P. E. SHOEMAKER.

CAR STAKE.

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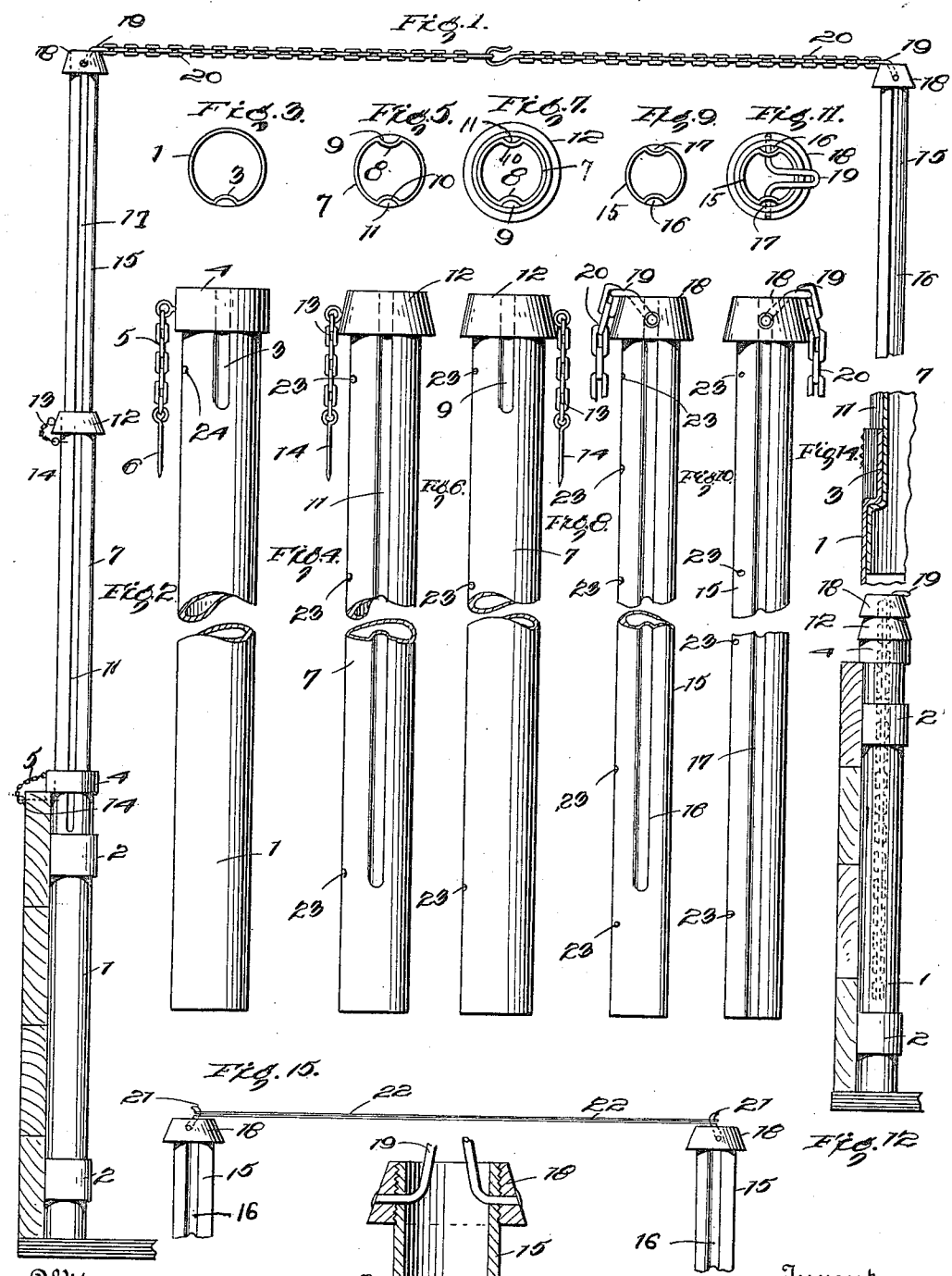
993,890. Patented May 30, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

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CAR-STAKE.

993,890. Specification of Letters Patent. Patented May 30, 1911.

Application filed October 3, 1910. Serial No. 585,121.

To all whom it may concern:

Be it known that I, PAUL E. SHOEMAKER, a citizen of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Car-Stakes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to car stakes, and the principal object of the same is to provide a novel sectional adjustable stake in which means are employed for limiting the relative longitudinal movements of the sections in one direction and also providing means for locking the sections against relative movement.

