

Mar. 27, 1923.

1,449,893

J. W. DAVIDSON

STACKING DEVICE

Filed Mar. 14, 1922

Fig.-1.

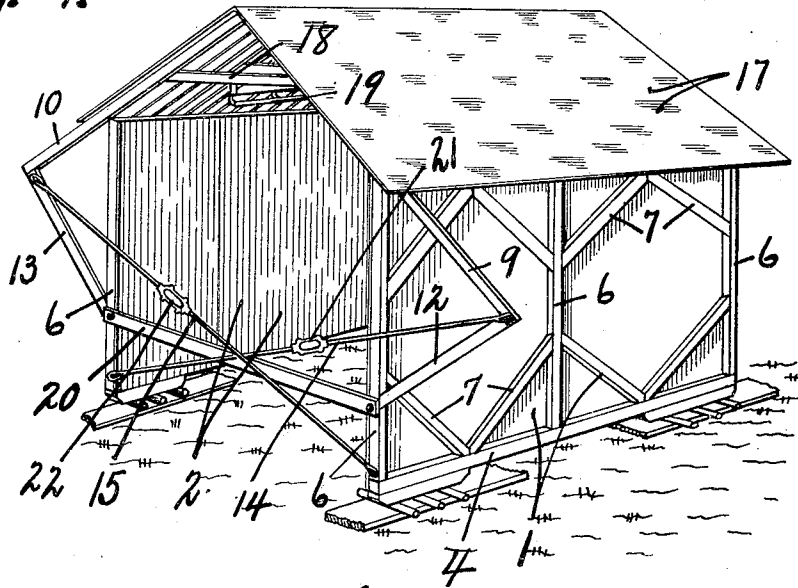
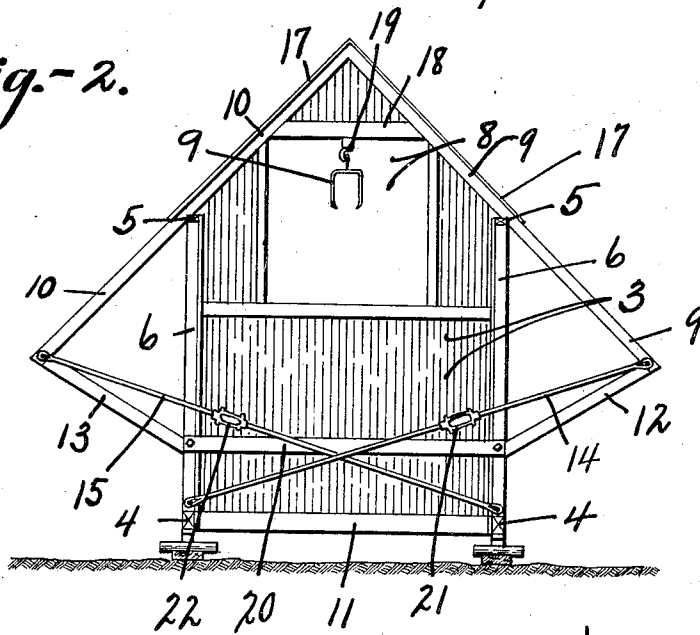


Fig.-2.



INVENTOR
James W. Davidson
BY
Davidson Thompson
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES W. DAVIDSON, OF SYRACUSE, NEW YORK.

STACKING DEVICE.

Application filed March 14, 1922. Serial No. 543,624.

To all whom it may concern:

Be it known that I, JAMES W. DAVIDSON, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Stacking Devices, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to a certain new and useful stacking device.

The main object of the invention is to produce a movable structure for stacking hay, grain and other materials and which is capable of protecting such materials from rain, dew and other moisture during the stacking process and afterwards, should that be desirable.

Other objects and advantages relate to the details of construction and form of the device, and to the particular methods for strengthening the same, to permit of a structure which can be drawn off the stack after the latter is completed. In the drawings:

Figure 1 is a perspective view of the stacking structure.

Figure 2 is a rear end view of the same.

As illustrated in the drawings, the structure comprises a three sided framework consisting of side walls —1— and —2— and front end wall —3—. The framework of the side and end walls may be formed in any suitable manner, and be braced in any suitable manner. As indicated, the side walls are formed of longitudinally extending beams —4— and —5— connected by upright posts —6— provided with suitable interposed brace members —7— arranged in any suitable manner.

