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PATENTED SEPT. 4, 1906.

J. W. HUMPHREY.
FENCE OR DIKE.

APPLICATION FILED OCT. 19, 1905.

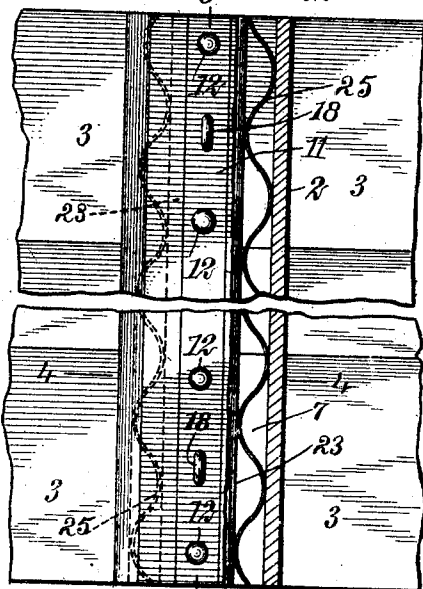
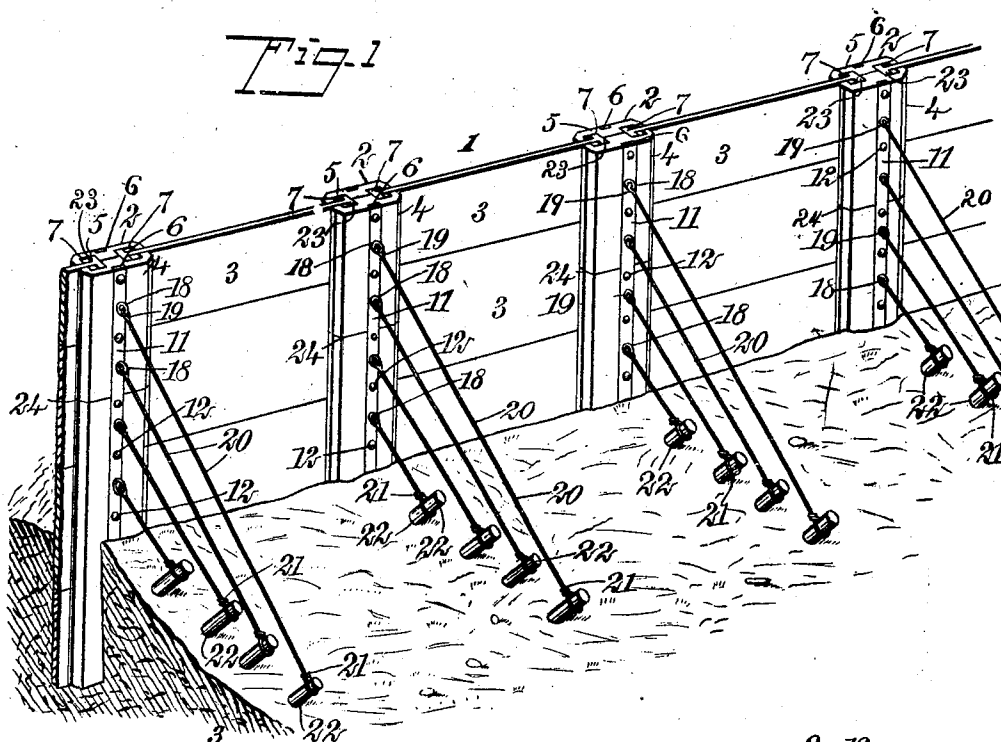


Fig. 2

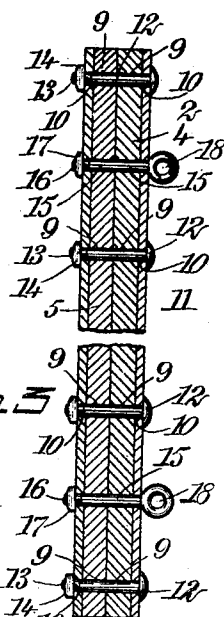


Fig. 3

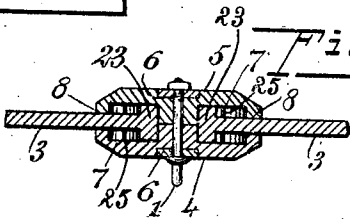


Fig. 4

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JULIUS WOLCOTT HUMPHREY, OF WOODLAWN, OREGON.

