

No. 607,314.

Patented July 12, 1898.

W. E. WILLIAMS.

FENCE POST.

(Application filed Apr. 1, 1898.)

(No Model.)

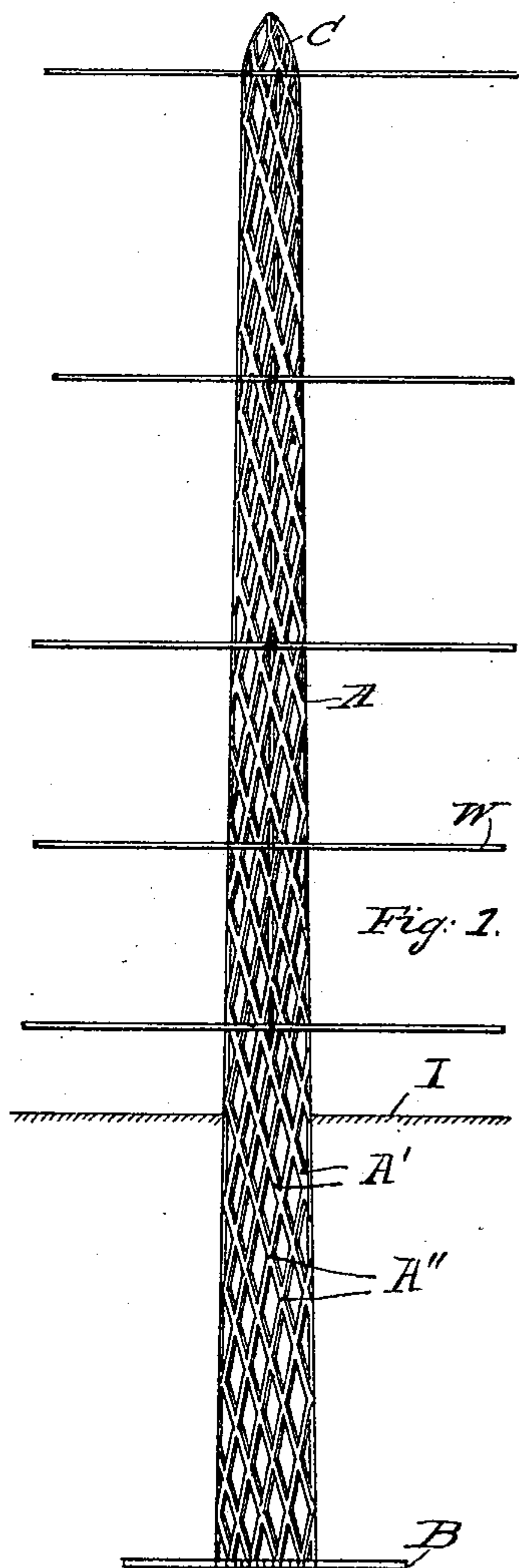


Fig. 1.

