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(56) Documents Cited:
GB 2332013 A **GB 1030332 A**
DE 019636959 A1 **FR 002924458 A1**
NL 001012538 C2 **US 20030015641 A1**

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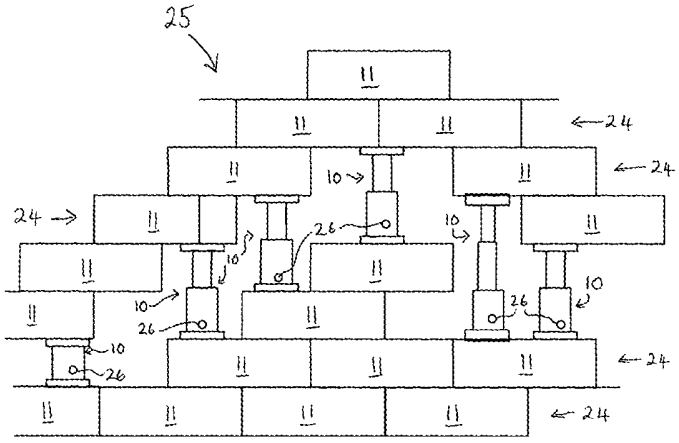
(54) Title of the Invention: **Support**
Abstract Title: **Brick support**

(57) A support 10 suitable to provide support for building units 11 within a stacked arrangement of units, such as a brick wall 25. The support 10 comprises a support foot (12, Fig 3) and a support head (13, Fig 3) which are held in spaced relation by a support member (14a, 14b, 14c, Fig 3). The support member is retractably extendable between a first configuration and a second configuration, and further comprises adjustment means 26 for adjusting the first and second configurations and locking means (15, 16, 18, 19, Fig 3) for releasably locking the support member in the first and second configurations. The support member may comprise 3 separate legs configured for telescopic movement. The length of each leg of the support member may correspond substantially with distance between alternative rows of building units within a stacked arrangement of such units.

Fig. 4



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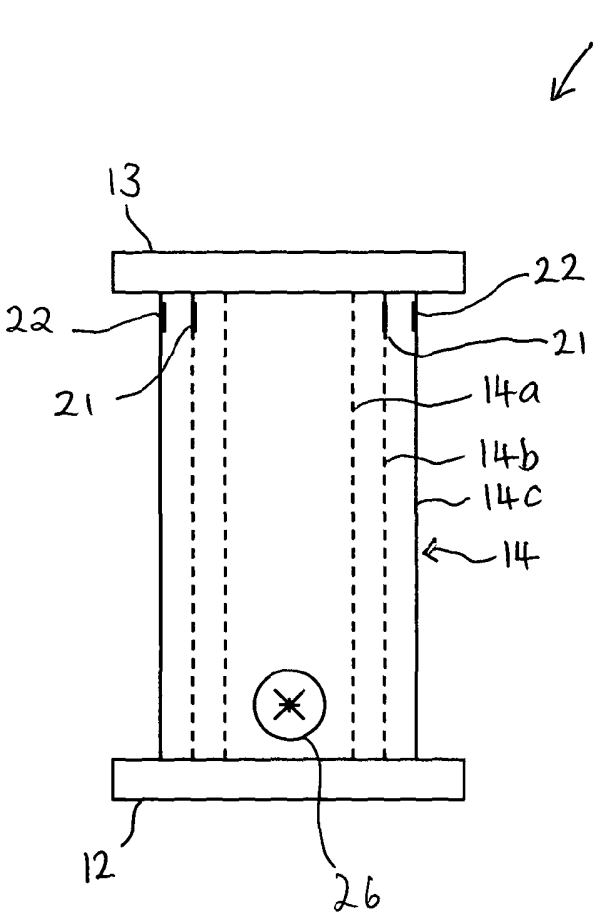

