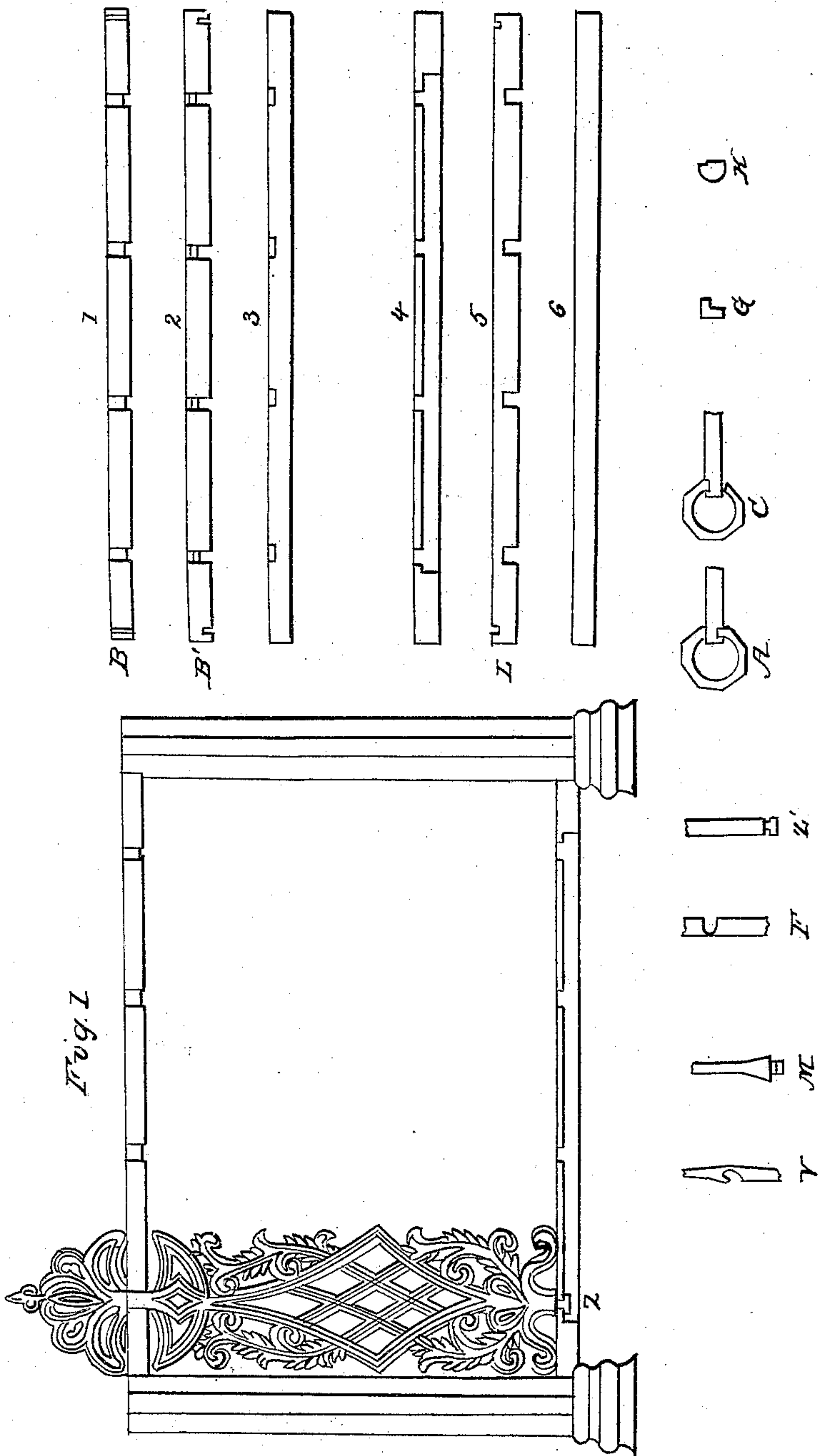


G. HESS.
Iron Fence.

No. 8,632.

Patented Jan. 6, 1852.



UNITED STATES PATENT OFFICE.

GEORGE HESS, OF EASTON, PENNSYLVANIA, ASSIGNOR TO SYLVANUS SHIMER.

IRON RAILING.

Specification of Letters Patent No. 8,632, dated January 6, 1852.