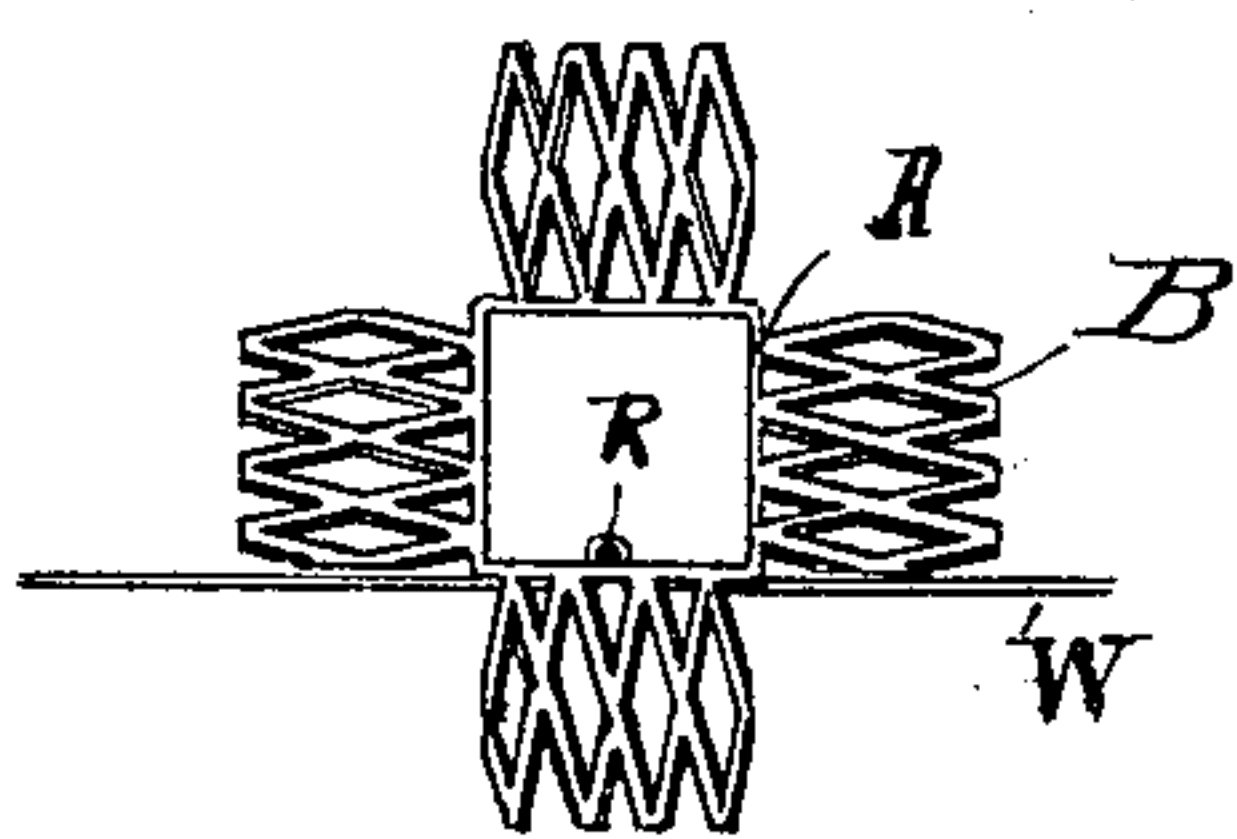


Fig. 2.

