An adjustable support bracket consisting of two main units (Top Unit - Figures 1/2 and Bottom Unit (Figure 3) which will allow, when assembled together, the initial and future height adjustment of supporting posts as used in the construction of structures such as raised decking, pergolas, washing lines etc.

The bottom unit is placed into a pre-dug hole and secured in place with concrete or other suitable securing material. Retention plates (3 and 4, Fig 3) will help in the securing process.

When the bottom unit (Fig 3) is secure, the post to be supported with a pre-cut slot (6 Fig 1/2) is inserted over the top unit fastening plate (1, Fig 1/2) and locked into place via two suitable bolts which pass through the support post and the fastening plate securing holes (2 and 3, Fig1). The threaded post top unit together with the now fastened post is inserted into the bottom unit cylinder (1, Fig 3) at the estimated desired height.

The locking nut of the top unit (4 Fig 1/2) is then locked against the bottom unit lock nut (2, Fig 3) using a spanner or similar tool the same size as the nut.

If future height adjustment is required, the upper unit lock nut (4 Fig 1/2) is released and the moved up and down the trenched bar (5, Fig 1/2). This will cause the upper unit together with the support post to change height. The locking nut of the top unit (4 Fig 1/2) is then locked against the bottom unit lock nut (2, Fig 3) as before.
ADJUSTABLE SUPPORT BRACKET

DESCRIPTION

This invention relates to an adjustable support bracket.

Support brackets are used to anchor wood or other materials (being used as supporting posts) to the ground in the building and other related industries for the construction of structures such as raised decking, pergolas, washing lines, fencing etc.

Support brackets are used throughout the building trade, but those currently in existence require the use of more than one experienced person to operate correctly. This invention overcomes this problem, in as much as, one person only is required to set a support bracket easily and with a degree of accuracy and flexibility currently unavailable.

Currently, the exact size hole (depth) is measured and dug ready to receive the support bracket. One person is then needed to hold the post while another fills the hole with earth, concrete or other supporting material. As such, the task involves the use of two persons. Also, when the supporting material has set, accurate readjustments to the height that the support post can not be carried out in case of previous error or later subsidence due to ‘settling’.

With this invention, only one person is needed to set up a support bracket (and therefore the material it is to support) which can then be simply adjusted and rectified either at the time of construction or at a later date.

The object of this invention is to allow the accurate construction of support posts as used in the building or associated trades to be carried out by a single person. As such, this invention will be of great importance to those employed as sole builders in the building trade and also to the ‘Do It Yourself’ home handyman. However, there is no doubt that such an invention can be used in all areas of engineering where weight bearing structures need to be assembled by one person with a high degree of accuracy and flexibility.

An adjustable support bracket unit to allow timber (or other material) to be attached to the ground which allows both initial and future height adjustment of a supporting post for building (or other) structures.

The adjustable support bracket should be made of cheap, easily available and workable materials. These being mild steel plate, steel tube, steel nuts and associated bolt tread. The use of plastics, carbon fiber or other suitable materials may be used to substitute the steel materials as described above where practical.
The invention consists of two units being the 'base unit' and the 'post unit'. The base unit is set into the ground. The post unit is attached to the supporting material (support post) after which both units are mated together to form a strong but vertically adjustable assembly.

This is achieved by first setting the base unit in a pre-dug hole and then setting it with a compound such as concrete. Next, the post unit is attached to the support post by means of a pre-cut slot. The support post is then anchored to the post unit with bolts. The post unit is then inserted into the base unit via the base unit tube. The required height is set by means of a nut on a thread being adjusted by moving the nut up and down the thread as attached to the post unit. When the required height is achieved the nut is locked into place onto the base unit 'lock' nut. In case of error or subsidence due to future 'settling' the height of the support post can be easily adjusted and rectified.

A 'dry' run may be carried out first by mating the post and base units before the support post is attached to the post unit to determine the initial required height.

An example where this invention would prove invaluable would be in the construction of off ground decking frames, pergola frames or the support posts for washing lines or fences.
CLAIMS

1. A support bracket to allow timber (or other suitable material) to be supported from the ground which allows both initial and later height adjustment of a supporting post for building (or other) structures.

2. An adjustable support bracket as claimed in any preceding claim where the support is adjustable in vertical height.

3. An adjustable support bracket as claimed in any preceding claim where adjustments may be made at future dates after initial construction.

4. An adjustable support bracket as claimed in any preceding claim where the two units (base unit and post unit) that make up the support bracket are mated together to achieve the correct initial height of an attached support post and allow future adjustments as required.

5. An adjustable support bracket as claimed in any preceding claim where the adjustment of the support height is carried out by the use of locking nuts or other friction inducing apparatus.

6. An adjustable support bracket as claimed in any preceding claim that is made from metal, plastic material, carbon fiber materials or wood, or a combination of these materials.

7. An adjustable support bracket as described above and illustrated in the accompanying drawings.
**Application No:** GB0502379.1  
**Claims searched:** 1 - 7  
**Examiner:** J D Cantrell  
**Date of search:** 11 July 2005

### Patents Act 1977: Search Report under Section 17

**Documents considered to be relevant:**

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<thead>
<tr>
<th>Category</th>
<th>Relevant to claims</th>
<th>Identity of document and passage or figure of particular relevance</th>
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<tr>
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**Field of Search:**
- Search of GB, EP, WO & US patent documents classified in the following areas of the UKC:
- E1D
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- E04H
- The following online and other databases have been used in the preparation of this search report:
- ONLINE: EPODOC, PAJ, WPI