

(No Model.)

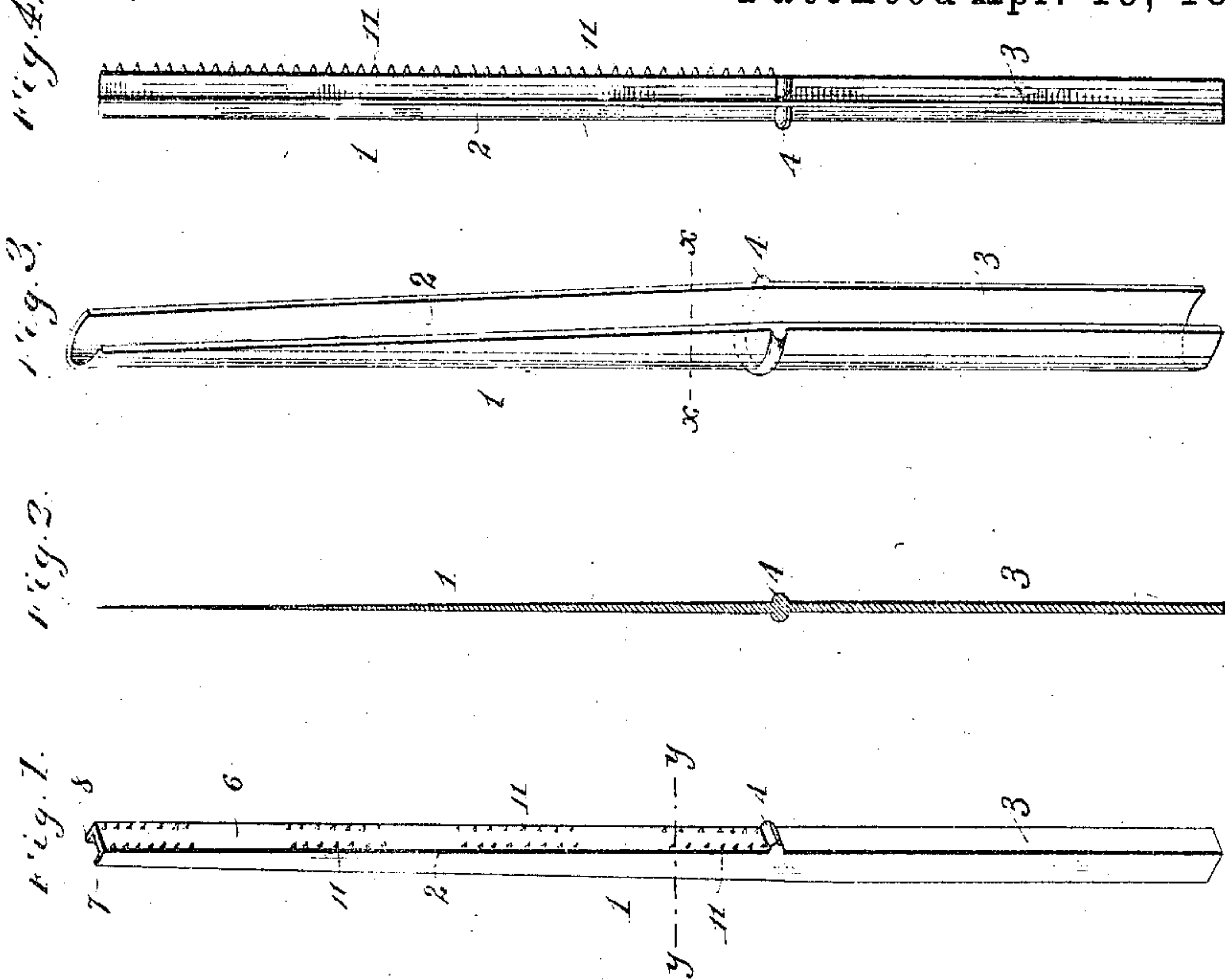
2 Sheets—Sheet 1.

F. L. FAIRCHILD.

FENCE POST.

No. 361,497.

Patented Apr. 19, 1887.



