United States Patent

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[54] **WALL FORM**
3 Claims, 11 Drawing Figs.

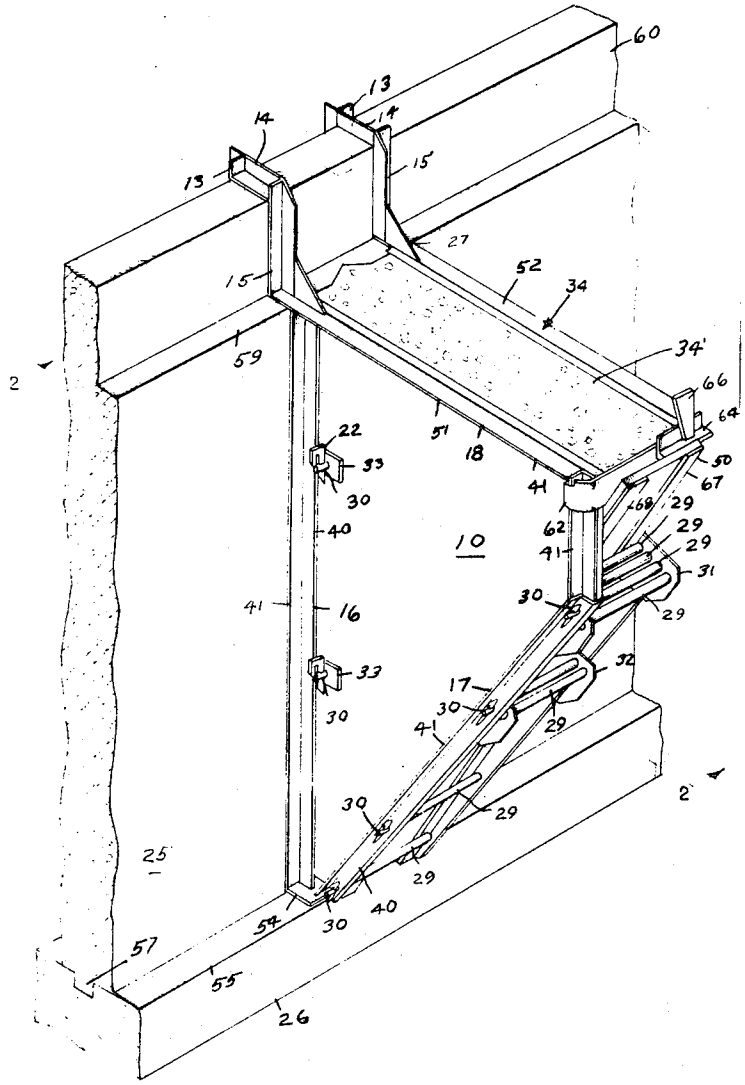
[52] **U.S. Cl.** **249/19,**
249/27, 25/131 P, 52/73, 182/206
[51] **Int. Cl.** **E04g 11/00**
[50] **Field of Search** 249/26, 18,
19, 33, 34, 40, 118, 190, 119, 120, 160, 163, 165,
166, 167, 168, 169, 208, 210, 211, 213, 216, 219.
20, 21, 43, 46, 189, 207, 118 S, 131 BZ, 131 MP;
52/73, 184; 182/206

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ABSTRACT: The forms disclosed herein are intended for use in making porch foundations. The form is especially suitable for use with precast wall design. The forms are made up of two generally right triangular shaped side members each having a hook at one side of each of the right angles, suitable to be hooked over an existing foundation wall. One end of the form adjacent one of the acute angles is suitable to rest on a footing that supports the wall. A unique arrangement of the forms made up of an edge and clamp arrangement is provided which rigidly holds the side members together.



