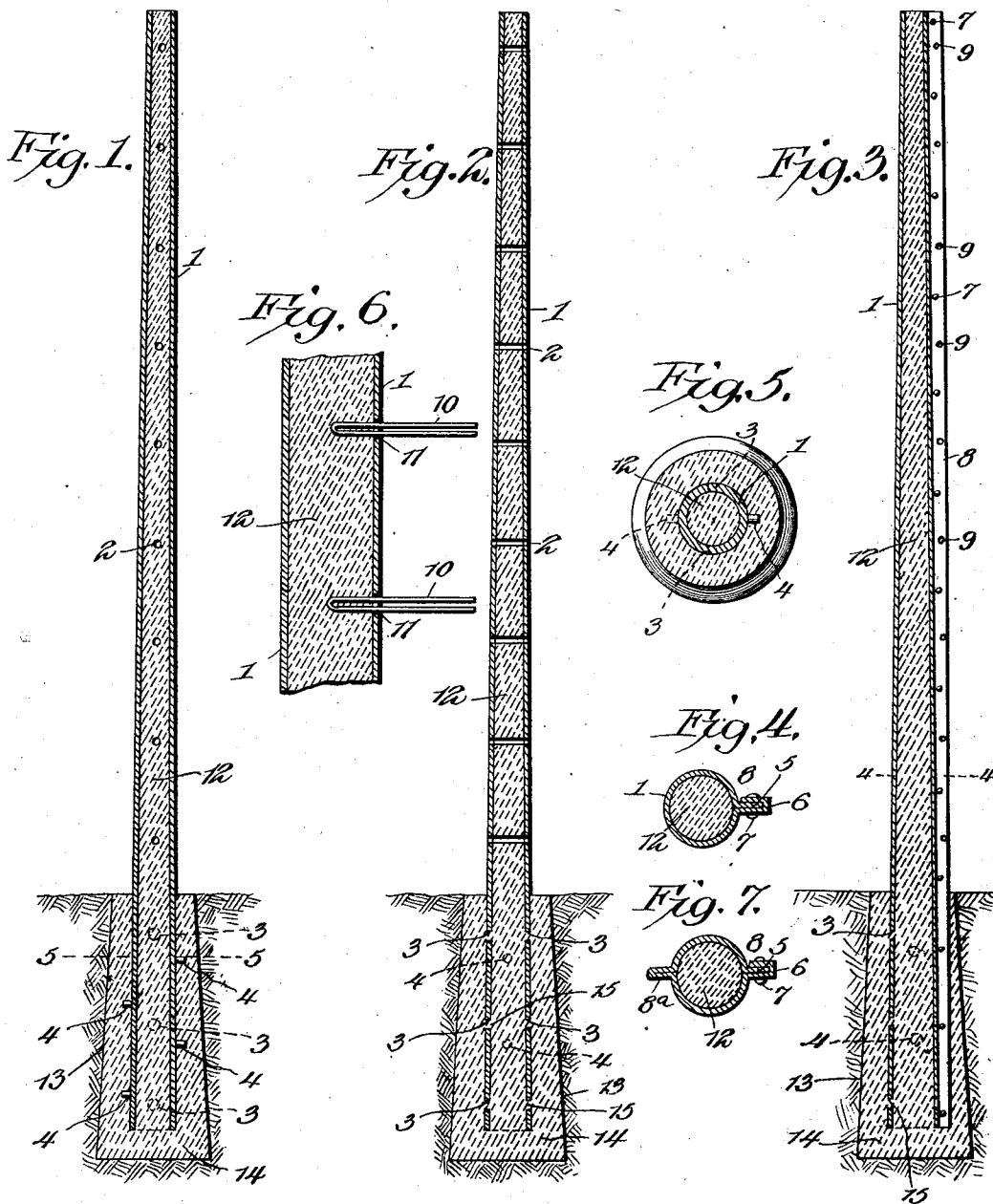


E. M. BUNCE.

FENCE POST.

(Application filed June 19, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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FENCE-POST.