FENCE OR DIKE.

No. 830,437.

Specification of Letters Patent.

Patented Sept. 4, 1906.

Application filed October 19, 1905. Serial No. 283,435.

To all whom it may concern:

Be it known that I, JULIUS WOLCOTT HUMPHREY, a citizen of the United States, and a resident of Woodlawn, in the county of Multnomah and State of Oregon, have invented a new and Improved Fence or Dike, of which the following is a full, clear, and exact description.

This invention relates to fences; and it consists, substantially, in the details of construction and combinations of parts hereinafter more particularly described, and pointed out in the claims.

Though applicable to all the purposes of a fence for inclosing land, as farms, lawns, and the like, the invention is equally adapted as a dike or levee for preventing the encroachment of water, mud, silt, and the like upon low-lying lands.

One of the principal objects of the invention is to provide a structure of this kind of an embodiment to overcome numerous disadvantages and objections frequently encountered in the use of many other structures hitherto devised for similar purposes.

A further object is to provide a structure of the character referred to which is simple and comparatively inexpensive to install, besides being thoroughly effective and reliable for its purposes and possessing the capacity for long and continued service.

A still further object is to provide a structure of this kind which is portable and readily taken apart and again put together and which may be quickly erected and repaired from time to time as occasion may require.

The above and additional objects are attained by means substantially such as are illustrated in the accompanying drawings, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my improved structure, the same being shown in the form of a dike anchored in position. Fig. 2 is an enlarged broken side view in detail, showing the means employed for compensating for contraction of the structure under thermic changes of the atmosphere. Fig. 3 is a vertical sectional view on the line 3 3 of Fig. 2, and Fig. 4 is a horizontal sectional view on the line 4 4 of Fig. 2.

Before proceeding with a more detailed description it may be stated that in the form of my improvements herein shown I employ a structure comprising any desired number of posts for a given length thereof, said posts

being alike and of special construction, as are certain panels or rails which I employ between the same. The posts and panels are coöperatively organized in a manner to greatly strengthen the connections therebetween, as well as to lend stability to the entire structure, and special means are employed for anchoring and bracing the structure from either side thereof to effectually resist any and all pressures or strains to which the structure may be subjected. Both the posts and the panels may be constructed of any material, metal being preferred in instances where the structure is employed as a dike, and in which case the metal may be galvanized or otherwise coated, so as to prevent corrosion thereof by the elements. Special means are employed for compensating for shrinkage of the panels of the structure, due to thermic changes of the atmosphere, thus to maintain the integrity of the structure under all conditions.

While I have herein represented my improvements in a certain preferred embodiment, it is to be understood, of course, that I am not limited thereto in precise detail, since immaterial changes therein may be made coming within the scope of my invention.

Reference being had to the drawings by the designating characters thereon, I represent in entirety a structure embodying my improvements, such structure being made up of any desired number of posts 2, connected together by means of panels or rails 3 of any desired length or height. Said posts may be constructed in various ways, but I prefer to construct them all alike, as will be presently explained. Each post is preferably constructed of two separate sections 4 and 5, having corresponding vertical grooves 6 in the outer faces thereof, and said sections are correspondingly grooved on their inner faces to form at or near the adjacent sides of the posts mortises 7, leading from which are grooves 8, (see Fig. 4,) constituting entrances to said mortises. The said sections 4 and 5 of the posts are formed with a series of vertically-disposed registering openings 9, with which register corresponding openings 10, formed in strips 11, which are inserted within the said vertical grooves 6 in the outer faces of the sections of the posts, and it will be observed by reference to Fig. 3 that through the alternate set of openings 9 and 10 for each post suitable

