

(No Model.)

B. G. DEVOE.
IRON FENCE.

2 Sheets—Sheet 1.

No. 263,324.

Patented Aug. 29, 1882.

Fig. 1.

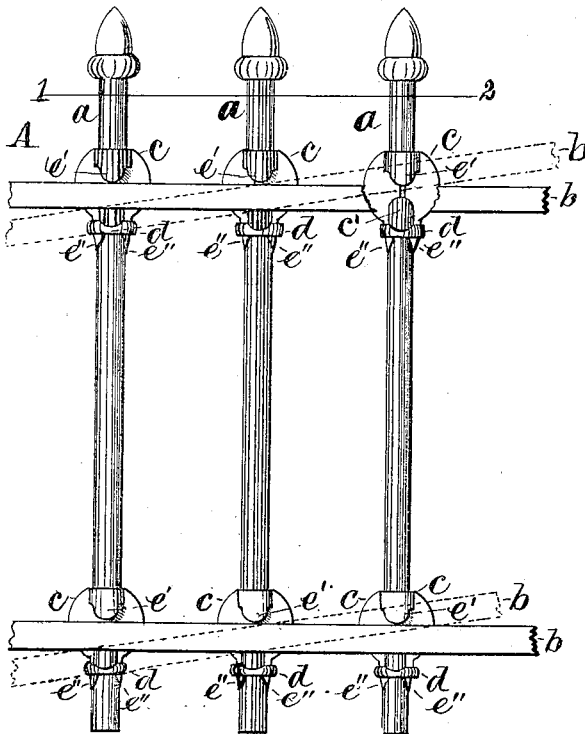


Fig. 3.

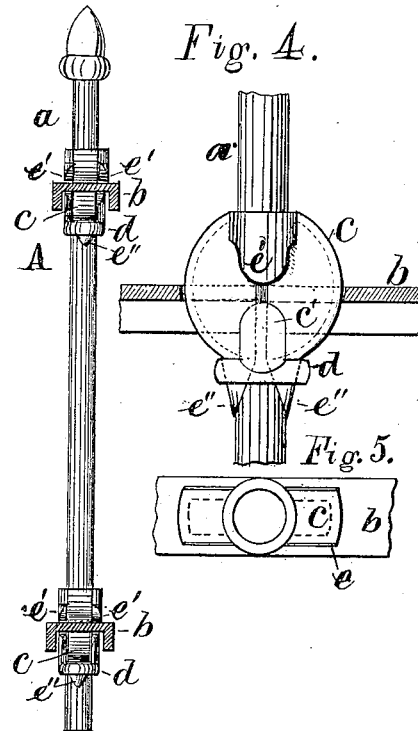


Fig. 4.

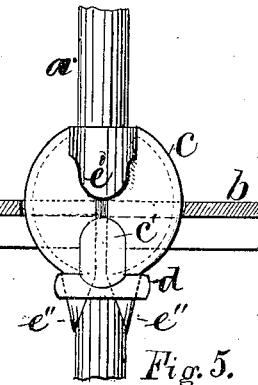


Fig. 5.



Fig. 6.

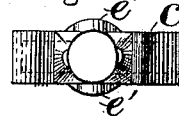
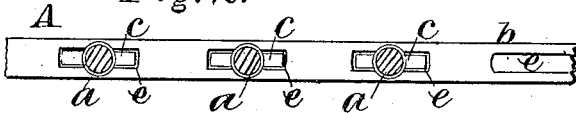


Fig. 2.



Witness:

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UNITED STATES PATENT OFFICE.

BENJAMIN G. DEVOE, OF KENTON, ASSIGNOR TO THE LIMA IRON FENCE COMPANY, OF LIMA, OHIO.

IRON FENCE.

SPECIFICATION forming part of Letters Patent No. 263,324, dated August 29, 1882.

Application filed June 12, 1882. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN G. DEVOE, of the city of Kenton, in the county of Hardin and State of Ohio, a citizen of the United States, have invented a new and useful Improvement in Iron Fences, of which the following is a full, clear, and exact specification, reference being had to the drawings accompanying this specification and forming a part of the same.

My invention relates to certain improvements in iron fences; and it consists, first, in the construction of the bearing parts of the pickets formed by the attachments thereon; second, in the construction of the rails to adapt them to the peculiar attachments which support the pickets; third, in the construction and arrangement of the line-post, whereby it may be made a part of the panel on the same horizontal line, or raised above it, as desired, to show a distinct post, it being readily adjustable vertically, as well as horizontally, either in line with or transversely to the fence-line; and, fourth, my invention relates, further, to the mode of connecting the rail ends, the object being to make the connection stronger, more easily put together, and better adapted to meet the requirements of expansion and contraction.