SPECIFICATION forming part of Letters Patent No. 693,947, dated February 25, 1902.

Application filed June 19, 1901. Serial No. 65,184. (No model.)

To all whom it may concern:

Be it known that I, EARL MARSHALL BUNCE, a citizen of the United States, residing at Bronson, in the county of Branch and State of Michigan, have invented a new and useful Fence-Post, of which the following is a specification.

This invention relates to fence-posts and to a method of setting the same, and has for its object the production of a fence-post that shall combine in a simple and feasible manner all the requisites of a thoroughly-efficient and highly-durable structure for the purposes designed.

A further object is to effect secure anchoring of the post in the ground, the manner of setting the post, the construction of the post, and the materials employed in conjunction therewith, all coöperating to render the setting of a strong, rigid, and durable character.

A further object is to provide simple means by which the fence-wires may be securely associated with the post, the means being such as to permit ready detachment of the fence-wires from the post when desired.

With these and other objects in view, as will appear as the nature of the same is better understood, the invention resides in a fence-post and the method of setting the same, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like numerals of reference indicate corresponding parts, I have illustrated a few of many ways in which my invention may be carried into effect, it being understood that the structures herein illustrated may be varied or changed in minor parts without departing from the spirit of my invention, and in these drawings—

Figure 1 is a view in sectional elevation displaying a form of fence-post embodying the essential features of my invention. Fig. 2 is a similar view, the section being taken at right angles to Fig. 1. Fig. 3 is a similar view of another form. Fig. 4 is a view in horizontal section, taken on the line 4 4 of Fig. 3. Fig. 5 is a view in horizontal section, taken on the line 5 5 of Fig. 1. Fig. 6 is a fragmentary detail view of another form of post,

showing supplemental fence-wire-attaching means associated therewith. Fig. 7 is a sectional detail view of still another form of post that may be employed.

In carrying my invention into effect I employ a shell or casing 1, Figs. 1, 2, and 6, which may be a section of galvanized-iron pipe of any desired contour in cross-section—in this instance circular—the shell being provided with a plurality of openings 2, through which the fence-wires are to pass, the lower portion of the shell, or that which will be below the surface of the ground in use, being provided with openings 3 and with a plurality of lugs or projections 4, these to be formed either by studs suitably associated with the plug or by rods of metal passed through the pipe and extending beyond the same at both ends. The shell or casing, as stated, may be made from galvanized-iron pipe; but from a standpoint of economy and readiness of manufacture I prefer to make it of sheet iron or steel, painted or not, or of galvanized sheet-iron and formed into a hollow structure, as shown in Fig. 3, the shell when made in this form being provided with the openings 3 and with the lugs or projections 4. If preferred, the shell may be rectangular or oblong or triangular or any other preferred shape in cross-section, and as this will be readily understood illustration is deemed unnecessary.

The shell may be of the same diameter throughout its entire length; but to present a strong and stable structure it is preferred that it shall be tapered, with the smaller end at the top, this arrangement by preference to be observed whatever the shape of the shell may be in cross-section.

When the shell is constructed of sheet metal, as shown in Figs. 3 and 4, one edge of the sheet is bent at right angles to the body portion to present a flange 5 to be engaged by an inturned flange 6 on the other edge of the sheet, the three flange members thus presented being held assembled by rivets 7. The rib 8, formed by the said flanges, is provided with a plurality of openings 9 to be engaged by the fence-wires (not shown) when the structure is set up for use, or, as shown in Fig. 6, I may provide the shell with two flanges 8 and 8^a, disposed, preferably, on diametrically op-

posite sides of the shell, the rib 8 to be constructed as described in connection with Figs. 3 and 4 and the rib 8^a to be similarly formed or to be produced by bending the center length of the metal into the form shown. When the shell is provided with two ribs, one will constitute a means for attaching the fence-wires and the other will constitute a reinforcing-rib.

