

(No Model.)

E. C. DAVIS.
METALLIC RAILROAD TIE.

No. 351,499.

Patented Oct. 26, 1886.

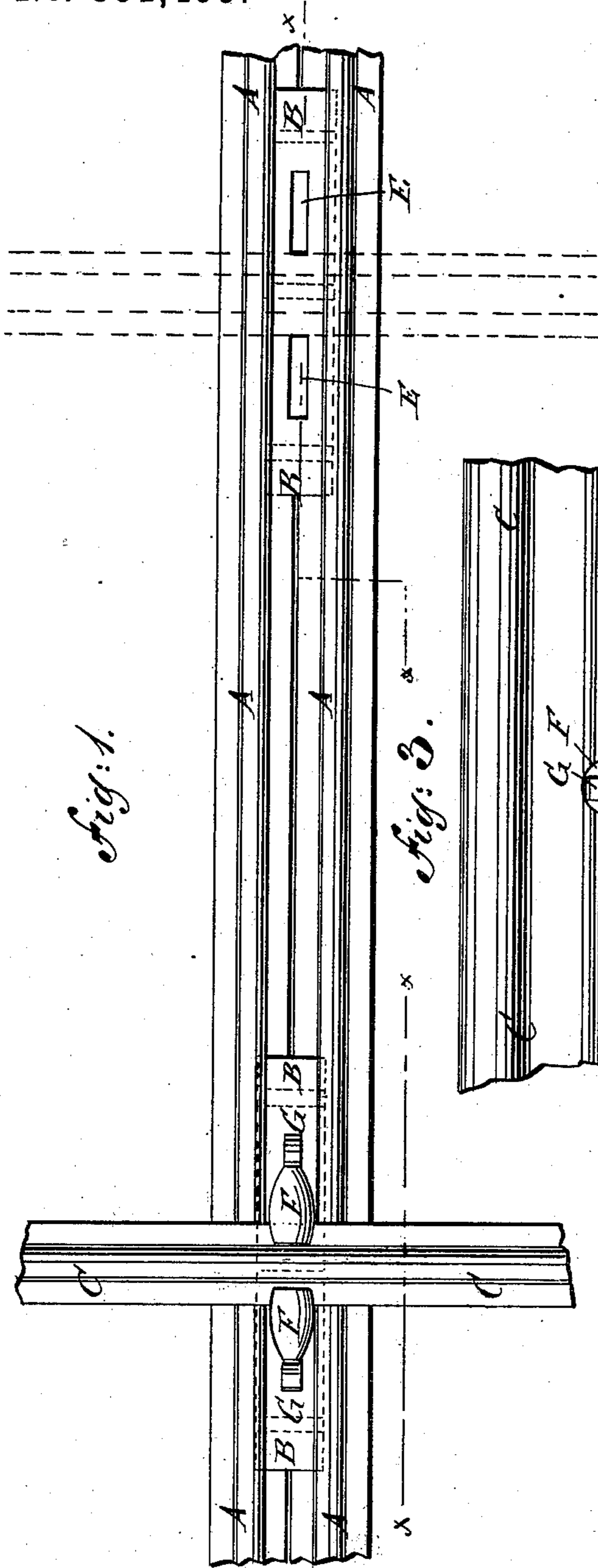
