

F. O. HANSON.  
Iron-Fence.

No. 210,526.

Patented Dec. 3, 1878.

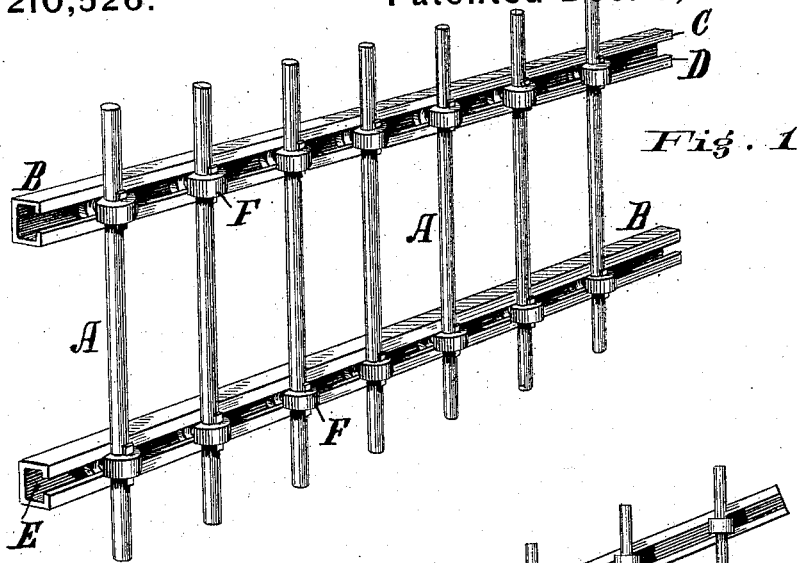


Fig. 1

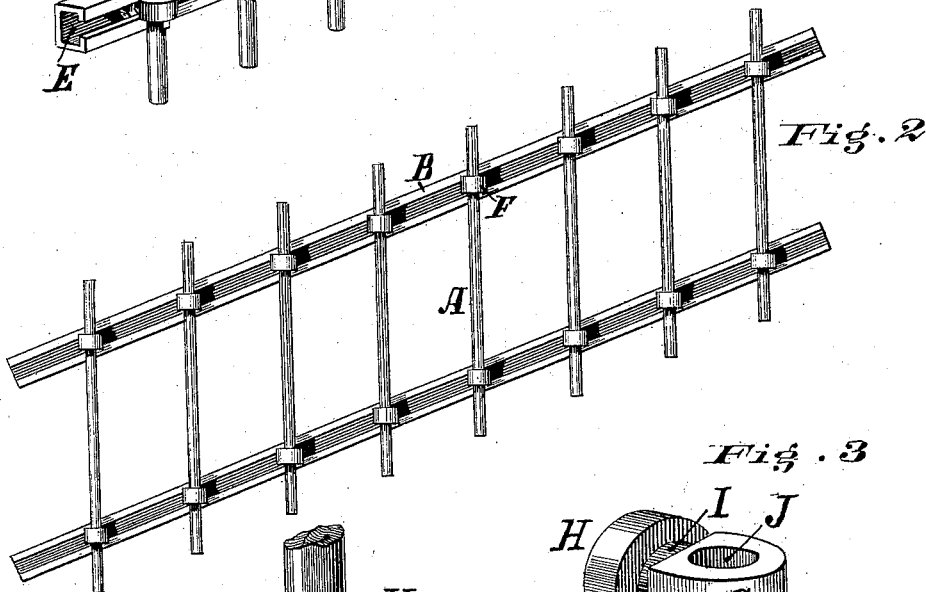


Fig. 2

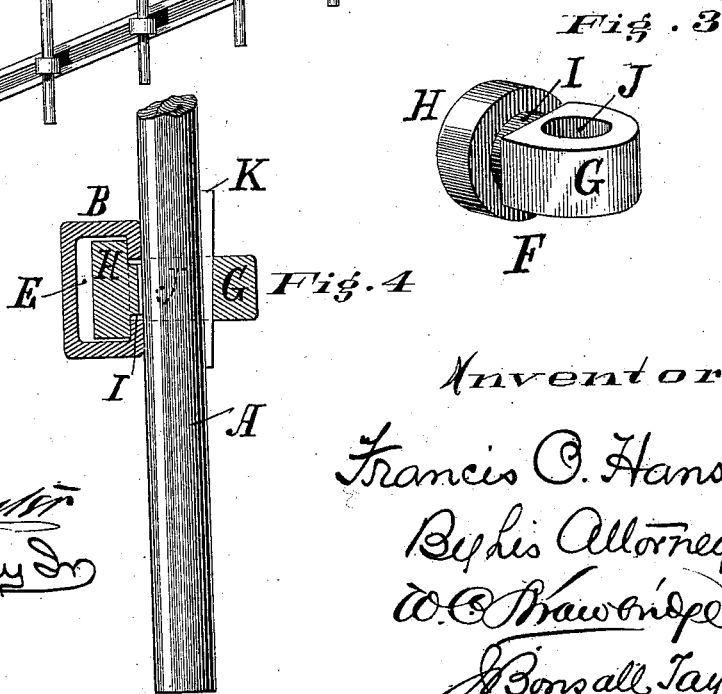


Fig. 3

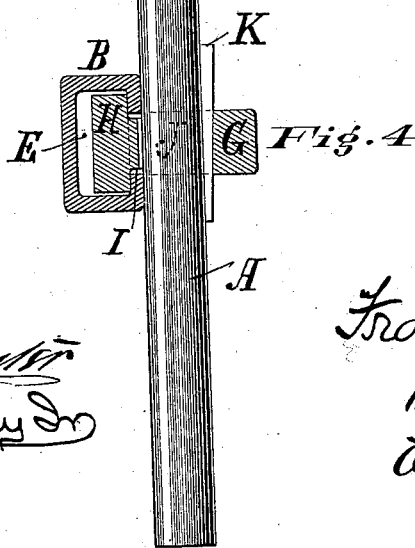


Fig. 4

Attests  
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# UNITED STATES PATENT OFFICE.