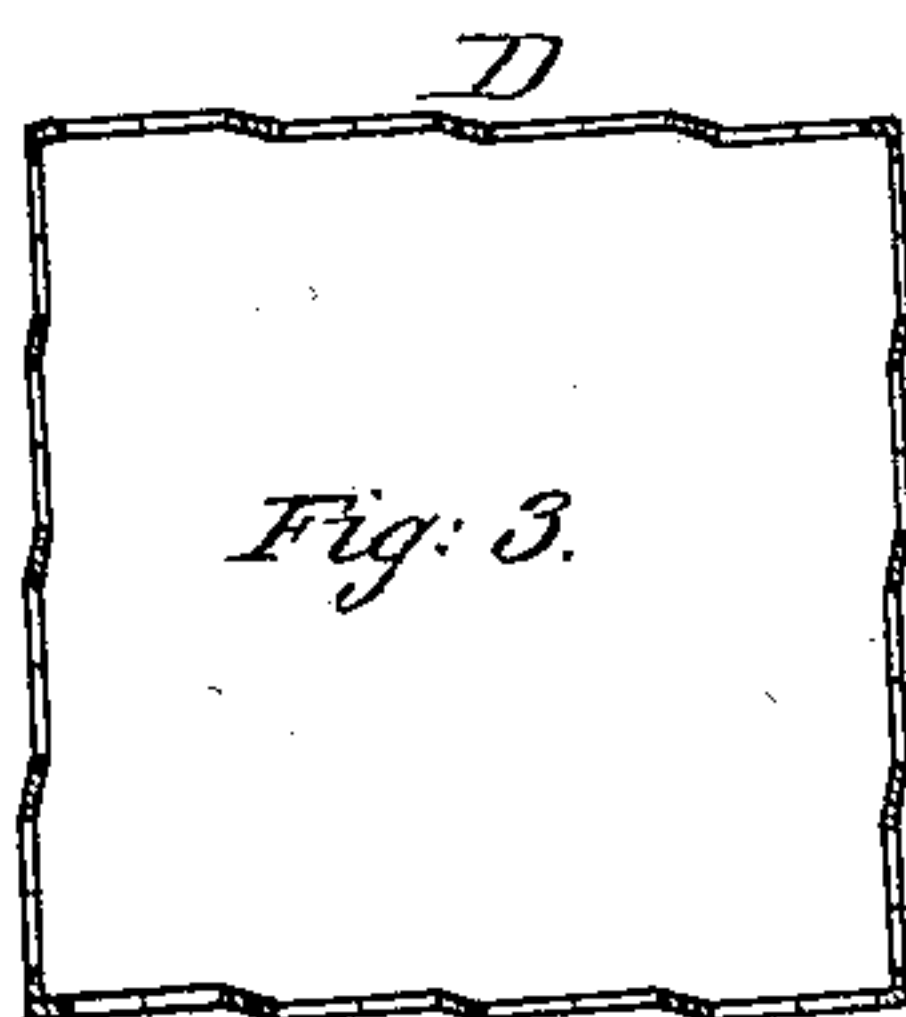


Fig. 3.

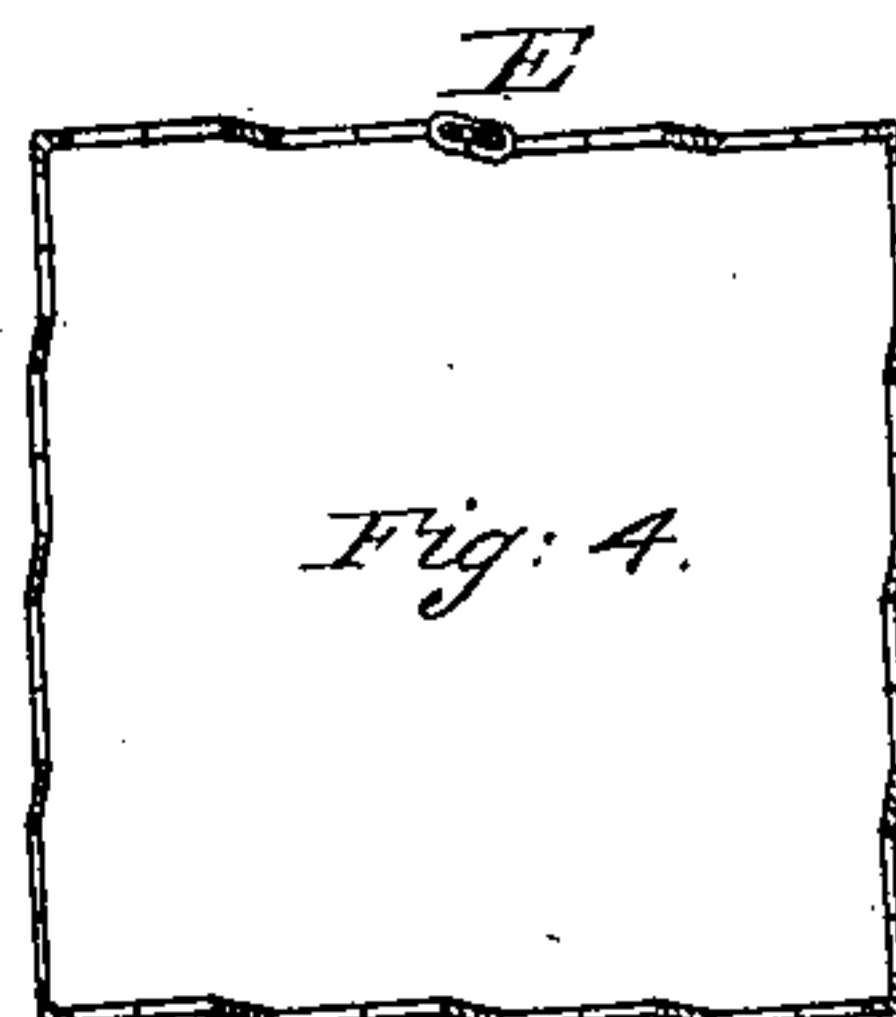


Fig. 4.

