United States Patent [19]

Hustead

[11] **3,749,428**

[45] **July 31, 1973**

[54] **UNIVERSAL PITCH, HINGED CLAMP ROOF SUPPORT**

[76] Inventor: **Ralph L. Hustead**, R. D. No. 2, Box 127, Uniontown, Pa. 15401

[22] Filed: **Aug. 9, 1971**

[21] Appl. No.: **170,197**

[52] **U.S. Cl.** **287/20.95**, 287/14, 52/90, 52/289, 52/262, 52/645

[51] **Int. Cl.** **F16b 7/00**

[58] **Field of Search** ..... 287/189.36 R, 189.36 C, 287/20.92 C, 20.95, 53.5; 52/71, 641, 645, 721, 90, 370, 243, 262, 289; 248/291

[56] **References Cited**

UNITED STATES PATENTS

561,703	6/1896	Engert	52/645
1,489,038	4/1924	McKee	287/189.36 R
2,294,890	9/1942	Brinker	287/20.95 X

Primary Examiner—Jordan Franklin
Assistant Examiner—Wayne L. Shedd

[57] **ABSTRACT**

The invention comprises a device for hingedly supporting rafters adjacent the top of a post. The device permits the rafters to be inclined and clamped at a desired angle relative to the post. A single bolt clamps the rafters to the support means and also acts as a hinge pin.

2 Claims, 2 Drawing Figures

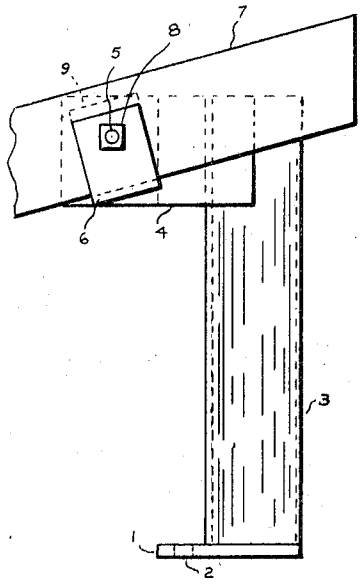


FIG — 1

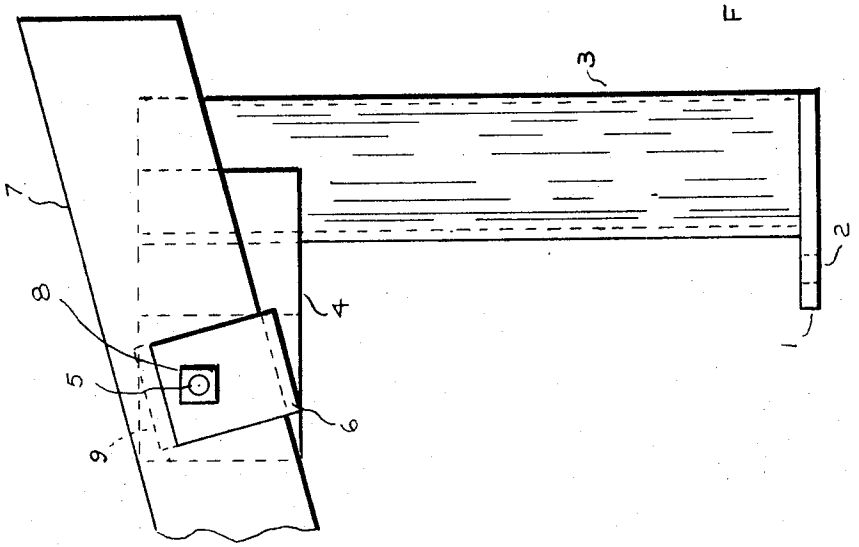
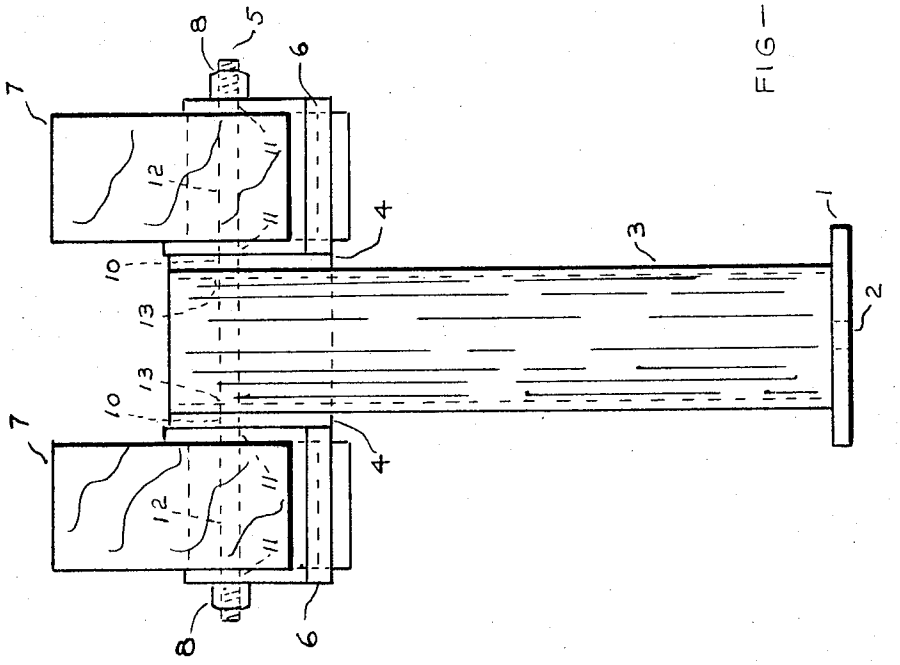