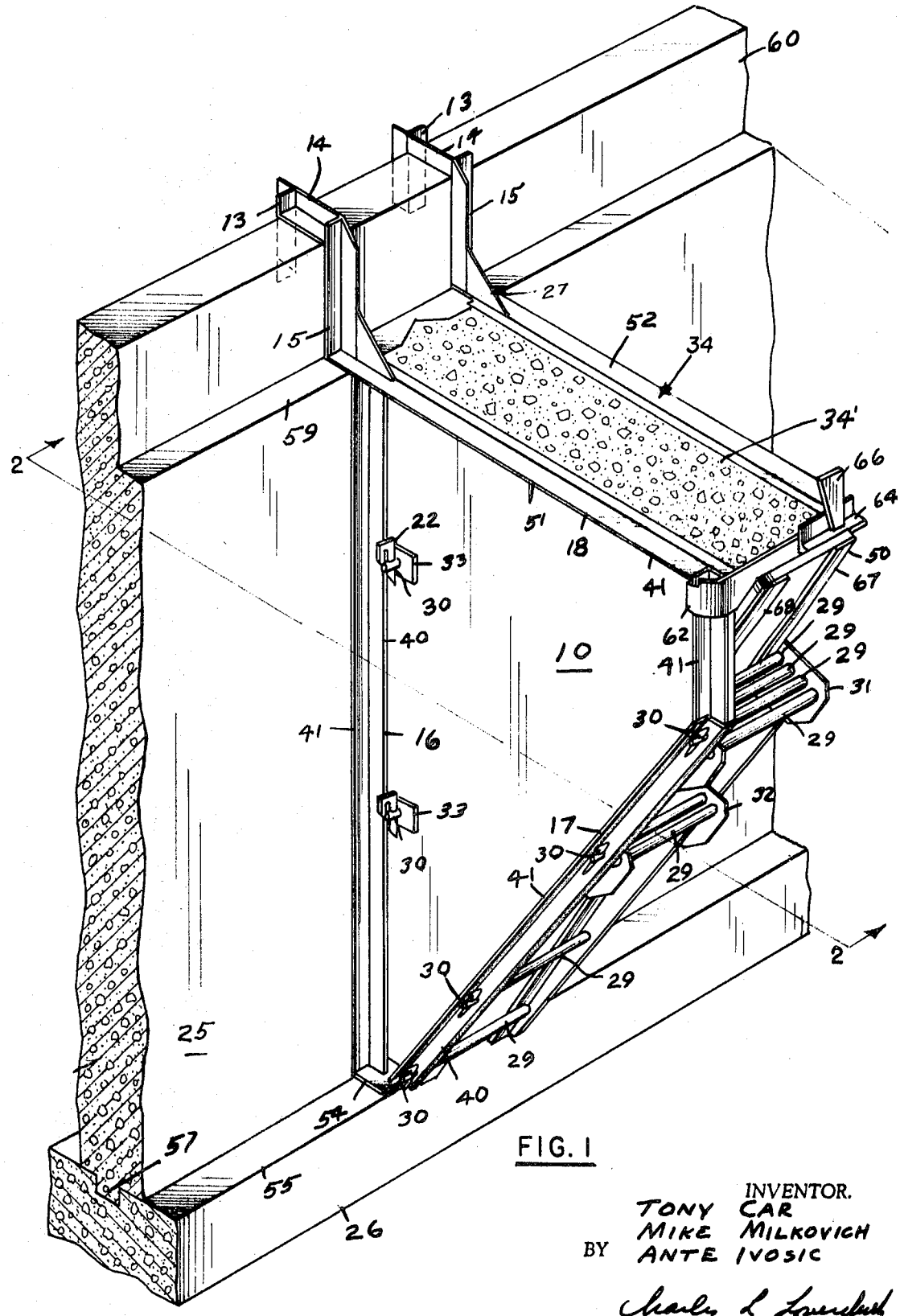


FIG. 1

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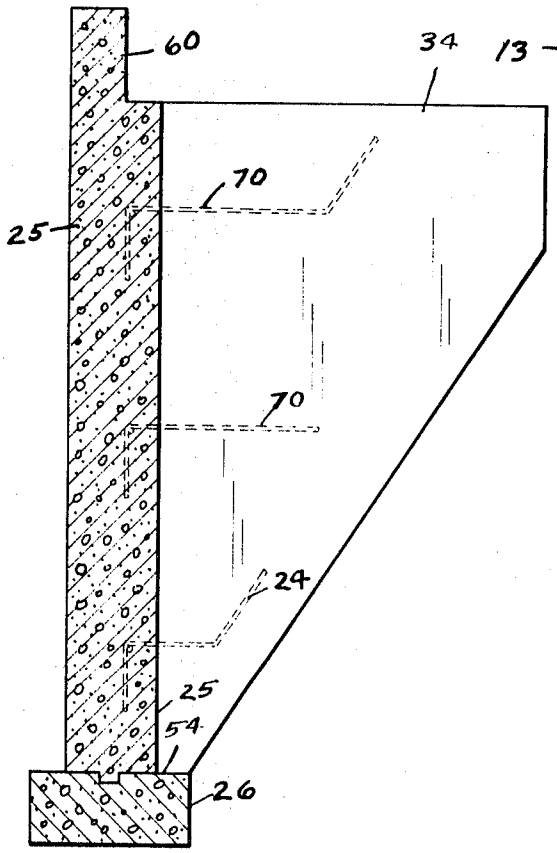