Witnesses:

N. N. Low
E. A. Dick

Inventor:

Frank L. Fairchild
by Marshall Bailey
his attorney

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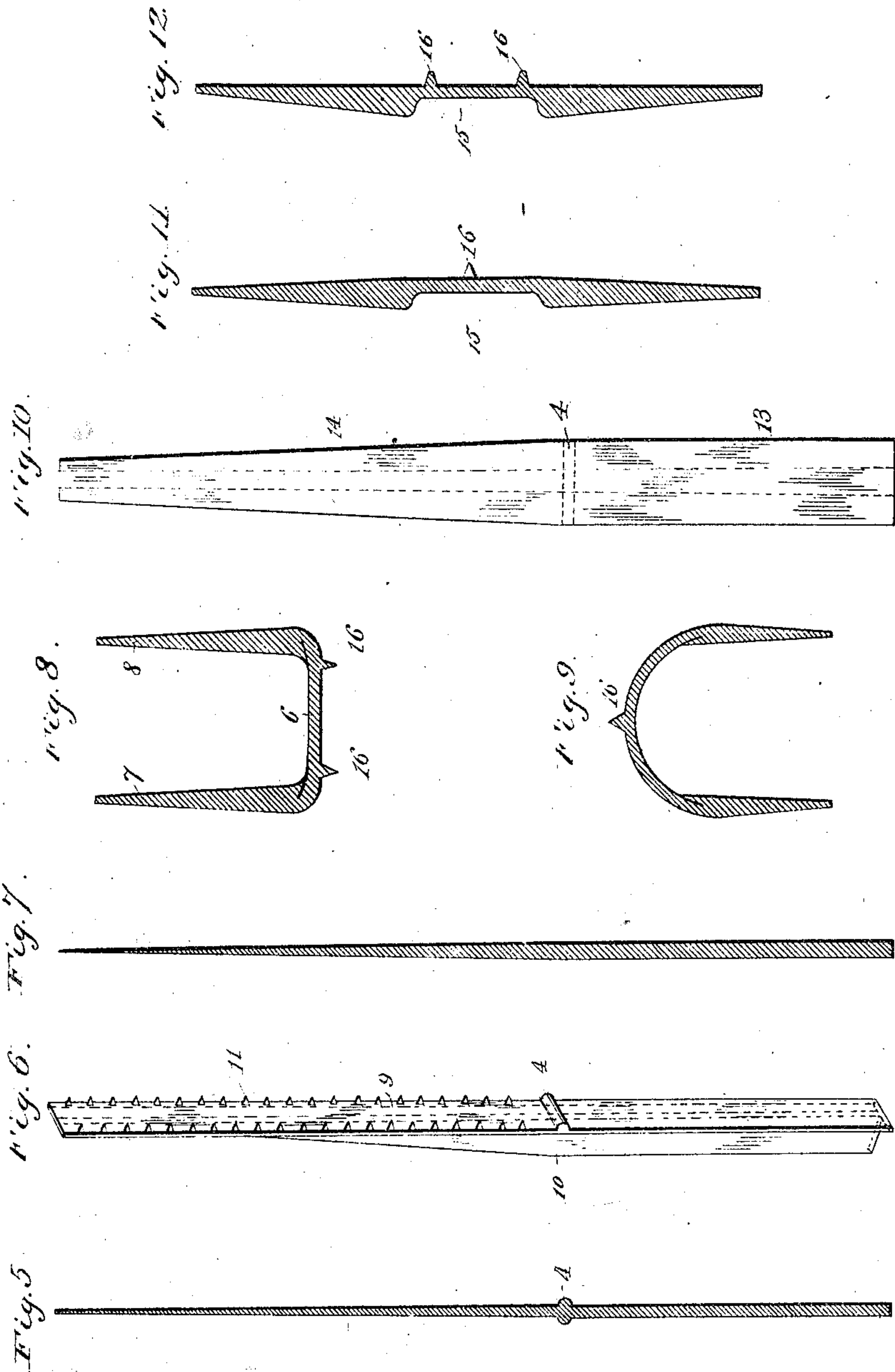
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UNITED STATES PATENT OFFICE.

