



(22) Date de dépôt/Filing Date: 2000/04/04

(41) Mise à la disp. pub./Open to Public Insp.: 2001/10/04

(45) Date de délivrance/Issue Date: 2006/05/30

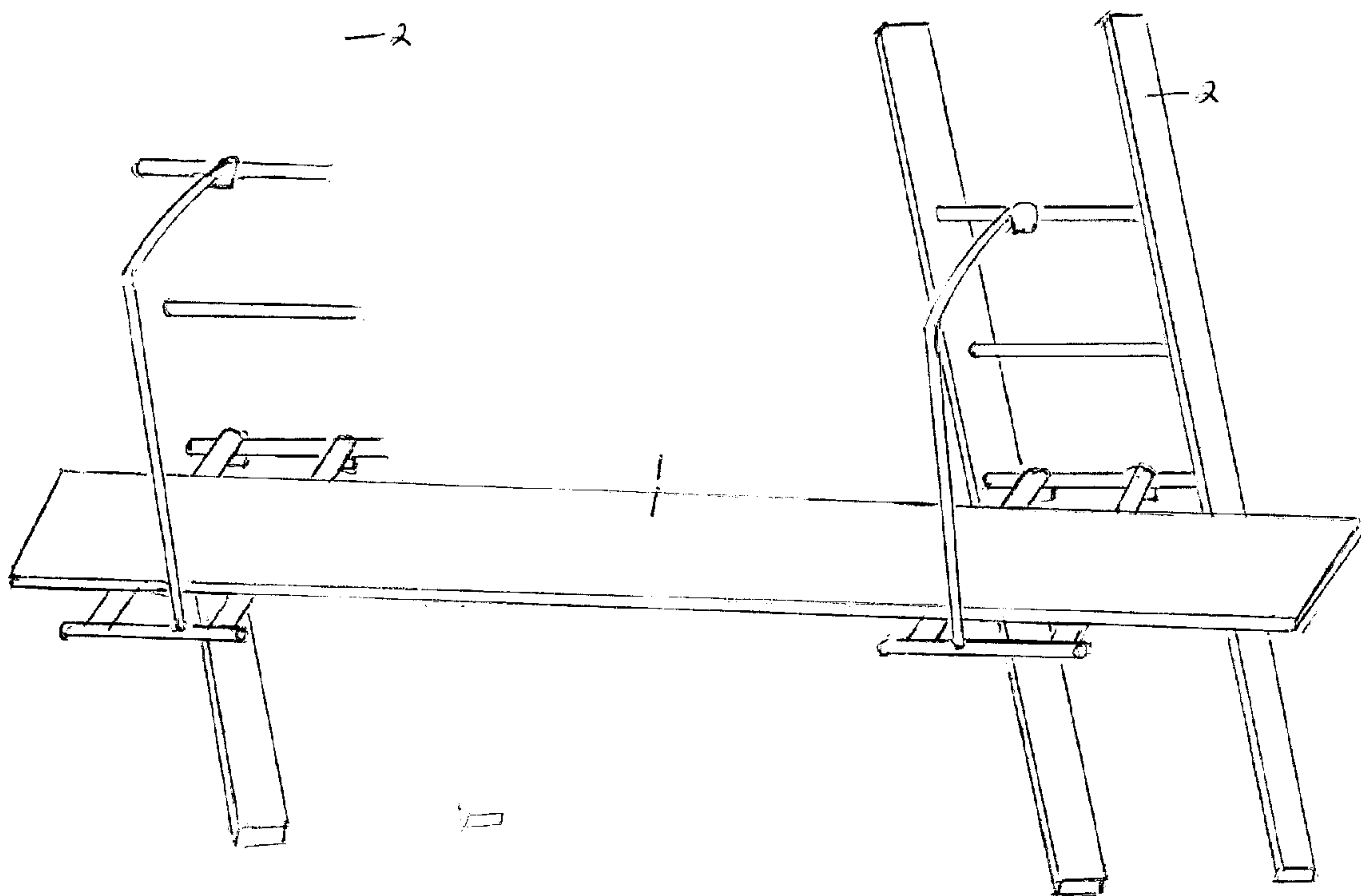
(51) Cl.Int./Int.Cl. *E06C 7/16* (2006.01),  
*E04G 1/30* (2006.01)

