S. D. BONNER.

CORNER-STAKE.

No. 191,919. Patented June 12, 1877.

Fig. 1.

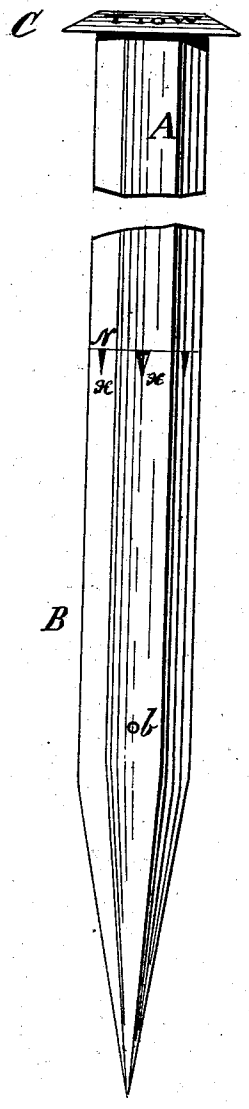


Fig. 3.

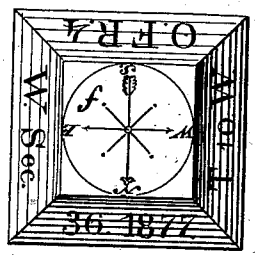


Fig. 4.

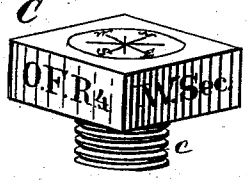
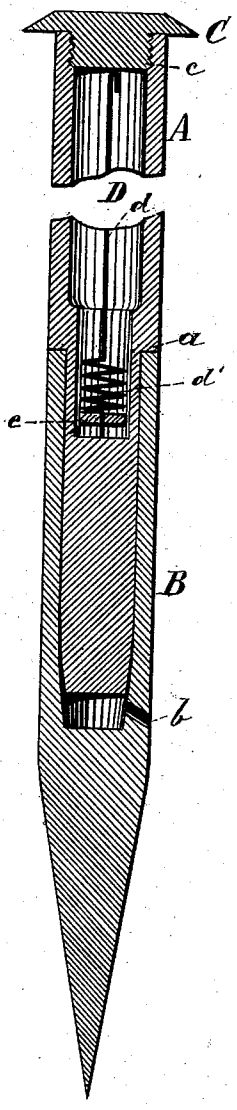


Fig. 2.



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UNITED STATES PATENT OFFICE.

SAMUEL D. BONNER, OF NEWAYGO, MICHIGAN.

IMPROVEMENT IN CORNER-STAKES.

Specification forming part of Letters Patent No. **191,919**, dated June 12, 1877; application filed April 14, 1877.

To all whom it may concern:

Be it known that I, SAMUEL D. BONNER, of Newaygo, in the county of Newaygo and State of Michigan, have invented certain new and useful Improvements in Corner-Stakes and Marking-Posts; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to that class of stakes or posts that are used for marking, permanently, the number, range, and sections of townships and other subdivisions of land areas, the number and exact location of town and county lots, distances, and other marks used by surveyors and others to determine the exact location of any given place; and it consists in the construction and arrangement of an indestructible stake made in two parts, and having a receptacle for letters or other matter, substantially as hereinafter more fully described, and pointed out in the claims.

In the drawing, Figure 1 is a side elevation, Fig. 2 is a vertical longitudinal section, Fig. 3 is a top view of the cap, and Fig. 4 is a perspective view of a modified form of cap.

Similar letters of reference indicate corresponding parts in all the figures.

A is the body of the stake or post proper, made, preferably, of metal, but it may also be made of wood or other material. This part, which may be made round, square, hexagonal, or any other configuration in section, has a narrow annular shoulder, *a*, and fits, below this shoulder, into a shell, B, corresponding in configuration to post A, so that the exterior sides or faces of the two parts A and B shall be even or flush with each other.

b is a hole, penetrating the walls of shell B near the bottom, for the purpose of draining off all moisture that may collect within the recess. C is the cap or top-piece, which may be made square, round, or of any other suitable shape, with or without beveled edges, and has on its under side a screw-tenon, *c*, which fits into a recess, D, the upper end of which has a corresponding female screw-thread in the stake A. *d* is a wire, terminating in a spiral spring *d'*, to which a weight, *e*, is attached. This spring and weight are sunk into the recess D in stake A, the top of wire *d* pressing against the under side of tenon *c*, so that when the block or cap-piece C is removed the wire will spring out so that it may be readily pulled out. This arrangement is for the purpose of providing a safe deposit for letters or other matter left by woodsmen and others, which may be deposited within the spiral of spring *d'*.

In Figs. 1, 2, and 3 I have shown a square flat cap-piece, C, having beveled or sloping sides, on which the number of the township, north range of township, and west number of the section at the corner of which the stake is placed, are plainly marked in any suitable manner.

At the flat top of the cap is countersunk a plate or disk, *f*, showing the points of the compass; but instead of a flat cap-piece a square block may be used, as represented in Fig. 4, which has the advantage of offering a larger marking-surface; or cap-pieces of any other configuration may be used. It is also obvious that the body of the stake may be marked or inscribed below the block or top-piece C, and that the cap-piece, instead of having a screw-tenon, by which it is fitted into the stake, may have a countersunk screw-threaded recess fitting over the top of the stake, which, in that case, has the screw-threads on outside.

In order to prevent tampering with the stake by displacing it, I prefer to make a series of notches around the upper rim of the bottom part, as shown at *x* in the drawing, which correspond with the points of the compass marked on the face of the cap-piece; and when the stake is set, some of these notches are marked to correspond with the compass-points; or this marking may be done before the stake is set. For instance, that notch which is in a line with the point which marks north on the cap-piece is marked "N," and if, after the stake has been thus marked and set, any one should change the position of the top-piece by turning it in its socket or shell B, this could be ascertained by uncovering the said bottom part and examining the relative positions of the two parts. It would scarcely be possible to

change the position of the stake without changing also the position of the marked notches in their relation to the points of the compass marked on the cap-piece, and, in this manner, tampering with the post by unprincipled parties could readily be discovered.

When used in a country infested by Indians, I prefer to make the upper part A of the stake of wood, so that it may be readily replaced if pulled up or destroyed by them. As the lower part or shell B is some eight or ten inches below the surface of the ground, this would still remain and mark the place for the insertion of a new stake; but when used in the woods or on prairies where there is no danger of destruction by human agency, it is preferable to make both parts A and B of metal, so as to enable them to withstand the wood and prairie fires which not unfrequently sweep such sections of country, totally destroying all landmarks, and making new surveys necessary.

An additional and very important advantage resulting from this construction of the stake is that it allows the top part to rise and settle with the surface of the ground during wet and frosty weather, so that it will always regain its true position in the socket which is below the ground and not affected by the weather. Ordinary stakes, made in one piece, are liable to be displaced, and sometimes thrown entirely out of the ground, by frosts and other meteorological changes in the atmosphere.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The improved corner-stake or "witness" herein described, consisting of the top part A, shell B, and cap-piece C, constructed and combined substantially as and for the purpose hereinbefore set forth.

2. In combination with a recessed stake, A, and cap-piece C, the wire *d*, carrying a spiral, *d'*, and weight *e*, substantially as and for the purpose hereinbefore set forth.

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

SAMUEL D. BONNER.

Witnesses:
EDWARD EDWARDS,
TIMOTHY EDWARDS.