FIG — 2



UNIVERSAL PITCH, HINGED CLAMP ROOF SUPPORT

OBJECT OF THE INVENTION

The object of this new invention is to provide a new, easier, more economical type of building. Any type and size building can easily be erected by this new design of rafter suspension. This hinged clamp gives any degree of pitch of roof.

The clamping of U straps with rafters inserted, to the side of the base plates, gives a full efficiency of rigid building.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which

FIG. 1 is a side view; and

FIG. 2 is an enlarged fragmentary view taken on the line II—II of FIG. 1.

Referring to FIG. 1 of the drawings, a flat base plate 1 is provided with a bolt hole 2 so that the plate can be anchored to a footer or to a cement support. Welded to the base plate is the lower end of a vertical post 3 that is at the side or end of a building.

Welded to opposite sides of the upper end of the post are the ends of a pair of spaced metal side plates 4 that extend away from one side of the post in parallel spaced relation. Mounted between the outer end portions of these side plates there is a spacer 9 that will prevent the plates from being bent toward each other.

A pair of U-shape clamps 6 are provided that have flat bottoms and parallel vertical sides as shown in FIG. 2. Each clamp engages the outer surface of one of the side plates 4. These clamps are supported by a horizontal bolt 5 that extends through holes 13 in spacer 9, holes 10 in both side plates and holes 11 in both sides of each clamp. The ends of the bolt project from the outer sides of the clamps. Although the bolt could have a head at one end, preferably both ends are threaded and carry nuts 8 that engage the outer surfaces of the clamps.

Fitting in each clamp and seated on the bottom of the clamp is one end of a wooden rafter 7. The rafters have

holes 12 through them, through which the bolt extends.

After the rafters have been mounted in the clamps as shown, they can be adjusted angularly in vertical planes by raising or lowering their far ends, this being permitted because the clamps 6 can rotate or tilt on the bolt as indicated in FIG. 1. The nuts 8 then are tightened against the clamps to form a rigid connection between the rafters and the various metal members just described. The flat engagement of the inner sides of the clamps with the vertical side plates provides lateral stability for the rafters. It will be seen that a roof of any pitch can be provided by using the adjustable pitch roof support disclosed herein.

According to the provisions of the patent statutes, I have explained the principle of my invention and have illustrated and described what I now consider to represent its best embodiment. However, I desire to have it understood, that, within the scope of the appended claims, the invention may be practiced otherwise than as specifically illustrated and described.

I claim:

1. An adjustable pitch roof support comprising a vertical post, a pair of spaced metal side plates secured at one end to the opposite sides of the upper end of the post and projecting laterally therefrom, a spacer between the plates at one side of the post, a horizontal bolt extending transversely through said spacer and plates and projecting outwardly therefrom, a pair of U-shape clamps engaging the outer surfaces of said plates and each having vertical sides provided with openings receiving the adjoining projecting end of said bolt, the clamps being rotatable on the bolt for angular adjustment in vertical planes, a wooden rafter in each clamp seated on the bottom thereof and provided with a hole through which the bolt extends, and means threaded on the bolt for clamping said clamps against the rafters and said side plates.

2. An adjustable pitch roof support according to claim 1, in which said clamps press flat against said side plates.

* * * * *