June 10, 1930. R. DYMOCK 1,762,618

STAKE LOCK

Filed Nov. 12, 1928

Fig. 1.

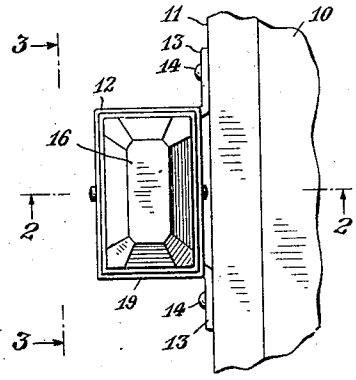


Fig. 2.

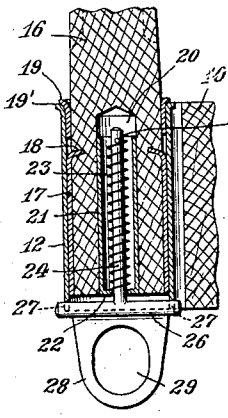


Fig. 3.

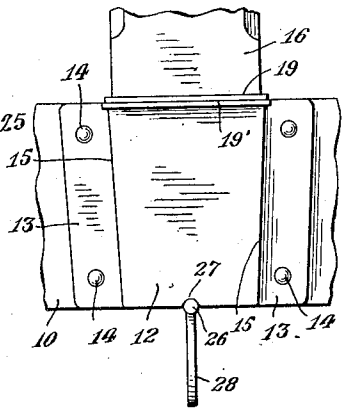


Fig. 4.

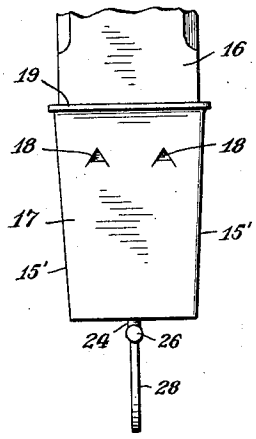


Fig. 5.

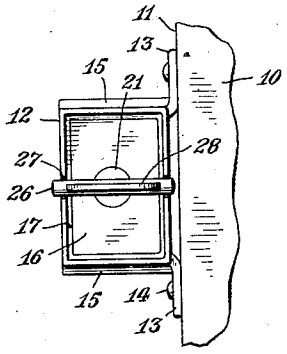


Fig. 6.

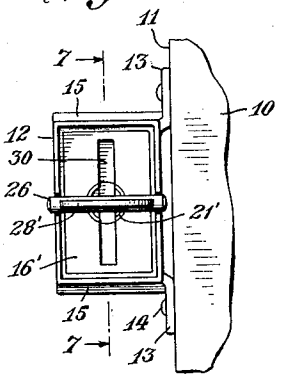


Fig. 7.

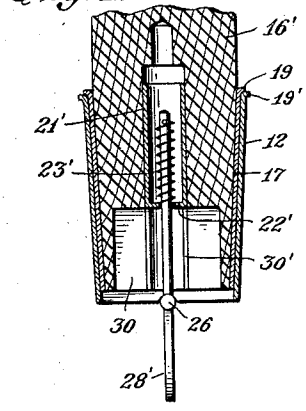


Fig. 8.

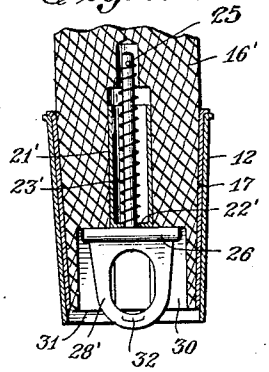
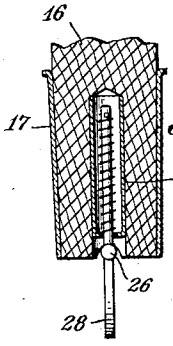


Fig. 9.



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UNITED STATES PATENT OFFICE

RAYMOND DYMOCK, OF HAMBURG, NEW JERSEY

STAKE LOCK

Application filed November 12, 1928. Serial No. 318,657.