Two sheets of drawings accompany this specification.

Figure 1 is a side elevation of a part of a fence-panel of my improved iron fence. Fig. 2 is a top view of the same through line 1 2, Fig. 1. Fig. 3 is an end view of the section shown in Fig. 1. Fig. 4 is an enlarged view of the adjustable attachment of the picket and a longitudinal section of the rail. Fig. 5 is a top view of the picket attachment seen in Fig. 4, with a piece of the rail. Fig. 6 is a view of the attachment from the under side, the collar on the lower part being removed. Fig. 7 is a side view of a line-post attached to its base. Figs. 8, 9, 10, 11, 12, 13, and 14 are details.

A represents a part of a fence-panel; *a a*, the pickets, and *b* the rails of the same. The pickets shown in the figures are round. The attachments, however, are adapted to square as well as round picket-rods.

c is a disk-shaped attachment, open in the middle for the reception of the rod, and having a collar or ring cast upon the upper part,

with an ear, *e'*, extending downward therefrom on the front and rear sides, which rests upon the top of the rail and forms the supports of the picket. The end of the ear or lug is circular, so as to have a central bearing. The piece *c* is flat, and is cored out inside, making it hollow and light. Its two halves are slightly separated in the middle (to make room for the picket) below the collar-bearing *e'*. It is precisely alike on both sides, as will be seen by reference to Figs. 2, 3, 5, and 6, making the picket sides reversible—an important object in ornamental fence, as it facilitates more rapid assembling of the parts in building the same. An oblong vertical slot, *e*, is punched through the rail *b*, and the picket, with the ornament attached, is dropped through this slot until the ears *e'* touch the top of the rail, the latter being in line with the middle of the disk. At the lower edge of *c* are pointed prongs *e''*, which terminate the two halves of the same. Over these prongs a collar, *d*, is slipped and driven upward until its ears *e'* touch the under side of the rail. The ears *e'*, formed on this collar, are precisely uniform in size and shape with the ears *e'*, and are opposite to them, so that when the collar *d* is in place it not only secures the picket in place, but operates as the lower fulcrum of the same in inclining the rails to grade in either direction. The slot *e* allows the partial rotation of *c* within it in adjusting, and retains the pickets in their relative positions without the necessity of other fastenings than the ears *e'* and *e'* to prevent endwise displacement.

In Fig. 1 the dotted lines show the inclination of the rails *b* when the fence is set upon an inclined grade, the middle picket in this figure showing the position each will have when the rail is inclined. The top rail is broken out on the front side of the picket on the right to show the location of the upper and lower bearing-ears of the ornament *c*. An enlarged view of the same may be more clearly seen in Fig. 4. In Fig. 3 the channel-rail (which is used by preference) is shown in cross-section. The position of the lower collar and its ears or lugs, extending up into the channel on the under side of the rail, is also seen.

A top view of the attachment *c*, in position

without the picket, is shown in the enlarged view, Fig. 5. The dotted lines indicate the inner walls of the same. It will be noticed by reference to this figure and Figs. 1, 2, and 4 that the slot *c* in rail *b* is large enough to allow the piece *c* to drop into it loosely to make an easy adjustment of rail or picket. In Fig. 6, which shows a view of the under side of the attachment, the collar *d* is left off. In Fig. 7 the line-post is shown supported by the base B. A brace, *b'*, extends from the upper rail, *b*, to the outer end of a curved arm, *f'*, extending rearward from the bottom plate, D, of the post, to which it is secured by eyebolt *i''*. It is fastened at the top by a bolt, *h*, which passes through its upper end and through the plates *f*, which connects the ends of the rails passing between the latter, as seen in the enlarged views, Figs. 11, 12, and 13. The clamp-plates *f* consist of two short right-angled plates, L shape in cross-section, being precisely the same in form as a short section of channel-rail divided longitudinally in the middle. These are placed, one upon each side, over the joined ends of the rails, and the bolt *h* extends through their side flanges and between the rail ends, from one to the other, connecting them together and clamping the ends of the rails firmly. To prevent the ends of the rails from downward displacement a lug, *g*, is formed upon each section, on the lower edge of the flange, by cutting two sides of a square out and bending the lug formed thereby inward toward the middle longitudinal line of the rail, which has a long notch, *i'*, cut out of the lower edge of its side flange on the outside of each rail end opposite to the lug *g*, which is bent down to a right angle into this notch, and secures the rail ends not only from dropping down, but also from being drawn asunder longitudinally.

