

J. H. & D. VAN DORN.
IRON-FENCE.

No. 173,144.

Patented Feb. 8, 1876.

Fig. 1.

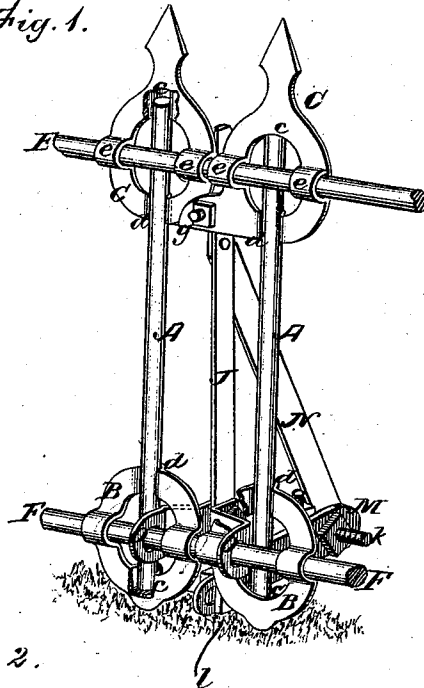


Fig. 2.

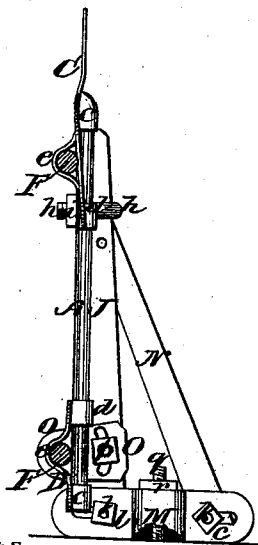
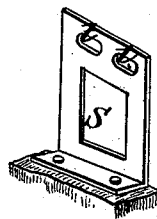


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES H. VAN DORN AND DWIGHT VAN DORN, OF AKRON, OHIO; SAID
DWIGHT VAN DORN ASSIGNOR, BY MESNE ASSIGNMENTS, TO JAMES H.
VAN DORN.

IMPROVEMENT IN IRON FENCES.

Specification forming part of Letters Patent No. **173,144**, dated February 8, 1876; application filed
January 23, 1875.

To all whom it may concern:

Be it known that we, JAMES H. VAN DORN and DWIGHT VAN DORN, both of Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Iron Fences; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of portions of an iron fence constructed in accordance with our invention. Fig. 2 is a transverse section of the same; and Fig. 3 is a perspective view of a support to be hereinafter referred to.

Similar letters of reference in the accompanying drawings indicate the same parts.

Our invention has for its object to simplify and improve the construction of iron fences, so that they shall combine lightness, strength, and cheapness with ornamentation and durability.

To the accomplishment of this result the invention consists, first, in the combination of an ornamental picket-fastening composed of malleable iron with a straight wrought-iron picket, the fastenings being constructed with a socket or step to inclose the ends of the picket, and with depressions or loops to embrace the stringers of the fence. It consists, secondly, in the construction and combination of various parts, as we will now proceed to describe.

In the drawings, A represents the straight wrought-iron pickets; B, the bottom and C the top fastenings composed of malleable iron, the top fastening being provided with an ornamental head. The fastenings are each constructed with a boss or socket, *c*, to receive and inclose the upper and lower ends of the pickets for the purpose of preventing them from dropping down or being pulled out, and their inner or proximate edges are formed with a depression, *d*, into which the side of the picket fits, as shown. *e* are rings or loops formed upon the sides of the top fastenings C, and projecting in an opposite direction from the depressions *d*, to receive and support the upper stringers F of the fence. These loops hold

the pickets and fastenings in place upon one side of the stringers, and are of sufficient size to permit the expansion and contraction of the latter. The loops *e* upon the bottom fastening may be left open upon one side, so as to form depressions in which the lower stringers are placed, these stringers being supported by the plates O, as we will presently describe. Where two upper fastenings are brought together at a post or brace, or at the ends of two stringers, they are formed with side projections or rings *g* at or near their lower ends, which overlap each other, and are slotted or perforated for the passage of a U-shaped bolt, *h*, by which they are locked together. The bolt is held in place by a nut, *i*, upon its inner end, as shown.

The intermediate fastenings need not be secured together by bolts; but may bear against each other to prevent them from sliding upon the stringers.

J is an upright brace or post, the top of which enters the loop of the bolt *h*, and its lower end is secured by a screw-bolt, *k*, and nut *l* to one end of a plate or strap, M, mounted upon a stone or sill let into the ground. The opposite end of the strap receives in a similar manner the lower end of a brace, N, whose top is pivoted to the post J beneath the loop-bolt *h*. O O are right-angular plates, one on each side of the upright brace J immediately above the end of the strap M. They are secured in place by a screw-bolt and nuts, *p*, and are slotted vertically for the passage of such bolt. Their outer ends pass through the lower picket-fastenings B, where they receive the lower stringers F, and permit them to expand and contract under the influence of the weather. By loosening the bolt and nuts *p*, the whole fence is adjustable vertically upon the upright brace, the bolt *h* sliding freely on the brace, and the slots in the angular plates permitting the latter to move on the screw-bolt.

The center of the strap M is formed with a slot or elongated opening to receive an upright screw-bolt, *q*, set in the base or sill of the fence, and is held in place by a nut, *r*, upon the end of the screw-bolt. By this construction the strap is adapted for horizontal adjustment to adjust the whole fence laterally upon its base.

The ends of the strap are also slotted horizontally for the passage of the screw-bolts, *k*, by the adjustment of which the lower ends of the braces J N are, together or separately, moved out and in upon the strap to regulate inclination of the fence, and to assist in its lateral adjustment.

Instead of employing the slotted strap M for the reception of the braces J N, the upright plate S (shown in Fig. 3) may be employed, the screw-bolts passing through the slots *t* at its upper edge.

The stringers fit loosely within the loops *e* and plates O, so as to contract and expand without affecting the other parts of the fence.

Having thus described our invention, what we claim is—

1. The malleable-iron fastenings B C, constructed as described, in combination with the straight wrought-iron pickets A and stringers F, substantially as described, for the purpose specified.

2. The picket-fastenings C B, constructed with the steps or sockets *c* to receive and inclose the ends of the straight pickets, to prevent the latter from dropping down or being pulled out, in combination with the stringers, substantially as herein shown and described.

3. The top picket fastenings C, constructed with the step or sockets *c*, the depressions *d*, and loops *e*, substantially as described, for the purpose specified.

4. Two upper picket-fastenings, connected

together and to a post or brace by means of the overlapping wings *g* and loop-bolt *h*, substantially as described, for the purpose specified.

5. The adjustable braces J N, in combination with the adjustable base-plate C, substantially as described, for the purpose specified.

6. In combination with the pickets, stringers, and picket-fastenings, we claim the adjustable right-angular plates O, adjustable loop-bolt *h*, and the upright brace J, for the purpose of adjusting the fence vertically, substantially as described.

7. The base-strap M, constructed with the central and end slots, and adapted for adjustment upon the base blocks or sills of the frame by means of the upright screw-bolt *q* passing through the central slot to receive the nut *r*, substantially as described, for the purpose specified.

8. The adjustable right-angular plates O, in combination with the brace J and the lower stringers and picket-fastenings, substantially as described, for the purpose specified.

9. The pickets, stringers, and picket-fastenings, in combination with the adjustable braces J N and the adjustable base-plate M, substantially as described, for the purpose specified.

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Witnesses:

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