To all whom it may concern:

Be it known that I, GEORGE HESS, the above named, of the borough of Easton, county of Northampton, and State of Pennsylvania, have invented a new and Improved Mode of Constructing Cast-Iron Fences for the inclosing of grounds and cemetery-lots and for all purposes of inclosures requiring strength and durability and for balconies and the roofs of houses.

The following I declare to be a full and exact description of my invention together with a reference to the drawings necessary to illustrate the same.

The nature of my invention consists in making my fence by means of two upright cast iron posts and two cast iron rails, Fig. 1, the lower one having a slide bar for each panel. The top rail is secured in the post by means of a mortise in the form of the letter L, as shown in transverse section of the top of a post marked A, and a corresponding tenon in the end of the rail marked B, and B' on drawing on rails Nos. 2 and 1. The lower rail is secured into the posts by a similar mortise and tenon, the rail however is not so wide as the upper rail and leaves room for a sliding bar, which will be with its uses described hereafter. A reference to the tenon and mortise on the top of the post and on the top rail will give the idea of the connection between the lower rail and the post. The mortise in the post for the lower rail is made large enough to allow the lower rail to be taken out without removing the post; this is accomplished by removing the sliding bar and pressing the lower rail forward which carries the tongue of the tenon (L) clear of the projecting angle of the mortise C. The top rail is notched about half way through at the front, the angles of the notches being right angles and the sides parallel, and the lower part of the notch is rounded. On the top part of the top rail a portion of the iron is taken away on the part opposite the notch, so as to give an elevation which forms a catch.

Letter K, is a section of the top rail in what I designate as the notch showing the rounding and elevation above spoken of. The lower rail is grooved on the lower side with a rectangular groove about half way through the groove extending as far as the foot of the uprights or palings are to go. The groove is shown in drawing of rail No.

4. Letter G is a section of lower rail where it is grooved. At points corresponding to the notches in the top rails, the lower rails are notched and with rectangular notches to the depth of the groove, drawing of rail No. 5.

The upright or paling is cast at the top and bottom of the same thickness as the railing; it may be made of any pattern either a plain bar or a vine or other figure. At the upper part where it joins the rail, letter F, it is sunk concavely so as to correspond with the convex bottom of the notch on the upper notch rail, and at the back it is horizontal with a tooth which fits into the catch on the back of the notch in the upper rail; the inner and outer sides of this tooth are straight and parallel with each other; this is for the purpose of holding the upright or paling to its place. The circular form of the rail at the bottom of the notch and the concave depression on the upright is to enable the parts to be compactly fitted to their place, at transverse section of the upright or paling showing the form of the depression and tooth above alluded to, is given in drawing (F). The lower part of the upright or paling where it joins the lower rail is cast with a foot in the form of an inverted T (\perp); the neck which connects it with the upright or paling, being fitted to the notch in the lower rail and the cross piece taking hold below in the groove.

Drawing Z gives a perspective view of the paling and the foot above spoken of.

M, M, gives a side view of the upright or paling showing how the bottom part is taken off.

The object of the tooth above and the foot on the lower part of the rail is to prevent the rail from being moved from its position and to give security to the uprights, making one part to strengthen the other.

What I designate the sliding bar, or more properly perhaps the key bar is a plain bar of iron of uniform width and thickness, large enough to fill the space unoccupied by the lower rail in the mortises of the posts; its object is to confine the lower rail to its place and keep the feet of the uprights or palings in the grooves and notches of the lower rail.

Drawing No. 6, represents the slide or key bar above spoken of.

The fence is put together by first placing the posts into their places firmly secured.

The rails are then put in the mortises, the uprights placed in the notches of the upper rail, and the teeth fitted to the catches. The neck of the lower part of the upright is then
5 passed into the notches of the lower rail and the feet into the grooves. The slide or key bar is then placed into the mortises in the posts beside the lower rail, and every thing
10 is made firm and compact. The fence presents a perfect finish on both sides and cannot be separated without taking out the slide or key bar.

I do not claim as my invention any of the parts of the within described railing,
15 nor any of its minor combinations separately; but

I do claim—

A combination consisting of the following enumerated parts, viz., the top rail with its notches and end hooks, the lower rail with
20 its notches, end hooks and groove the palings with their notches, hooks and T's, the posts with their openings for the ends of the rails, and the key bar by which the rails,
25 posts and palings are firmly fastened together, the whole constructed and arranged substantially as herein described.

GEO. HESS.

Witnesses present:

EDWARD A. DEPEW,
C. E. BUCKE.