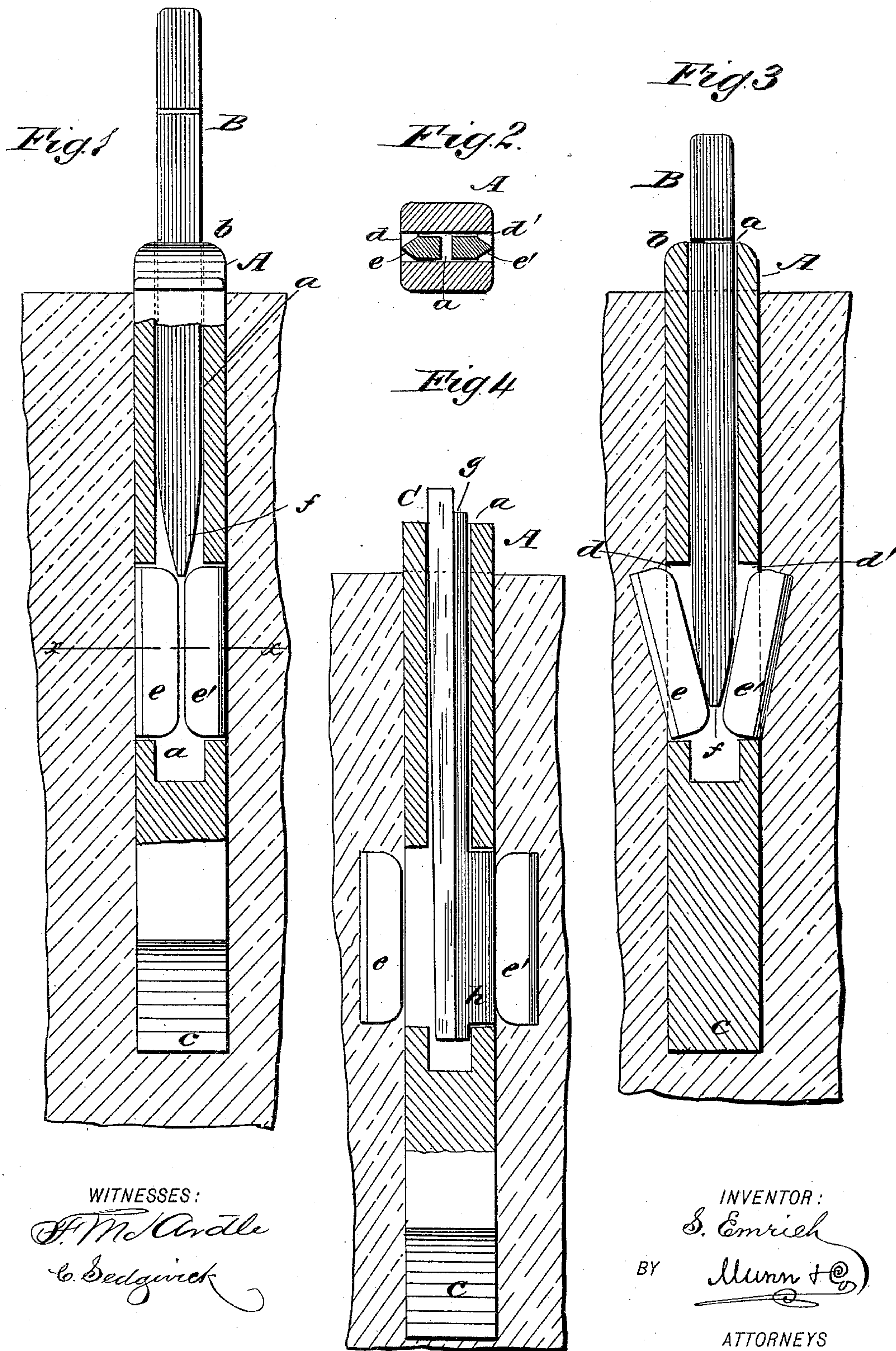


(No Model.)

S. EMRICH.
RAILWAY SPIKE.

No. 431,259.

Patented July 1, 1890.



UNITED STATES PATENT OFFICE.

SAMUEL EMRICH, OF RENO, NEVADA.

RAILWAY-SPIKE.

SPECIFICATION forming part of Letters Patent No. 431,259, dated July 1, 1890.

Application filed March 26, 1890. Serial No. 345,312. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL EMRICH, of Reno, in the county of Washoe and State of Nevada, have invented a new and Improved
5 Railway-Spike, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a side elevation, partly in section, of my improved spike, showing the spike driven into place and the fastening devices ready for operation. Fig. 2 is a horizontal section taken on line *xx* in Fig. 1. Fig. 3 is a vertical section showing the lateral fasten-
10 ing-plates being forced outwardly, and Fig. 4 is a vertical section showing the manner of displacing the lateral fastening-plates previous to withdrawing the spike.

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

The object of my invention is to provide a railway-spike with means for holding it in place in the wood into which it is driven.

My invention consists in a spike provided
25 with a longitudinal cavity and lateral mortises communicating with the cavity, plates fitted to the mortises, and a bar fitted to the cavity and provided with a wedge-shaped end for forcing the plates outwardly in the mor-
30 tises and causing them to project into the wood at the sides of the spike.

The invention also consists in the combination, with the spike and lateral plates, of an auxiliary plate and a wedge for forcing the
35 fastening-plates out of their mortises.

The spike A, which is of the usual form, is provided with a longitudinal cavity *a*, extending from the head *b* toward the point *c*. In the body of the spike are formed mortises *d*
40 *d'*, which communicate with the cavity *a*. In the mortises *d d'* are placed plates *e e'*, which

are wider than the thickness of the walls of the spike. To the cavity *a* is fitted a bar B, having a wedge-shaped end *f*.

The spike is driven into the wood with the plates *e e'* in the mortises, as shown in Fig. 1. The spike is secured against accidental loosening by forcing the plates *e e'* outward by driving the bar B into the cavity *a*, as shown in Fig. 3. The outer edges of the plates pro-
45 ject into the wood, as shown, and prevent the spike from being withdrawn.

When it is desired to remove the spike, a plate *g*, provided with the projection *h*, is inserted in the cavity *a* of the spike, with the
55 projection *h* extending into one of the mortises *d*. The wedge C is inserted between the plate *g* and the wall of the longitudinal cavity *a* and driven in so as to force the plate *e* outward beyond the outer wall of the spike. 60
The plate *e'* is forced outward in the same way, as shown in Fig. 4, when the spike may be withdrawn from the wood.

Having thus described my invention, I claim as new and desire to secure by Letters
65 Patent—

1. The combination, with a spike A, provided with the longitudinal cavity *a* and mortises *d d'*, of the plates *e e'*, substantially as specified. 70

2. The combination, with a spike A, provided with the longitudinal cavity *a* and mortises *d d'*, of the plates *e e'* and the bar B, substantially as specified.

3. The combination, with the spike constructed substantially as specified and provided with plates *e e'*, of the plate *g* and the wedge C, substantially as specified. 75

SAMUEL EMRICH.

Witnesses:

H. A. WALDO,
W. SANDERS.