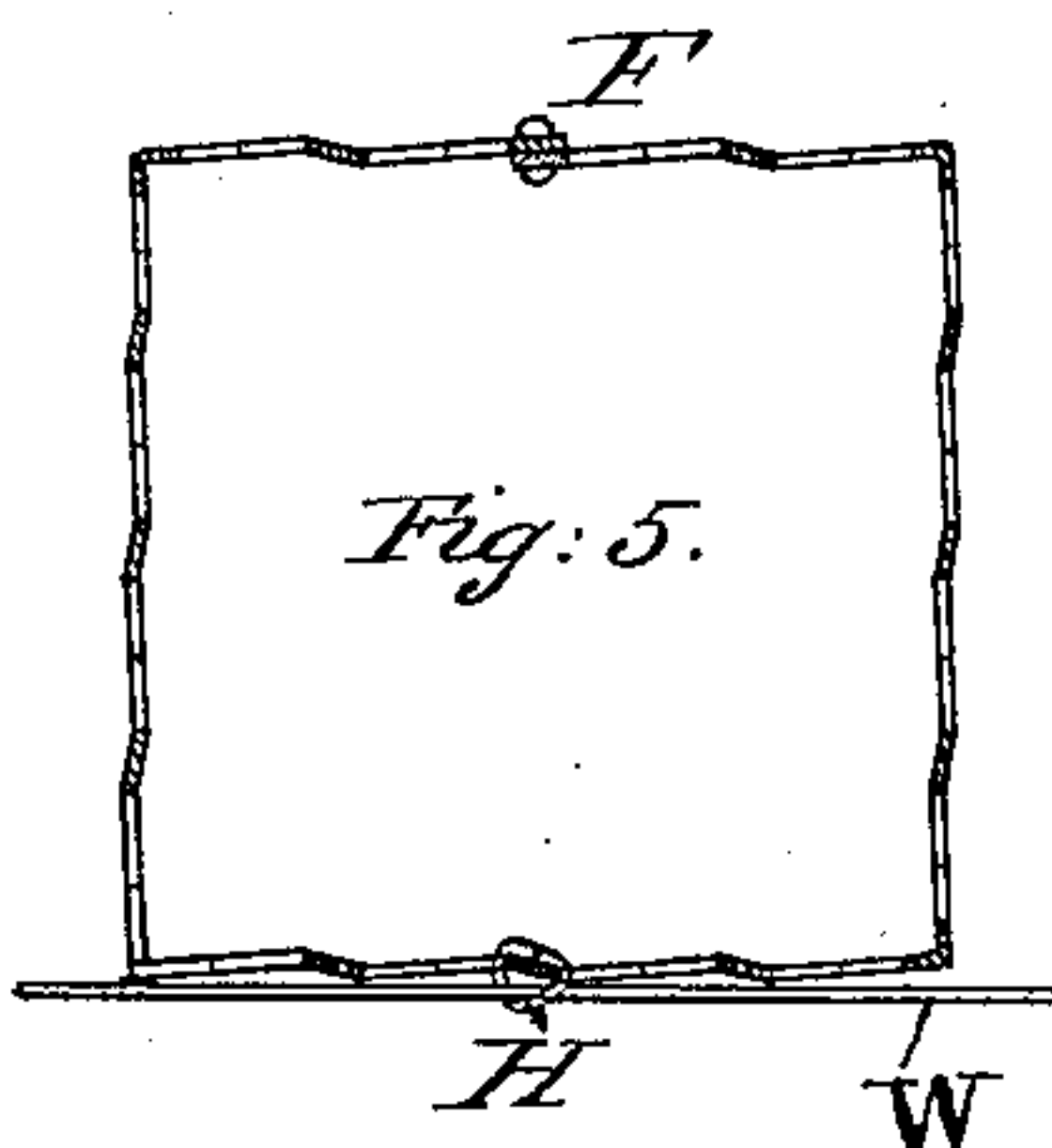


Fig. 5.

