

No. 666,236.

Patented Jan. 15, 1901.

C. F. PORTER & A. C. BOTH.

FENCE OR RAILING.

(Application filed Sept. 12, 1900.)

(No Model.)

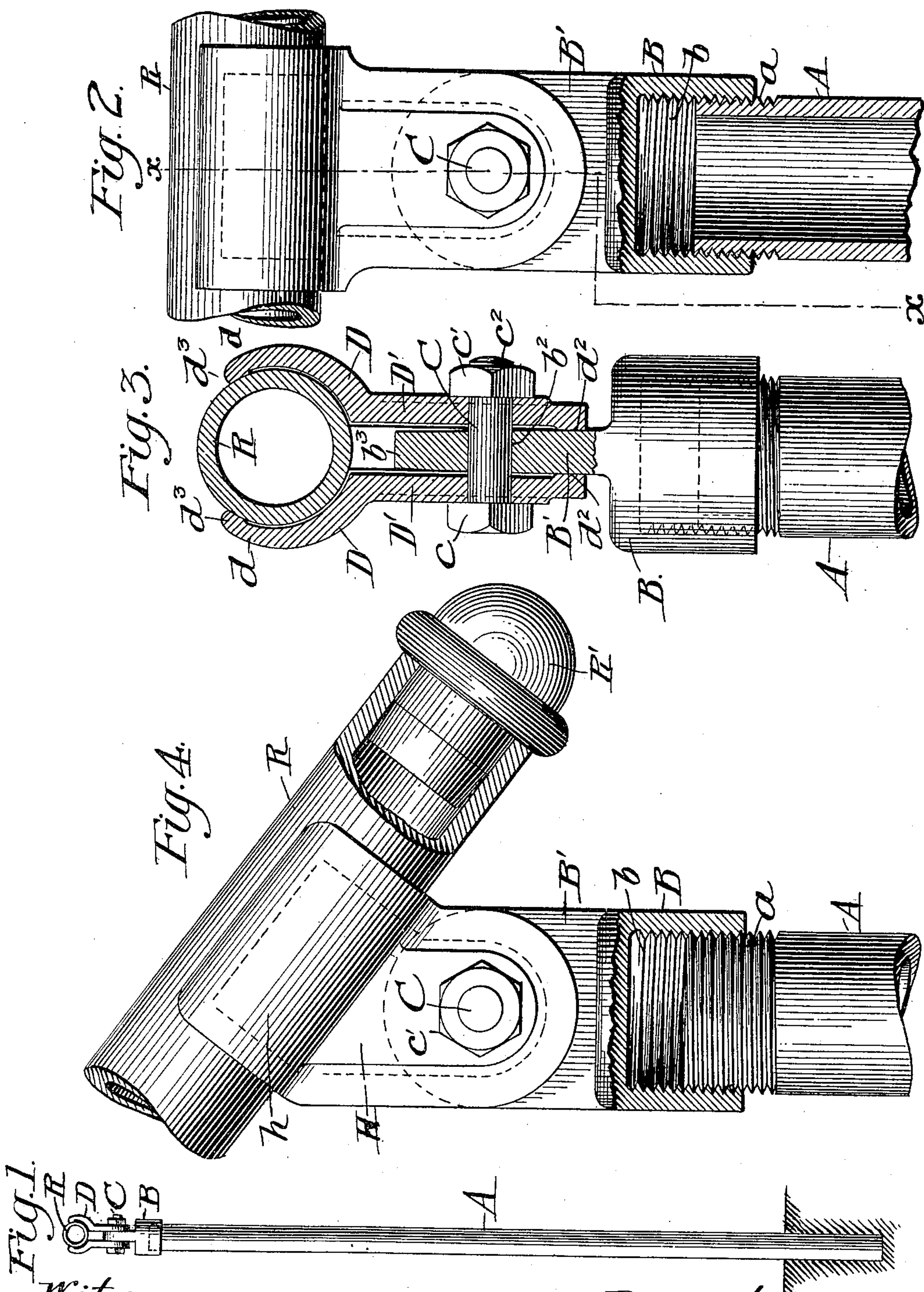


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

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# UNITED STATES PATENT OFFICE.

