Oct. 16, 1956 E. E. ROBERTS 2,766,967

KNOCKDOWN FENCE UNIT

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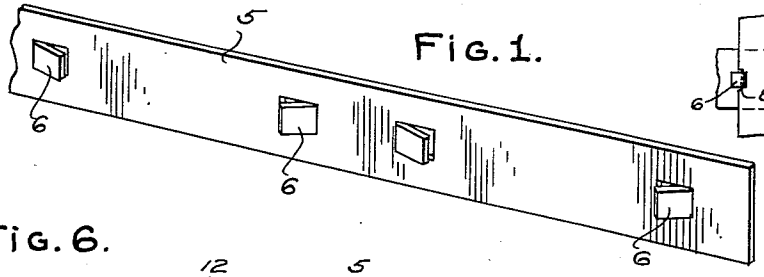


Fig. 1.

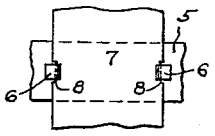
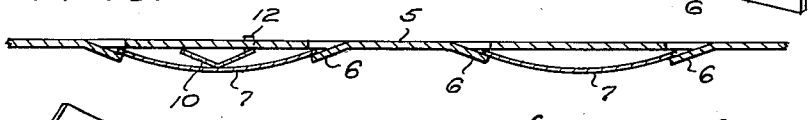


Fig. 7.

Fig. 6.



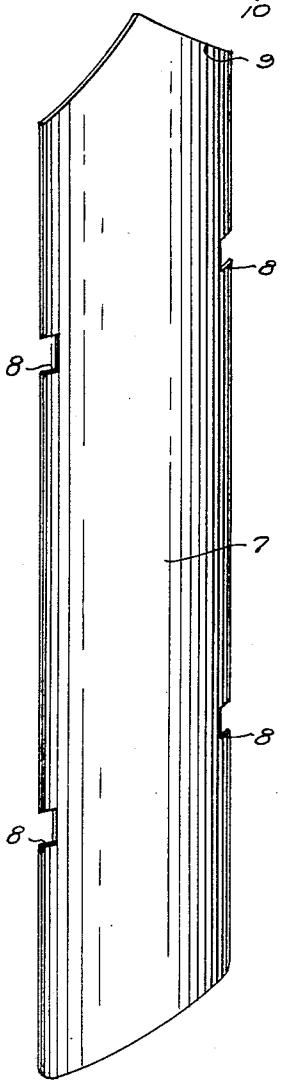


Fig. 2.

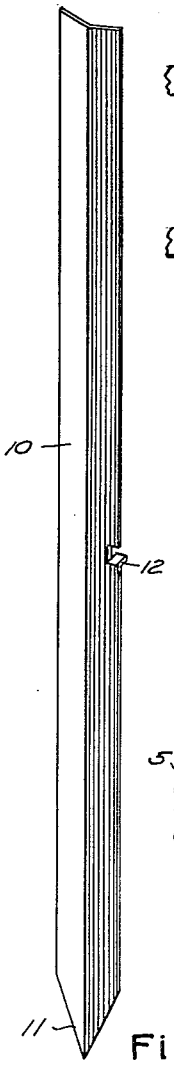


Fig. 3.

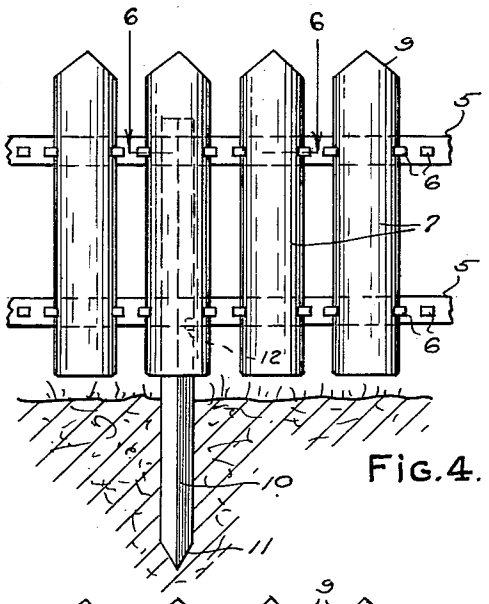


Fig. 4.