(72) Inventeur/Inventor:  
CROCKER, LAWRENCE WILLIAM, CA

(73) Propriétaire/Owner:  
CROCKER, LAWRENCE WILLIAM, CA

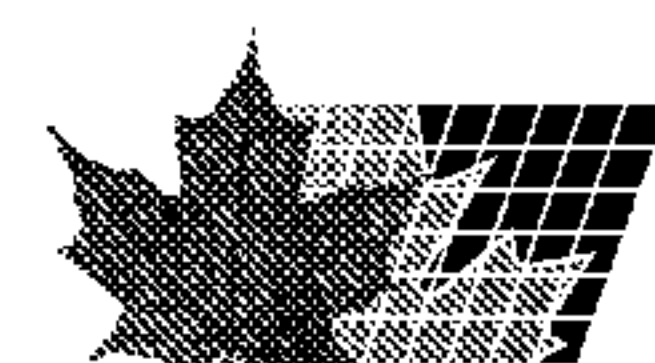
(54) Titre : SYSTÈME D'ECHAFAUDAGE SUSPENDU

(54) Title: A SUSPENDED SCAFFOLDING SYSTEM



(57) Abrégé/Abstract:

Scaffolds usually are large structures consisting of a framework of detachable light tubular members that support a platform. A less complicated platform support, for use with spaced-apart ladders, consists of four members, three of which are adapted so as to be capable of connection to adjacent rungs of a ladder. Each of these three members are attached to bushing-bearings. A fourth member is an axle around which all three members can turn in an arc, independently. Two of these three members, horizontal to the ground, support one end of a plank, used as a platform or walkway. A third, a vertical member, supports two horizontal members and prevents transverse movement of a platform or walkway.



## A SUSPENDED SCAFFOLDING SYSTEM

### Abstract

Scaffolds usually are large structures consisting of a framework of detachable light tubular members that support a platform. A less complicated platform support, for use with spaced-apart ladders, consists of four members, three of which are adapted so as to be capable of connection to adjacent rungs of a ladder. Each of these three members are attached to bushing-bearings. A fourth member is an axle around which all three members can turn in an arc, independently. Two of these three members, horizontal to the ground, support one end of a plank, used as a platform or walkway. A third, a vertical member, supports two horizontal members and prevents transverse movement of a platform or walkway.

Description

Page 1

Technical Field

Usually scaffolds support platforms on frameworks that are large, their members detachable and require considerable time for assembly and disassembly, ample storage space and costs of delivery to a potential customer. There is a market for a plain, inexpensive, safe, easily set up and stored or transported scaffold support, for use primarily privately by individuals but also for use commercially. This invention will meet these requirements by providing a scaffold support for use on a ladder.

### Summary of the invention

This invention consists of a scaffold support for use on a ladder comprising four members. These are, a T-shaped vertical or centre member, two T-shaped horizontal or side members and an axle..

When assembled these four members solve a problem of correcting the attitude of each identical support, relative to the ground, caused by changes in the angle of inclination of a ladder by revolving the T-shaped vertical or centre member to fit an appropriate ladder rung.

### Description of the drawings

FIG 1

A perspective view of the complete system showing the two ladders in position with the invention's scaffold supports in place and supporting the walkway.

FIG 2

A side view of the T- shaped vertical or centre member showing the hasp as it is raised to grip an appropriate rung of the ladder, restoring the position of the side or horizontal member to a parallel attitude in relation to the ground as the ladder angle of inclination changes.

FIG 3

A side view showing the relative position of the U- shaped hasp attached to the vertical or centre member to the U- shaped hasps attached to the horizontal or side when the support is not engaged with a ladder. This illustrates how the angle at which the U- shaped hasp attached to the flange at the free end of the vertical or centre member is determined.

**FIG 4**

A front view of the axle and the bushing-bearings of the vertical or centre member and the horizontal or side members which are held in place on the axle by a cotter pin at each end of the axle.

**FIG 5**

A side view of the vertical or centre member and the horizontal or side members as they would appear in position supporting the walkway at an angle of ladder inclination of 60 degrees. The vertical or centre member would be raised to the second rung above the walkway at an angle of 70 degrees to the walkway, which becomes positioned parallel to the ground.

**FIG 6**

A side view of the vertical or centre member and the horizontal or side members as they would appear in position supporting the walkway at an angle of ladder inclination of 70 degrees. The vertical or centre member would be lowered to the first rung above the walkway at an angle of 40 degrees to the walkway, which again becomes positioned parallel to the ground.

**FIG 7**

A side view showing all three members, one T-shaped vertical or centre member and two horizontal or side members, with their respective bushing-bearings mounted on the axle and retained by cotter pins.

