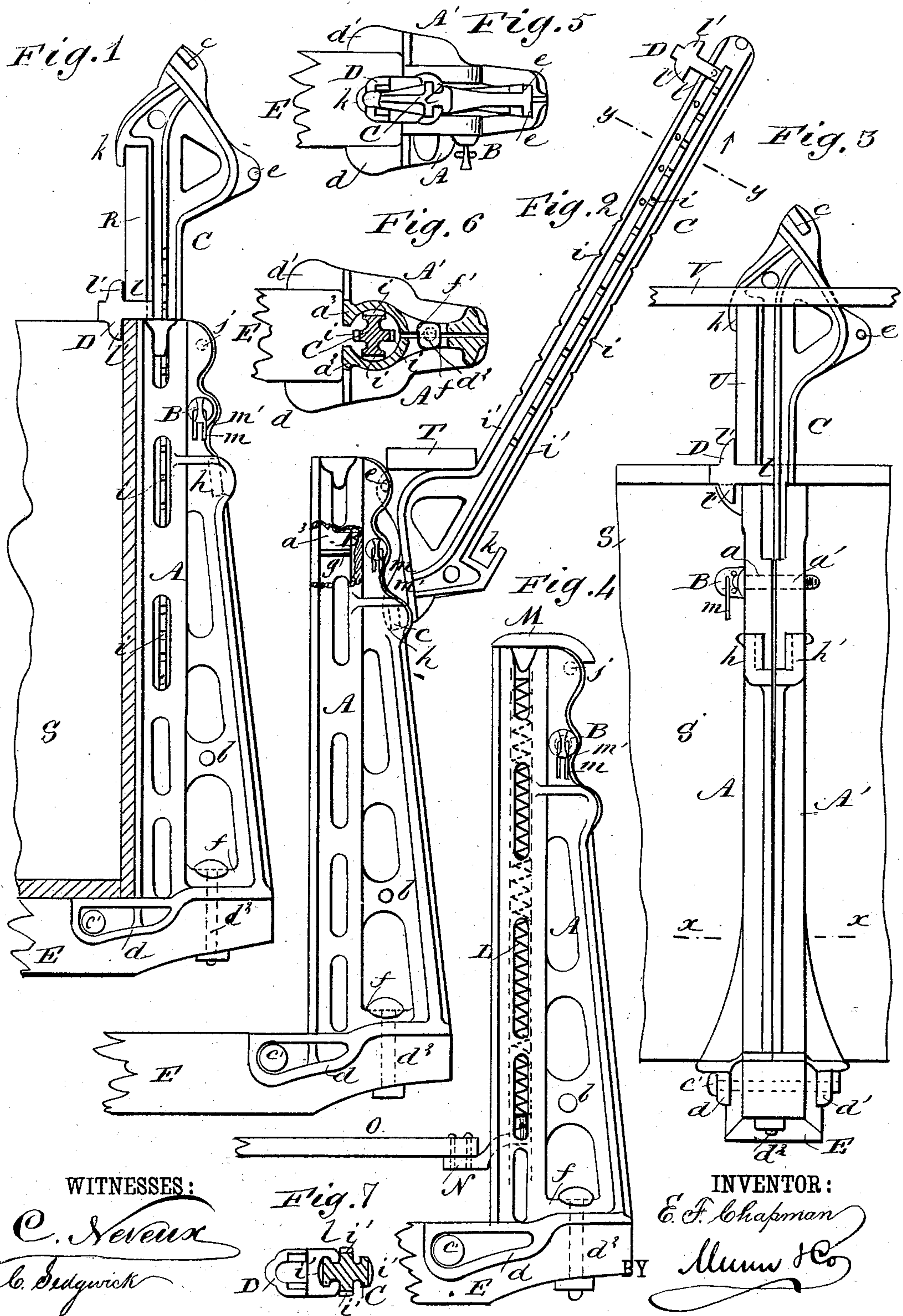


(Model.)