The manner of securing the top end of the brace by the same bolt which connects the clamp-bars is shown in the three enlarged views, Figs. 11, 12, and 13. Fig. 11 shows the under side of the connected ends of two of the rails, with the clamp-plates *f*, the bolt *h*, and the end of the brace *b'* interposed upon the bolt between the plate and nut which secures the whole together. Fig. 12 shows an end view of the same. Fig. 13 is a front view of the parts seen in Figs. 11.

Fig. 8 represents the lower end of the line-post. The two pickets *a'* are clamped to the ends of the short flat plate *k* by the eyebolts and nuts *i*, and this plate is secured to the short upright bar C of the post by the broad-headed bolt *m*, which extends through the long vertical slot *s* in said bar, allowing the pickets which form the post to be adjusted vertically thereon. Fig. 9 is a side view of the left picket *a'* and its connection with the bar *k'*. Fig. 10 is a top view of the parts shown in Fig. 8, the bar being cut through line *x y*. The eyebolts *i* are formed with a short threaded shank, extending through the plate *k*, with

a nut in the end, which, when tightened, clamps the picket firmly to the plate. Two pickets are shown clamped to the cross-plate *k* to form the line-post. The number of pickets, however, may be varied to suit the taste.

I claim as my invention—

1. In iron fences, an attachment for a picket, ornamental or otherwise, having a collar cast thereon, with an ear or lug depending therefrom upon the front and rear sides of the same, to form a pivotal bearing or fulcrum on both sides of the picket and allow of easy adjustment of the latter when suspended upon said bearings, as shown and specified.

2. In iron fences, a punched rail having oblong vertical holes therein, within which a picket attachment having pivotal bearings upon either side of said holes is located horizontally central thereto, to allow of the adjustment of the rails to grade, as hereinbefore set forth.

3. In a picket for iron fences, an attachment inclosing the same, suspended in an oblong slot in the rail, and having pivotal bearings above and below the rail, upon either side of said slot, central with the middle longitudinal line of said picket, to allow of easy adjustment in inclining the rails in either direction when setting the fence to grade upon uneven or inclined ground, as hereinbefore set forth.

4. In iron fences with wrought rods and cast or malleable ornaments, an attachment for pivoting the picket upon the rail, provided with lugs or ears cast upon its upper part on the front and rear sides, whereby it is suspended within a slot in the rail, tapering prongs extending from its lower edge on either side of the picket-rod, and a loose collar provided with upwardly-extending ears or lugs on the front and rear sides of the same, said collar being driven over the prongs until the points of the ears come in contact with the under side of the rail, thus securing the pickets thereto and preventing its displacement endwise, and at the same time allowing the adjustment of both rail and picket in setting the fence to inclined grade.

5. In an attachment for securing a picket to the rail in an iron fence, the flat circular hollow piece *c*, having upper opposite ears, *e'*, above the rail, a vertical opening through the middle, and tapering prongs *e''*, adapted to fasten the loose collar *d* when driven upward thereon, as shown, for the purpose set forth.

6. In iron fences, the clamp-plates *f*, of L shape in their cross-section, having lugs *g* turned inward from the under edge of the flange, in combination with the rail *b*, having the long notches *i'*, and the bolt *h*, for connecting and supporting the ends of the rails and allowing longitudinal expansion and contraction in the same, as hereinbefore specified.

7. In iron fences, a line-post constructed of two or more pickets grouped together in line, their lower ends clamped by eyebolts to a cross-bar parallel with the rails, which latter is

bolted to a short upright having a longitudinal slot therein, to allow of vertical adjustment of the post, substantially as hereinbefore set forth.

- 5 8. In line-posts for iron fences, a separable bottom plate with a longitudinal slot therein, crossing a transverse slot in the top of the base at right angles, and having a short upright
10 extending therefrom at the front end, with a longitudinal slot therein for the adjustment of said post vertically upon the same, and an upwardly-curved arm at the rear end provided with an eyebolt for adjusting and fastening
15 as shown and specified.

9. In iron fences, the combination, with post-base B, bottom plate, D, bolted thereto, and having curved arm *f'*, and eyebolt *i''*, of brace *b'*, extending from said arm to the upper rail, plates *f*, having lugs *g*, rails *b*, having slots 20 *i'*, into which said lugs are extended and adapted to operate in the expansion and contraction of the rail, and bolt *h*, by which the whole are connected together, as set forth.

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Attest:

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B. C. CONVERSE.