### Detailed description

This invention is made up of two identical units, which are support structures for a walkway FIG 1, 1 suspended between two ladders FIG 1, 2 inclined in an upright position. There are four sections to each of these support units. The first section FIG 2, 4 is a T- shaped vertical or centre member, having a stem portion FIG 2, 11 with flanges at both ends FIG 2, 4 , The stem portion is bent downwards at an angle of 67.5 degrees FIG 2, 5. A U- shaped hasp FIG 2, 6 is positioned and attached to the flange at the upper end of the stem portion FIG 2, 4 at an angle allowing this U- shaped hasp to grip any rung of the ladder FIG 2, 7 within the arc of the vertical or centre member revolving around the axle FIG 2, 8, regardless of the angle of inclination of the ladder. This U-shaped hasp is secured to any ladder rung, as required, by vertical pressure only. This is accomplished by the form and size of this U-shaped hasp and the angle it is positioned on the flange at the upper end of the stem portion FIG 2, 4. At the lower end of the stem portion is a flange attached to a bushing-bearing to which the axle will be fitted . FIG 2, 4. The second and third sections of each support unit are two identical T- shaped horizontal or side members, having a stem portion FIG 3, 11 with flanges at both ends FIG 3, 4. A U- shaped hasp FIG 3, 6 is positioned and attached to the flange at the upper end of the stem portion at an angle of 90 degrees to the stem FIG 3, 6 allowing this U- shaped hasp to grip any ladder rung as required, when the identical T- shaped horizontal or side members are in the horizontal position, that is parallel to the ground. This U- shaped hasp is secured to any rung as required, by vertical pressure only. At the lower end of the stem portions of the identical T- shaped horizontal or side members is a flange attached to a bushing-bearing to which the axle will be fitted FIG 3, 9.

The fourth section of each support unit is the axle FIG 4, 8. Each T- shaped member both vertical or centre members and horizontal or side members are mounted on the axle allowing them to rotate independently through an arc of 360 degrees FIG 4. The bushing-bearings of the T-shaped vertical or centre members are flanked by the bushing-bearings of the T-shaped horizontal or side members FIG 4, 9 ,when mounted on the axle FIG 8.

If a ladder's angle of inclination is changed to 60 degrees, FIG 5, the T-shaped vertical or centre member will be raised to an angle of 70 degrees and the U-shaped hasp FIG 5, 6 will grip a rung FIG 5, 7 of the ladder FIG 5, 2, two rungs above the rung of the ladder gripped by the U-shaped hasp attached to the T-shaped horizontal or side member as in FIG 5, 7. The walkway is maintained in a substantially horizontal position in relation to the ground.

If a ladder's angle of inclination is changed to 70 degrees. FIG 6, the T-shaped vertical or centre member will be raised to an angle of 40 degrees and the U-shaped hasp FIG 6, 6 will grip a rung FIG 6, 7 of the ladder FIG 6, 2 one rung above the rung of the ladder gripped by the U-shaped hasp attached to the T-shaped horizontal or side member as in FIG 6, 7. The walkway is maintained in a position substantially horizontal in relation to the ground .

## Claims:

The parts of this invention and their functions in which an exclusive property or privilege is claimed are defined as follows:

1 A scaffold support system for use in conjunction with ladders wherein a first support is used for carrying a first end of a walkway on a first ladder and a second support used to support a second end of the walkway on a second ladder, each of said first and second supports comprising:

a T- shaped vertical or centre member having a stem portion with flanges at both ends,

a U- shaped hasp connected to the flange at an upper end of said stem portion and a bushing-bearing connected to the flange at a lower end of said stem portion;

two identical T- shaped horizontal or side members, each having a stem portion with flanges at both ends, a U- shaped hasp connected to the flange at an upper end of said stem portion, and a bushing-bearing connected to the flange at a lower end of the stem portion;

an axle inserted into the bushing-bearing of said T- shaped vertical or centre member and into the bushing-bearing of said T- shaped horizontal or side members such that said T- shaped members revolve independently around the axle in an arc of 360 degrees;

said U- shaped hasp of each T- shaped horizontal or side member being adapted to engage a lower rung of a ladder and said U- shaped hasp of the T- shaped vertical or centre member being adapted to engage an upper rung of said ladder;

