J. F. HOLMES.

Improvement in Balcony-Railings.

No. 132,662. Patented Oct. 29, 1872.

Fig. 1

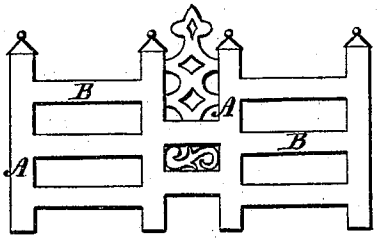


Fig. 2.

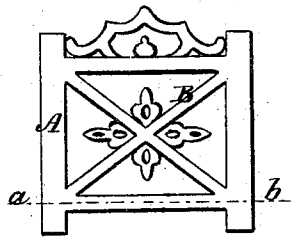


Fig. 3.

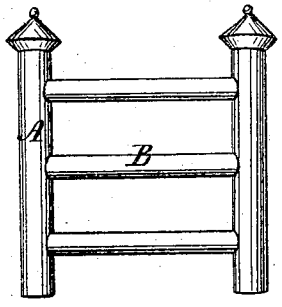


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

JASON F. HOLMES, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN BALCONY-RAILINGS.

Specification forming part of Letters Patent No. **132,662**, dated October 29, 1872.

To all whom it may concern:

Be it known that I, JASON F. HOLMES, of the city and county of Providence, in the State of Rhode Island, have invented a certain new and useful Balcony Guard or Railing.

My improved guard is applicable to roofs, windows, and other localities in which such devices are commonly used, either with a view to utility alone, or, when combined with ornamental designs, with a view to ornamentation, as is common with villa roofs, for instance, at the present time. My invention consists in constructing the skeleton panel-work of lumber well seasoned, and properly framed together; in covering each member of the frame thereof with thin sheet metal; and in hermetically sealing the metal clothing at all joints by the application of solder or other soft metal; and I do hereby declare that the following specification, taken in connection with the drawing furnished, and forming a part thereof, is a clear and true description of several styles of my improved guards, and the method of their manufacture.

Figures 1, 2, and 3 represent different styles of guard embodying my invention. Fig. 4 represents, in cross-section, the balcony-guard, Fig. 2, on line *a b*.

In all the figures, A denotes the uprights, and B the laterals of the skeleton panel-work. They are composed of wood suited to the particular purpose to which the guards are to be applied, and to the style desired. If a massive-appearing guard is to be constructed—as, for instance, for the roof-balcony of a flat-roofed house—light white pine well seasoned would be best suited, while for a light ornamental guard for a country villa "hard wood" will be preferable, because it can be employed in less bulk and yet have the requisite strength. Any desired form may be given to the uprights and laterals to suit the various requirements of the trade.

The most convenient method of manufacturing will be to prepare the wooden frame skeleton panel-work in the usual manner, and, before finally securing the parts together, each section or member thereof is to be thoroughly incased in sheet metal, (preferably the "tin plate," of ordinary quality,) and all the longitudinal seams are to be closed with solder. Care should be taken in the measurements and in cutting the metal square at the ends. The tenon-holes in the metal can well be formed by breaking in the tin over the mortises already formed in the wood, and squaring it therein by the insertion of a steel former of a size corresponding to the size of the tenons. The parts will then be framed together as usual, care being taken to secure close metallic joints between the laterals and the uprights. A light run of solder is then applied to all the joints, thus hermetically sealing the wooden portion within the metallic casings. The great strength of the tubular metallic structure is enhanced by the presence of the wooden filling, and a fence or guard is produced having all the essential characteristics of an iron structure (cast or wrought) at a saving in cost of at least fifty per cent. The open space in the panels can be filled in with scroll-work ornamentations in great variety, composed of sheet metal, light castings, or even of thin well-seasoned lumber. All strain will be sustained, inevitably, by the compound structure, and therefore the scroll-work, however fragile, will not be liable to injury from warping or swaying.

A balcony-guard constructed as described will weigh much less than the ordinary iron guards. A comparison of one-inch bar-iron with a one-inch lateral constructed of seasoned pine and cased with XX tin shows a saving in weight in favor of the latter of about eighty per cent., which is certainly a desirable consideration in ornamenting light watering-place villas, for instance, with one or two surrounding lines of roof-guards, as is frequently desired.

My improved guards should be well covered with suitable paint and braced with the usual well-known appliances for bracing guards of a similar character. The uprights or posts, as illustrated in the figures, may be finished with any desired style of ornamental head, which may be made of cast-iron or wood, protected with sheet metal, as may be deemed preferable.

I am aware that it has long been customary to protect the upper surfaces of bridge-railings, and wooden railings and fences generally, with sheet metal, secured thereon by

nails, tacks, &c., and I therefore disclaim such a combination and use of sheet metal with balcony-guards. The structure I have described possesses novel characteristics and a peculiar value; and

I therefore claim—

As an improved article of manufacture, a balcony-guard, the skeleton or frame of which is composed of wood and incased in sheet metal, so as to present at all points a continuous metallic surface, substantially as described.

JASON F. HOLMES.

Witnesses:

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