E. F. CHAPMAN.
WAGON STAKE.

No. 280,132.

Patented June 26, 1883.



WITNESSES:

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WAGON-STAKE.

SPECIFICATION forming part of Letters Patent No. 280,132, dated June 26, 1883.

Application filed January 3, 1883. (Model.)

To all whom it may concern:

Be it known that I, EUGENE F. CHAPMAN, of Wilson, in the county of Colfax and State of Nebraska, have invented a new and Improved Wagon-Stake, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in my new and improved wagon-stake, shown and described in Letters Patent No. 248,708, which were granted to me October 25, 1881.

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

Figure 1 is a side elevation of my improved wagon-stake, the extension-bar C and sliding head D being arranged for holding the side-boards R vertically upon the edge of the wagon-box S. Fig. 2 is a side elevation showing the extension-bar and sliding head D arranged for supporting the side seats, T, on the wagon-box, or for supporting a hay or straw rack or inclined side-boards. Fig. 3 is an elevation of the back of the stake, showing parts arranged for holding cross-pieces U edgewise on the edges of the wagon-box, for supporting temporary covering-boards V over the wagon-box. Fig. 4 is a side elevation showing a coiled spring placed in the chamber of the stake in place of the extension-bar C, for supporting the wagon-box on springs. Fig. 5 is a plan view of the stake, extension-bar, and the sliding head. Fig. 6 is a sectional plan view of the stake and extension-bar, taken on the line *xx* of Fig. 3; and Fig. 7 is a sectional plan view of the extension-bar, taken on the line *yy* of Fig. 2, looking in the direction of the arrow.

The wagon-stake proper is formed of the two castings A A', which are reversed duplicates of each other, except that the casting A is formed with the plain orifice *a*, while the casting A' is formed with the corresponding orifice, *a'*, Fig. 3, screw-threaded for receiving the clamp-screw B, whereby the castings A A' may be drawn together for grasping and holding the extension-bar C at any desired vertical position. The contiguous faces of the castings A A' are made semicircular, as shown at *a² a³*, Fig. 6, so that when secured together they form a circular chamber for receiving

and holding the extension-bar C, as clearly shown in this figure. The castings A A' are riveted together near their lower ends by the rivet *b*, and are secured to the end of the bolsters E by the horizontal bolt *c'*, that passes through the bolster, and the check-pieces *d d'*, formed on the castings, and the vertical clasp-headed bolt *d²*, the head of which reaches over the upper edges of the corresponding fins, *f f'*, formed at the lower ends of the casting, as shown clearly in Fig. 6, and the inner or contiguous faces of the castings A A' are formed, near their upper ends, with the corresponding horizontal ribs *g*, which are adapted to engage with the notches *i i* of the extension-bar C, when the said castings are drawn together by the screw B, for securely holding the extension-bar at any desired vertical position.

At the back the castings A A' are formed with the corresponding flanged recesses, *h h'*, which, when the castings come together, form a chambered step at the back of the stake for receiving the lugs *c c*, formed on the upper end of the extension-bar C, and the castings are formed, also, with the rounded depressions *j j* on their inner faces, near their upper ends, for receiving the studs *e e* of the extension-bar, to act in conjunction with the recesses *h h'* and lugs *c c*, for holding the extension-bar in diagonal position, as shown in Fig. 2. The extension-bar C is diamond-shaped at its upper end, and, besides being formed with the lugs *c c* and studs *e e*, is formed with the hook *k*, that is adapted to reach over the upper edge of the side-board R or cross-piece U, for holding the same in place on the box S, as shown in Figs. 1 and 2. In cross-section the bar C has the form shown in Fig. 7—that is to say, it has four side ribs, *i'*, and these ribs are notched, as above mentioned and as shown at *i i*, so that the said bar may be reversed in the chamber of the stake, and the ribs *i' i'* of the extension-bar are undercut or channeled out, as shown, to form side flanges on the ribs for the attachment to the stake of the sliding block D, which is formed with the claw *l* at its rear side or end, to engage with the flanges of the ribs, as shown clearly in Fig. 7. The sliding head or block D is formed at its front or forward end with the upper and lower lugs, offsets, or hooks, *l' l'*, the lower one of which is adapted to reach over the upper edge of the wagon-box, while

the upper one is adapted to hold in place upon the edge of the wagon-box the lower edge of the side-board R when held in vertical position, or the upper edge when held in diagonal position, as will be understood from Fig. 2, or to hold the lower edge of its cross-piece U, as will be understood from Figs. 1, 2, and 3.

