

1,002,256.

D. GARST.
FENCE POST.
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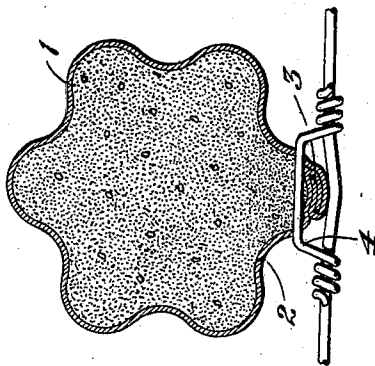


Fig. 2.

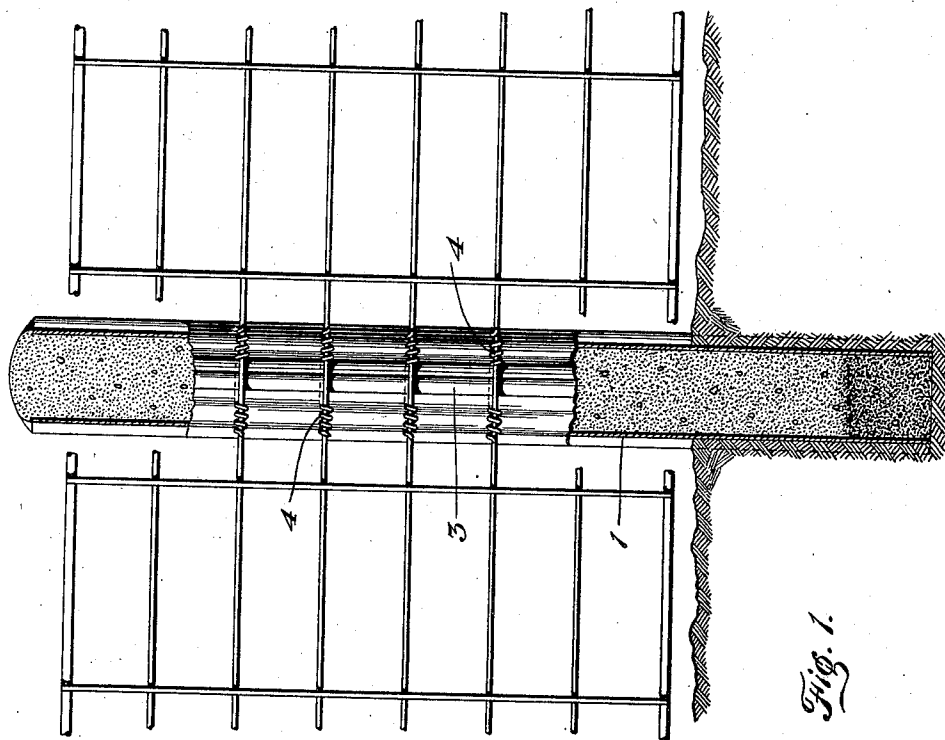


Fig. 1.

Witnesses
Chas. W. Stauffer.
A. M. Shannon.

Inventor
DUDLEY GARST.

By *[Signature]*
Attorneys

UNITED STATES PATENT OFFICE.

DUDLEY GARST, OF DETROIT, MICHIGAN.

FENCE-POST.

1,002,256.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DUDLEY GARST, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Fence-Posts, of which the following is a specification, reference being had therein to the accompanying drawings.

10 In the usual construction of composite posts, and more particularly those of cementitious material strengthened by metal reinforcing members adapted for use for field fencing and the like it is necessary either
15 that a great number of molds be used or that a mold be used which can be removed from a post before it has set thoroughly. This necessitates providing a bench or level floor on which to lay the posts in a horizontal position for the removal of the mold
20 before the concrete is set and, as a consequence, the work must be done at a point remote from the place where most of the posts for a fence are to be used. Furthermore, in
25 employing a mold of this sort, it is necessary, in order that the reinforcing members be properly supported during the course of the work of filling the molds, either that the molds have special, complex means for holding the reinforcements in place, or that the
30 concrete or like material be mixed to as stiff a consistency or with as little water as can be used so as to at once sustain the reinforcements from sagging, as the molds are necessarily horizontal while being packed. When
35 a mold is removed from a post of this kind and the latter is laid on its side, a rapid evaporation of the water from the outer shell of the post takes place before the material becomes hydrated or takes up the
40 water of crystallization, and because of this tendency posts which have been molded in this way have to be dampened by sprinkling to delay the drying out of the outer portions
45 before the interior has set, and permit approximately uniform hardening. Notwithstanding this dampening, a post built in this manner presents sharpened angles or wide
50 surfaces of imperfectly matured cement which are friable and which wear away rapidly under the influence of wind and weather. The reinforcements are also bendable and under the shock of usage, as from
55 cattle striking the fence, the body of the post frequently fractures transversely. Furthermore the sand and cement, which are bulky

and heavy, have to be drawn to the molding floor, and the completed posts taken from there to the place of use, which entails double handling and consequent increased cost. 60