FIG. 2

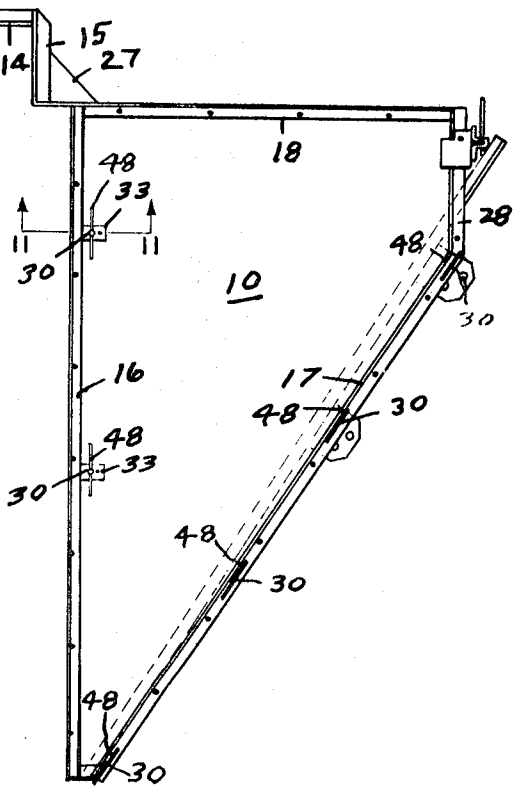


FIG. 3

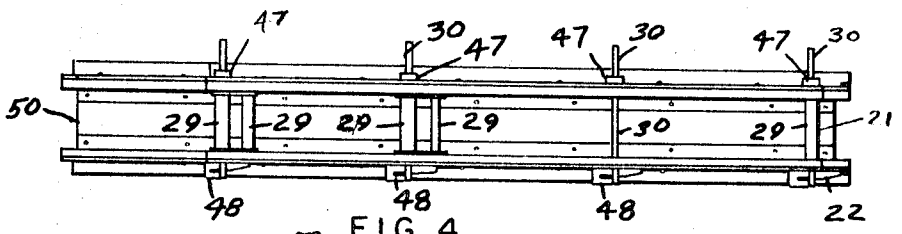


FIG. 4

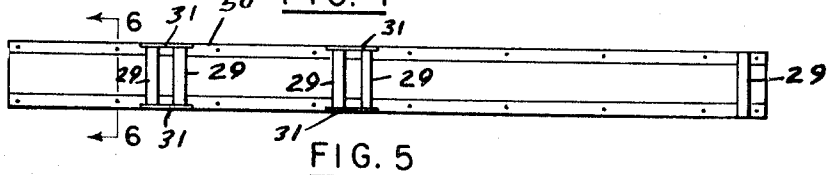


FIG. 5

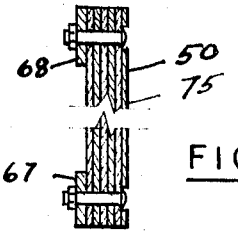


FIG. 6

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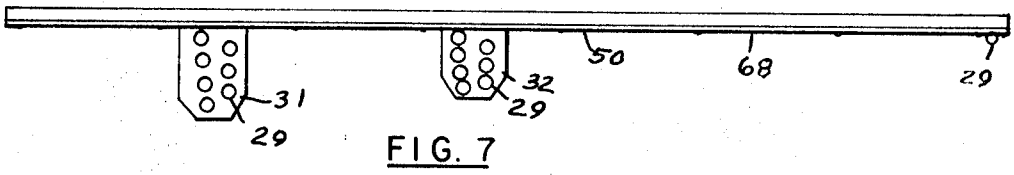