The extension-bar C may be removed from the circular chamber in the stake, and the coiled spring L, which is provided with the shoe M at its upper end and the foot N at its lower end, may be put in its place, as shown in Fig. 4.

To the foot N is secured one end of the cross-bar O, the other end of which will be secured in a similar manner to a similar foot attached to a similar spring placed in the opposite stake, so that the wagon-box, when put in place upon the wagon, will rest upon the cross-bars, which will thus support the box upon the springs and render the wagon easy-riding.

The head of the clamp-screw B is provided with the bent wire or rod *m*, which is adapted to be turned down behind the flange or stud *m'*, formed on the casting A, for locking the bolt, so that it will not be turned by the jar of the wagon.

The different adjustments of the extension-bar C will be readily understood from the drawings. If it is desired only to raise or lower the extension-bar, the bolt B is simply to be turned outward, which will separate the castings A A' and release the notches of the extension-bar from the ribs *g g*, leaving the bar free to be raised or lowered to the desired position, when the bolt B will be turned up again, causing the bar to be clamped between the said ribs and firmly held.

As above mentioned, the extension-bar may be removed from the stake and reversed—that is, held with the hook *k* toward the box, parallel with the box in either direction, or away from the box, as circumstances may require. It may also, as above stated, be removed from the stake and inverted and placed with the studs *e e* and lugs *c c*, respectively, in the recesses *h h'* and depressions *j j*, and clamped and held in a diagonal position outward and upward from the outer edge of the stake, for holding a hay or straw rack, or for holding side-boards flaring or diagonal to the sides of the box. When in this position the side seat, T, may be put in place upon the diamond-shaped end of the extension-bar, as shown in Fig. 2. When the spring L is used, of course the extension-bar C will be removed entirely

and laid aside until the wagon is to be used again for heavy work, where springs are not required. In this manner the stake is made very convenient and useful, and it is at the same time cheap, strong, and durable.

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

1. The combination, with the castings A A', adapted to be clamped together by the screw B, of the extension-bar C, adapted to be held between the castings, as and for the purposes set forth.

2. The combination, with the castings A A' and extension-bar C, of the sliding head or block D, substantially as and for the purposes set forth.

3. The extension-bar C, formed with the hook *k*, lugs *c c*, and studs *e e*, in combination with the castings A A', having the recesses *h h'* and depressions *j j*, as and for the purposes set forth.

4. The castings A A', formed with the ribs *g g*, and adapted to be clamped together by the screw B, in combination with the extension-bar C, formed with the notches *i i*, as and for the purposes set forth.

5. The castings A A', adapted to be clamped together by the screw B, the casting A being formed with the flange *m'*, in combination with the said screw and the locking-wire *m*, as and for the purposes set forth.

6. The castings A A', formed with the fins *f f'* and cheek-pieces *d d'*, whereby they are adapted to be secured to the bolster E by the bolt *c'* and the vertical clasp-headed bolt *d''*, substantially as described.

7. The combination, with the castings A A', of the coiled spring L, having the shoe M and foot N, substantially as and for the purposes set forth.

8. The extension-bar C, formed with the flanged ribs *i' i'*, in combination with the sliding block D, having the claw *l* and hooks *l'*, as set forth.

9. The notched extension-bar C, formed with the hook *k*, in combination with the sliding head D and the castings A A', adapted to be clamped together by the screw B, for holding the extension-bar, substantially as described.

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Witnesses:

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