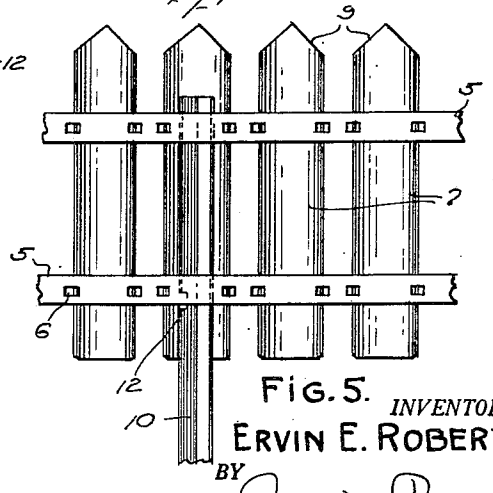


Fig. 5.

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KNOCKDOWN FENCE UNIT

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2 Claims. (Cl. 256—22)

This invention relates to improvements in structural devices wherein a plurality of parallel and flexible slats are detachably secured for creating various protective devices, such as enclosure fences and protective awning shutters, although not necessarily restricted to such use.

The invention contemplates a strap device that is provided with a plurality of pairs of opposed tongues stamped therefrom in combination with preferably metallic slats that are transversely flexible for snapping engagement with the tongues in a manner to dispose a plurality of the slats in parallel and slightly bowed position, and with the invention further contemplating the use of at least two of the straps that engage the slats adjacent their opposite ends whereby to hold the slats in a predetermined form, such for instance as to create an enclosure device having the characteristics of a fence and with the straps being flexible to the extent whereby the fence may be shaped to conform to areas such as flower borders or the like.

The invention further contemplates a structural unit in combination with transversely bowed slats and with the slats being constructed in a manner whereby they will be substantially locked against sliding movement with respect to the unit.

A further object of the invention resides in a novel ground stake that serves to support the fence structure and with the ground stake having means to limit its sliding movement for connection with the fence.

Novel features of construction and operation will be more clearly apparent during the course of the following description, reference being had to the accompanying drawings wherein has been illustrated the preferred forms of the device and wherein like characters of reference are employed to denote like parts throughout the several figures.

In the drawings,

Figure 1 is a fragmentary perspective view of a structural unit constructed in accordance with the invention,

Figure 2 is an enlarged perspective view of a slat device embodied in the invention,

Figure 3 is an enlarged perspective view of a ground stake embodied in the invention,

Figure 4 is an outer side elevation of a fence embodying the elements of the invention,

Figure 5 is an inner side elevation of a fence embodying the elements of the invention,

Figure 6 is a fragmentary horizontal section taken substantially on line 6—6 of Figure 4,

Figure 7 is a fragmentary side elevation of the connecting means between the structural unit and an associated slat.

Referring specifically to the drawings, the numeral 5 designates a metallic strap having a plurality of spaced apart pairs of opposed tongues 6 struck therefrom and with the tongues 6 angled outwardly to a predetermined degree to constitute opposed wedge shaped sockets. The strap 5 may be formed of any desirable material, such as aluminum and of any desired thickness. In certain instances, it is desirable that the strap 5 be flexible or bendable, for a purpose to be presently described.

