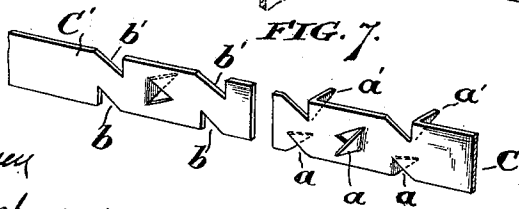
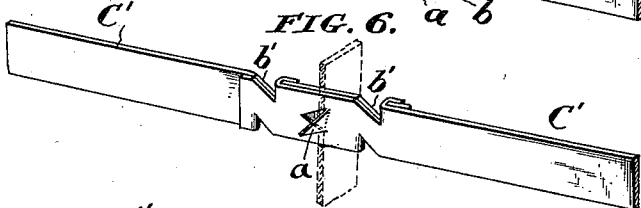
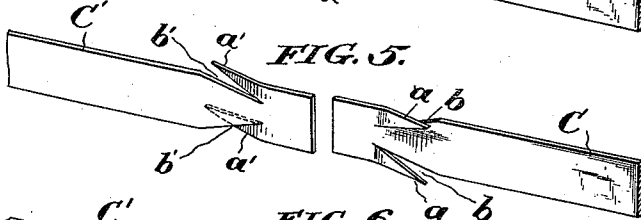
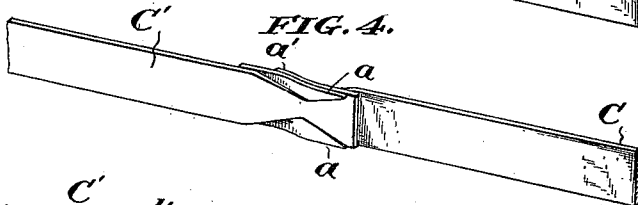
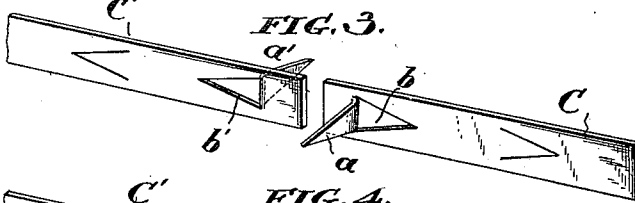
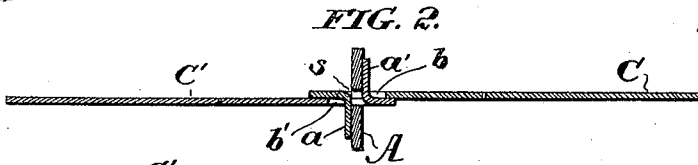
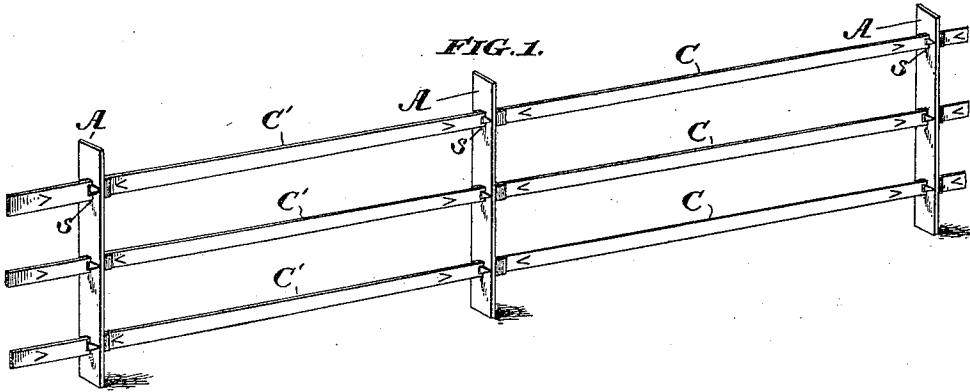


(No Model.)

A. L. BONNAFFON.
FENCE.

No. 465,916.

Patented Dec. 29, 1891.



WITNESSES:
Edw. H. Van Dusen
Reese M. Fleischmann

INVENTOR:
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By his attorney,
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UNITED STATES PATENT OFFICE.

ALBERT L. BONNAFFON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO JAMES G. LINDSAY, OF SAME PLACE.

FENCE.

SPECIFICATION forming part of Letters Patent No. 465,916, dated December 29, 1891.

Application filed November 20, 1890. Serial No. 372,096. (No model.)

To all whom it may concern:

Be it known that I, ALBERT L. BONNAFFON, of the city of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Fences; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification.

My invention has relation to certain improvements in metallic fences; and it consists in the parts hereinafter particularly described and claimed.

The object of my invention is to obtain a simple, strong, and effective device in metallic fences for securing the rails to each other and to the posts and which at the same time may be produced at a minimum cost.

In the accompanying drawings similar letters of reference refer to similar parts throughout.