As a matter of further and specific improvement I may associate with the shell prior to being treated to cause it to present a post a plurality of wires 10, these to be in the form of U-shaped or approximately U-shaped loops passed through openings 11 in one side of the shell, as shown in Fig. 6, the ends of the loops to project a sufficient distance beyond the shell to present a means of attachment to the fence-wires. The shell, provided with the openings 2 3, as shown in Figs. 1 and 2, or with the openings 3 and 9, as shown in Fig. 3, together with the lugs or projections 4 and with or without the loops 10, as may be preferred, may, prior to being set up in the ground, be provided with a filling 12 of suitable cement, preferably a hydraulic cement, prior to which wooden plugs or nails will be inserted through the openings 2 and removed after the cement is partially set, thus to present passage-ways through which the fence-wires may be passed; but it is preferred as a matter of specific improvement to supply the filling of cement to the shell at the same time that it is placed in position in the ground. To effect this, a post-hole 13 (shown in Fig. 1) is sunk to the desired depth with any suitable tool, such as an earth-auger, and the shell is then placed centrally of the opening thus made on a bed of cement and cement is poured or tamped around that portion of the shell within the post-hole, forming a stable anchor 14, as shown in Fig. 1, the filling of cement to come up flush with or slightly above the surface of the ground, and as the cement is placed in the post-hole the lugs 4 become embedded therein, and thus operate to hold the post from being drawn out of the anchor. Cement is now supplied to the shell before the cement around the foot of the post has become set, the holes 2, when the form of shell exhibited in Figs. 1 and 2 is employed, being provided with wooden plugs or nails in the manner described, and the cement from the inside of the shell passes out through the openings 3 and presents a plurality of ties or binders 15, which become associated with the anchor 14 and will operate to increase the strength of the bond between the shell and the anchor. It will of course be understood that these steps are taken in comparatively rapid succession, so that the cement applied through the top of the post may engage the cement surrounding the foot of the post before the last-mentioned cement has become set, in order that so much of the cement as may be projected outwardly through the perforations in the foot of the post may effectually com-

mingle with the soft cement surrounding the post, for it is apparent that the two soft cements will more readily unite and form a stronger bond than if the outer cement were entirely set. When the cement in the shell is partially set, the plugs or nails are removed from the openings 2, after which the cement of the anchor and that in the shell is allowed to become thoroughly hardened before the fence-wires are applied to the posts. The cement supplied to the posts when set up as described may be comparatively dry or moistened concrete tamped into the pipe, or it may be in a liquid or plastic condition, as may be preferred.

The post-hole 13 may be of the same diameter throughout its length, or, as shown, may be slightly wedge-shaped, with the largest portion of the opening at the bottom, and by this simple arrangement a firm and secure connection between the anchor and the walls of the post-hole will be effected.

By the manner of setting up the post just described a firm and stable union is effected between the shell and the anchor of cement, not only by the anchor inclosing the lower portion of the shell and engaging the lugs 4, but by the further attachment between the cement of the shell and the anchor resulting from the ties of cement that pass out through the openings 3.

A fence-post constructed according to the present invention will be found thoroughly efficient in use, and by reason of its simplicity of construction and the ease with which it may be set up will recommend itself to those employing wire fence, particularly to farmers and residents of rural districts.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

What I claim is—

1. A post, comprising a tubular body having an open top and an integral foot portion of a length sufficient to be inserted into the ground and provided with perforations; a tamped cement anchor surrounding the perforate foot portion of the post, hardened liquid cement filling the post from top to bottom thereof; and cement connections between the cement filling and the cement anchor and consisting of portions of cement which have been forced through the perforations in the foot of the post.

2. A post, comprising a tubular body having an open top and an integral foot portion of a length sufficient to be inserted into the ground and provided with perforations; a tamped cement anchor surrounding the per-

forate foot portion of the post, hardened liquid cement filling the post from top to bottom thereof, and cement connections between the cement filling and the cement anchor and consisting of portions of the filling which have
5 been forced outwardly through the perforation in the foot of the post.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EARL MARSHALL BUNCE.

Witnesses:

WALTER COLSON SAUNDERS,

G. F. WATERS.