T. J. W. ROBERTSON.

Iron-Fence.

No. 168,785. Patented Oct. 11, 1875.

Fig 3.

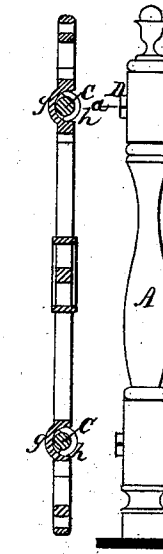


Fig. 1.

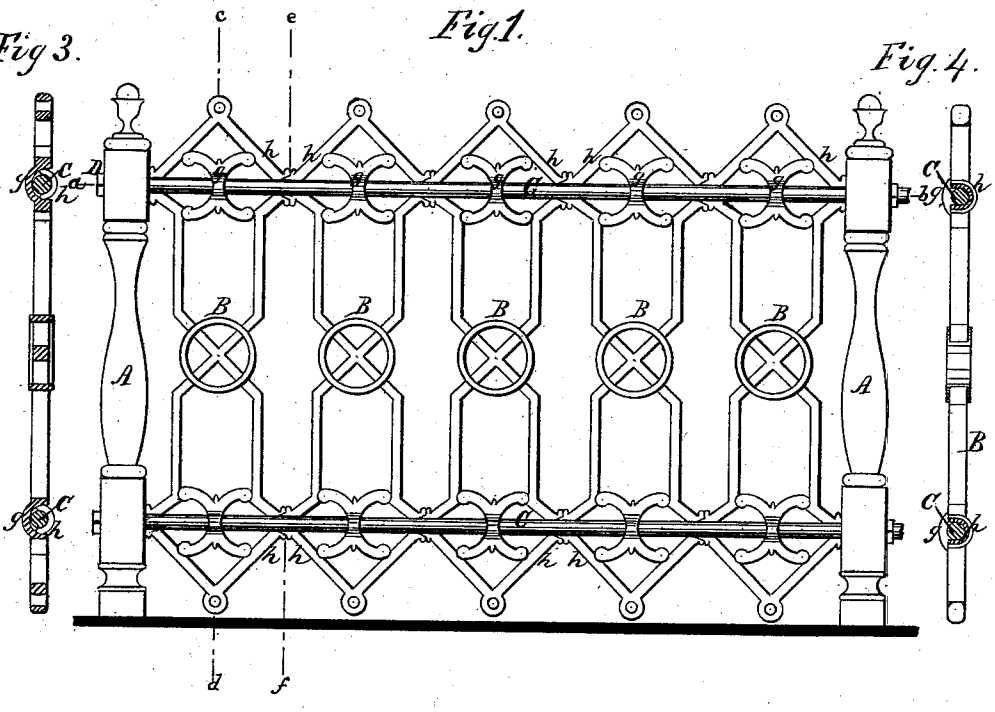
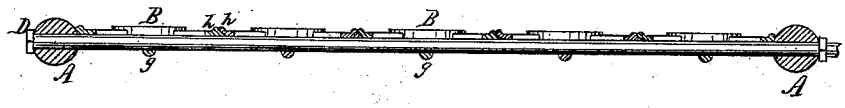


Fig. 4.

Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

T. J. W. ROBERTSON, OF NEW YORK, N. Y.

IMPROVEMENT IN IRON FENCES.

[Specification forming part of Letters Patent No. **168,785**, dated October 11, 1875; application filed June 20, 1860.

To all whom it may concern:

Be it known that I, T. J. W. ROBERTSON, of the city, county, and State of New York, have invented a new and useful Improvement in the Construction of Iron Railings; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation of a panel of railing constructed according to my improvement. Fig. 2 is a section through the line *a b*. Fig. 3 is a section through the line *c d*. Fig. 4 is a section through the line *e f*.

This invention consists of a new method of constructing the panels of iron railings or fences by means of sections which are formed with depressions so arranged on alternate sides as to form holes, whereby said sections can be securely attached to the tie-rods without any fitting or loose parts, and without the necessity of cores in casting them.

To enable others skilled in the art to which this pertains to make and use my improvement, I will proceed to describe its construction.

A A are the posts supporting the panel, having holes cast through them near the top and bottom to admit the rods C C. B B B are castings, which are made of such form as to allow the passage of the rods C C through them, in the manner shown in the drawings. The precise form of these castings will be best understood on referring to the drawings, by which it will be seen that the middle part of the castings *g* are cast with a bow in one direction, and the sides *h h* are bowed in the other direction, so as to make a loop or hole through them about the size of the rod C. This will be best seen by examining Figs. 3 and 4. The sides *h h* of the castings, where they touch each other, are beveled, so as to fit into and ride one on the other, thereby producing a tight fit when pressed together by screwing up the nuts D D at the ends of the panel. C C are round iron rods, with a thread cut on each end to fit the female screw in the nuts D D.

In constructing this railing it is only necessary to run the rods C C through one of the posts A, and through enough of the castings B B B to form a panel, and then through another post, and to fasten all together by screwing tight the nuts D D.

From the above description of this railing it will be seen to have the following advantages over any other:

First, strength. The castings being held together by the tie-rods C C passing through them, instead of being fastened by small rings slipped over the ends *h h*, or slightly riveted, as in the common railing, makes this the strongest form of railing that can be made.

Second, cheapness. As the only fitting necessary in making this railing is simply to fit the rod C with a nut, D, it is evident that a cheaper method of making an iron railing cannot be found.

Third, ease of erection. This railing can be erected by a common laborer, as it does not require a machinist or blacksmith to put it together, as is always necessary with the old style of railings.

Fourth, portability. This railing, even after having been in use, can be taken apart, boxed up, sent off, and again erected with the greatest ease.

Fifth, facility of repairing. In case of the breakage of one of the castings, it is only necessary to unscrew the nuts D D, slip out the rods C C, replace the broken casting with a whole one, and then fasten together as before.

I do not intend to limit myself to the precise form of casting shown in the drawings, as it may be modified in various ways without altering the principle of my invention; nor do I intend to claim, broadly, forming a panel of railing by fastening the castings together with rods of wrought-iron; but

What I claim as new, and desire to secure by Letters Patent, is—

A fence-panel constructed of sections having alternate side depressions, so arranged as to form openings for the reception of tie-rods, substantially as described.

T. J. W. ROBERTSON.

Witnesses:

PETER COOKE,

EDWARD HAWLEY.