROCHELLE, NEW YORK.

FOLDING GATE.

SPECIFICATION forming part of Letters Patent No. 494,823, dated April 4, 1893.

Application filed September 17, 1892. Serial No. 446,186. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. PITT, of New Rochelle, in the county of Westchester and State of New York, have invented a new and useful Improvement in Folding Gates, of which the following is a specification.

My invention relates to an improvement in folding gates in which several pickets are connected by arms or links pivotally secured thereto so as to permit the pickets to close into contact with each other to open the gate and separate from each other at predetermined intervals to close the gate.

In the accompanying drawings, Figure 1 represents a gate in side elevation with the pickets separated as when the gate is closed and the locking bars in position to lock the gate closed. Fig. 2 is a partial side elevation, showing the position of the pickets and the connecting arms when the gate is open. Fig. 3 is a view in transverse section through line x, x of Fig. 1. Fig. 4 is an enlarged vertical section through the upper and lower guide-ways. Fig. 5 is a view in side elevation of a gate similar to that represented in Fig. 1, showing in connection with the several pickets of Fig. 1 a series of interposed vertically movable pickets, the gate being represented as in closed adjustment, and Fig. 6 is a partial side elevation, showing the position of the parts when the gate is open.

The pickets arranged to move back and forth without vertical movement, are represented by A and are preferably provided at their upper and lower ends with anti-friction rollers a arranged to engage guide ways for holding the upper and lower ends in position. The upper guide way consists of two half sections B and B' provided with recesses b and b' in their opposite faces for the reception of the anti-friction rollers a , the half sections B and B' being arranged to depend upon opposite sides of the upper ends of the pickets. The lower guide way C is provided with a recess c in its upper face for the reception of the lower ends of the pickets, the anti-friction rollers a at the lower end being adapted to travel along the upper face of the guide C.

The several movable pickets are connected by one or more series of jointed arms, four such series being represented in Fig. 1 and three in Fig. 5. As the several series of jointed

arms are quite similar, the particular description of a single series will be sufficient for a clear understanding of the others.

The picket A on the right, Fig. 1, has pivotally secured to its opposite sides a pair of short arms or links D. The next succeeding picket A toward the left has pivotally secured to its opposite sides intermediate of their ends, a pair of arms or links D'; the ends of the links D' toward the picket A at the right being pivotally secured to the ends of the short arms D. The third picket from the right has pivotally secured thereto in like manner a pair of arms or links D² extending in a direction oblique to the links D' and having their ends pivotally secured to the ends of the links D'. In the same manner the next succeeding picket has pivotally secured to it a pair of arms or links D³ arranged obliquely to the arms D² and pivotally secured to the ends thereof. A similar set of arms or links D⁴ are pivotally secured to the next succeeding picket and extend obliquely to the arms or links D³ and are pivotally secured thereto. The opposite ends of the arms D⁴ are connected with the final picket at the left or to the fixed piece at the side of the gate by a pair of short arms D⁵ extending obliquely to the arms or links D⁴. The arrangement of the several pairs of arms or links is in a zig-zag direction across the gate.

In sliding the pickets into proximity to one another to open the gate, the jointed arms between each two successive pickets fold and permit the pickets to approach each other.

The gate may be locked in closed position or with its pickets separated by means of a pair of bars E, E' secured at one end to the opposite edges of the gate and locked together at their adjacent ends and at the same time to the joint intermediate of two successive pickets by means of an ordinary hasp lock F. The angle of the joint to which the locking bars are secured should be located in a direction opposite that in which the angle between the locking bars themselves is located so that an attempt to fold the locking bars will operate to unfold the joint between the pickets and hence hold them firmly apart.

In the form shown in Fig. 5, I have suspended pickets A' intermediate of the pickets A at the joints of the arms or links which con-

nect the pickets A, and have provided for their slight vertical movement by making them a little shorter than the pickets A. It will be observed that as the pickets A are
5 caused to approach each other in opening the gate, the suspended pickets A' will either rise or fall according as they are suspended from an angle faced downwardly or upwardly.

10 In practice, the guide channels at the top or bottom may be made of such depth as to permit a slight vertical movement of the suspended pickets A' without exposing the ends of such pickets, either at the top or bottom.

What I claim is—

15 1. A folding gate consisting of a series of pickets having secured thereto one or more series of pairs of folding arms or links, the arms secured to an intermediate picket being located upon opposite sides of the picket, and
20 extending in opposite directions from the picket and having their ends pivotally secured to similar arms projecting from the adjacent picket, substantially as set forth.

25 2. In combination, suitable guide-ways at the top and bottom of the gate for the recep-

tion of the ends of the pickets forming the gate, a series of pickets having their ends mounted in the guide-ways to move back and forth along said guide-ways, one or more series of folding arms for connecting the pickets to-
30 gether, locking bars extending from the edge pickets to a point intermediate of the edges of the gate and a fastening device connecting said locking bars with each other and with the joint between two folding arms, substan-
35 tially as set forth.

3. A folding gate comprising several pickets free to move toward and away from each other, one or more series of pairs of arms or links pivotally secured to the pickets and to
40 each other intermediate of the pickets, upon opposite sides thereof and vertically movable pickets suspended from said folding arms intermediate of the pickets which support the arms, substantially as set forth.

WILLIAM R. PITT.

Witnesses:

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