

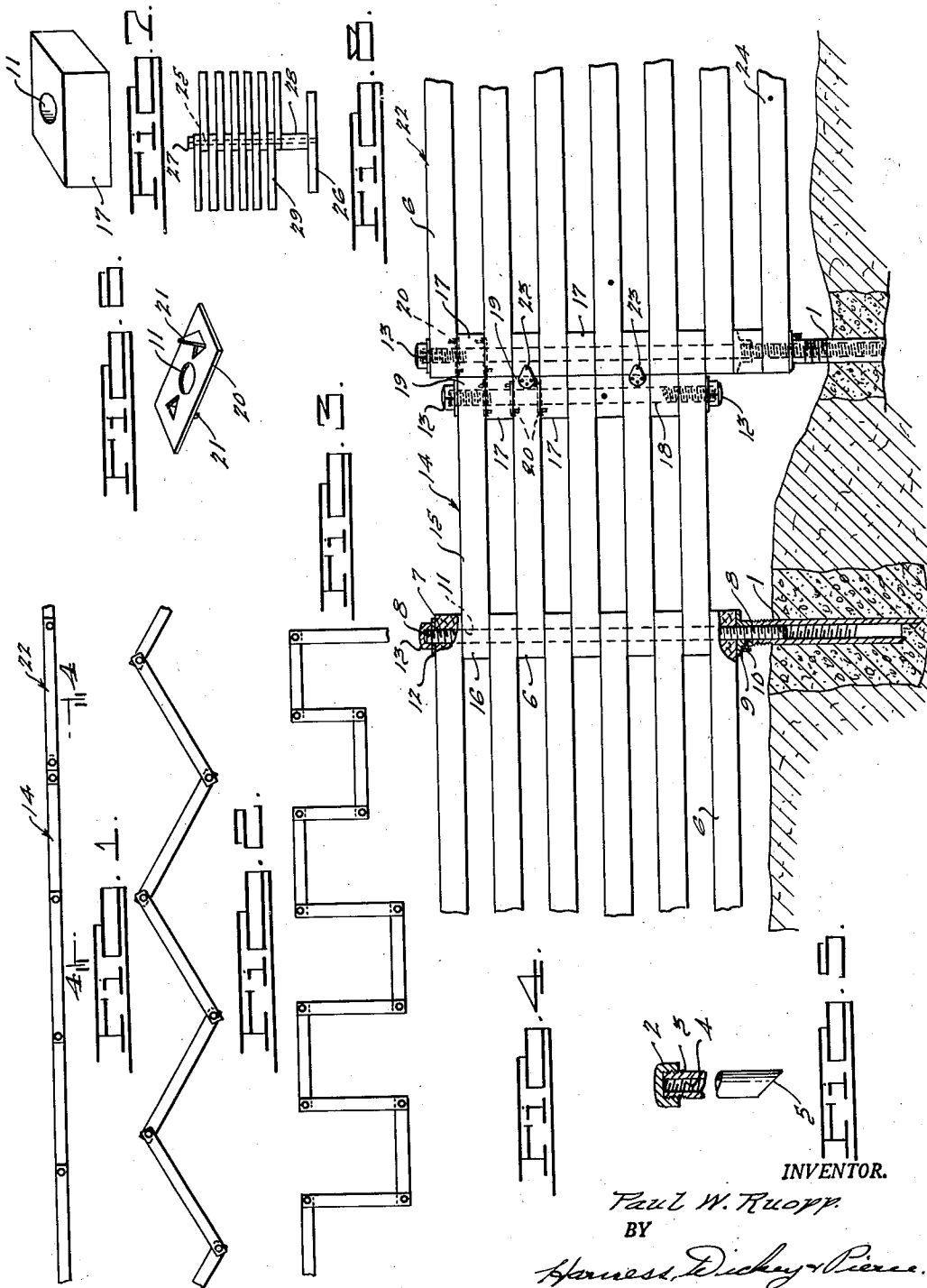
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FENCE

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FENCE

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This invention relates to fences, and particularly to a built-up type of fence which is readily assembled and disassembled.