This invention relates generally to stakes and has more particular reference to a novel stake lock.

The invention has for an object the provision of a device of the class mentioned, which is of simple durable construction, desirable in use and efficient in action, and which can be manufactured and sold at a reasonable cost.

The invention proposes the use of an iron or steel ferrule attached to the lower end of a stake, and engageable within a pocket secured to the side of the loading bed of a truck. The stake is provided with a bottom central aperture engaged by a casing, housing an expansion spring and acting to retract a vertical rod projecting from the bottom of the stake and integral with a horizontal pin and lock handle. The horizontal pin is of such length that in transverse position it acts against the bottom of the pocket restraining the stake from being lifted out, and in longitudinal position permits the lifting out of the stake.

This construction is of exceptional advantage in that stakes may readily be made for including the locking arrangement without adding materially to the cost of the stake. Prior attempts have been made to produce stake locks, but it has been found that due to their complicated construction they proved prohibitive. In addition the ferrule protects the stake at its bottom and against excessive wear.

For further comprehension of the invention and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is a fragmentary plan view of the loading bed of a truck provided with a stake constructed according to this invention.

Fig. 2 is a fragmentary vertical sectional view, taken on the line 2—2 of Fig. 1.

Fig. 3 is a fragmentary front elevational view of the stake seen as though looking in the direction of the arrows 3—3 of Fig. 1.

Fig. 4 is a fragmentary face elevational view of the stake, per se, that is, disengaged from the pocket.

Fig. 5 is a bottom view of Fig. 1.

Fig. 6 is a view similar to Fig. 5, but disclosing a modification thereof.

Fig. 7 is a fragmentary vertical view, taken on the line 7—7 of Fig. 6, and

Fig. 8 is a fragmentary view of a portion of Fig. 7, but showing the lock handle of the device in a retracted position, while Fig. 9 is a detail view.

The reference numeral 10 indicates generally the loading bed of a truck, constructed according to any design and having a side edge 11. In Fig. 1, one stake has been shown applied to the edge 11 though it should be understood that this is not intended as a limitation, any number being appliable along the edges of the loading bed of the truck.

A pocket member 12 provided with side flanges 13 is attached to the side 11 of the loading bed by bolts 14 passing thru the flanges and engaging in the material of the bed. This pocket has a substantially tubular shape, rectangular in horizontal cross section and with its end sides tapered as indicated by numeral 15 from the top of the pocket to the bottom with the smaller end of the taper at the bottom. This pocket may be made from case metal or may be formed from sheet metal.

A stake 16 made of wood or of metal is shown with its lower end covered by a ferrule 17. This ferrule is secured upon the stake by tongues 18 struck out of the material thereof and clamped into the material of the stake. The top of the ferrule is provided with a rim 19, and the end sides are tapered as indicated by numeral 15′ to engage the tapered sides 15 of the pocket. The top edge of the pocket is provided with a rim 19′ to co-act with the rim 19 of the ferrule for supporting the stake when engaged in the pocket.

The lower end of the stake is formed with a central aperture 20 and a metallic casing 21 is forced into this aperture. The casing

21 is provided with a bottom end flange 22 for supporting the lower end of an expansion spring 23 engaged about a vertical rod 24 extending thru the casing. A stop pin 25 engages thru the rod 24 and abuts against the top end of the spring 23. A horizontal pin 26 is integral with the lower end of the rod 24 and is engageable in small recesses 27 formed in the bottom front and rear sides of the pocket 15. A lock handle 28 projects from the bottom side of the pin 26. This lock handle is provided with a central opening 29 for engagement by one's finger.

The horizontal pin 26 is of a length slightly greater than the width of the pocket 15 so that with the pin 26 in a transverse position as shown in Fig. 5 the ends of the pin engage in the recesses 27. In this condition of the device the stake 16 is locked in position against accidental displacement due to being jarred out of the pocket while the truck is in motion. For freeing the stake 16 so that it may be removed and the truck loaded, or unloaded the lock handle may be turned thru an angle of 90 degrees so that the stake may be lifted out of the pocket and the pin 26 merely passing thru the pocket permitting the disengagement.