headed bolts 12 are inserted, on the threaded ends 13 of which are placed nuts 14 for tightly securing together the two sections of the posts, as will be understood. Through the remaining alternate sets of said openings bolts 15 are inserted, also having on their threaded ends 16 fastening-nuts 17, and which are provided at the outer ends thereof with eyes 18 for receiving at 19, Fig. 1, the upper ends of stay-rods or anchoring devices 20, the lower ends 21 of which may be secured in any suitable manner to stumps, stakes, or posts 22, firmly driven into the ground in suitable positions adjacent to the structure, as indicated in Fig. 1. Also, as shown in Fig. 1, the series of posts embodied in the structure are connected together by the hereinbefore-mentioned panels 3, having the ends thereof enlarged to form tenons 23, which are received in the hereinbefore-mentioned mortises 7, portions of the panels also being received between the sides of the grooves 8, leading to the said mortises, as hereinbefore explained. It will of course be understood that the eyes 18 of the bolts 15 are disposed on that side of the structure from which the anchoring or bracing is to be made, the anchoring devices being constructed preferably of rods of suitable dimensions and strength. As shown in Fig. 1, the structure may, if desired, be also partially embedded in the land over which the structure is erected, and it is apparent that the said structure is admirably suited for its purposes. Accordingly as it may be the wish to increase the height of the structure I prefer in some instances to construct the posts 2 of superposed sections, the line of division therebetween being indicated at 24 in Fig. 1.

From the foregoing it will be seen that my improved structure may be erected very quickly, and also that the same may be readily taken apart for any purpose desired, and that when erected the same is secure and strong as well as simple and thoroughly effective for its purposes.

As will be observed, the mortises 7 of the posts 2 are of increased dimensions over the dimensions of the tenons 23 fitting therein, and, as shown in Figs. 2 and 4, I employ within each of said mortises duplicate springs 25, of suitable construction, located on opposite sides of the corresponding panels 3 and normally exerting pressure lengthwise of the structure. Said springs are preferably herein shown as practically corrugated or of curvilinear form, with alternating bends of each set thereof bearing against the particular tenon 23 and outer wall of the mortise 7, respectively, with which they are associated or organized. In this way compensation is derived for any contraction of the panels of the structure from thermic changes of the atmosphere, as will be apparent.

In erecting the structure the posts 2 may

be driven in the ground by the employment of any suitable means, as a pile-driver, for instance, and it is apparent that said posts may be located relatively nearer to each other than is shown in Fig. 1, for instance, although this will entirely depend upon the nature of the ground in which the structure is erected as well as other conditions. The panels 3 are preferably applied to position between the posts by inserting them in the mortises therefor in the posts one after another until the structure has been built up to the desired height. As already stated, sections may be superposed upon the posts, and thus the structure may be built to quite a considerable height. It is evident that the structure may be quickly erected at comparatively small expense and also that the same is admirably adapted for the intended purposes thereof. The longer dimension of the panels may extend either horizontally or vertically, according to conditions as well as to the strength required of the structure in use. The panels of one section of the structure may break joint with the sections thereof adjacent, and the structure may otherwise be varied from that herein shown according to circumstances.

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

1. A fence structure of the character described, comprising a post formed of attached sections meeting substantially in the plane in which the fence extends and having grooves in their adjacent faces alining to form mortises, and panels passing into said mortises and having tenons retaining the same therein.

2. A structure of the character herein specified, comprising posts and connecting-panels therebetween, the former each embodying duplicate sections having corresponding openings, fastening-bolts extending through alternate sets of said openings, other bolts passing through the remaining alternate sets of said openings, and provided at one of the ends thereof with eyes, and bracing devices for the structure embodying rods connected to said eyes and also connected to devices embedded in the ground.

3. A structure of the character herein specified, comprising posts, connecting-panels therebetween, and means for compensating for contraction of the panels under thermal changes.

4. A structure of the character herein specified, comprising posts, connecting-panels therebetween, the former being constructed with mortises and the latter with tenons fitting therein, and means located within said mortises exerting pressure upon said tenons.

5. A structure of the character herein specified, comprising posts, connecting-panels

els therebetween, anchoring brace devices
for the structure, the posts being construct-
ed of duplicate sections grooved on their ad-
jacent faces to form mortises, the panels
5 having tenons at their ends fitting in said
mortises, and springs located within the
mortises exerting pressure against the tenons
in the direction of length of the structure.

In testimony whereof I have signed my
name to this specification in the presence of 10
two subscribing witnesses.

JULIUS WOLCOTT HUMPHREY.

Witnesses:

H. DENLINGER,
CLARA HUMPHREY.