In the past, fences have usually been constructed as a permanent fixture to the land. As a result, renters of property, or owners of property who desire to construct a fence which is not a fixture to the land so that the fence can be taken with them when moving, have heretofore been unable to do so.

The fence of the present invention embodies posts threaded at each end which screw into a tubular section which is embedded in the earth either driven therein or set in concrete a predetermined distance apart. The rails may be made of metal, wood and the like, and may be of channel section, solid or of box-section construction, having apertures at each end through which the post extends, with the rails alternately positioned one upon the other. Adjusting elements are provided on the threaded posts at the bottom for leveling the rails to have them in perfect horizontal position, and caps are employed at the top for clamping the rail ends together.

Various types of fences may be constructed in this manner, such as a straight fence, a rail fence where the rails are disposed in angular relation to each other, or the fence may be straight, rectangular or angular in part to extend around a flower bed, tree and the like. A gate may be formed from the rails to provide a passageway for a person, an automobile and the like. The gate rails are pivoted at one end on one of the posts between the rails of the fence and are connected together at the free end by a threaded element having caps at each end and extending through filler blocks disposed between the gate rails. Similar filler blocks are employed on the opposite terminal end of the fence which is engaged by the free end of the gate. Thin metal plates having tongues struck therefrom in opposite direction are placed between the filler blocks and the rails to prevent the blocks from shifting after the rails and blocks are securely clamped together. The fence can be erected in a very short time and can be changed from one type of fence to another and be disassembled without harming any of the elements thereof.

Accordingly, the main objects of the invention are: to provide a fence made of threaded tubular posts and rails having apertures on the ends through which the posts extend with the rails alternately disposed thereon; to provide stakes having an internally threaded end portion receiving the threaded ends of tubular posts which

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support a plurality of rails against an adjustable plate on the bottom of the post by a threaded cap on the top thereof; to provide a gate having rails which are alternately disposed on a post between the rails of a fence on which the gate rails pivot with the free ends of the gate rails spaced apart by filler blocks and secured together by a threaded element extending there-through having a cap on each end; to provide a base for a standard upon which a plurality of fence rails are alternately disposed and secured together by a cap for forming a portable pen, a toy fence and the like, and, in general, to provide a fence which is readily assembled and disassembled, which is simple in construction and economical of manufacture.

Other objects and features of novelty of the invention will be specifically pointed out or will become apparent when referring, for a better understanding of the invention, to the following description taken in conjunction with the accompanying drawing, wherein:

Figure 1 is a plan view of a fence embodying features of this invention;

Fig. 2 is a view of structure, similar to that illustrated in Fig. 1, showing another form which the fence may assume;

Fig. 3 is a view of structure, similar to that illustrated in Figs. 1 and 2, showing a still further form of the invention;

Fig. 4 is an enlarged view in elevation of the fence illustrated in Fig. 1, as viewed from line 4—4 thereof;

Fig. 5 is a view of a post supporting stake illustrated in Fig. 4;

Fig. 6 is a perspective view of a locking plate employed in the fence illustrated in Fig. 4;

Fig. 7 is a perspective view of a filler block illustrated in Fig. 4; and

Fig. 8 is a view of a fence, similar to that illustrated in Figs. 1 to 7, showing a further form thereof.

It will be noted from Figs. 1, 2 and 3 that the fence may be constructed of any shape. In Fig. 1, the rails are illustrated as being in extension of each other to form a straight fence. In Fig. 2 the rails are illustrated as being in obtuse angular relation to each other to simulate a rail type of fence. In Fig. 3, the various sections of the fence are illustrated as being constructed to form a border about trees, flower beds and the like. It is to be understood that portions of the fence may be straight, may be angularly extended, while other portions thereof may be in rectangular relation to each other.

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The fence embodies a plurality of stakes 1 which may be driven into the ground or embedded in concrete or otherwise supported, flush with the top of the ground or extending slightly thereabove. When driven in the ground the stake is provided with a cap 2 which is threaded over the external threads 3 thereof or which may have a central stud which threads within the internal thread 4 of the stake. The stake may have a pointed end 5 so that it may be readily driven into the ground. When the stakes are embedded in concrete, the end need not be pointed and the cap 2 need not be supplied. The stakes are located in correct spaced relation by employing one of the rails 6 as a locating element.