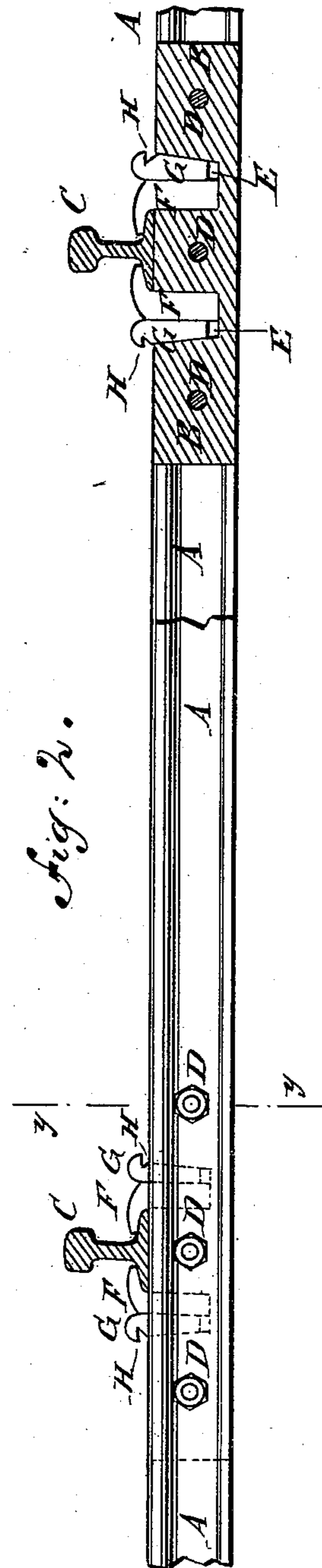
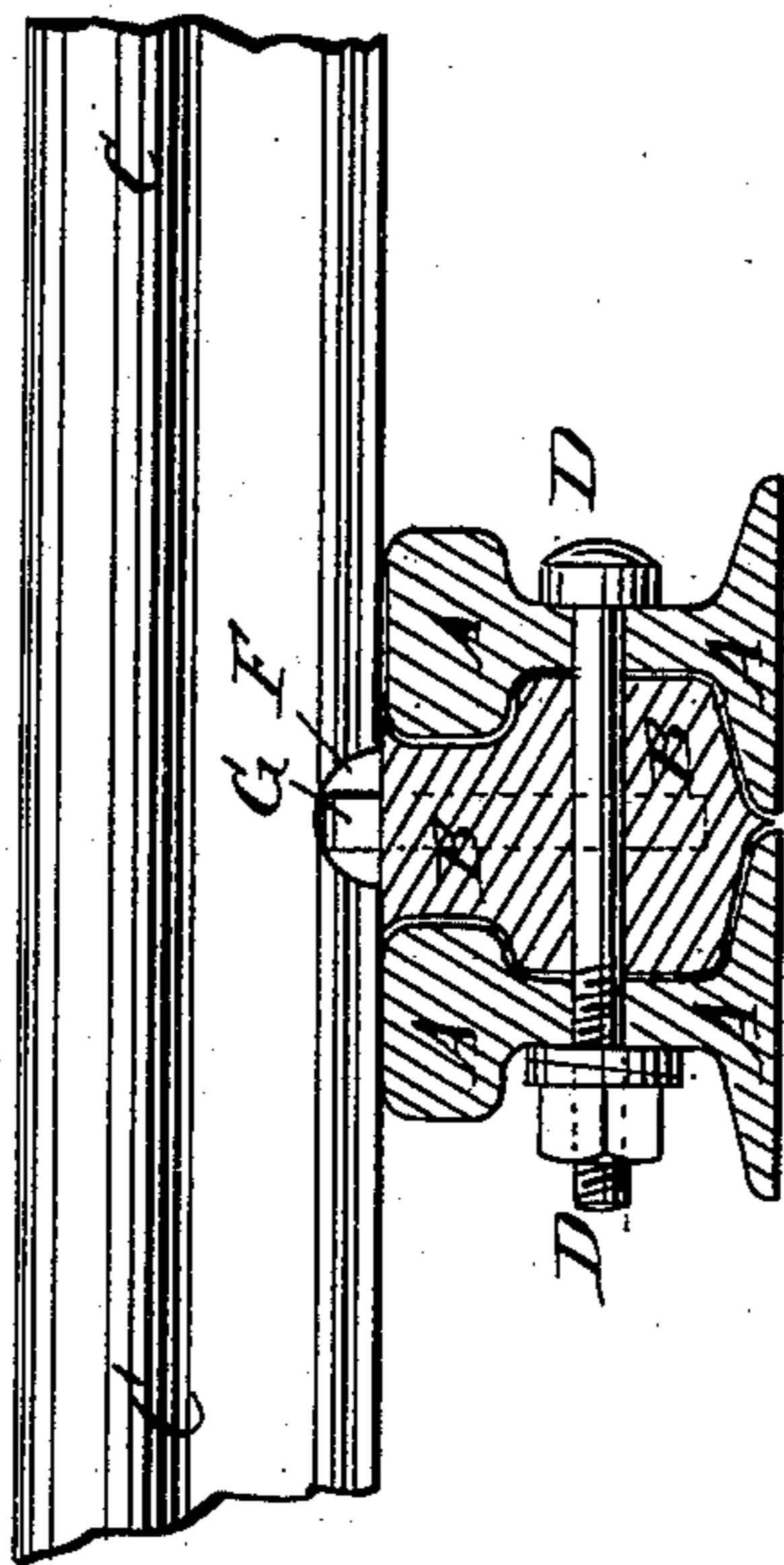


Fig. 3.