The end wall —3— may consist of any suitable framework including a beam —11— and any further beams and bracing as may be required. The interior of the side and front end frameworks are boarded up on the interior of the framework so as to form a substantially closed structure on three sides which is smooth upon its interior, the front or end wall —3— being provided with a suitable door or opening —8— through which the fork —9— is adapted to be moved for carrying the material to be stacked within the stacking device. The front end —3— should have its vertical posts —6— spaced apart a somewhat less distance than the vertical posts —6— at the rear open end of the

device and the bottom beams or sills of the structure should taper inwardly toward the front end of the structure, for instance, the front end may be 18 feet in width while the rear end may be 19 feet in width or any other suitable tapering to effect an easy drawing of the structure from its position surrounding and covering the material stacked within it.

For the purpose of strengthening the open end of the structure which must be capable of permitting passage of the stacked material therethrough as the structure is drawn away, the rafters —9— and —10— at that end of the structure are considerably longer than the other rafters, and extend downwardly in an inclined direction and as a continuation of the rest of the structure, a considerable distance. And are connected at their lower ends by means of brace members —12— and —13— to the adjacent upright posts —6— thereby constituting a structure of a more rigid nature than would otherwise be the case. As an additional bracing means for this end of the structure, metallic rods —14— and —15— may be provided, including turn buckles for shortening and lengthening the rods and permitting their separation into two parts as may be desired. The rod —14— connects the lower end of the rafter —9— with the upright —6— upon the opposite side of the structure, while the rod —15— connects the lower end of the rafter —10— with the upright —6— upon the other side of the structure. By this means of extending the rafters —9— and —10— and connecting them by spaced members to the upright posts —6— and then connecting the lower ends of the brace members to the posts upon the opposite sides of the stacking device, sufficient rigidity and strength are produced to permit the use of an open end structure of the character described.

For the purpose of illustration, a structure of this character may be built in which the posts —6— are substantially 18 feet long. The roof, or inclination of the rafters which form a base for carrying a suitable roofing material —17— lies at an inclination of substantially 45 degrees. The structure may be substantially 28 feet long and 18 feet wide at the front end —3— and 19 feet wide at the open rear end.

It will be understood that these figures

are merely illustrative of one size of device that is found satisfactory and that the device may be built in any size desired to permit the formation of a stack of the character described.

The rafters are connected near their upper end by means of cross bars or braces —18— which carry a track —19— upon which the fork —9— is movably mounted so as to slide within the structure through the opening —8— at the front end thereof and so as to be capable of dropping the material to be stacked at any desired longitudinal point along the structure.

In addition, when the stacking device is in position for use and about to be utilized for the purpose of producing a stack, an additional strengthening device for the rear end may be provided in the form of a cross bar —20— which may be connected to the opposite posts —6— at the open end of the structure in any suitable manner as by bolts or otherwise.

The interior of this structure is uninterrupted and the walls are substantially smooth and the size is of such character as to permit easy stacking of materials therein without undue labor or trouble. During the time that the stacking operation is going on the material is protected at all times from rain and dew and when the stack has been completed, it is only necessary to release the turn buckles —21— and —22— and remove the cross bar —20— should that be

in place, and then the entire device may be drawn off the formed stack.

Altho I have shown and described a specific structure as illustrative of an embodiment of my invention, I do not desire to limit myself to the details of form, size, construction or arrangement of the parts as various changes and modifications may be made without departing from the invention as set forth in the appended claims.

I claim:

1. A stacking device comprising a three sided framework boarded upon its interior and open at one end, and being wider at the open end than at the closed end, and means for bracing the open end of the structure.

2. A stacking device comprising a three sided framework including longitudinal beams and vertical uprights connecting the same, and rafters mounted on vertical beams and inclined upwardly towards each other to a meeting apex, the rafters adjacent the open end of said structure being extended downwardly and brace members connecting the ends of said rafters to the adjacent vertical uprights.

In witness whereof I have hereunto set my hand this 6th day of March 1922.

JAMES W. DAVIDSON.

Witnesses:

H. E. CHASE,
HOWARD P. DENISON.