W. H. BRINES.
Metallic Railing.

No. 202,405. Patented April 16, 1878.

FIG. 1.

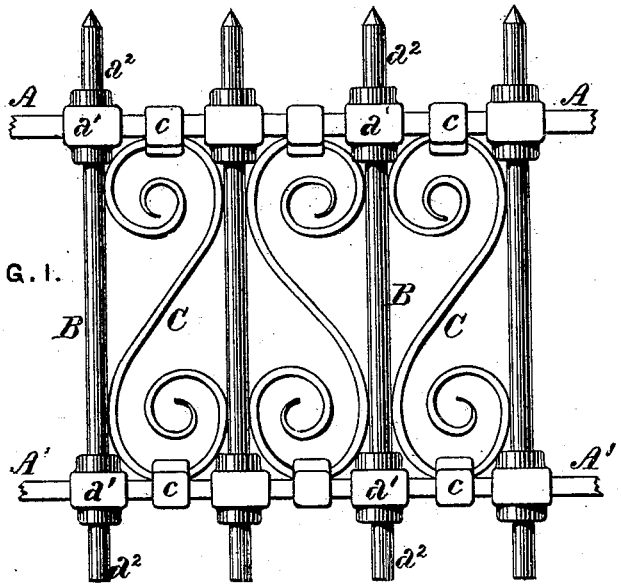


FIG. 2.

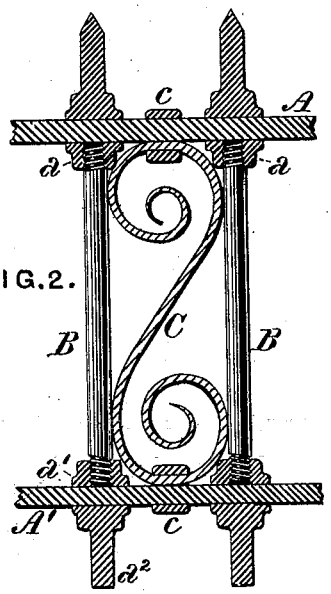


FIG. 3.

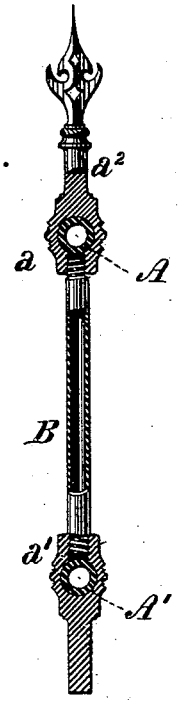


FIG. 4.

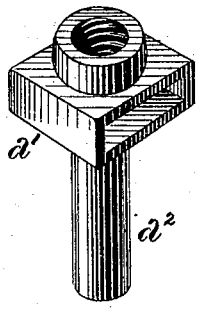
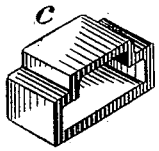


FIG. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM H. BRINES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS HIS RIGHT TO BROWN & OWEN, OF SAME PLACE.

IMPROVEMENT IN METALLIC RAILINGS.

Specification forming part of Letters Patent No. **202,405**, dated April 16, 1878; application filed February 28, 1878.

To all whom it may concern:

Be it known that I, WILLIAM H. BRINES, of the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in the Construction of Metallic Railings, of which the following is a specification:

The object of my invention is to simplify and cheapen the construction of railing by providing means for firmly connecting the vertical and horizontal members without the necessity of drilling or perforating the rails, and so that the parts may be speedily and conveniently put together or taken apart.

To this end my improvements consists in the combination of upper and lower horizontal rails, either solid or tubular, sockets fitting upon said rails and adjustable thereon at different points, as desired, and vertical or inclined posts or pickets, having a right-handed screw at one end and a left-handed screw at the other, said screws engaging nuts formed on the sockets of the upper and lower rails, respectively, and serving to draw and hold the latter firmly together.

My improvements further consist in combining, with rails and posts thus connected, diagonal, serpentine, or other ornamental panel members, each of which is interposed between two posts, and held in position by sockets fitting on the upper and lower rails, all as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a side view in elevation of an iron railing embodying my improvements; Fig. 2, a vertical longitudinal section of one panel of the same; Fig. 3, a transverse section, showing tubular rails; Fig. 4, a view in perspective of one of the post-sockets; and Fig. 5, a similar view of one of the intermediate sockets.

To carry out my invention, I provide an upper rail, A, and a lower rail, A′, which may be of any appropriate form and dimensions, and either solid or tubular, as desired. A series of sockets, *a*, is fitted upon the upper rail A, each socket being provided with a longitudinal aperture corresponding with the transverse section of the rail A, so that it may be moved readily into any desired position thereon. A hub or boss is formed upon one side of the socket, perpendicular to the aperture through which the rail passes, and has a nut or female screw formed within it. Sockets a^1, of similar construction, except that the lead of the threads formed in their hubs or bosses is in reverse direction to that of the sockets *a*, are fitted upon the lower rail A′.

The rails A and A′ are connected by vertical posts or pickets B, which may be either solid or tubular, and are provided with screw-threads upon each of their ends, the lead of said threads being in opposite directions, respectively, in correspondence with the threads of the sockets *a* a^1, with which the post B engages.

By this construction the rails A A′ may be drawn and held firmly together by a series of posts spaced to any desired distance, rotation of the posts in one direction serving to draw the rails together, and in the other to force them apart.

The sockets *a* a^1 may be provided with exterior projections a^2 in line with the posts B, and corresponding in form or design therewith, so that the appearance of a post projecting above and below the rails is presented, without penetration or perforation of either.

It is obvious that the posts B may be set at at an angle with, instead of perpendicular to, the rails A A′, if desired, by a corresponding inclination of the hubs of the sockets *a* a^1.

The diagonal, serpentine, or other ornamental panel-work interposed between the posts B is held in position by sockets *c*, which fit upon the rails A A′, with the capacity of longitudinal adjustment thereon, similarly to the sockets *a* a^1, but, instead of having threaded sockets like the latter, are provided with loops or staples *c′* on their inner faces, into which the ornamental member, which is, in this instance, a serpentine strip, C, is hooked or attached at or near its ends, so as to be supported against lateral displacement by its sockets *c*, and against longitudinal displacement by the clamping action of the posts B.

It is obvious that the design and detailed arrangement of the railing may be modified in various particulars relatively to that herein shown, according to the judgment and skill of the constructor, without departing from the

spirit of my invention, so long as the method of connecting the principal members, substantially as shown, is preserved.

I claim as my invention and desire to secure by Letters Patent—

1. The combination, in a metallic railing, of an upper and a lower horizontal rail, a series of sockets fitted to and having the capacity of longitudinal adjustment on said rails, and a series of vertical posts, each of which has a right-hand thread upon one of its ends and a left-hand thread on the other, said threads respectively engaging nuts formed in the sockets of the upper and lower rails, substantially as and for the purpose set forth.

2. The combination, in a metallic railing, of an upper and a lower rail, connected by posts having right and left hand screws, engaging nuts formed on sockets fitted to said rails, and panel-work interposed between the posts, and supported against lateral displacement by hooks or staples on sockets fitted to the rails, substantially as set forth.

WM. H. BRINES.

Witnesses:
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