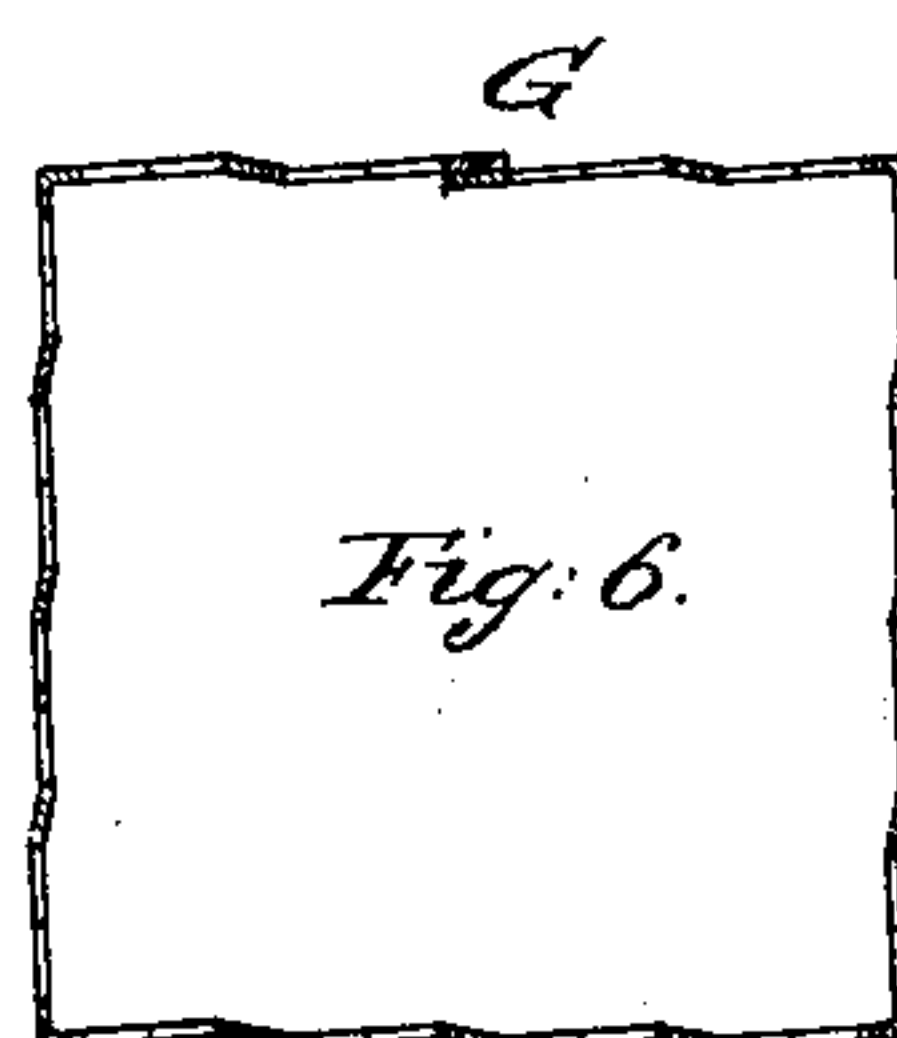


Fig. 6.