FRANK L. FAIRCHILD, OF MOUNT VERNON, OHIO.

FENCE-POST.

SPECIFICATION forming part of Letters Patent No. 361,497, dated April 19, 1887.

Application filed January 14, 1886. Serial No. 188,582. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. FAIRCHILD, of Mount Vernon, Knox county, and State of Ohio, have invented a certain new and useful Improvement in Fence-Posts, of which the following is a specification.

In the manufacture of wrought-iron fence-posts a bar of comparatively small cross-section affords the strength requisite for the support of the fencing material. Such size, however, does not furnish sufficient area for firm lodgment in the ground and resistance to forces tending to upheaval or displacement. As a consequence, the successful use of light iron for posts requires an enlarged base of some other material—such as stone, &c.—in which the post is stepped or mortised, and secured therein by solder, cement, &c. Such methods are expensive, and have limited the use of wrought-iron for posts almost, if not entirely, to ornamental fences in the cities and villages. As tending to remedy this I have shown in a prior application, bearing Serial No. 184,042, filed November 27, 1885, a post combined with a removable base, which is adapted to fit closely upon the shank of the post and be retained thereon to afford the necessary bearing-surface for firm planting in the ground. Some of the advantages attendant upon such posts and bases are that the parts may be made at separate or distant points, where the best facilities, respectively, are found therefor. They may be shipped separately, saving room in transportation, and may be assembled at the place of use without the use of cements, solder, &c., and that when they are no longer needed at one point they may be readily removed to another. The object of my present invention is to furnish a wrought-metal post adapted to be used with such a base, and in which, with a minimum of material and labor, so that economy is insured, the rigidity and strength necessary for the support of the fencing material shall be secured.

A post for use with such removable base must embody a shank upon which the base may fit tightly, so that the post is firmly maintained thereon, a stem sufficient for the fencing material, and some means by which the location of the base upon the shank may be determined and its further movement thereon prevented. My invention primarily consists

in a homogeneous wrought-iron post embodying these three features. In carrying it into effect a suitable blank or billet is subjected to the action of rolls, which form the shank and stem portions and a projecting or enlarged portion from the body of the metal itself at the line of union of the stem and shank to determine and limit the upper line of the base on the latter. By forming this stop as an enlargement the greatest strength is given where the greatest strain from forces acting against the post occurs—viz., at its point of emergence from the base. Preserving this general construction, the form of the post may be largely varied. It may be flat or of any shape of angle-iron, or be U-shaped. The stem may taper from the shank to the top in one or all its dimensions. If made in U shape, the transverse web, which would then form the face of the post, may be thinner than the side webs. An edge or edges or the face may be provided with projections for assistance in securing thereto the fencing material. These and many other modifications may be made, all of which will be more readily understood by reference to the drawings, wherein—

Figures 1 and 6 are perspective views of angled or winged posts, and Figs. 2 and 7 longitudinal sections of the stiffening-web thereof. Fig. 3 is a perspective view of one form, and Fig. 4 a front elevation of another form, of shaped post, while Fig. 5 is a longitudinal section of the web thereof. Figs. 8 and 9 are enlarged transverse sections, say, on lines *yy* and *xx*, Figs. 1 and 3, respectively. Fig. 10 is a plan view of a billet suitable for forming the preferred style of post, and Figs. 11 and 12 are transverse sections of billets preparatory to bending or angling.

In the drawings, the reference-numeral 1 indicates the entire post, composed in each instance of at least the three elements—a stem, 2, for supporting the fence material, a shank, 3, for insertion into a base, and a projecting or enlarged portion, 4, determining the limits of such portions and serving as a stop to limit or fix the position of the base upon the shank.

To insure greater rigidity and strength, and to afford enlarged bearing-surface for the fencing material, the post is preferably made T, U, L, or H shape in cross-section, some illustrations of which are given. For instance, Fig.

1 shows a post in **L** shape in cross-section, composed of a flat front face or web, 6, with two stiffening-webs, 7 8. In such form it is preferred that the face 6 be straight, while the stiffening-webs 7 8 taper in all their dimensions, as shown by Figs. 1 and 2.