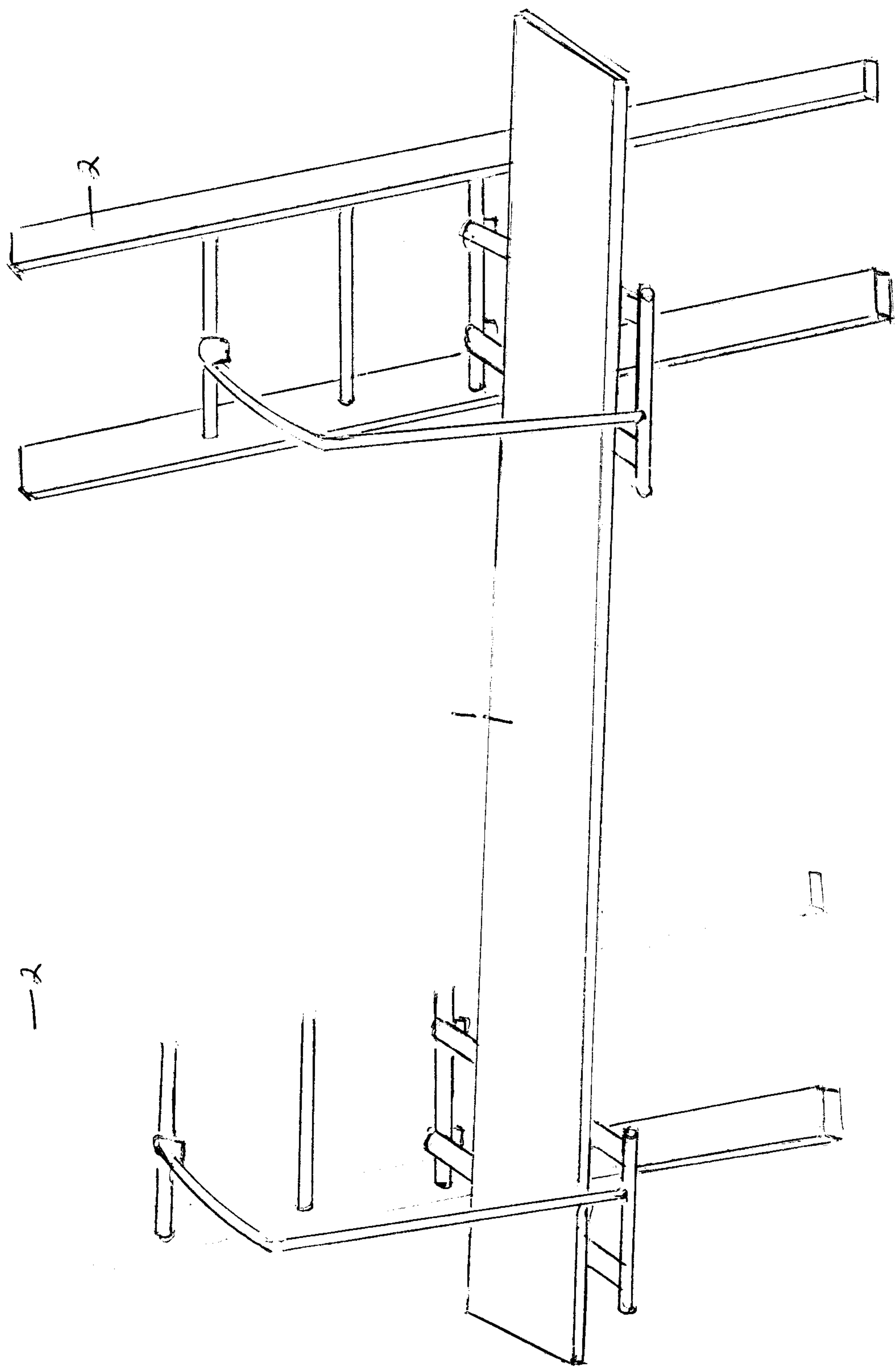
and

wherein the T-shaped vertical or centre member is positioned on the upper rung in order to maintain the T-shaped horizontal or side members in a substantially horizontal position relative to the ground.

2 A scaffold support system as claimed in claim 1 wherein the stem of said T-shaped vertical or centre member is bending downwards at an angle of 67.5 degrees.

3 A scaffold support system as claimed in claim 1 wherein a U-shaped hasp is positioned and attached to a flange at the upper end of the stem portion of each of the identical horizontal or side members at an angle of 90 degrees to the said stem portion.

