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H. D. OBERDORFER

PORTABLE BLEACHER

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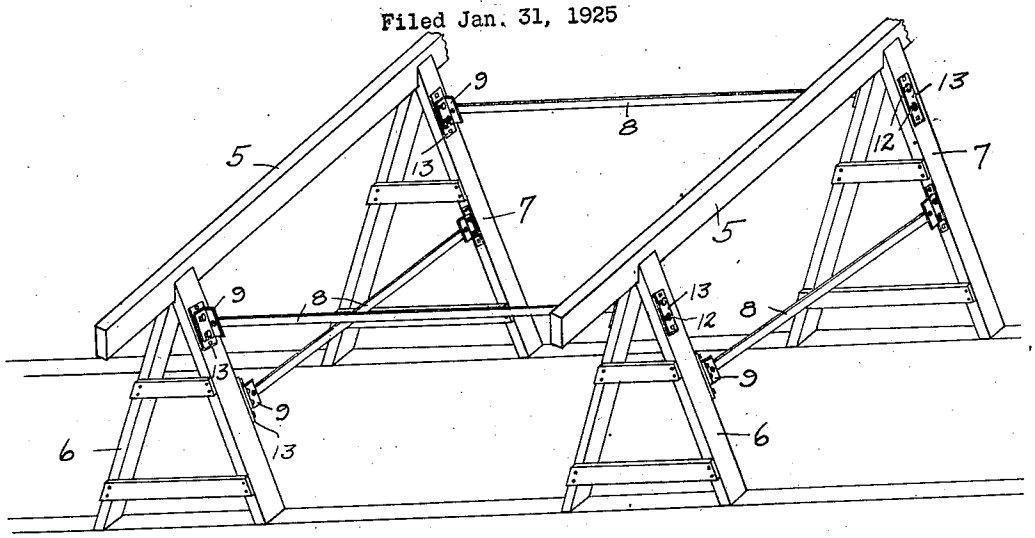


Fig. 1

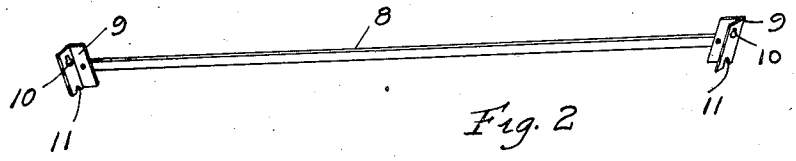


Fig. 2

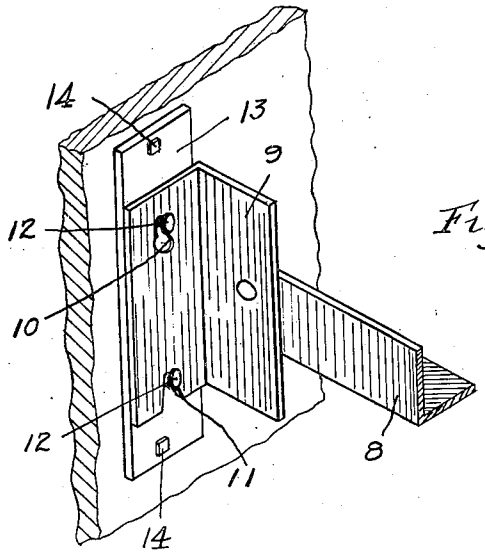


Fig. 3

INVENTOR;
Henry D. Oberdorfer
BY Kent W. Wonnell
ATTORNEY.

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HENRY D. OBERDORFER, OF CHAMPAIGN, ILLINOIS.

PORTABLE BLEACHER.

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This invention relates to a portable or knockdown stand and bleacher construction, of which the principal object is to provide means for spacing and bracing the supports so that the stand can be easily and quickly assembled or taken down; a further object of the invention is to provide an improved spacer and connector which may be used to connect supporting jacks for the same or adjacent stringers of a bleacher construction of this kind. Other objects of the invention will appear hereinafter.

In the accompanying drawing, Fig. 1 is a perspective of a portion of a bleacher embodying the present invention; Fig. 2 illustrates one of the connectors; and Fig. 3 is a perspective of one of the connecting heads.

In assembling or erecting a portable bleacher or stand construction it is desirable that as many as possible of the parts be similar or interchangeable so that less chances may be afforded for errors and delays in assembling. It is also important that the supports for the stringers be accurately spaced and rigidly connected together in order that the stringers may be held securely in place. The present invention is designed and intended to engage and connect the supports themselves rather than the stringers, thus strengthening the foundation and not weakening the stringers by the insertion of bolts or other fastening devices.

Referring more particularly to the drawing, a pair of stringers 5 are shown in an inclined position, as they are in a portable stand or bleacher construction, upheld by supporting jacks 6 and 7 of different heights. These jacks 6 and 7 may be of any desired or suitable construction preferably wood legs suitably braced and disposed to engage the sides and lower edges of the stringers and to hold them in an upright position.

In order to space apart and connect the jacks, a plurality of connectors are provided each consisting of a rigid bar 8 with an angular head 9 at each end, one portion of the angular head is connected to the bar by means of one or more fastening bolts or rivets and for the jacks with angular legs, as shown in Fig. 1, it is contemplated that the heads may be loosely pivoted to assume the relative position shown in Fig. 2 or the heads may be rigidly attached in these positions. The other angular portion of the head is formed with a key hole 10, and a notch 11 in its lower edge.

In order to engage the heads of the connectors headed projections 12 are provided on the sides and edges of the supporting jacks 6 and 7 properly spaced apart so that the key hole slot and notch of any connector head 9 may be easily engaged over the projections. It is found preferable to provide a plate 13 to which the headed projections 12 are attached, and these plates may be fastened to the supporting jacks by screws 14 or other suitable fastening means.

It is obvious that with angular supporting jacks as shown, the heads 9 of the connectors must be inclined oppositely, as shown to engage the headed projections properly, but in connecting the supporting jacks of the same stringer it is not necessary to incline the heads as the edges of the jacks will be parallel. By connecting the supporting jacks in this manner it is an easy matter to set up and properly space the stringer and to connect the supports so that the stand when erected is not likely to collapse.

In illustrating this embodiment of the invention the seat and foot boards together with the brackets for attaching them to the stringers, as well as the supporting or base boards for the jacks, are all omitted, for the sake of clearness. It is obvious that the assembling and knocking down operations may be accomplished with the greatest ease and dispatch in a construction of this kind, since it is not necessary to use any tools in these operations. The heads 9 are simply hooked over or unhooked from the projections which are properly spaced to engage them, and the parts may be quickly and accurately set in place and connected, and as easily taken apart.

I claim:

1. In a portable stand structure, a pair of spaced supporting jacks each having pairs of opposite angularly disposed legs, the opposite legs of the jacks being inclined away from each other, and means for bracing and spacing the jacks apart comprising headed projections at the outer sides of the opposite legs, a cross bar, and inclined heads with spaced keyhole slots at the ends of the bar to engage the headed projections.

2. A spacing brace for portable stand jacks comprising a straight bar and an angle

bar head for each end, the head having one flange attached to the bar and the other disposed at the end transversely of the bar and at an angle other than a right angle thereto and having spaced keyhole slots in the other flange for engaging headed projections.

3. In a portable stand structure, a pair of spaced supporting jacks each having pairs of opposite angularly disposed legs, the opposite legs of the jacks being inclined away from each other, and means for bracing and spacing the jacks apart comprising projections at the outer sides of the opposite legs, and a cross bar with slots at the ends of the bar to engage the projections.

HENRY D. OBERDORFER.