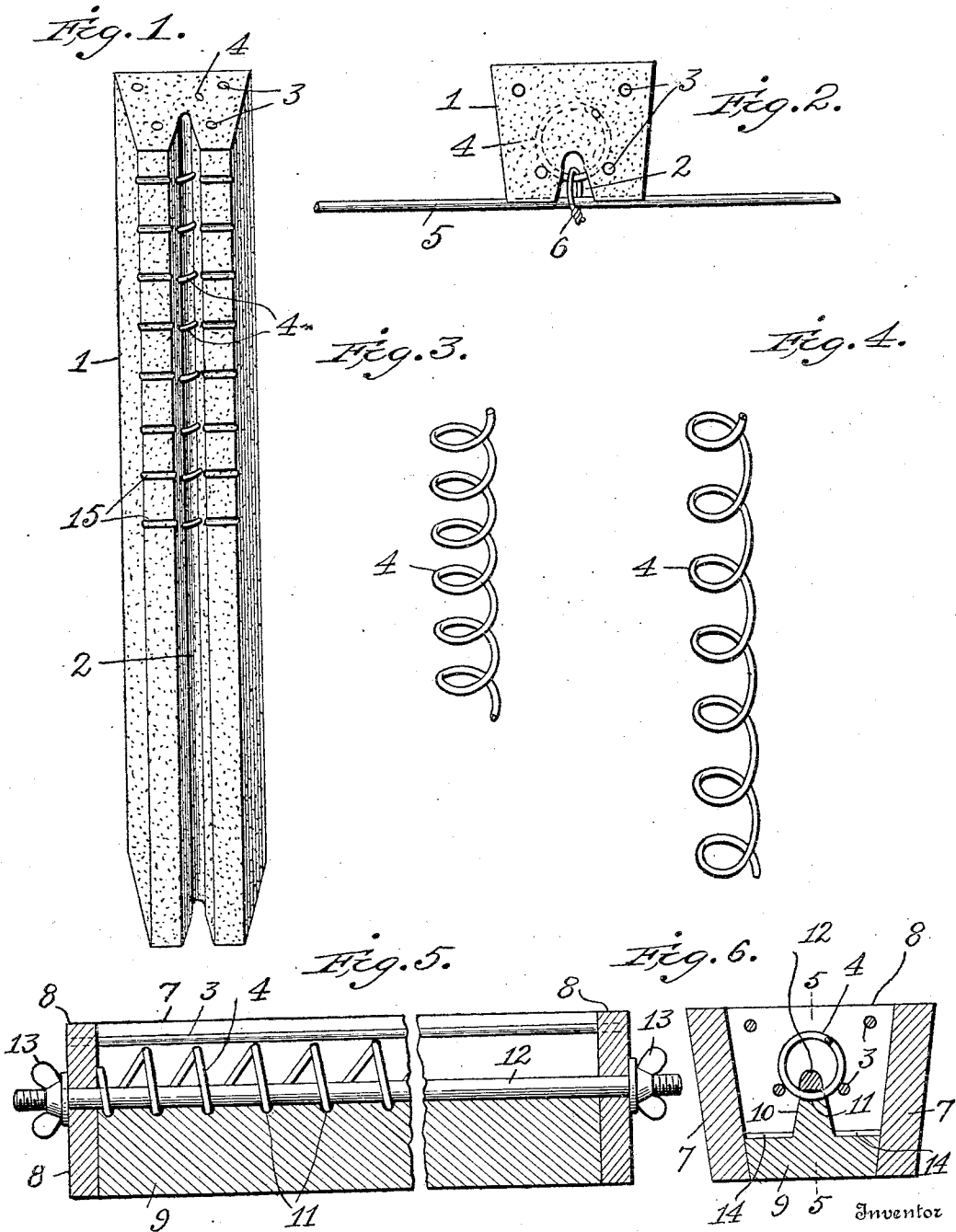


R. TOENNES.
FENCE POST.
APPLICATION FILED FEB. 25, 1909.

931,236.

Patented Aug. 17, 1909.
2 SHEETS—SHEET 1.