This invention relates to posts of reinforced cementitious material which are so constructed that they may be molded in upright position of material that dries out gradually enough to permit perfect hydration or setting of the cement. 65

Another feature of the invention is the disposition of a reinforcing member so that the cement body is not exposed to the weather and cannot fracture under most severe usage. 70

A further feature which is of distinct advantage is the fact that the raw material may be drawn directly to the spot where the post is to be used, and the latter molded or made in place. 75

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claim.

In the drawings, Figure 1 is a view of one form of a post that embodies features of the invention together with adjacent members of a fence, showing the method of securing the latter to the post; Fig. 2 is a view in transverse section therethrough. 80 85

Referring to the drawings an outer cylindrical shell 1 of light sheet metal is formed as a reinforcing member and retainer for the cement body. It has a series of perforations or apertures 2, between which the cylinder is strengthened by longitudinally disposed added strips or layers 3 of metal. The cylinder has at least one longitudinal rib or corrugation 5 between the two series of apertures 2, and tie wires 4 are passed through the apertures, their ends being coiled around the horizontal members or stringers 6 of the fence. As a preferred form of construction the shell is made in the following manner. A piece of sheet metal is corrugated longitudinally at regular intervals and the apertures 2 are regularly disposed along its side margins. The sheet is then bent into a tube and the side margins are then secured together by a lock seam of any preferred form so that its superposed layers constitute the stiffening rib having the strips 3 above referred to, that run the length of the cylinder thus constructed, and are on the crest of the corrugation 5. The tie wires 4 are then passed through mating pairs of apertures, the lat- 100 105 110

ter being so disposed as to be adjacent the folded edges of the completed seam. The whole tube thus formed is then galvanized to prevent its destruction by water. The empty shells thus formed, which are very light, are placed one by one in post holes in erect position. A small quantity of concrete or the like formed of ingredients that are adapted to set rather quickly, is poured into each post to close the lower end thereof to the depth of several inches. The operator usually does this by driving along the row with a wagon load of the material from which the bases of the tubes may be quickly filled. After this mixture has had time to set sufficiently to act as a retaining layer for the body of the post, the operator returns along the row with a wagon load of concrete or cement of such consistency that it can be poured into each post to fill the same readily without the necessity of tamping. This is of finer grain than the quickly setting stop layer at the bottom of the post. By this method of construction a post is obtained in which the drying out and setting process is so gradual that there is no danger of soft spots or weak places in the body of the post. The reinforcement is one that not only prevents any bending of the post under shock but also acts as a shield against the concrete or cement body being battered or worn away from outside contact or from exposure to the elements. The material for the construction of such posts consists in large measure of sand or gravel and this is usually near where the posts are to be used. As the foregoing construction makes each post its own mold, there is no necessity of expensive or duplicate flasks, as in the ordinary process hereinbefore alluded to and usually followed, nor is there any need of dampening the post while it is setting to avoid too rapid evaporation of the surface layers. The reinforcement is the only member of the post which has to be

shipped or transported any distance and from its nature, rates of transportation on such reinforcement are very low. The wire strands or horizontal members of the fence are readily secured to the post by the tie wires. The latter bear against the reinforcement at a point where the lock seam forms a stiffening member and where the several thicknesses of superposed metal resist any tendency of the tie wires to cut through the reinforcement.

Obviously, changes in the details of construction may be made without departing from the spirit of the invention and I do not care to limit myself to any particular form or arrangement of parts.

I claim as my invention:

The combination with a fence-post comprising a hollow shell formed from sheet metal into a series of corrugations, and having its vertical marginal edges overlapped to form a central metal-seam in the crown-portion of a corrugation to reinforce the same against being indented, and a pair of horizontally-alined apertures in the adjacent valley-portions of said corrugation, of a fence-wire resting against and curved around the reinforced portion of said corrugation, a binder extending through said perforations and having its outer ends bent at an angle to prevent said corrugation from flattening out, and wound around the straight portions of said fence wire to hold and compress the seam of the shell between said fence wire and binder wire, and a filler surrounding the inner portion of the binder and for maintaining the same and the post-shell in proper relation.

In testimony whereof I affix my signature in presence of two witnesses.

DUDLEY GARST.

Witnesses:

ANNA M. DORR,
C. R. STICKNEY.