FIG. 7

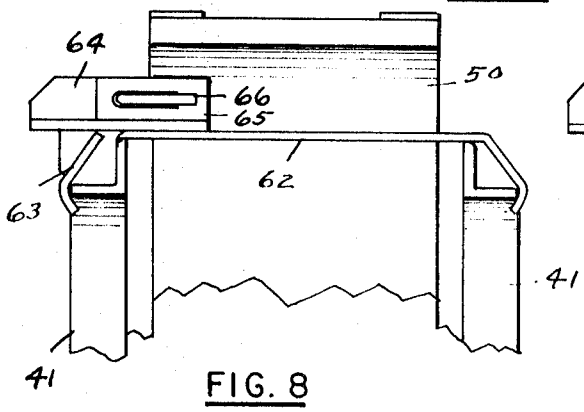


FIG. 8

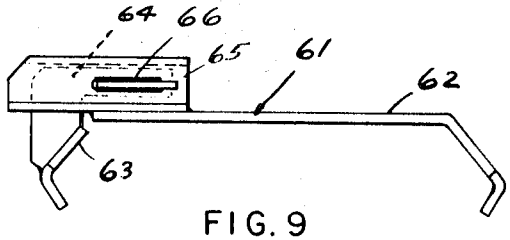


FIG. 9

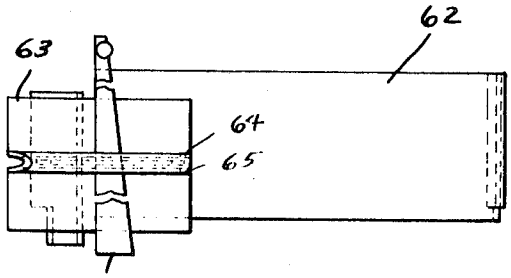


FIG. 10

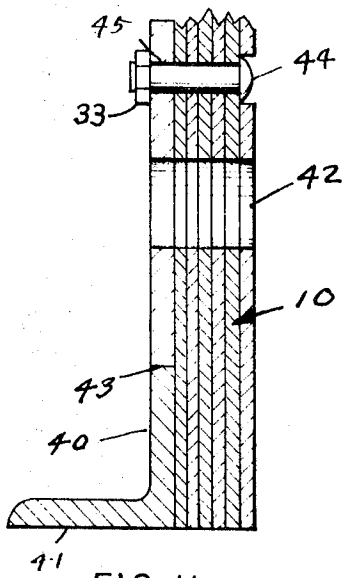


FIG. 11

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WALL FORM

It is, accordingly, an object of the invention to provide an improved set of forms for an angle wall.

Another object of the invention is to provide a form that is simple in construction, economical to manufacture, and simple and efficient to use in making an angle wall.

Another object of the invention is to provide a set of improved forms for concrete.

With the above and other objects in view, the present invention consists of the combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claims, it being understood that changes may be made in the form, size, proportions, and minor details of construction without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:

FIG. 1 is an isometric view partly in cross section of the form according to the invention.

FIG. 2 is a view partly in cross section showing a finished angle wall made using the forms.

FIG. 3 is a side view of the forms.

FIG. 4 is a front view of the form in assembled relation.

FIG. 5 is a front view of the end form separate from the other forms.

FIG. 6 is a cross-sectional view taken on line 6—6 of FIG. 5.

FIG. 7 is a side view of the end form shown in FIG. 5.

FIG. 8 is a partial enlarged view of the upper end of the forms taken from the upper right-hand side of FIG. 3.

FIG. 9 is an enlarged top view of the clamp arrangement.

FIG. 10 is an enlarged view of the clamp arrangement shown in FIG. 9.

FIG. 11 is an enlarged partial cross-sectional view taken on line 11—11 of FIG. 3.

Now with more particular reference to the drawings, particularly FIGS. 1, 3 and 11, the set of forms disclosed are made up of two side forms and end form as shown. The side forms each have the side panel 10 which may be laminated from several sheets of material such as plywood or a suitable material sold under the trade name "PLIGLAZE." The panels 10 and 11 may have a total thickness of approximately three fourths of an inch.

The panels are generally in the shape of a right triangle blunted off at the acute angles, that is, having two side edges adjacent its right angle and one side edge opposite its right angle with the lower point and the forward point slightly flattened, as indicated. The panels have a border formed by the angle irons 16, 17, 18 and 28. These angle irons have a first leg 40 lying in coplanar relation with the outside surface of the sheet and an outwardly directed leg 41 extending outwardly therefrom lending lateral stiffness to the panels. The legs 40 of the angle 16 each have plates 33 welded to the leg 40 at 43 and this plate 33 is clamped to the panel 10 by means of bolts 44 which extend through holes in the panel 10 and through a hole 45 in the plate 33. A hole 42 is formed in the sheets 10 and this hole extends through the plate 33 and receives the rods 30. The rods 30 each have a head 47 on one end and a slot in the other end receives a tapered key 48. The head bears against the form on one side and the key 48 bears on the form on the other side thereby holding the forms from separating. Tubing 29 receives the rod 30. The ends of tubes 29 engage the inside surface of panels 10 and hold the forms outward in fixed spaced relation from each other.