In the modified form of the device illustrated in Figs. 6, 7 and 8 a longitudinal recess 30 has been formed in the lower end of the stake 16′ for receiving the lock handle 28′ when this handle is in a longitudinal position. The casing 21′ has an intermediate flange 22′ for forming the bottom support of the spring 23′, and the longitudinal slot 30 passes thru the lower portion of the casing 21′ as indicated by numeral 30′ in Fig. 7. In Fig. 6 the lock handle 28′ has been shown in a transverse position so as to lock the stake against displacement. This lock handle may be turned thru an angle of 90 degrees for releasing the stake so that the stake may be withdrawn and for permitting the spring 23′ to draw the lock handle 28′ within the longitudinal recess 30. The device in this condition is shown in Fig. 8.

It should be noticed that just the lower tip of the lock handle 28′ projects from the lower edge of the stake 16′. In Fig. 8 the lower edge of the stake is indicated by numeral 31. A great advantage of this construction is that in the disengaged position of the stake the likelihood of the lock handle 28′ being damaged is very small. During the loading and unloading of a truck these stakes are thrown upon the sidewalk or on the truck and may very easily strike something which would break the lock handle. But with this construction the lock handle is substantially fully retracted within the stake so that injury to it is highly improbable. Finger depressions 32 are formed on opposite sides of the lock handle for permitting manual gripping during the operation of withdrawing the lock handle so that it may be rotated in a transverse position for locking the stake within the pocket.

While I have illustrated and described my invention with some degree of particularity, I realize that in practice various alterations therein may be made. I therefore reserve the right and privilege of changing the form of the details of construction or otherwise altering the arrangement of the correlated parts without departing from the spirit of the scope of the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:—

1. In a device of the class described, the combination of a pocket with a stake, the latter being at its lower end provided with a metal ferrule and at the center of its bottom with an aperture, a casing mounted in the said aperture, an expansion spring arranged in the said casing and secured at its lower end by the inwardly bent flanges of the latter, the said spring engaging a vertical rod projecting from the bottom of the said stake, the said rod terminating in a horizontal cross-bar and a lock-handle, the said cross-bar being adapted to secure the engagement of the stake with the pocket when in a transverse position and disengagement thereof when in a longitudinal position, substantially as shown and described.

2. In a device of the class described, the combination with a pocket for attachment upon the sides of the load bed of a truck, of a stake with a ferrule attached on its lower end, and having an aperture disposed in the center of its bottom, a casing with an inwardly turned bottom flange arranged in said aperture, a vertical rod slidable in the said casing and engaging a coiled spring, the latter being confined by a horizontal pin arranged at the upper end of said rod, and by the said inwardly turned bottom flange of the casing, the said rod having an integral horizontal pin with a lock handle projecting from its bottom, said latter horizontal pin being arranged for engaging against the lower edge of said pocket when in a transverse position, and adapted to secure a disengagement therefrom when in a longitudinal position, substantially as shown and described.

3. The combination with a pocket for attachment upon the sides of a load bed of a truck, of a stake with a ferrule attached on its lower end, and having a central aperture in said lower end, a casing with a bottom flange fixed in said aperture, a vertical rod slidable in the casing and having an integral horizontal pin with a lock handle projecting from its bottom side, a spring acting between the said bottom flange and a pin projecting from the upper end of the said vertical rod for normally urging the retrac-

tion of the latter into the aperture when in a longitudinal position, the said horizontal pin being arranged for engaging recesses formed at the lower edge of the said pocket when adjusted to a transverse position.

Signed at Hamburg, in the county of Sussex and State of New Jersey, this 24th day of October, A. D. 1928.

RAYMOND DYMOCK.