A post 7 is preferably constructed from a tubular element having an external thread 8 on each end, one of which is threaded into the internal thread 4 of the stake 1. A plate 9 is threaded on the bottom thread 8 of the post 7, having a setscrew 10 therein by which the plate is clamped in position after adjustment on the post. The rails 6 are provided with apertures 11 at each end of such diameter as to fit over the post 7 and are alternately placed thereover, as illustrated in Fig. 4. The plate 9 may be adjusted to level the rails 6, after which the setscrew 10 may be tightened to maintain the plate in adjusted position.

A washer 12 is placed over the post 7 against the top rail, and a cap 13 is then threaded on the top thread 8 of the post 7 for clamping the rails against the bottom plate 9. It will be understood that the rails will be in aligned extension of each other on each side of the post 7 or in angular relation to each other depending upon the position of the stakes 1 which may vary, as indicated above, to provide a type of fence as illustrated in Figs. 1, 2 and 3, or combinations thereof.

In Fig. 4, a gate 14 is illustrated, constructed of short rails 15, the ends 16 of which are disposed between the rails 6 on the post 7 to form a hinged relation therewith. If desired, washers may be placed on each side of the rails 6 to reduce the bearing surface between the rails 6 and 15. The opposite ends of the rails 15 are spaced apart by filler blocks 17 and a tubular element 18 extends through apertures 11 in the ends 19 of the rails 15 and in the blocks 17. Plates 20, which are made preferably of thin metal, have tongues 21 extending therefrom in opposite directions on opposite sides of a central aperture 11. The plates are placed between the blocks 17 and the rails 15, with the element 18 extending therethrough. The tongues 21 are embedded in the block 17 and rails 15 when the caps 13 draw the rails and blocks together to prevent the blocks from rotating relative to the rails. Similar blocks 17 space the rails 6 on the fence portion 22 and are locked in position by the tongues on the plates 20 when the blocks are drawn into abutted relation with the rails 6 by the tightening of the caps 13. Striker plates 23 may be supported on the gate 14 for limiting the movement of the gate from aligned relation with the fence outwardly thereof in one direction.

It will be noted that with this type of fence, when the surface of the terrain varies, an additional rail 24 may be provided at the bottom of the fence to make up the difference in the

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offset relation of the terrain, while the top of the fence remains the same height.

In Fig. 8, a further form of the invention is illustrated, that wherein a post 25 is mounted on a base 26 and provided with a threaded cap 27 on the top and a sleeve 28 on the bottom. A plurality of rails 29 are alternately placed upon the post 25 and secured against the sleeve 28 at the bottom by the cap 27. It is contemplated that this construction would be employed for play pens for children, a fenced area for animals, miniature fences which may be employed about Christmas trees and the like. The fence of Fig. 8 may be utilized as a toy for children who can assemble the rails 29 upon the standard to build up a fence and be taught co-ordination and be kept occupied.

What is claimed is:

1. In a fence, the combination with a stake having an internal thread, a post threaded at both ends with one end threaded in said internal thread to extend upwardly through a plurality of rails which rest upon each other, a cap threaded on the other end of said post for securing said rails together under pressure, and a plate threaded on the bottom threaded end of said post and adjustable thereon for leveling said rails.

2. For assembly into a fence, a stake having an internal thread on its upper end, a post having a thread at each end with the lower thread capable of being threaded into said stake, a plate threadable upon said lower thread of the post, a plurality of rails having apertures extending through the ends thereof which are insertable on said post, and a cap having threads engageable with the threads at the upper end of the post for clamping the rails together against the bottom plate.

3. For assembly into a fence, a plurality of stakes having threaded ends, a plurality of posts having threads at the top and bottom ends, with the bottom threads engageable with the threads of the stakes, a plurality of rails having apertures in the ends thereof of a diameter to permit the rails to be insertable on the posts, a cap having a thread engageable with the thread on the top of the post, and plates having a thread engageable with the bottom thread of the posts for abutting the lower rails and upon which the lower rails rest when the plurality of rails are clamped in unit relation by the cap threadable on the top thread of the post, said plates being adjusted on the post for leveling the fence.

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