The lower locater bracket assemblies 31 and 32 have the end plates welded to the ends of the tubes 29, see FIGS. 3, 4 and 7, and the rods 30 may be selectively positioned through any of the tubes 29 of the locater bracket assemblies so that the tube 29 of lower locater bracket assembly nearest the end form 50 will effectively adjust the position of the end form 50 relative to side panels 10. Thus, the side forms 51 and 52 receive the end form 50 between them. Tubes 29 hold the side panels 10 in spaced relation to each other and pins 30 restrain panels 10 from outward movement. The lower ends of angles 16 and 17 are abutted against the plate 54 and welded to it and

the plate 54, when the forms are in position for use, rests on the ledge 55 of the footing 26. Wall 25 rests on the footing 26 and is keyed thereto by the dovetail joint 57. The angle 18 extends outward toward wall 25 (see FIG. 1) beyond the angle 16 and rests on the ledge 59 while the angles 13, 14, and 15 are welded together to define a rectangular space which receives the upper end 60 of the wall. The gussets 27 reinforce the hooks formed by angles 13, 14 and 15.

It will be noted that the side forms are made of the sheets 10 framed by the angles 16, 17, 18 and 21. The end forms, FIGS. 5, 6 and 7, are made of sheets 75 attached to edge reinforcing strips 67 and 68.

The hook 61, FIGS. 8, 9 and 10, is made up of platelike hook parts 62 and 63, each having a laterally extending web member 64 and 65 that have mating flanges which are slotted to receive the taper pin 66. The taper pin 66 may be driven to a suitable position to draw the hooks 62 and 63 together to clamp the forms.

The end form member 50 may be made of laminated material, like the side panels, and has the reinforcing strips 67 and 68. The reinforcing strips 67 and 68 have the plates 31 and 32 welded to them and tubes 29 welded to the plates so that when the pins 30 are inserted through any one of the tubes 29, the front form 50 will be held to the side forms and the side forms will be held in rigid relation with each other.

Before the concrete indicated at 34' is poured, reinforcing rods 70 may be formed in the wall 25 and extend outward, thus when the concrete 34' is poured and the forms are removed, the porch wing wall 34 will be intact on the footing and wall 25.

The foregoing specification sets forth the invention in its preferred practical forms but the structure shown is capable of modification within a range of equivalents without departing from the invention which is to be understood is broadly novel as is commensurate with the appended claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A set of forms for a wing wall comprising
a first side form,
a second side form,
and an end form,
said side forms being generally in the shape of a polygon being generally in the shape of a right triangle having a generally right angle and two sides adjacent said right angle,
a first edge of said forms adjacent said right angle being adapted to engage a wall of a building, the other edge adjacent said right angle extending out perpendicular to said wall,
said end form being disposed between said side forms and extending along a second edge between corners corresponding to two acute angles and adapted to extend from said wall outward and upward,
a hook attached to each said side forms at said right angle, said hook being adapted to hook over the top of said wall,
and means to hold said side forms together,
each said side comprises at least one sheet of material and a plurality of angle members,
each said angle member having one leg thereof lying against a said sheet and another leg thereof extending outwardly from said sheet,
said angles on each said sheet comprising a first angle member, a second angle member, a third angle member and a fourth angle member,
said first angle member extending along said first edge and being flush with said first edge,
said second angle member being flush with said second edge,
said third member being flush with said top edge of said sides,
a fourth angle member is attached to each said side,
said fourth angle member extending across said second acute angle from said top edge to said second edge, generally perpendicular to said top edge,

a clamping member is attached to said sides at said fourth edge and extending between said sides,

said clamp comprising a first hook member and a second hook member,

said hook members being hooked over said sides,

each said hook member having a platelike portion generally parallel to the other said platelike portion,

and a wedge-shaped key extending through said platelike portions holding them together.

2. The forms recited in claim 1 wherein said end form extends upwardly outside said clamp member, and said clamp member has a flat planar side generally parallel to said first edge of said forms.

3. A set of forms for a wing wall comprising

a first side form,

a second side form,

and an end form,

said side forms being generally in the shape of a polygon being generally in the shape of a right triangle having a generally right angle and two sides adjacent said right angle,

a first edge of said forms adjacent said right angle being adapted to engage a wall of a building, the other edge adjacent said right angle extending out perpendicular to said

wall,

said end form being disposed between said side forms and extending along a second edge between corners corresponding to two acute angles and adapted to extend from said wall outward and upward,

a hook attached to each said side forms at said right angle, said hook being adapted to hook over the top of said wall,

and means to hold said side forms together,

said means to hold said side forms together comprises a locater bracket assembly,

said locater bracket assembly having spaced side plates,

spaced tubes between said side plates, the ends of said tubes, each said tube being adapted to receive a pin,

said plates being disposed in engagement with the inside surface of said sides,

a pin extending through one of said tubes and through said sides,

and a wedge key extending through a slot in one end of said pin and engaging a said side,

said pin being adapted to extend through other of said tubes whereby said end form may rest on said tubes and have the inclination thereof adjusted.