Witnesses

Edwin F. Frey
P. B. Hills

By

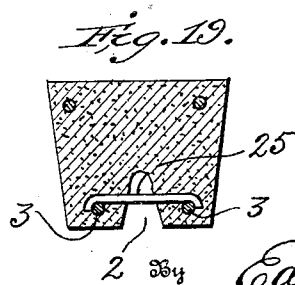
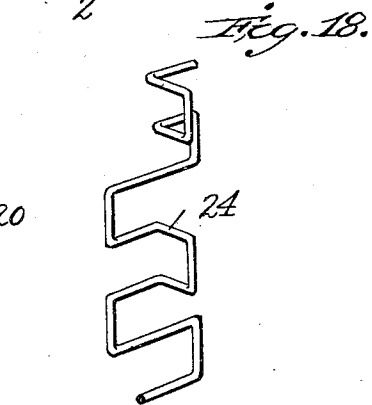
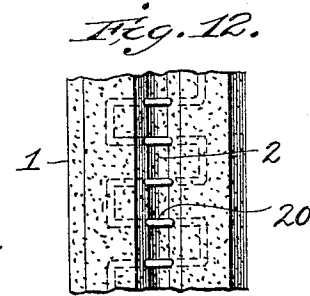
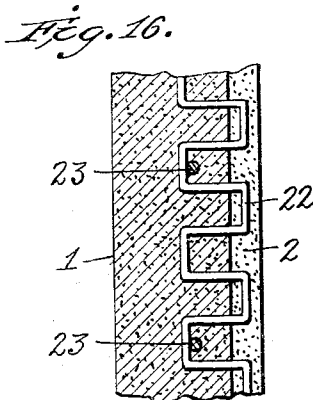
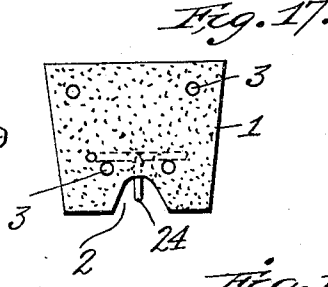
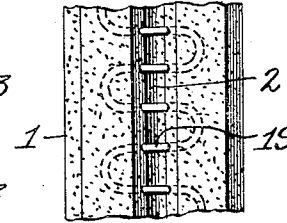
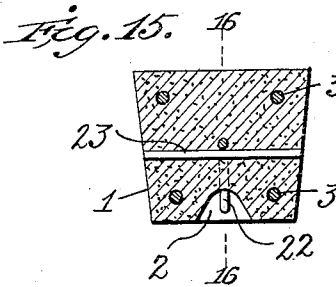
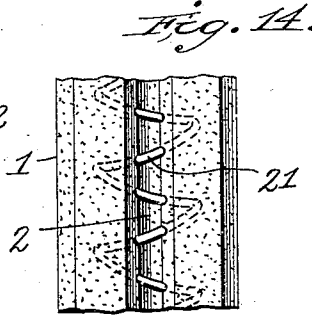
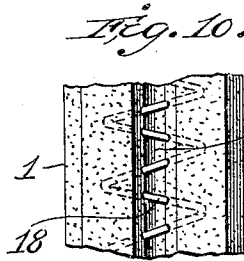
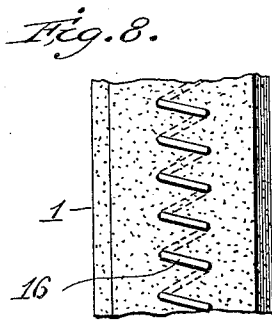
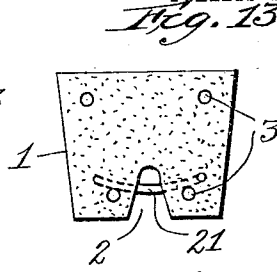
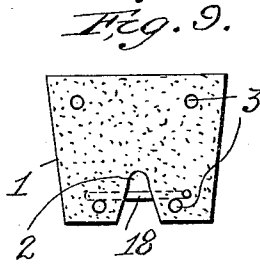
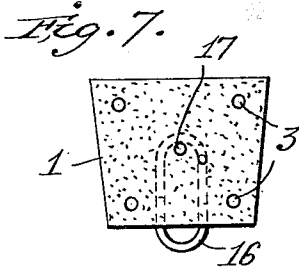
Edwin L. Jewell
his Attorney

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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

RICHARD TOENNES, OF BOONVILLE, MISSOURI.

FENCE-POST.

No. 931,236.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed February 25, 1909. Serial No. 479,960.

To all whom it may concern:

Be it known that I, RICHARD TOENNES, a citizen of the United States, residing at Boonville, in the county of Cooper and State of Missouri, have invented certain new and useful Improvements in Fence-Posts, of which the following is a specification.

My invention relates to concrete fence posts, and has for its object certain improved constructions of the same, whereby the fence strands may be attached thereto and whereby the fence strand attaching means may cooperate to form a reinforce for said post.

In the accompanying drawings: Figure 1 is a perspective view of a concrete fence post embodying the preferred form of my improvement. Fig. 2 is a plan view of the same. Fig. 3 is a detail view of the coiled wire used therein in its normal position. Fig. 4 is a similar view of the same shown distended to some extent. Fig. 5 is a central vertical longitudinal sectional view of my improved mold on the line 5-5, of Fig. 6, for forming the post shown in Fig. 1. Fig. 6 is a transverse sectional view of the same. Fig. 7 is a plan and Fig. 8 a front view illustrating a modified construction. Figs. 9 and 10 are similar views illustrating another modification. Figs. 11 and 12 are views similar to Fig. 10 illustrating each still other modifications. Figs. 13 and 14 are views similar to Figs. 7 and 8 illustrating still another modification. Figs. 15 and 16 are views illustrating still another modification. Fig. 17 is a view similar to Fig. 9, and Fig. 18 a detail view illustrating still another modification. Fig. 19 is a view similar to Fig. 15 illustrating still another modification.