In carrying out the objects of the invention generally stated above it will be understood, of course, that the essential features thereof are necessarily susceptible of changes in details and structural arrangements, one preferred and practical embodiment of which is shown in the accompanying drawings, wherein:—

Figure 1 is a detail view in elevation of the improved stake. Fig. 2 is a view in side elevation of the base section of the stake. Fig. 3 is a top plan view thereof, the cap being removed. Fig. 4 is a view in side elevation of the intermediate section of the stake. Fig. 5 is a top plan view thereof, the cap being removed. Fig. 6 is a view in side elevation of the opposite side of the section shown in Fig. 4. Fig. 7 is a top plan view thereof with the cap in place. Fig. 8 is a view in side elevation of the upper section of the stake. Fig. 9 is a top plan view thereof, the cap being removed. Fig. 10 is a view in side elevation of the opposite side of the section shown in Fig. 8. Fig. 11 is a top plan view thereof with the cap in place. Fig. 12 is a view in side elevation showing the stake collapsed. Fig. 13 is an enlarged section through the upper end of one form of stake. Fig. 14 is a fragmentary vertical sectional view showing the connection between the sections. Fig. 15 is a detail view of a slight variation of the invention.

Referring to the accompanying drawings by numerals, it will be seen that the improved stake comprises a stationary base section 1 that is hollow and which is fastened to the side of a car by the clips or brackets 2. Said section is provided with an inwardly projecting longitudinal rib 3 at its upper end.

The upper end of section 1 is provided with a collar 4. A chain 5 is carried by said collar and a bolt 6 is carried by said chain. A hollow intermediate section 7 is telescopically fitted within section 1, said section 7 being provided with a short longitudinal rib 8 on its inner surface and a corresponding groove 9 on its outer surface, said rib and groove being at the upper end of the section. On its opposite side, the section 7 is provided with an elongated internal longitudinal rib 10 and a corresponding external longitudinal groove 11. The upper end of section 7 is provided with a collar 12, said collar being equipped with a chain 13 and bolt 14 similar to the cap of section 1. The internal rib 3 of section 1 engages the external groove 11 of section 7 to limit the longitudinal movements of section 7 relative to section 1 in one direction and also prevents relative rotary movements of the two sections. An upper section 15 is telescopically fitted within section 7 and is provided with oppositely disposed external longitudinal grooves 16 and 17. Groove 16 is shorter than groove 17 and is engaged by the internal rib 10 of section 7 which limits the longitudinal movements of section 15 relative to said section 7. Groove 17 is engaged by the internal rib 8 of section 7. Obviously, the rib and groove engagement between the two sections confines the relative movements thereof to a longitudinal movement. Section 15 is provided with external end threads for the reception of a collar 18. Collar 18 is equipped with a bail 19 from which a chain 20 extends. Said chain is adapted to be passed over the top of a load, or pile, and engages a similar chain carried by the upper section of an oppositely disposed stake, as shown in Fig. 1.

As is suggested in Fig. 15, the upper section 15 may have a hook 21 pivoted to the collar instead of a bail so that the hooks of oppositely disposed stakes can be connected with wires 22, or other load tying means. The sections 7 and 15 of the stakes are provided with oppositely disposed longitudinal rows of regularly spaced transverse openings 23, and the stationary section 1 is provided with oppositely disposed upper transverse openings 24. These openings are selectively engaged by the bolts carried by the

collars of the sections 1 and 7 to lock the movable sections in the desired adjusted positions.

In assembling the parts of the stake, the intermediate section 7 is passed through the bottom of section 1 with its groove 11 in position to be engaged by the internal rib of said section 1. The other section 15 is then passed through the section 7, from the bottom, with its grooves 16 and 17 in position to be engaged by the ribs 8 and 10 of said section 7. The grooves of the sections 7 and 15 extend to the upper ends of the sections so that they can be readily placed in engagement with the ribs of sections 1 and 7. After the sections have been assembled, the end caps are placed on the sections 7 and 15.

It will be seen from the foregoing that this invention provides means whereby the sections are prevented from having relative movements other than longitudinal movement through the interlocking groove and rib engagement and that such engagement also limits the relative longitudinal movements of said sections.

It is to be understood, of course, that while in the foregoing especial stress has been laid on the utility of the improved stake in connection with cars, the same is not limited to such use, for the improved stake can be readily used in connection with all types of load-conveying vehicles. It will also be understood that the collars of the sections act as abutments to limit the collapsing movements of the sections, and as the said collars overhang the grooves in the sections, said collars will prevent dirt or dust gaining access to said grooves, such as might tend to clog the same. And the collars of the intermediate and upper sections are preferably made in conical shape so that snow, rain, dust and dirt will be conveyed away from the sections.

What I claim as my invention is:—

1. A vehicle stake comprising a plurality of telescopically arranged sections, abutment collars carried by the upper ends of said sections and overhanging the outer surfaces thereof, one of said sections being stationary and the other sections being movable, the collars of the movable sections being conical so that they will convey water, snow and dust from said sections.

2. An expansible and collapsible car stake comprising a stationary base section provided with an upper longitudinal internal rib, an intermediate section telescoping therewith and provided with oppositely disposed external longitudinal grooves and corresponding internal ribs, one of said grooves being located at the upper portion of the intermediate section and engaging the internal rib of the base section to limit the longitudinal movements of the intermediate section and prevent rotary movement thereof, and an upper section telescoping with the intermediate section and provided with oppositely disposed external longitudinal grooves which are engaged by the ribs of the intermediate section to limit longitudinal and prevent rotary movement of the upper section.

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

PAUL E. SHOEMAKER.

Witnesses:
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