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## FENCE OR RAILING.

SPECIFICATION forming part of Letters Patent No. 666,236, dated January 15, 1901.

Application filed September 12, 1900. Serial No. 29,856. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES F. PORTER and ADOLPH C. BOTH, citizens of the United States, residing at Portland, county of Cumberland, and State of Maine, have invented a new and useful Improvement in Fences or Railings, of which the following is a specification.

The invention to be hereinafter described relates to fences or railings, and more particularly to such structures wherein the top rail, rod, or pipe is supported on suitable posts held either in the soil or on a supporting-base. In this class of structure as now commonly employed the supporting-post, usually of metal, has been surmounted by a T-casting having its projecting portions provided with screw-threads either on the interior or exterior thereof. The top rail for connecting the posts by means of the T-heads referred to has been usually screw-threaded onto or into the T-head, or the ends of the top rail have been connected to the T-casting by other end-connecting means. In erecting a fence or rail by this old form of structure much difficulty has been experienced in properly spacing the posts, as if such posts are not spaced accurately to conform to the length of rail, pipe, or rod extending between the adjacent posts much cutting of the rail, pipe, or rod is necessary to adjust the same to the distance between the posts, or if such cutting is not done then the posts require resetting, else the entire structure is more or less drawn out of symmetrical condition. To avoid the fieldwork incident to this cutting or resetting of the posts, it has been the usual practice heretofore to assemble together the entire structure and then lift it bodily into place. In this old form of structure also accuracy of adjustment between the length of rod-sections and distance between posts has been necessary, thereby entailing much additional labor and expense.

It is the object of our invention to overcome these objections and to produce a fence or hand-railing which shall be simple in construction, readily and easily put together in the field without reference to adjustments between the length of rail-sections and the distance between posts, and which, moreover, may be readily assembled by an inex-

perienced workman and upon a supporting-base or soil of uneven and irregular surface.

To these ends our invention consists, primarily, of a post having connected to the top thereof a flanged metal socket, to said flange of which is secured means for clamping the rail to the flanged metal socket, all as will hereinafter be more fully described, and definitely pointed out in the claims.

In the drawings, Figure 1 is a view of a post having our invention applied thereto. Fig. 2 is a side elevation, partly in section, of the top of said post, showing the manner of connection between the top rail and the post. Fig. 3 is a section on line *xx* of Fig. 2; and Fig. 4 is a side elevation, partly in section, of a slightly-modified form of our invention.

In the drawings, A represents a metal post provided at its upper end, preferably, with a screw-thread *a*, which in the form of construction shown are external to the post A, although it is quite evident that this location of the screw-thread is not essential. Surmounting the post is the socket-piece D, provided, preferably, with internal screw-threads *b*, adapted for connection with the external screw-threads upon the end of the post A. Projecting upward from the socket-piece B is a flange B', preferably, though not necessarily, central of the socket-piece. While we have shown a screw-thread connection between the top of the post and the socket-piece, it is evident, of course, that any suitable means may be employed for connecting the socket-piece to the post, and while also we have preferably shown the flange B' extending upward from the end of the socket-piece and centrally thereof it is of course within the scope of my invention to vary this arrangement, the essentials of which shall be that the socket-piece shall have a reliable connection with the top of the post and that the flange, preferably formed integral with the socket-piece, shall extend upward therefrom.

Disposed on the opposite sides of the flange B<sup>s</sup> are the clamping-plates D D, the upper ends of which are turned in a form to fit and properly grasp the rail R, which is usually a metal tube or rod, while the lower portions of such clamping-plates D are made straight and extend to near the upper top surface of the socket-piece B. A suitable bolt C, hav-



ing a head  $c$ , is passed through perforations in the flange  $B'$  and the arms  $D'$   $D'$  of the clamping-plates, and by means of the nut  $c'$  on the screw-threaded end  $c^2$  of the bolt the said clamping-plates  $D$  are forcibly drawn together, so as to clamp between their upper ends  $d$  the pipe or rod  $R$ , all as will be quite obvious.