The numeral 7 designates a slat preferably formed of metal and relatively thin and with the slat being transversely bowed throughout its length. While the slat may be formed of a light gauge of metal, it could obviously be formed of plastic or any other desirable material. The longitudinal edges of the slat 7 are notched at spaced apart points, shown at 8, and with the notches 8 being in pairs and in transverse alignment. The notches 8 constitute the locking means whereby to prevent sliding of the slats with respect to the strap 5. In the form of the invention illustrated in Figures 1 to 7, the slats constitute the usual palings for an ornamental fence construction and in the fence construction there is employed a pair of parallel and spaced apart straps 5 whereby to support the palings in a vertical parallel and spaced apart relation and with the upper and lower terminal portions of the palings being equidistantly spaced above and below the straps 5. The upper end of the slat 7 may be ornamentally shaped, as at 9, customary in fence designs. To assemble the slat 7 with respect to the straps 5, the slats are engaged with one tongue 6 with the notch 8 seating within the socket formed by the tongue and with the upper and lower edges of the socket engaging over and under the tongue, as clearly illustrated in Figure 7. The slat 7 is then additionally bowed to permit a snapping engagement of the opposite notch 8 into the socket formed by the opposite opposed tongue 6, thus tensioning the slat with respect to the tongues and with the engagement being such that the slat will be securely held against accidental displacement and will be held against sliding movement by the engagement of the upper and lower edges of the notch with respect to the tongue. The assembly with respect to the lower strap 5 obviously is identical to that just described. Since the fence structure illustrated is primarily for enclosing relatively small areas, such as flower borders of either straight or circular form or as a guard for lawn areas to discourage persons walking thereacross, it becomes necessary that means be provided to support the fence in a vertical manner and for this purpose there has been provided ground stakes, illustrated in Figure 3. Any number of ground stakes may be employed to support the fence in either a straight or conforming protective arrangement. The ground stake, here illustrated, as a metallic angle 10, has been pointed at one end, as at 11, for piercing engagement within the ground, shown more clearly in Figure 4. One edge of the stake 10 is provided with an inwardly angled tongue 12 struck therefrom. The tongue 12 serves as a limit stop whereby the stake may be assembled with relation to the fence and provides a means whereby all of the stakes will project downwardly below the fence substantially an identical distance. The stakes 10 are engaged with the fence by sliding it vertically beneath a selected slat 7 to overlie the upper and lower straps 5 and with the stake being limited in its upward movement by the abutment of the tongue 12 with the lower edge of the lower strap 5, thus permitting the operator to force the stake into the ground without altering its predetermined position with respect to the fence.

It is contemplated that the novel fence construction shall be packaged and sold in a knock-down condition to include straps of predetermined length and a predetermined number of slats 7 and stakes 10. The fence may thus be quickly and easily assembled and disposed in a protective manner in a minimum of time. Additional fence units may be employed in end-to-end relation or in end-to-end conforming relation to a circular flower bed or the like and may be just as easily and quickly disassembled and stored in a minimum of space. The device thus offers a very simple and economical form of

packaged fence at a relatively low cost. The component parts will obviously be formed of material having a relatively high resistance to rusting. The interlocking of the slats with respect to the straps is such as to retard any tendency to shift out of alignment.

It will be apparent from the foregoing that a very novel structural device has been provided that has a relatively wide range of use and which may be cheaply manufactured of various materials and assembled with a minimum of effort.

It is to be understood that the invention is not limited to the precise arrangement shown but that changes are contemplated as readily fall within the spirit of the invention as determined by the scope of the subjoined claims.

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

1. A knock-down fence structure that comprises a pair of elongated straps that constitute stringers, tongues struck from the straps and with the tongues being arranged in spaced apart pairs and with the tongues of each pair being in opposed relation whereby to form wedge shaped opposed sockets, a plurality of slats that constitute the palings of the fence, the straps being in spaced apart and parallel relation, each of the slats being transversely bowed and with the slats having their vertical edges notched at spaced apart points that corresponds to the spacing of the straps, the slats adapted to be further tensioned bowed transversely whereby to engage the edges of the slats within the sockets under tension, the slats engaging within the sockets at the point of notching

whereby the upper and lower walls of the notches overlie and underlie the tongues, the engagement of the slats with the straps serving to maintain all of the slats in equidistantly spaced and parallel relation to each other and with the ends of the slats projecting above and below the upper and lower straps a corresponding distance, a ground stake for supporting the fence in a vertical position, the ground stake being disposed in overlying relation to the upper and lower straps and in underlying relation to one of the slats and means formed upon the stake whereby to limit its degree of assembly with the fence.

2. The structure according to claim 1, wherein the straps are flexible to a degree that permits a conforming shaping of the fence, the ground stake being angular in cross-section and having its lower end sharpened and pointed, the ground stake having a length that simultaneously overlies the straps and underlies a slat and with its lower sharpened end adapted to pierce the ground to a depth that supports the fence in a vertical manner and free of contact with the ground, the ground stake having one vertical edge notched and bent to form a lateral tongue that engages the lower edge of the lowermost strap whereby to limit the engagement of the stake with respect to the fence.

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