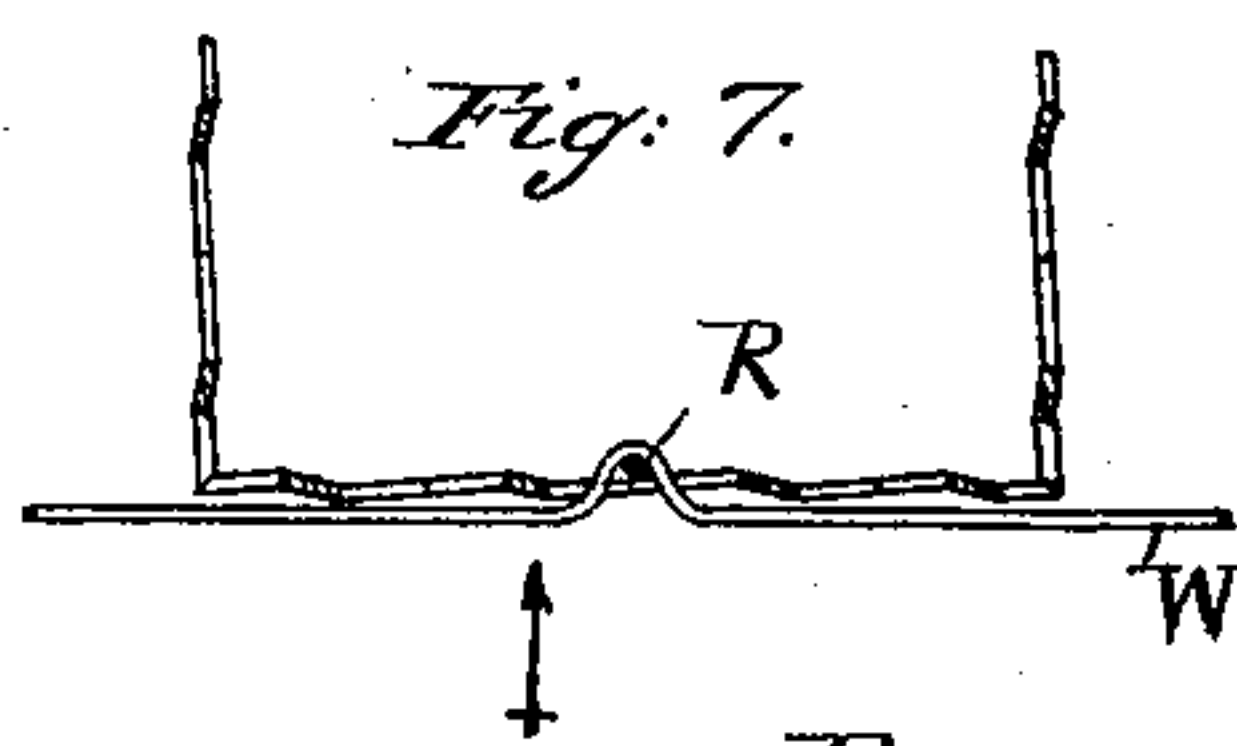


Fig. 7.