It will be noticed in Fig. 3 that we have preferably formed the flange  $B'$  with a contracted upper end  $b^3$  and that the extreme lower ends of the arms  $D'$  of the clamping-plates  $D$  have a projection  $d^3$ , which bites against the lower end of the flange  $B'$  when the nut  $c'$  is screwed up to draw the clamping-plates around the tube or rod  $R$ . It will also be noticed that the extreme upper ends of the arms  $D$  have like biting projections  $d^3$ , disposed, preferably, above the center of the tube or rod  $R$ , so as by their clamping action to draw the said rod or tube firmly down into its seat between the clamping-arms. While we have shown the flange  $B'$  as contracted at its upper end at  $b^3$  and the clamping-jaws each provided with the projections  $d^3$  as the preferred embodiment of our invention, it is to be understood that these specific features of structure are not essential, it being only necessary that the clamping-jaws  $D$  shall be held to the flange  $B'$  of the socket-piece by any suitable form of clamping means, to thereby draw the upper ends of the clamping-jaws  $D$  firmly against the rod or pipe  $R$  to hold the same securely in the socket thus formed. It is not necessary either that the rod or pipe  $R$  shall be circular in cross-section, although such form is embodied in the preferred construction illustrated. The upper ends of the clamping-jaws  $E$  in any event conform substantially to the exterior contour of the pipe or rod.

From the construction thus described it will be noted that the socket-piece  $B$  can be readily secured to the upper end of the post  $A$  by any suitable form of connecting means and that by manipulation of the nut  $c'$  the clamping-plates  $D$  can be drawn upon or released from the rod or bar  $R$ , forming the upper rail of the fence or railing, thus connecting or disconnecting it readily from the flange  $B'$  of the socket-piece, without reference to the length of the different sections of pipe or rod. Where the soil or supporting-base for the post  $A$  is irregular in contour or surface, the construction described permits the rod or pipe  $R$  to be connected readily to the post, notwithstanding the fact that the tops of the said posts are on slightly-different levels.

In Fig. 4 we have shown a slight modification of the clamping-plates wherein the upper ends  $h$  are suitably offset at an angle from the lower portion  $H$ , and this form of clamping-plate may be advantageously employed when the fence or rail  $R$  is to be given

a permanent and steep inclination, as shown in Fig. 4. The end of the pipe or rod  $R$  is usually closed by a knob or closure  $R'$ .

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a fence structure, the combination of a post, a socket-piece on the end of said post and rigidly connected thereto to form a fixed supporting structure, said socket-piece having a flange, flattened as respects the socket-piece, and projecting from the part thereof on the end of the post, rigid clamping-plates disposed on opposite sides of the flange, a rail disposed between the clamping-plates and means to clamp said plates to the flange and also to the rail, whereby rails of varying lengths may be employed and cutting thereof between posts be avoided in setting up the fence.

2. In a fence structure, the combination of a post, a socket-piece conforming to the shape of and rigidly connected to the top portion of the post to form a fixed supporting structure, said socket-piece having a flange projecting centrally therefrom, clamping-plates disposed on opposite sides of the said flange, a rail disposed between the upper ends of the clamping-plates, the said upper ends of the clamping-plates conforming substantially to the contour of the rail and having biting engagement therewith.

3. In a fence structure, the combination of a post, a socket-piece having a screw-thread connection with said post and provided with a flange projecting upwardly therefrom, clamping-plates disposed on opposite sides of said flange, means for clamping the said plates to the flange, and a rail disposed between the upper ends of the clamping-plates in plane of the said upwardly-projecting flange, the said ends of the clamping-plates conforming substantially to the contour of the rail.

4. In a fence structure, the combination of a rail and post and means connecting them, said means comprising a socket-piece having an internal screw-thread adapted to engage external threads on the top of the post, a flange projecting from said socket-piece, clamping-plates, disposed on opposite sides of the flange and having ends projecting above said flange and conforming substantially to the contour of the rail, and a clamping-bolt for clamping the plates to the flange and the upper ends around the rail, said plates having biting projections at their upper ends.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CHARLES F. PORTER.  
ADOLPH C. BOTH.

Witnesses:

WALTER G. LORD,  
CHARLES C. MANNING.