WITNESSES:

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BY

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UNITED STATES PATENT OFFICE.

ELLERY C. DAVIS, OF CROOKSTON, MINN., ASSIGNOR TO HIMSELF, GEORGE WATSON LEWIS, AND MILTON VAN DYKE, ALL OF SAME PLACE.

METALLIC RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 351,499, dated October 26, 1886.

Application filed April 13, 1886. Serial No. 198,710. (No model.)

To all whom it may concern:

Be it known that I, ELLERY C. DAVIS, of Crookston, in the county of Polk and State of Minnesota, have invented a new and useful
5 Improvement in Metallic Railroad-Ties, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification,
10 in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved railroad-tie, the ends being broken away and one set of spikes and keys being removed. Fig. 2
15 is a side elevation of a part of the same, part being shown in section through the broken line *x x x x*, Fig. 1. Fig. 3 is a sectional end elevation of the same, taken through the line *yy*,
20 Fig. 2, and showing a part of a rail in side elevation.

The object of this invention is to provide metallic railroad-ties simple in construction and strong and durable in use, and which shall be so constructed that the rails can be
25 readily raised above the ties and firmly secured in place in leveling a track that has been thrown out of true by the frost.

The invention consists in the construction and combination of various parts of the tie,
30 as will be hereinafter fully described.

A represents two parallel bars placed side by side, and which may be pieces of old railroad-rails, or may be bars rolled especially for this use. In the latter case the inner sides of
35 the heads of the bars A can be omitted, so as to give vertical sides to the channel between the middle and upper parts of the said bars.

B are blocks, which are made of such a size and the sides and bottoms of which are made
40 of such a shape that the said blocks will fit snugly into the channels between the bars A. Two of the blocks B are used for each tie—one near each end—and in such positions that the middle parts of the said blocks will be beneath the lines of the rails C. The blocks B
45 are secured to the bars A by bolts D at the shop where the ties are made. In each block B, at the opposite sides of the middle part, where the rails C are at rest, are formed re-

cesses E, which may extend partly or wholly 50 through the said blocks.

F are the spikes, which are placed in the ends of the recesses E, next the rails C, and with their heads overlapping the flanges of the
55 said rails.

The spikes F are secured in place by wedge-keys G, driven into the outer parts of the recesses E, along the outer edges of the spikes F, as shown in Figs. 1 and 2. In the outer
60 edges of the upper ends of the keys G are formed recesses H, to receive the end of a pinch-bar or other suitable tool, so that the said keys can be readily drawn to release the spikes F. With
65 this construction, when the track is thrown out of level by the frost, the keys G are withdrawn, the rails C are raised into a level position, and blocks of a proper thickness are placed between the said rails C and the blocks
70 B, and the keys G are again driven into the recesses E, locking the spikes F and the rails C securely in place. With this construction
75 the rails C can be readily leveled when thrown out of level by the frost and it is impossible to relay the ties, and when leveled will be held securely in place.

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

1. The combination, with two parallel bars, of two recessed spacing-blocks secured between
80 said bars, as specified, and spikes and wedges adapted to the recesses of the spacing-blocks, substantially as shown and described, and for the purposes set forth.

2. In a metallic railroad-tie, the combination, with the parallel bars A, of the blocks B,
85 secured to and between the said bars by bolts D, and provided with pairs of recesses E, and the spikes F and keys G, driven into the said recesses, substantially as herein shown and described, whereby the said rails can be readily
90 leveled when thrown out of level by the frost, and will be securely held in place, as set forth.

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Witnesses:

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