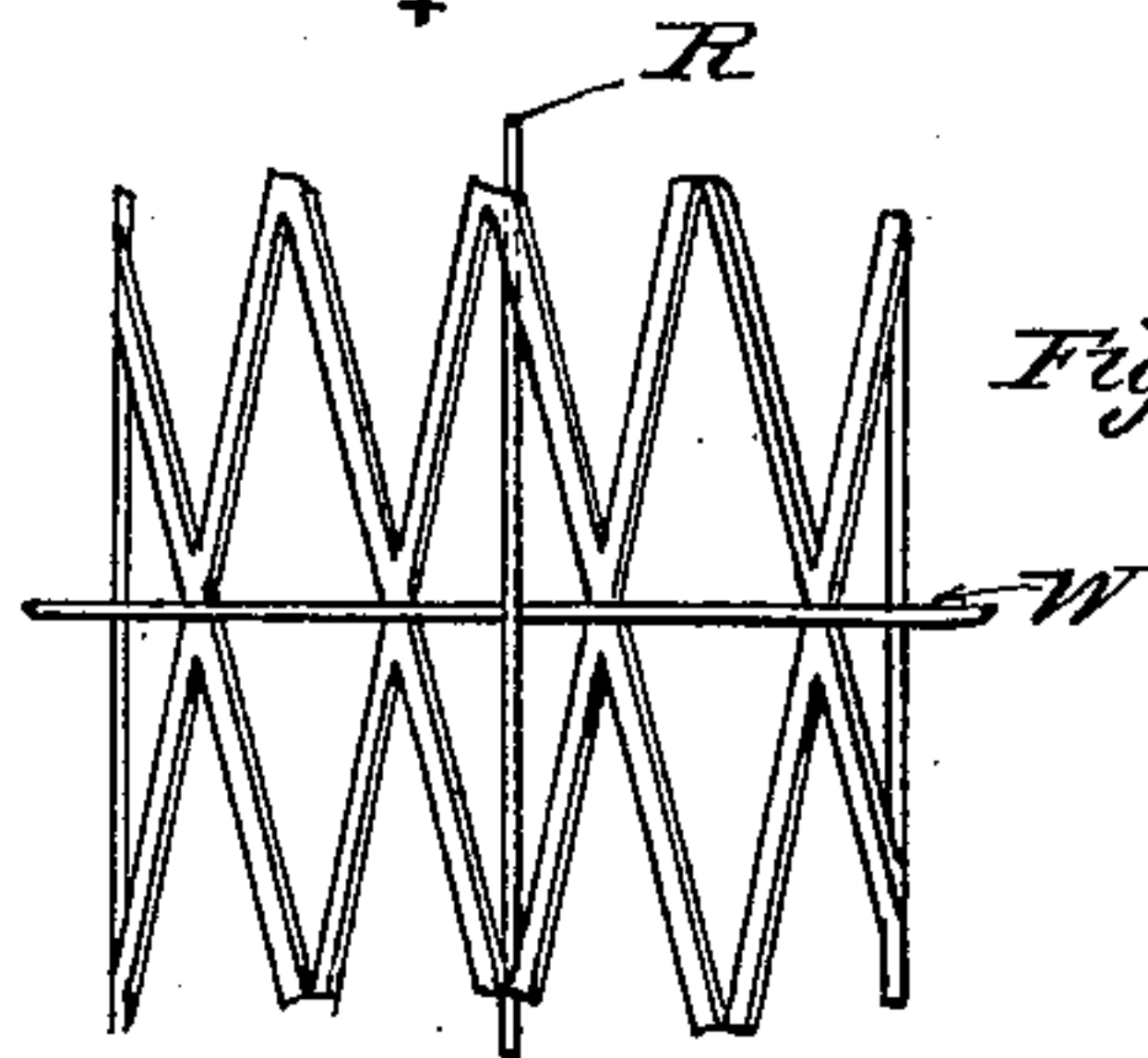


Fig. 8.

Witnesses  
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# UNITED STATES PATENT OFFICE.

WILLIAM ERASTUS WILLIAMS, OF CHICAGO, ILLINOIS, ASSIGNOR OF  
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## FENCE-POST.

SPECIFICATION forming part of Letters Patent No. 607,314, dated July 12, 1898.

Application filed April 1, 1898. Serial No. 676,098. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM ERASTUS WILLIAMS, a citizen of the United States of America, and a resident of Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Fence-Posts, of which the following is a specification.

While other considerations are also important, to secure large use a post must be inexpensive and practically inflexible. If of metal, it cannot come within allowable cost unless it contains little metal, and it cannot have the indispensable stiffness unless its cross-section as a whole is large. Heretofore these considerations have led to the making of thin sheet-metal posts of large diameter coming below the maximum of cost and above the minimum of stiffness. Unfortunately such posts lack the requisite resistance to local distortion and to destruction by that corrosion which extreme thinness and relatively large surface invite, and hence metal posts have never largely displaced wood posts.