Fig. 1

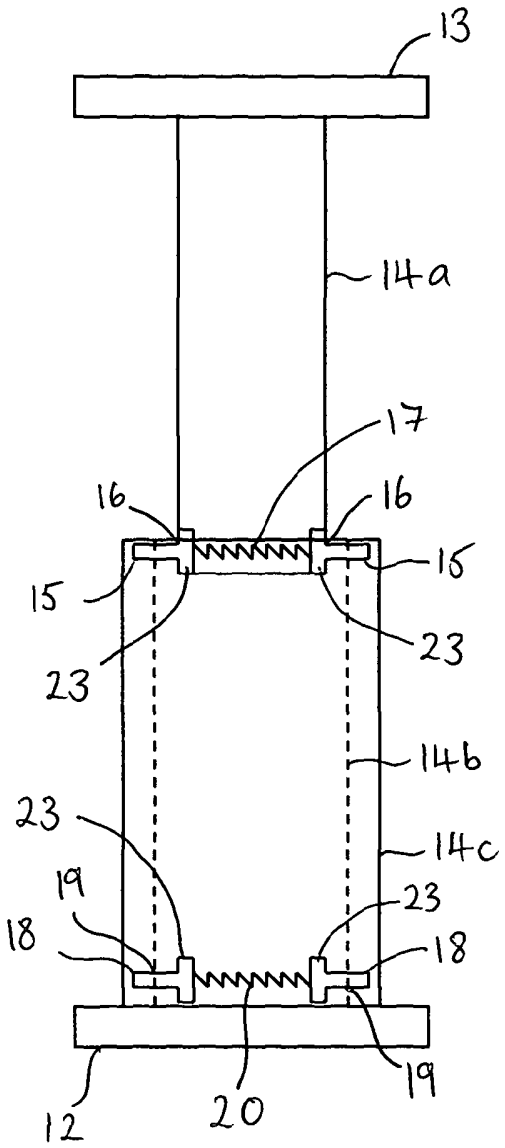

Fig. 2

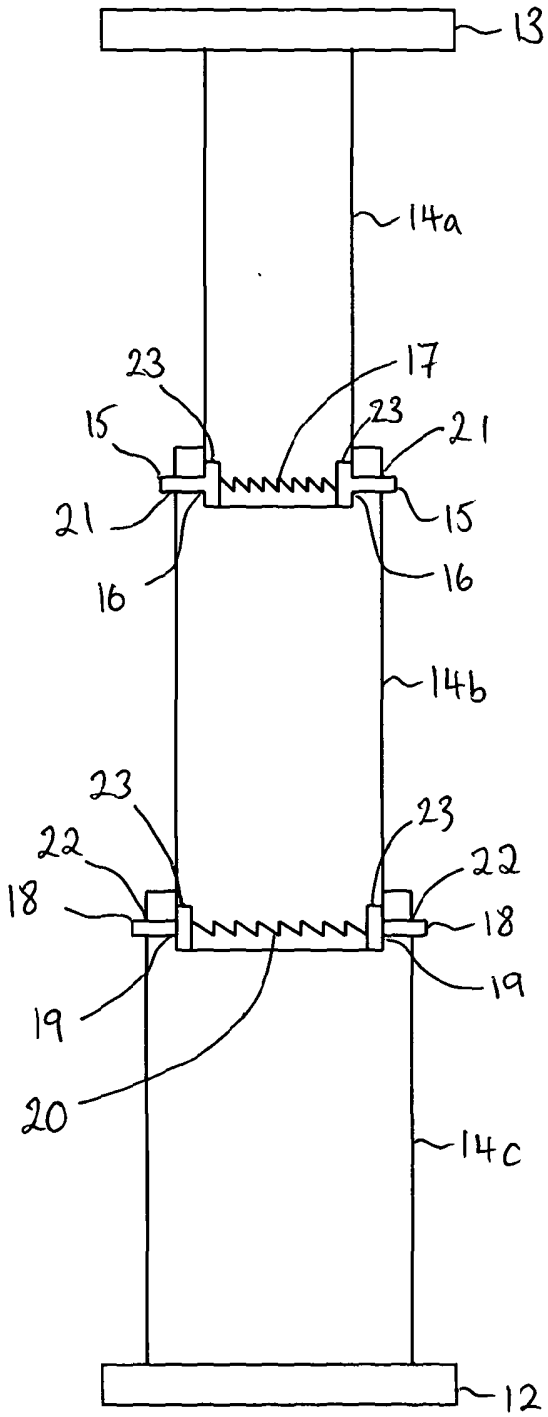

Fig. 3

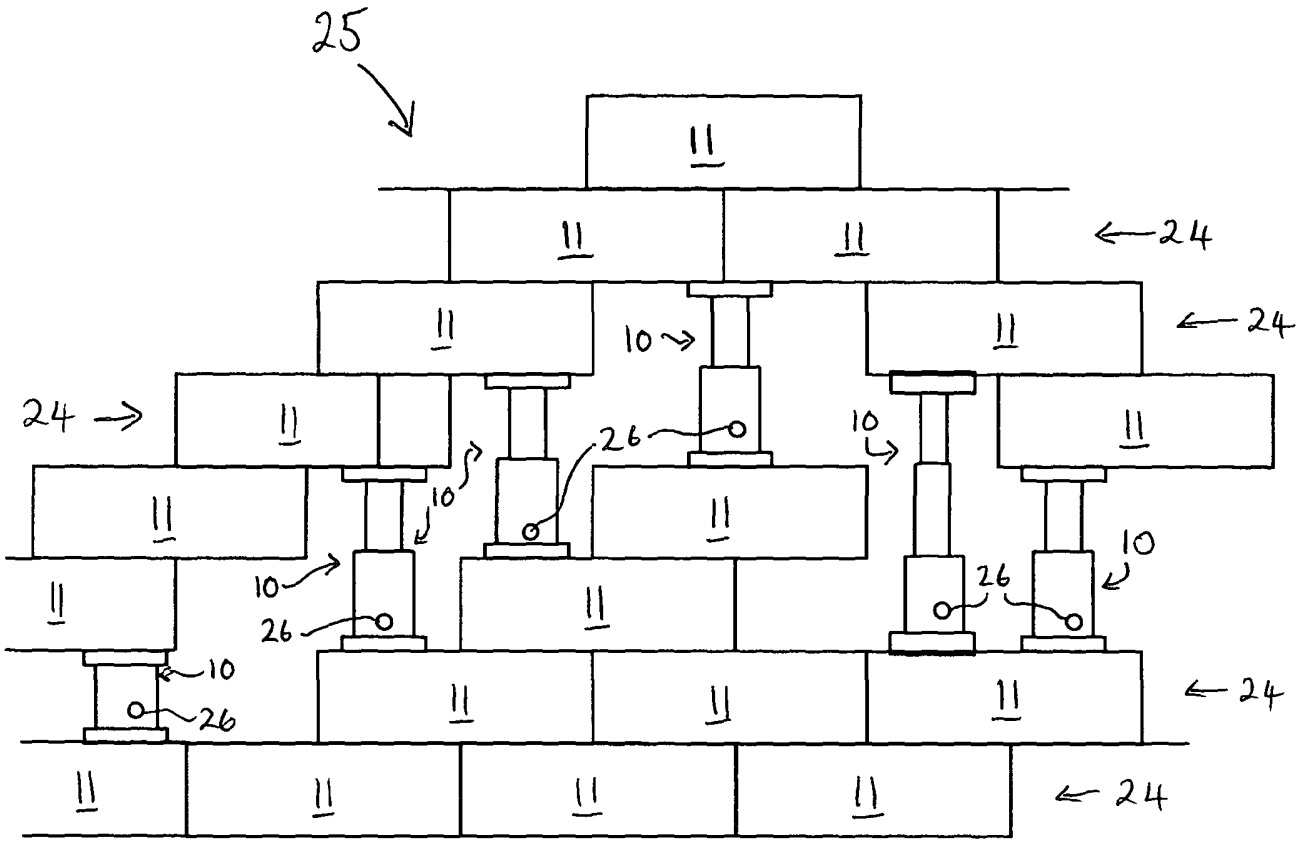

Fig. 4

Support

The present invention relates to a support.

When building a house extension, for example, it is necessary to remove selected building units, for example bricks, from the wall of the house from which the extension extends, in order that a roof can be arranged upon the extension in sealing relation to the house. The bricks are required to be removed so that a tray can be fitted within the house wall; the tray acts as a barrier against the ingress of water between the house and the extension. The brick is then replaced over the tray and cemented in place. A lead skirt is then typically fixed to the tray and arranged to extend over the roof of the extension where it joins the house.

However, upon removing the bricks from the wall of a house it is found that the wall can become unsafe. As a result only a few bricks can be removed at a time. The trays must be inserted within the house wall and the bricks must be replaced before further bricks can be removed. It is evident therefore that the process of sealing a roof to a house wall is a time consuming process.

In an attempt to reduce the time associated with the above, it is found that workers often cut wooden wedges to support and thus maintain the vertical separation between rows of bricks within the house wall, so that all the required bricks can be removed in one go. Again however, this is a time consuming process since each wedge must be measured and cut to the appropriate length. This time is compounded by the fact that the worker must typically descend and ascend a ladder, for example, to cut each wedge. Moreover, since each wedge is specific for a particular position within the wall, then following use, the wedge is typically thrown away.

In accordance with a first aspect of the present invention, there is provided a support for supporting building units within a stacked arrangement of

units, the support comprising a support foot and a support head which are held in spaced relation by a support member,

the support member being retractably extendable between a first configuration and a second configuration, the support further comprising adjustment means for adjusting the spaced relation of the support foot and support head in the first and second configurations and locking means for releasably locking the support member in the second configuration.