FIG 1



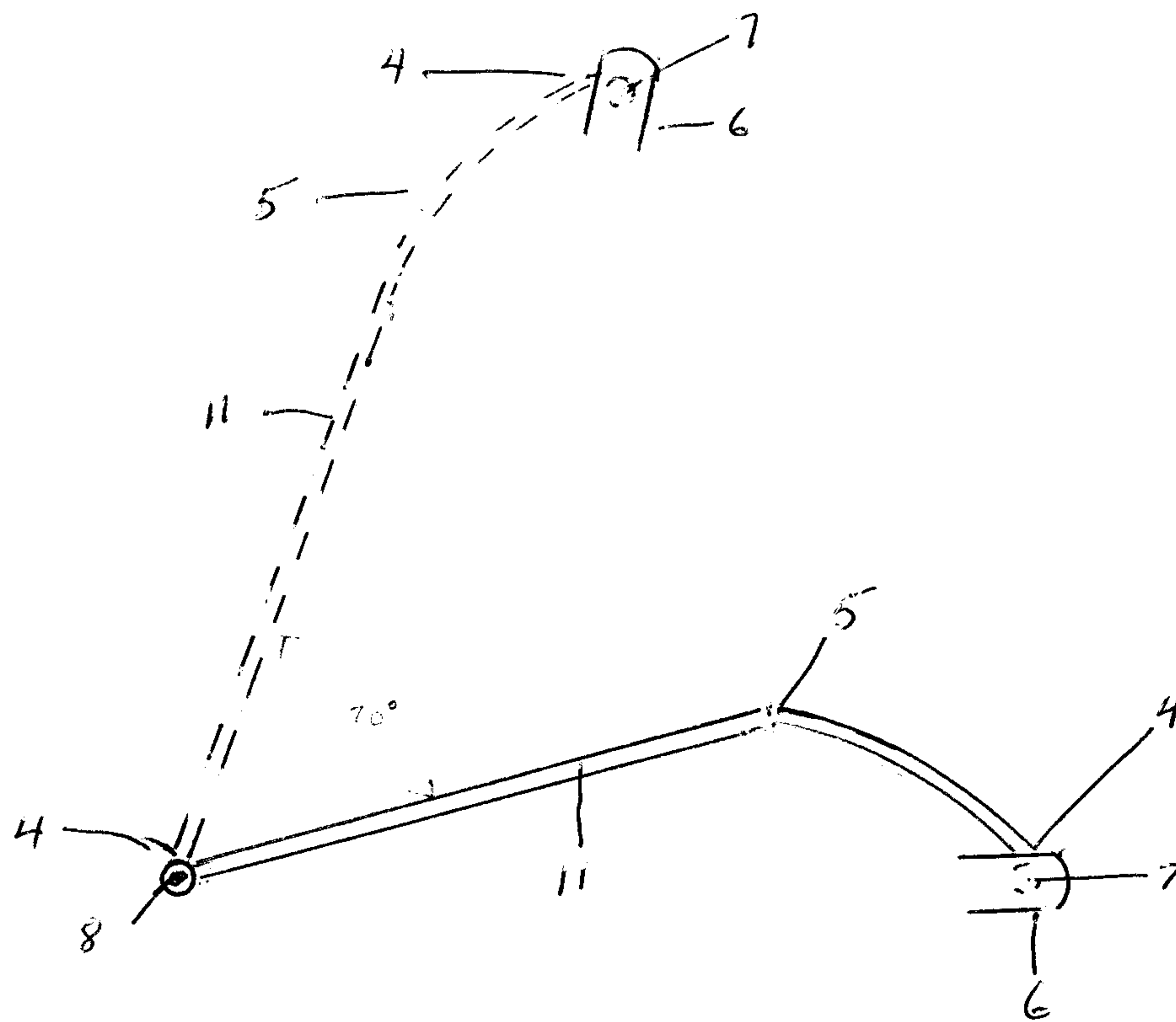


FIG 2

