(No Model.)

C. HANIKA.

METALLIC FENCE.

No. 303,729. Patented Aug. 19, 1884.

Fig. 1.

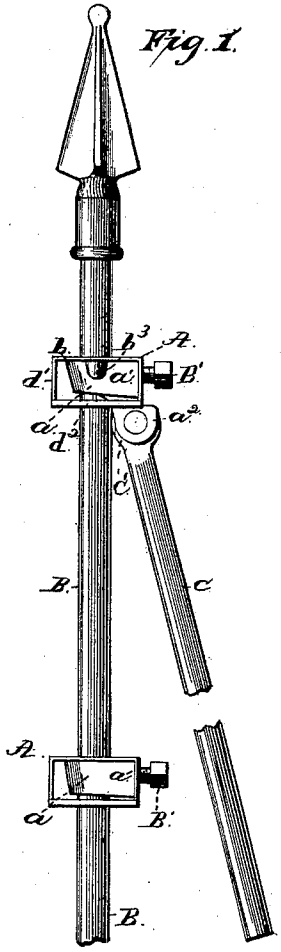


Fig. 3.

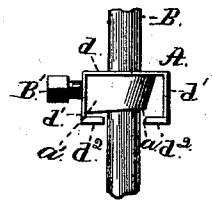


Fig. 2.

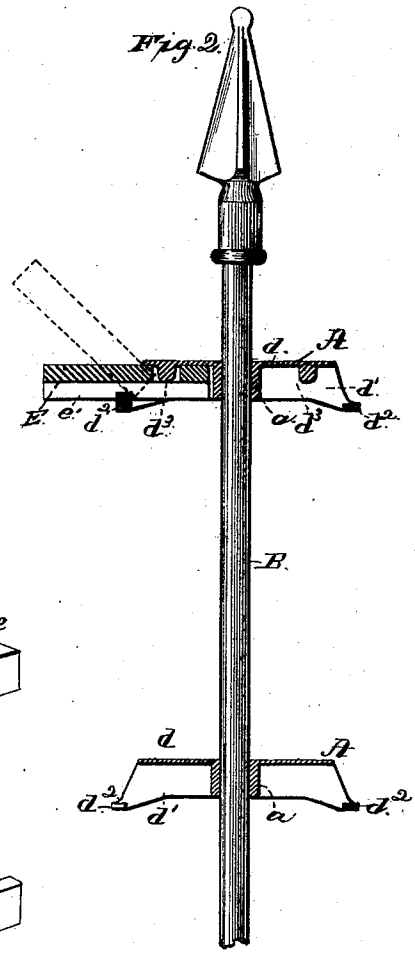


Fig. 4.

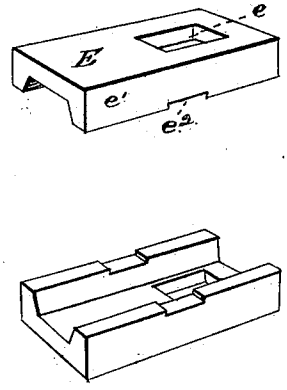
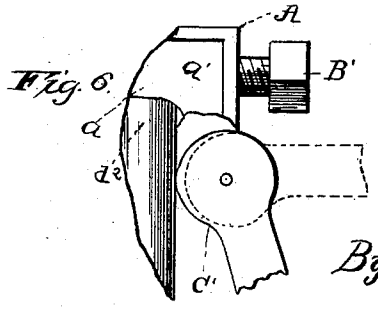


Fig. 5.



Fig. 6.



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Attys.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

CHRISTIAN HANIKA, OF SPRINGFIELD, OHIO, ASSIGNOR TO THE HANIKA IRON FENCE COMPANY, OF SAME PLACE.

METALLIC FENCE.

SPECIFICATION forming part of Letters Patent No. 303,729, dated August 19, 1884.

Application filed November 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN HANIKA, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Metallic Fences; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in fences and line-posts. It has for its object the provision of the post with sockets to receive the ends of the rails or stringers; the provision of means whereby said rails are held in the sockets in such manner as to permit longitudinal expansion and contraction, and yet prevent detachment thereof from the socket; means for securing the vertical adjustments of the sockets, and other improvements, which will be hereinafter more fully described and claimed.

In the drawings, Figure 1 is an edge view of the post and boxing. Fig. 2 is a vertical longitudinal section thereof. Fig. 3 is a detail edge view of the form of boxing preferred for the lower rails. Fig. 4 shows in detail the preferred form of rail. Fig. 5 is a modification, and Fig. 6 is an enlarged detail view of a portion of the boxing and upper end of the brace, all of which will be described.