The support can thus be positioned within a wall of a house and readily extended to the appropriate length to support the vertical separation between rows of building units.

Preferably, the first configuration comprises a first separation of the support foot and support head and the second configuration comprises a second separation of the support foot and support head.

Preferably, the second configuration comprises at least two second separations.

The support member preferably comprises a first support leg and a second support leg, the first and second legs being arranged for relative movement.

Preferably, the support member further comprises a third support leg, the first and second legs being arranged for movement relative thereto.

Preferably, the first, second and third legs are substantially the same length and are configured for telescopic movement.

Preferably, the length of the first, second and third legs separately substantially correspond to the distance between alternate rows of building units within the stacked arrangement of units.

The locking means preferably comprises a locking peg disposed upon the first and second legs, which are biased to engage within an aperture formed within the second and third support legs, respectively.

The adjustment means preferably provides for a fine adjustment of the spaced of the support foot and support head when the support is in the first or second configuration. Preferably, the adjustment means provides for a fine adjustment of the spaced relation of the support foot and support head when the support is locked in the second configuration. Preferably, the adjustment means comprises an adjustment screw.

In accordance with a second aspect of the present invention there is provided a method of supporting building units within a stacked arrangement of building units, the method comprising the use of a support, the support comprising a foot and a head which are held in spaced relation by a support member, the method comprising:

inserting the support between a first and second row of the stacked arrangement of rows; and,

reconfiguring the support so that the support foot and support head separately contact the first and second row of the stacked arrangement of units.

Preferably, the support comprises the support of the first aspect. In this case, the step of reconfiguring the support preferably comprises:

reconfiguring the support member from the first configuration to the second configuration, and/or

adjusting the spaced relation of the support head and support foot in the first or second configuration using the adjustment means.

An embodiment of the present invention will now be described by way of example only and with reference to the accompanying drawings, in which:

Figure 1 is a side view of a support according to an embodiment of the present invention, in a first configuration;

Figure 2 is a sectional view of the support of figure 1 in a first second configuration;

Figure 3 is a sectional view of the support of figure 1 in a second second configuration; and,

Figure 4 illustrates the support of figures 1, 2 and 3 positioned within a wall.

Referring to figures 1 to 3 of the drawings, there is illustrated a support 10 according to an embodiment of the present invention, which is arranged to support building units 11 within a stacked arrangement of units 11. The support 10 comprises a base or foot 12 and head 13, which are held in spaced relation by a support member 14. The support member 14 comprises a first 14a, second 14b and third tubular support leg 14c, the first leg 14a being arranged to move substantially within the second leg 14b and the second leg 14b being arranged to move substantially within the third leg 14c. In this manner, the support member 14 comprises a telescopic member. It is envisaged however, that the support legs 14a-c may be of a different cross-sectional shape, such as square, to minimise any rotation of one leg with respect to another.

The first leg 14a of the support member 14 comprises a first pair of pegs 15 disposed at a lower end thereof, which are separately arranged to extend through an aperture 16 disposed at a lower end of the first leg 14a. The apertures 16 are disposed substantially diametrically opposite each other and the pegs 15 are biased through the respective aperture 16 against an inside of the second leg 14b by a first compression spring 17 which extends between the first pair of pegs 15.

The second leg 14b of the support member 14 similarly comprises a second pair of pegs 18 disposed at a lower end thereof, which are separately arranged to extend through an aperture 19 disposed at a lower end of the second leg 14b. The apertures 19 are disposed substantially diametrically opposite each other and are biased through the respective aperture 19 against an inside of the third leg 14c by a second compression spring 20 which extends between the second pair of pegs 18.

The first and second pair of pegs 15, 18 are arranged to locate within a first and second pair of apertures 21, 22 disposed at an upper region of the second 14b and third leg 14c respectively, as the first and second pair of pegs 15, 18 become aligned with the respective pair of apertures 16, 19. Once aligned, the pegs of the first pair of pegs 15 are forced into the first pair of apertures 16 by the first spring 17 causing the first leg 14a to become locked with respect to the second leg 14b. Similarly, once the pegs of the second pair of pegs 18 become aligned with the second pair of apertures 19, they become forced into the second pair of apertures 19 by the second spring 20 causing the second leg 14b to become locked with respect to the third leg 14c. The pegs of the first and second pair 15, 18 are prevented from moving completely out from the first and second leg 14a, 14b, respectively by a collar 23 disposed at the proximal end of each peg 15, 18.