The object of my invention is to provide a metal post that shall be inexpensive, stiff, not subject to local distortion, that offers small surface for corrosion, is adapted for the attachment of any ordinary number of fence-wires at any heights, and that permits the earth to enter and become impacted within that part which when in use lies below the surface of the ground. With these ends in view the post is made of comparatively thick metal and preferably by cutting numerous slits in a sheet and separating the opposing faces of each slit and after cutting to proper form bending the web so made to form a tubular post. The web formed in the manner just mentioned is well known in the arts and in its preferred form is not made by slitting and then separating the strips by stretching the sheet in its own plane, but by pushing all the flat strips in the same direction out of that plane, so that they are inclined to the general plane of the web which they constitute.

In the drawings, Figure 1 shows the post in elevation as forming part of a wire fence. Fig. 2 is a bottom plan of the post of Fig. 1. Figs. 3, 4, 5, 6, and 7 are enlarged cross-sectional views showing details and certain alter-

native constructions hereinafter mentioned. Fig. 8 is a view in the direction of the arrow of Fig. 7.

In the figures, A represents a complete post set in the earth I and carrying horizontal fence-wires W. As shown, the post is a tube rectangular in cross-section and upwardly tapered. Its corners are cut through for a short distance from its lower end, and the four sides thus separated are bent outward at right angles to form flanges B for holding the post more securely in the ground. At its upper end the corners of the tube are also cut; but in this case the separated faces are so formed that they may be bent inward, as seen at C, Fig. 1, closing the top of the post and at the same time giving the post a pleasing and symmetrical end. In thus forming the post the edges of the web of which it is made up may simply abut, as shown at D, Fig. 3, or a clasp may unite them, as at E, Fig. 4, or they may be overlapped and riveted, as seen at F, Fig. 5, or, the rivets being omitted, as in Fig. 6, they may be welded.

The web from which the post is formed being "expanded metal" of the kind in which the flat strips A' are in planes inclined to the general plane of the web or general surface of the web when the latter is not plane, the surface of the post cannot, like that of a post of thin sheet metal not "expanded," be readily distorted, because the constituent strips are partly edgewise with reference to blows or the like. When a sheet or web of this kind forms a tubular post, its constituent strips form two series of oppositely-inclined brace-like members integrally united at their numerous crossings or meeting points A". It is plain that the post cannot yield to force tending to bend it unless these strips "buckle;" but each is held by the others at such short intervals that it can buckle only by moving toward or away from the axis of the post, and to such movement its edgewise position offers extraordinary resistance. The web then, when in the form of a tubular post, has new and most valuable properties, and as a result gives a post stronger for its weight than any analogous post heretofore devised.

The horizontal members of the fence (shown



as wires W) may be secured in any suitable manner and obviously at any desired points above the earth, the same post being equally well adapted for all locations of the wires.

5 In Fig. 5 I have shown the wires as held by a clip or clasp at H, and in Figs. 6 and 7 they are shown as bent inward through the wall of the post and held by a rod R.

10 While I have shown the tubular post as formed from an expanded sheet, it by no means follows that analogous expanding of a formed tube is not contemplated, and I do not wish to limit myself to what is shown, but desire to cover all things fairly within the spirit of  
15 my invention.

What I claim is—

1. As a new article of manufacture, a tubular post of thin, soft, or malleable, metal provided with numerous independent slits  
20 whose opposing faces are permanently separated, substantially as set forth; whereby the

post is enlarged without increase of stock, adapted for attachment of horizontal wires at all heights, and for allowing the earth to pass freely into the interior of the post. 25

2. A tubular metal fence-post having its wall made up of numerous oppositely-inclined soft-metal strips integrally united at their points of intersection.

3. A tubular fence-post having its wall made up of oppositely-inclined slightly-separated, flat, metal strips integrally united at their points of intersection and each having the plane of its middle portion inclined to the general surface of the portion of the post in  
35 which the strip lies.

Signed by me at Chicago, Illinois, this 30th day of March, 1898.

WILLIAM ERASTUS WILLIAMS.

Witnesses:

ERASTUS A. WILLIAMS,  
FRED BORG.