The boxing A is formed with a central opening, which fits over the post B, and it is provided with a tubular portion, *a*, embracing said post, and having a solid extension, *a'*. A threaded opening is formed through the extension *a'* and portion *a*, and the set-screw B' turns through this opening and bears against the post. This provides a convenient means for adjusting the boxing up or down, as desired, on the post. The same principle may be followed with advantage in securing the pickets to the rails, the former being passed through perforations in the rails, and secured by set-screws turning through tapped openings in the rail and clamping against the picket. This provides a convenient, simple, and readily-operated means for securing the pickets and rails, and for enabling the vertical adjustment of the parts, as will be readily understood. I prefer to secure the boxing on the post in the manner before described, in order to secure its vertical adjustment. Where so desired, the boxing might be secured permanently to the post or cast or wrought integral therewith. A lug or lugs, a^2, depend from the boxing in rear of the post. The brace C is pivoted to these lugs, and has a slight cam-extension, C', which binds against the post as the lower end of the brace is moved in toward the same. The lower end of the brace, in practice, is secured to the stone or line-base on which the post is mounted. One or both ends of the boxing form sockets into which the ends of the rail are inserted. These sockets usually are composed of the top wall, *d*, the side walls, *d'*, depending from the opposite sides of the top wall, the bridge or support d^2, connecting the the outer lower ends of the side walls, and the stud d^3. This latter is formed or secured on the under side of the top wall, *d*, and projects downward, as shown. The normal position of the bridge d^2 is that shown in Fig. 1. The rail E is provided near its end with the elongated slot *e*, and is preferably made in the channel shape shown, with the side walls or flanges *e'*. The rail is inserted in the socket at an angle, as indicated in dotted lines, Fig. 2, until the slot *e* rests under the stud d^3, when it is turned down to the horizontal position shown, and the bridge d^2 is bent up between the wings or flanges, as shown in Fig. 2. By this arrangement and construction, it will be seen, the rail may freely expand and contract under the influence of heat or cold, and yet is prevented from longitudinal detachment from the socket.

The bridge is preferably extended entirely across between the two side walls, *d'*. It will be understood, however, that instead the bridge could be formed of two short lugs projected inward toward each other from the opposite side walls, as most clearly shown in Fig. 3.

It will be understood that, instead of forming the slot *e* through the rail E, slots e^2 might be formed in the edges of the flanges *e'* thereof, so as to engage the bridge d^2, as is most clearly

shown in Fig. 4. This, it will be seen, would permit the longitudinal expansion and contraction of the rail, but would prevent its detachment from the socket, and might be used instead of the slot *e* and stud d^3, but is preferably used in conjunction therewith. A similar result—namely, the permitting of expansion and contraction and prevention of detachment, as set forth—might be had by the construction shown in Fig. 5, in which the rail is slotted transversely in a horizontal plane, and is placed in the socket and secured by a pin or bolt passed through a hole in the sides of the sockets. I prefer, however, the constructions shown in Figs. 1 and 2, and before described. I prefer to provide the sockets with means to prevent the displacement or detachment of the rails; but it will be understood that where so desired such means might be dispensed with and the rails be simply placed in the sockets and secured between the adjacent posts. This would permit the expansion and contraction of the rails, but would not provide as firm and stable a fence as when securing means substantially as described are employed.

It will be understood that the sockets in some cases need be formed in only one end of the boxing, as where the post stands at the end of a section or a gate-opening. Where the post is used at a corner, the boxing is formed with its sockets at right or other angles corresponding to that of the meeting sections.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The herein-described boxing, having a socket adapted to receive the end of the rail, and consisting of a top plate provided with a depending stud, side plates adapted to form a support for the bridge, and the bridge supported in the outer ends of said side plates, the bottom of the boxing in rear of said bridge being open, substantially as described, enabling the angular insertion of the end of the rail, as and for the purposes specified.

2. The combination of the picket, the boxing vertically adjustable thereon and adapted to support the rails, and the brace-rod hinged or pivoted at one end to said boxing, and having its opposite end movable laterally to and from the fence-line, substantially as set forth.

3. The combination, with the boxing adapted to support the end of the rails and the post, of the brace C, pivoted to the boxing, and formed with a cam or eccentric bearing-face, C′, adapted to bind against the post, substantially in the manner and for the purposes specified.

4. The iron fence, substantially as herein described, composed of the posts or pickets B, the boxing provided with central opening fitted over the post or picket, and having an open bottom and depending stud, d^3, and end bridge, d^2, the set-screw B′, turned through the boxing and against the post or picket, the brace pivoted at one end to the boxing, and the rails having their ends adapted to be inserted in the boxing and formed with slots *e*, substantially as set forth, and for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

CHRISTIAN HANIKA.

Witnesses:
E. O. HAGAN,
H. BERGAMIN.