May 22, 1923. 1,456,356

A. R. BENTLEY

PORTABLE HAYRACK

Filed Feb. 8, 1922

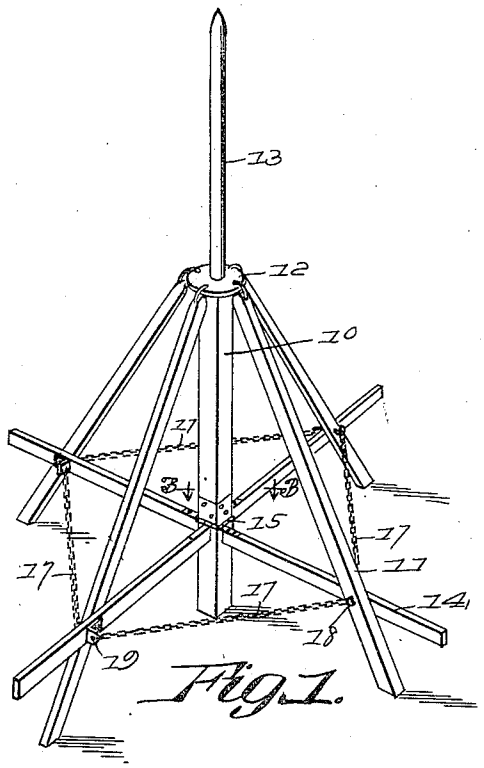


Fig. 1.

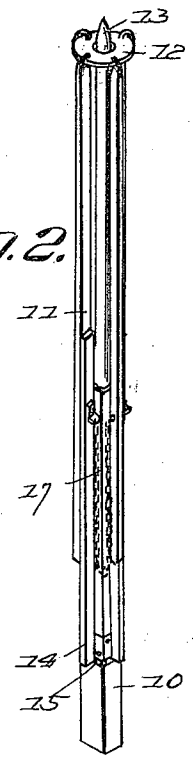


Fig. 2.

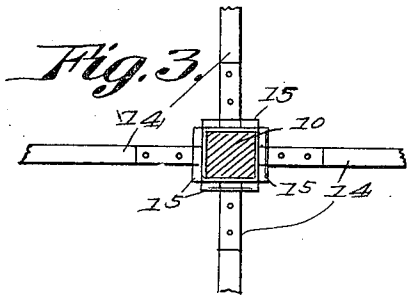


Fig. 3.

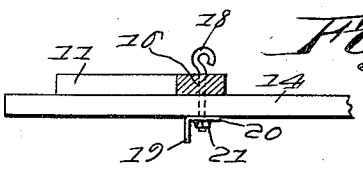


Fig. 4.

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UNITED STATES PATENT OFFICE.

ALVIS R. BENTLEY, OF PHIL CAMPBELL, ALABAMA.

PORTABLE HAYRACK.

Application filed February 8, 1922. Serial No. 534,923.

To all whom it may concern:

Be it known that ALVIS R. BENTLEY, a citizen of the United States of America, residing at Phil Campbell, in the county of Franklin and State of Alabama, has invented new and useful Improvements in Portable Hayracks, of which the following is a specification.

The object of the invention is to provide a simple and efficient foldable hay rack adapting it to be transported readily and without disassembly of its parts for positioning whenever it may be desirable to form a stack or rick, and to provide such a construction of rack as to afford a substantial support for the stack and minimize the tendency to distortion or scattering of the material forming the stack under the influence of a high wind; and with these objects in view the invention consists in a construction and combination of parts of which a preferred embodiment is shown in the accompanying drawings, wherein:—

Figure 1 is a perspective view of a rack embodying the invention.

Figure 2 is a similar view showing the rack in the folded or transporting condition.

Figure 3 is a detail horizontal sectional view on the plane indicated by the line 3—3 of Figure 1.

Figure 4 is a detail view of one of the joints between the leg and brace members of the frame.

The rack consists essentially of a mast or standard 10 of which the lower portion is preferably of relatively heavy timber and is polygonal in cross section and is adapted to rest at its lower end on the ground, a series of downwardly divergent leg members 11 connected at their upper ends with a runner 12 which is mounted to slide on a reduced upper portion 13 of the mast or standard, and a series of brace members 14 corresponding in number with the leg members which are hingedly connected at their inner ends as indicated at 15 to the mast or standard and are pivotally connected near their outer ends to the leg members respectively as by means of pivot pins 16.

The brace members occupy a substantially horizontal position when the rack is spread or set up for use as indicated in Figure 1 with their outer ends projecting beyond the leg members to afford additional means of keying the material of the stack to the rack to insure a desirable stability of structure and minimize the tendency of distortion of the stack or displacement of the hay or other stacked material when exposed to a wind. As a means of reinforcing the rack the leg members are connected transversely in series by flexible tensile braces 17 consisting in the construction illustrated of chains arranged in the plane of the radial brace members 14 and terminally connected respectively with hooks or eyes 18 formed at one end of each of the pivot pins 16 and ears 19 carried by washer plates 20 to which the said pins are connected by being headed as shown at 21.

When the rack is not in use or it is desired to transport the same to a new locality for the erection of a stack, the brace members may be folded upwardly in relation to the mast or standard and the leg members are thereby elevated with the runner traversing the reduced portion 13 of the mast to dispose the leg and brace members in substantial parallelism with the mast as indicated in Figure 2. It is only necessary in order to position the rack for use to hold the same in a vertical position with the lower end of the mast or standard on the ground and release the folding members whereupon they will spread and assume relative positions indicated in Figure 1 to provide a self-sustaining and substantial stack supporting structure.

Having described the invention, what is claimed as new and useful is:—

1. A hay rack having a central mast or standard, downwardly divergent leg members and radially disposed brace members hingedly connected at their inner ends to the mast or standard and at their outer ends to the leg members, the upper extremities of the leg members being connected by a runner slidingly mounted upon the mast or standard, and the brace and leg members being upwardly foldable into positions in substantial parallelism with the mast or standard.

2. A hay rack having a central mast or standard, downwardly divergent leg members and radially disposed brace members hingedly connected at their inner ends to the mast or standard and pivotally connected respectively with the leg members, the upper extremities of the leg members being connected by a runner slidingly mounted upon the upper portion of the mast

or standard, the lower portion of the mast or standard being of cross sectionally polygonal form to facilitate the hinging of the brace members thereto, and the upper portion of said mast or standard being reduced to form a guide for the runner.

3. A hay rack having a central mast or standard, downwardly divergent leg members and radially disposed brace members hingedly connected at their inner ends to the mast or standard and pivotally connected respectively with the leg members, the upper extremities of the leg members being connected by a runner slidingly mounted upon the upper portion of the mast or standard, the joints between the brace and leg members consisting of pivot pins and washer plates engaged thereby and provided respectively with hooks and ears extending in opposite directions from the said joints, and bracing chains terminally engaged with said hooks and ears and extending between adjacent leg members in the common plane of the brace members.

In testimony whereof he affixes his signature.

ALVIS R. BENTLEY.