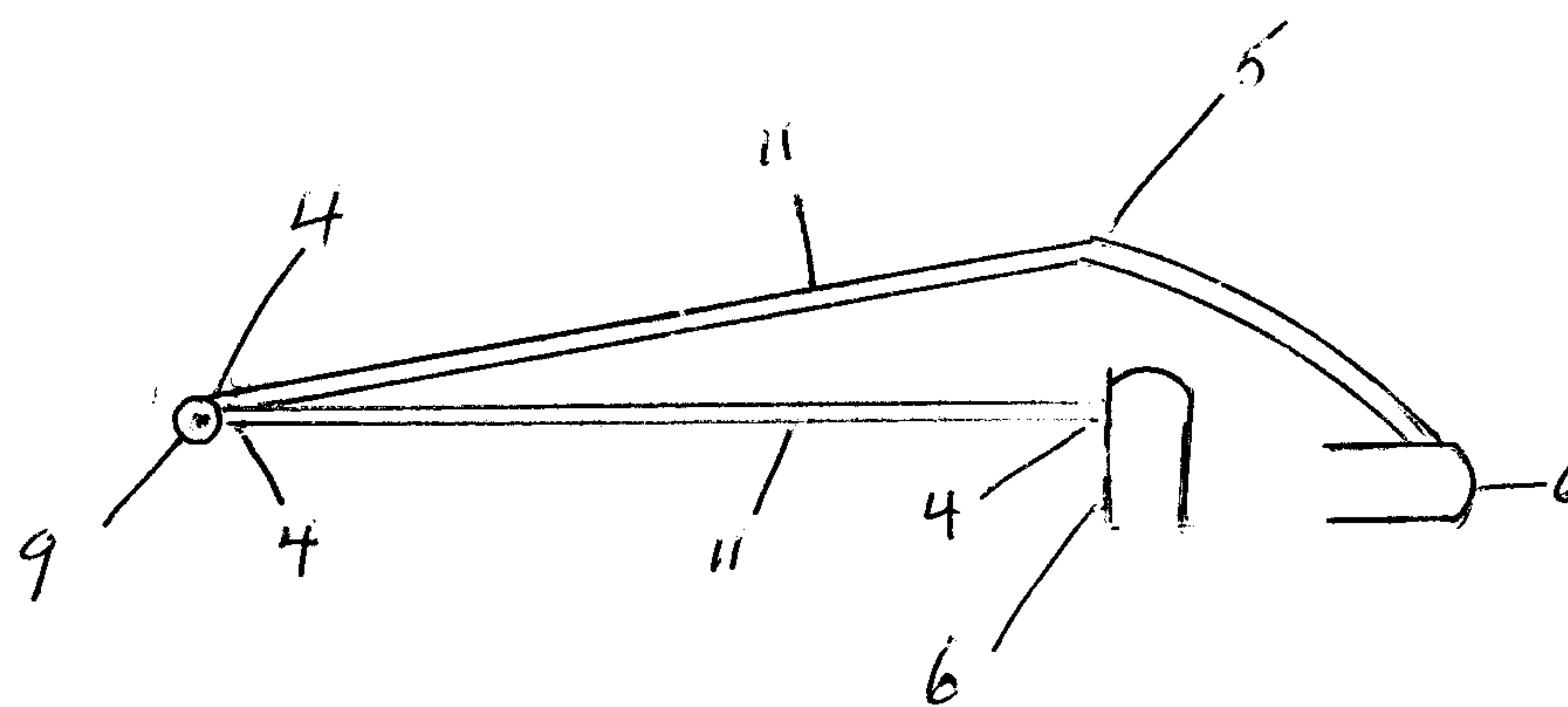


FIG 3

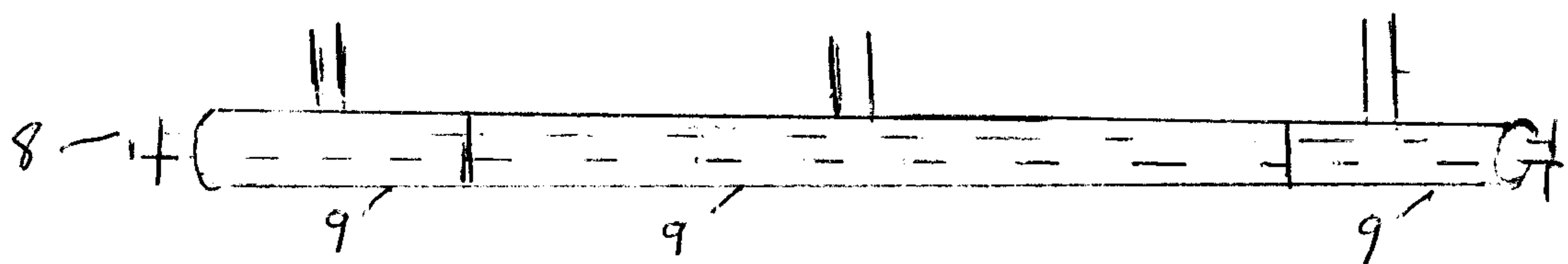


FIG 4