In Figs. 3 and 4 the post is made **U**-shaped—that is, the face is convex exteriorly—from whence project the stiffening-webs. In Fig. 3 the stem tapers in all its dimensions, while in Fig. 4 the line of the face and the edges of the stiffening-webs are parallel, the latter tapering in thickness from base to top and from front to rear.

In Fig. 6 the stem of the post is **T**-shaped, consisting of a face, 9, and a central rearwardly-projecting stiffening web or rib, 10, which tapers in all its dimensions.

While in all these and in other forms embodying the invention the stem tapers in one or more of its dimensions, it is preferred that the shank be straight, in order that it may have the greatest possible amount of strength, and that it may sit and be retained the more reliably in its base. For the latter object fastening devices—such as described in the prior application hereinbefore referred to—may be applied to the shank, if desired.

The face of the post, as in Figs. 1 and 3, or the edges thereof, as in Fig. 4, are serrated or provided with projecting teeth 11, for assistance in the securement of the fencing material thereto, and these projecting teeth may be arranged symmetrically upon the entire face and in one or more rows, or they may be arranged in one or more groups, as may be deemed best for any particular style or all styles of fencing material.

As giving the greatest strength with a minimum of material, the forms shown in Figs. 1 and 3 are preferred. In such forms the less strain is upon the front or face web, whose principal functions are to afford proper bearing-surface for the fencing material and to unite the side webs, whose greatest dimensions are in planes opposed to strain upon or against the stem, and which therefore resist such strain. The face web need not, therefore, be as heavy or thick as the side ribs; but need only be thick enough to reliably unite such ribs, as is shown in the enlarged sections 12 and 13. The process of forming the angled or winged posts is essentially the same in all the forms. A billet of thin flat metal is used in preference to an ingot, and has roughly the shape of the post if flattened out given it. For example, Fig. 10 shows a billet suitable for the forms in Figs. 1, 2, 3, and 9. This billet is subjected to the action of rolls, which form the projecting or thickened portion 4 upon one or both sides of the billet (preferably both)

at the point which is to be the meeting-point of the stem and shank, and to rolls which give the desired taper to the sides and edges of the billet to form when properly bent the tapering stiffening-ribs, and to rolls which form upon the face-webs one or more slight fins 16, from which the teeth 11 are to be formed.

If the post is to have the thinner face webs described, the billet is also subjected to rolls, which form the depression- or channel 15 therein, whose edges form a line of guidance in bending the billet into shape. The billet being then subjected to the proper rolls is bent into either of the shapes shown in Figs. 8 and 9, the channel 15 becoming the thinner face, 6, while during the last passage through the rolls the webs 16 are formed into the serrations or teeth 11. In Fig. 11 the sides of the billet are shown as rolled tapering on both faces, while in Fig. 12 one face is straight and the taper or incline is confined to the other face.

This construction furnishes a cheap, light, strong post, capable of use with a removable base, having its metal so disposed as to give the greatest strength at the proper points to resist the greatest strain.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is as follows:

1. A homogeneous rolled wrought-metal fence-post having a shank for the securement to the post of a separate and removable base and a stem for the support of the fencing material having a relatively-thin face web and relatively-thickened side or stiffening webs, as and for the purposes hereinbefore set forth.

2. A homogeneous rolled wrought-metal fence-post having a shank for the reception and securement of a separate and removable base, a stem for support of the fencing material, a thickened or projecting part at the union of the stem and shank, and serrations or projecting teeth upon the stem, substantially as set forth.

3. A homogeneous rolled wrought-metal fence-post composed of a shank for the securement to the post of a separate and removable base, a stem for the support of the fencing material having a relatively-thin face-web and relatively-thickened side or stiffening webs, and an enlarged or thickened portion at the union of the stem and shank, substantially as hereinbefore described, with relation to Figs. 8, 9, 11, and 12 of the accompanying drawings.

In testimony whereof I hereunto set my hand this 2d day of January, A. D. 1886.

FRANK L. FAIRCHILD.

Witnesses:

H. M. SWITZER,
L. STIVETZ.