Figure 1 is a perspective view of my improved fence. Fig. 2 is a sectional view showing in detail the spurs securing the rails together and in position to the post. Fig. 3 is a perspective view of the rails detached, showing one form of securing spur. Fig. 4 is a perspective view showing the rails locked together by a modified form of my improved securing device. Fig. 5 is a similar view to Fig. 4 with the rails detached. Fig. 6 shows another modified form of my improved securing device with the rails secured together in position. Fig. 7 is a similar view to Fig. 6 with the rails detached.

A represents the vertical posts, constructed, preferably, of wrought or sheet iron, having provided therein slots *s* for the introduction of the rails *C C'*, which are joined together, preferably, in the slots *s* to the post *A* by the securing device, of which I show herein several forms differing somewhat in construction from each other.

In the form shown in Figs. 1, 2, and 3 I provide the spur *a*, struck or stamped in the wrought or sheet iron of which the rails *C* are preferably constructed. The spur *a* of the rail *C* is bent out, as shown in Fig. 3, in a direction opposite to that of the spur *a'* on the rail *C'*. When the two rails are overlapped, the spur *a* passes through the orifice *b'*, pro-

vided in the rail *C'*, and the spur *a'* passes through the orifice *b* provided in the rail *C*. They are bent back and the rails securely held together. The rails *C C'* may also be secured to the post *A* in the slot *s* by overlapping the said rails in the slot *s*, while the respective spurs *a a'* are only partially introduced into the orifice *b' b* at oblique angles to the line of the rails, and when in proper position the spurs *a a'* are then bent out through the respective orifices *b b'* and on opposite sides to the post *A*, as shown in Fig. 2, which secures the rails firmly together and to the post.

In the construction shown in Fig. 4 each rail *C C'* is provided with two backwardly-projecting spurs *a a'*, struck or stamped out of the rails, and each pair of spurs *a a'* are bent out at an oblique angle to the line of respective rails and on opposite sides. The slots or indentations *b b'* thus formed by the bending out of the spurs of each rail provide an interlocking space for the set of spurs on the opposite rail. When the two are thus pressed together or hammered down, as shown in Fig. 4, and the rails are thus securely locked together, the spurs *a a'* may then also in this construction be bent out on opposite sides to the post *A*, as shown in Fig. 2, securing the rails together and to the post.

In the construction shown in Figs. 6 and 7 I preferably provide on the rail *C*, on each edge thereof, two or more spurs *a a'*, adapted to engage in notches *b b'* provided for each spur on the rail *C'*, which spurs *a*, when interlocked in the notches *b b'*, are pressed or hammered back, securely holding together the two rails, as shown in Fig. 6. Spurs *a a'* are also formed in the center of the rails *C C'*, of a construction, as shown in Fig. 3, adapted to interlock in a similar manner, assisting in securing the rails together and to the post *A*. The rails *C C'* are preferably constructed of wrought or sheet iron, as are also the posts *A*, and in the manufacture of the fence the spurs are stamped or cut in the material of which the rails are composed in any well-known manner, leaving when bent back the engaging orifices described. It will thus be seen that my improved fence, with the rails thus interlocked and connected, has a continuous

series of longitudinal rails throughout its length, giving strength to the whole structure, and any strain brought to bear at any point is thereby imparted to the whole line of fence, which assists in resisting the force. The construction of the securing device described is such as to readily and securely unite the rails and prevent of their being broken apart, and the continuous structure of longitudinal rails securely united relieves the several vertical posts of the usual strain in a disconnected fence and tends to assist in supporting them.

I am aware that spurs have heretofore been stamped and formed in metallic rails, bands, and palings for various purposes; but these I do not claim in this application, my invention consisting in the device and construction, herein particularly described and claimed, of securing together rails of metallic fences in connection with the posts.

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

1. The combination, in a metallic fence, of a series of longitudinal rails provided near their ends with spurs and with slots corresponding to said spurs, and of vertical posts provided with slots through which the adjoin-

ing ends of the rails are passed, the rails of each series being secured to each other and to the posts by means of said corresponding slots and spurs, substantially as described.

2. The combination of a vertical post A, having slots *s*, with longitudinal rails made up of sections C and C', passing through slots *s* and united by interlocking spurs and orifices *a a' b b'*, the spurs of one rail-section passing through the opposite orifices provided in the other section and projecting on opposite sides of the post, securing the rails in position, substantially as described.

3. The combination of a vertical post A, having slots *s*, with longitudinal rails formed of sections C and C', passing through the orifice *s* and provided with spurs *a a'* and orifices *b b'*, the spurs of one rail passing through the opposite orifices provided in the other rail, the spurs projecting on opposite sides of the post, securing the rails in position, substantially as described.

In witness whereof I have hereunto set my hand this 6th day of November, A. D. 1890.

ALBERT L. BONNAFFON.

Witnesses:

WILLIAM M. STEWART, Jr.,
HORACE PETTIT.