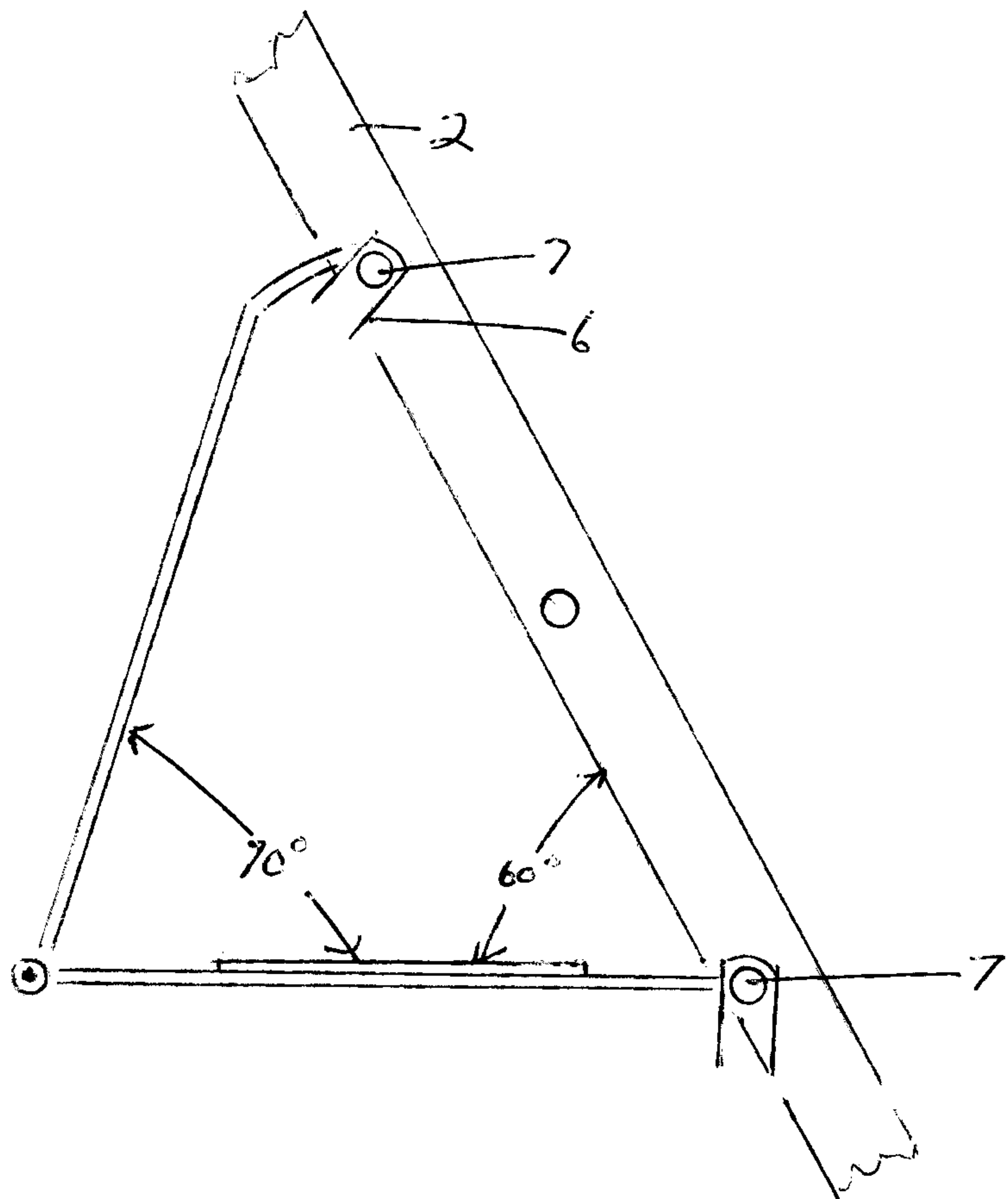


FIG 5

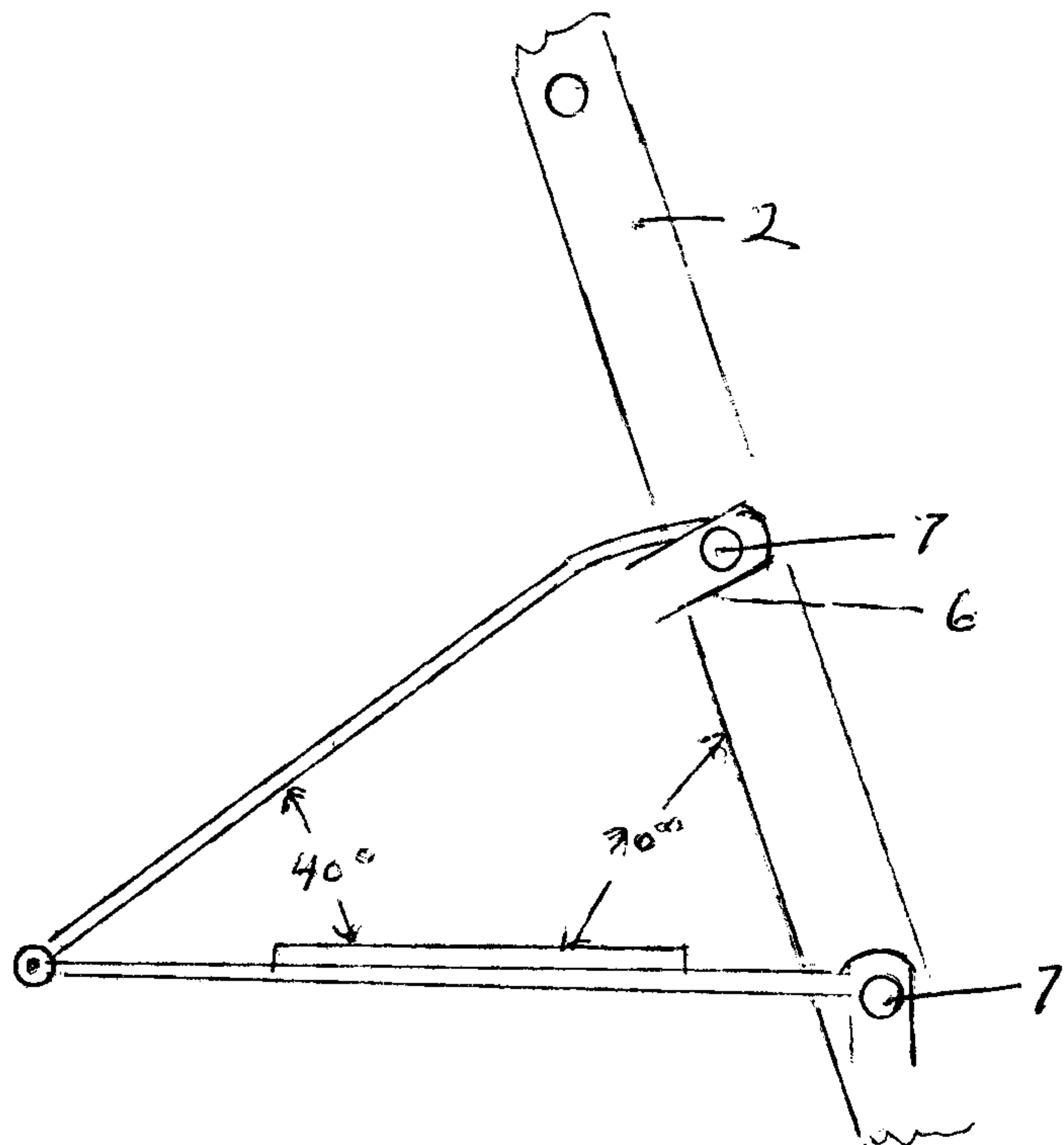