In the said drawings, referring more particularly to Figs. 1 to 4, the reference numeral 1 denotes the concrete body of the fence post formed with a vertically extending groove 2 in one face, the same being preferably V-shaped at its outer portion, and merging into circular contour at its inner end.

Embedded in the concrete 1 when cast are the reinforcing wires or rods 3, while also embedded therein is the coiled strand attaching wire 4, the coils thereof being so located therein that at one side they will intersect the groove 2 beyond the circular portion thereof, and thus provide means for tying thereto the fence strands 5, through tie wires 6, as seen in Fig. 2. By employing the wire coil 4 I may, by distending or contracting

the same before molding the post, vary at will the distance between said coils on one side, as seen in Figs. 3 and 4. By locating the two front reinforcing rods 3 in front of and in contact with said wire coil as shown in Fig. 2, the latter is effectually prevented from being pulled out or misplaced should a portion of the concrete be broken off.

In Figs. 4 and 5 I have shown a mold for forming said post, the same consisting of side plates 7, end plates 8, and bottom plate 9. Said bottom plate is projected centrally at 10 into substantially V-shape, and is grooved at the proper intervals at 11 to receive the coils of wire coil 4, which coils are then retained in position by the semi-circular rod 12 passed through the end plates 8, the whole being clamped in position by the thumb nuts 13. The concrete 1 being now charged into the mold flush with the top edge thereof, and allowed to partially set, the removal of the rod 12 by unscrewing one of the nuts 13 and withdrawing said rod endwise, will leave the finished post free to be withdrawn from the mold, the rod 12 having formed the semi-circular portion of groove 2.

As shown in Fig. 6, I form the surface of bottom plate 9 with transverse ridges 14 to form the corresponding grooves 15 in the post to receive the fence strands 5.

In Figs. 7 and 8 I have shown a modified construction in which the groove 2 is dispensed with and an oval spiral strand attaching wire 16 is embedded in the concrete 1, said spirals projecting at one side through the face of the post. In this construction I prefer to locate a reinforcing rod 17 within the spiral, as shown.

In Figs. 9 and 10 I have shown still another modification wherein a strand attaching wire 18 of zig-zag form with abrupt bends is employed. In Fig. 11 this same idea is followed except that the bends of the wire 19 are rounded to cause the parts lying in the groove 2 to lie parallel, while in Fig. 12 the same idea is followed, except that the bends of the wire 20 are squared.

In Figs. 13 and 14 the construction is quite similar to Figs. 9 and 10, except that the wire 21 is bent as a whole in a slight outward curve.

In Figs. 15 and 16 the projecting loops of the wire 22 lie vertically disposed and while the bends therein are shown squared, as in Fig. 12, they may be either angular, as shown in Fig. 10, or rounded, as shown in

Fig. 11. In this construction I may employ a series of reinforcing cross wires 23 intersecting the loops.

In Figs. 17 and 18 the projecting loops of wire 24 lie vertical, while their embedded portions are bent alternately to each side, as shown, and the bends may be either square, as shown, or angular or curved.

In Fig. 19 I employ a series of separate wires 25, curved at their ends to embrace the vertical rods 3.

While I have shown a continuous groove 2 in the post, it will be understood that when the loops of the wire are disposed at a distance apart the post may be provided with a series of depressions only registering with said loops.

It will be observed that in all of the constructions at least one stay or reinforcing wire is shown in contact with the strand attaching wire. As before stated, this protects the said strand attaching wires, and a further object they accomplish is to support the strand attaching wires within the mold when the post is being made, the same reinforcing wire or wires extending from side to side of the mold for this purpose. Furthermore in contacting the strand attaching wires and the reinforcing wires, a direct metallic connection to the ground through every post and through the tie wires from the fence strands is obtained, thereby reducing to a minimum the liability of stock being struck by lightning when they are in close proximity to the fence during an electric storm. Instead of the grooves 15 the face of the posts may be corrugated, so that the fence wires will always be provided with a groove opposite to where the loop wire is exposed. In operation it is preferred to have other suitable coupling means to hold the mold together other than the nuts 13

upon the threaded ends of the rod 12 as it is desirable that the rod 12 should be perfectly smooth whereby its removal is facilitated.

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

1. A fence post having a vertical groove in its face, and comprising a continuous strand of wire intersecting at intervals said groove, and reinforcing wires in front of and in contact with the intersecting portions of said continuous strand.

2. A fence post having a vertical groove in its face, and comprising a continuous strand of wire intersecting at intervals said groove, and reinforcing wires disposed on opposite sides of said groove and in contact with said wire strand throughout its length and lying between said strand and the adjacent face of the post.

3. A fence post comprising a continuous helix of wire projected at intervals to form strand attaching points, and reinforcing wires disposed on opposite sides of and in contact with said wire helix throughout its length and lying between said helix and the adjacent face of the post.

4. A fence post having a vertical groove in its face, and comprising a continuous helix of wire intersecting at intervals said groove, and reinforcing wires disposed on opposite sides of said groove and in contact with said wire helix throughout its length and lying between said helix and the adjacent face of the post.

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

RICHARD TOENNES.

Witnesses:

E. J. HUBER,
T. J. FARISS.