FRANCIS O. HANSON, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN IRON FENCES.

Specification forming part of Letters Patent No. 210,526, dated December 3, 1878; application filed October 11, 1878.

*To all whom it may concern:*

Be it known that I, FRANCIS O. HANSON, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Iron Fences, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form part of this specification, and of which—

Figure 1 is a view, in perspective, of my improved fence, set up on level ground; Fig. 2, a side elevation of the same, set up upon an incline; Fig. 3, a detailed perspective of my rotary connector; and Fig. 4, an elevational detail of one of the pickets, bound in place by the wedge and connector against the rail, the latter being shown in transverse section, while the connector is in longitudinal section.

The fence represented is an unornamented post-and-rail, having two rails.

In all the figures similar letters of reference indicate corresponding parts.

My invention relates to that class of composite iron fences which are made in parts, adapted to be bound together to form sections, so as to build the fence progressively.

The object of my improvements is the construction of an iron fence which can be as easily set up upon sloping or irregular ground as upon a level.

It has the further objects of strength, durability, and simplicity in the number and construction of its several members.

The pickets A are of any usual form, either plain or ornamental, and of either cast or wrought metal.

The rails B are best of the form represented—that is to say, of rectangular cross-section, hollow, and having one of their sides slotted out longitudinally in such manner as to leave flanges C D projecting respectively up and down from the bottom and top of the rails; but the rails may be square, polygonal, or circular, in cross-section. These rails are best made of wrought-iron, rolled or forged out by any of the well-known methods in the art of metal-working; but they may be cast. They may be either ornamental or plain; but, whatever be their external configuration, it is essential that internally they should be so channeled out as to form a longitudinal dovetail

groove, E, adapted to contain within it the tongues of the connectors.

F is the rotary connector, consisting, essentially, of three portions—a block, G, vertically slotted or recessed to embrace and hold the picket, a circular tongue, H, adapted to be retained within the groove of the rail, and a neck, I, uniting the block and the tongue. The tongue is formed to fit within and correspond to the interior groove, E, of the rail, so as to effectuate the ordinary union of the tongue and groove.

The neck is of about the width of the flanges C and D of the rail. Both tongue and neck of the connector are best of circular outline, so that the connector proper may be rotated within the rail, to cause the block G and its slot J to assume any relative angle with regard to the rail. The slot J of the block G is sufficiently larger than the picket which passes through it to permit of the introduction of a wedge, while the slot also extends sufficiently far in the block on its side which is nearest the tongue to enable the wedge K, when introduced against the picket, as in Fig. 4, upon the side which is farthest from the rail, to bind the picket externally against the flanges of the rail and the tongue of the connector internally against said flanges, so that, by the action of a single wedge, the picket is bound both to the connector and the rail, and the connector bound to both the rail and the picket, and this at any angle at which the picket, rail, and connector may have been respectively placed together.

In constructing the fence, which is best, of course, made in sections, united to intersectional posts, any given number of connectors are slipped from its end within the groove of a section of rail. The pickets are then slipped through the slots in the blocks of the connectors, and are plumbed to be vertical, whatever may be the angle at which the rails are set. The connectors are gaged at the proper distance apart, and the wedges then introduced, driven home, and clinched, when the work of setting up is complete.

It is obvious that the wedge may be introduced between the rail and the pickets, instead of upon the sides of the picket which are farthest from the rail, as shown in Fig. 4, and

that the binding of the three parts together will be identical in either case.

It is also apparent that any desired number of pickets may be introduced into a given length of panel of fence.

I do not desire to limit myself to the exact form of parts represented in the drawings, as it is obvious that any form of connector which dovetails within or attaches to a rail in such manner as to allow to it (the connector) a certain amount of rotation, and which, also, is adapted to hold the picket and to secure the rails and pickets together at any given angle by a tightening device, such as a wedge, set-screw, or the like, will correspond to and answer the function of the connector and rail represented.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination, to form an iron fence, of the rails B and pickets A by means of the rotary connector F, whereby the rails and pickets can be caused to assume varied inclinations relatively to each other.

2. In an iron fence, the rotary connector F, adapted to hold the picket, to be rotatably secured to or within the rail, and to be bound to both rail and picket by means of a key or its equivalent.

3. In an iron fence, the hollow slotted rail B, provided with flanges C D, or their equivalent, in order to retain the rotary connectors, in combination with said rotary connectors, substantially as shown and described.

4. In an iron fence, the connector F, provided with a slot for the picket or post, and with an extension adapted to be contained and revolve within the rail.

5. The combination, substantially as shown and described, of the rails B, pickets A, rotary connectors F, and keys K, the whole forming a composite iron fence.

In testimony whereof I have hereunto signed my name this 19th day of September, A. D. 1878.

FRANCIS O. HANSON.

Witnesses:

W. C. STRAWBRIDGE,

J. BONSALL TAYLOR.