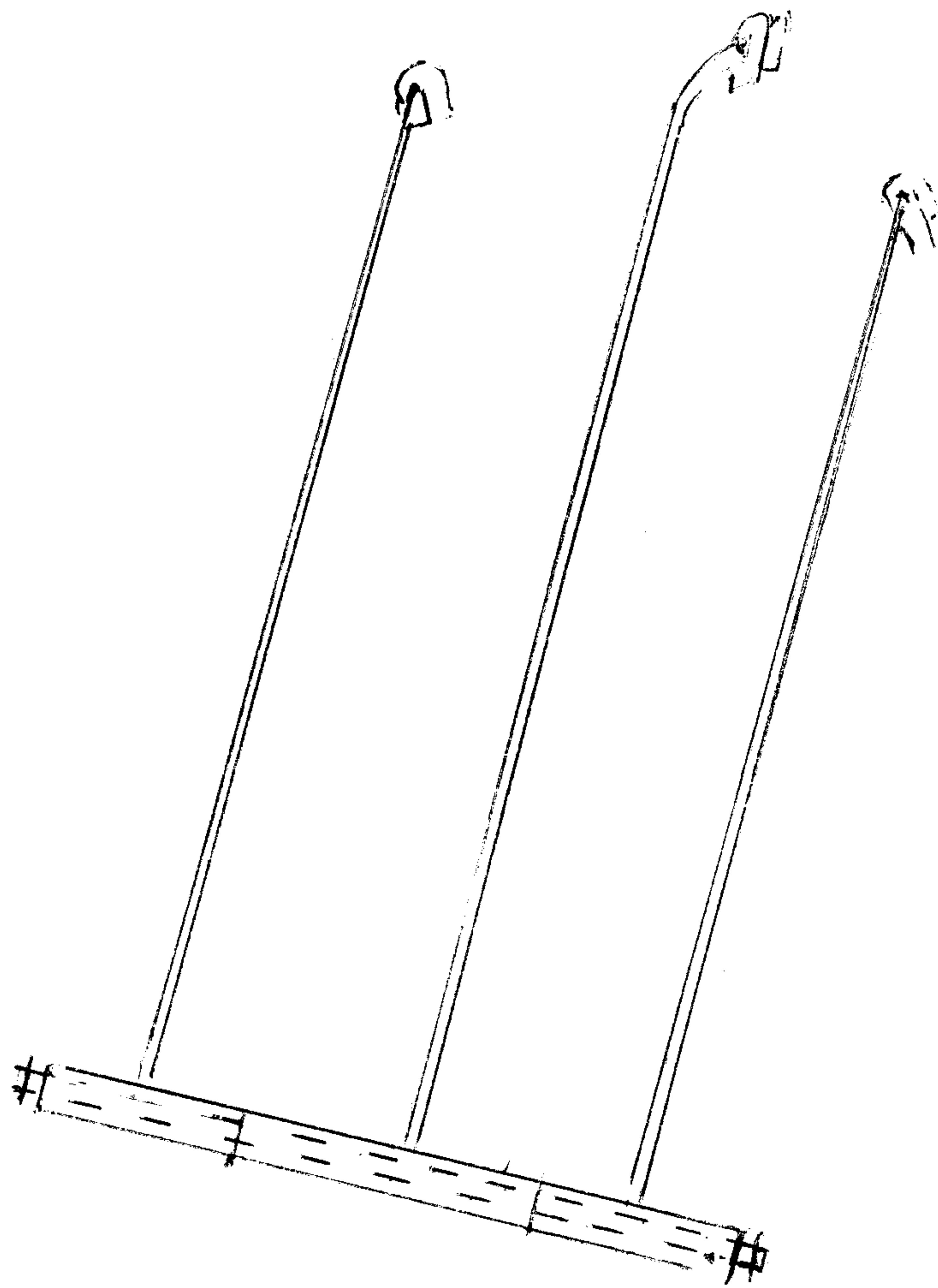


FIG 6

FIG 7



—2