The first, second and third legs 14a-c of the support member 14 comprise a length which substantially corresponds with the distance between alternate rows 24 of building units 11, namely the depth of the unit 11, such as a brick or block. In the first support configuration, as illustrated in figure 1 of the drawings, the separation of the support foot 12 and head 13 substantially corresponds with the separation of alternate rows 24 of building units 11 within a wall arrangement 25 of units 11, for example. Similarly, the separation of the support foot 12 and head 13 in a first and second, second configuration as illustrated in figures 2 and 3 of the

drawings, respectively, substantially correspond to the combined height of two and three rows 24 of building units 11, respectively.

Referring to figure 4 of the drawings, in use, once a selected brick or bricks, for example have been removed from a wall 25, the support 10 is positioned within the wall 25 and the head 13 is pulled with respect to the foot 12 to extend the support member 14, so that the separation of the foot 12 and head 13 substantially correspond to the distance between the rows 24 to be supported, and so that the pegs 15, 18 on the first and/or second legs 14a, 14b snap locate within the first and/or second pair of apertures 16, 19. To ensure an intimate fit, the separation of the foot 12 and head 13 may be further adjusted using a fine adjustment control screw 26. It is envisaged that this may be actuated using a tool such as a screwdriver (not shown), however, it is also envisaged that the fine control may be actuated by a hand operated control knob (not shown).

Alternatively, if the support 10 is intended to support alternate rows 24 of bricks, then the support 10 may be simply placed between the rows 24 of bricks in the first configuration and the separation of the foot 12 and head 13 adjusted using the control screw 26.

When it is desired to remove the support 10, the control screw 26 is actuated to slightly reduce the separation of the head 13 and foot 12 of the support 10 and thus relieve the pressure on the head 13 and foot 12 of the support 10. The pegs of the first and/or second pair 15, 18 may then be pushed in through the respective first and/or second pair of apertures 16, 19 against the bias of the first and/or second spring 17, 20 to unlock the legs 14a-c, so that the support head 13 can be pushed toward the support foot 12 to reduce the length of the support member 14, and thus return the support 10 to the first configuration.

The support according to the present invention thus provides a readily extendable and retractable support for easy installation and removal from a

wall of building units, and thus provides for a simple yet effective means of supporting rows of building units within a stacked arrangement of building units.

5

Claims

1. A support for supporting building units within a stacked arrangement of units, the support comprising a support foot and a support head which are held in spaced relation by a support member,

the support member being retractably extendable between a first configuration and a second configuration, the support further comprising adjustment means for adjusting the spaced relation of the support foot and support head in the first and second configurations and locking means for releasably locking the support member in the first and second configurations.

2 A support according to claim 1, wherein the first configuration comprises a first separation of the support foot and support head and the second configuration comprises a second separation of the support foot and support head.

3. A support according to claim 1 or 2, wherein the second configuration comprises at least two second separations.

4. A support according to any preceding claim, wherein the support member comprises a first support leg and a second support leg, the first and second legs being arranged for relative movement.

5. A support according to claim 4, wherein the support member further comprises a third support leg, the first and second legs being arranged for movement relative thereto.

6. A support according to claim 5, wherein the first, second and third legs are substantially the same length and are configured for telescopic movement.

7. A support according to claim 5 or 6, wherein the length of the first, second and third legs separately substantially correspond to the separation of alternate rows of building units within the stacked arrangement of units.

8. A support according to claim 5, wherein the locking means comprises a locking peg disposed upon the first and second legs, which are biased to engage within an aperture formed within the second and third support legs, respectively.

9. A support according to any preceding claim, wherein the adjustment means provides for a fine adjustment of the spaced relation of the support foot and support head when the support is in the first or second configuration

10. A support according to any preceding claim, wherein the adjustment means provides for a fine adjustment of the spaced relation of the support foot and support head when the support is locked in the second configuration.

11. A support according to any preceding claim, wherein the adjustment means comprises an adjustment screw.

12. A method of supporting building units within a stacked arrangement of building units, the method comprising the use of a support, the support comprising a foot and a head which are held in spaced relation by a support member, the method comprising:

inserting the support between a first and second row of the stacked arrangement of rows; and,

reconfiguring the support so that the support foot and support head separately contact the first and second row of the stacked arrangement of units.

13. A method according to claim 12, the method comprising the use of the support according to any of claims 1 to 11.

14. A method according to claim 13, wherein the step of reconfiguring the support comprises reconfiguring the support member from the first configuration to the second configuration.

15. A method according to claim 13 or 14, wherein the step of reconfiguring the support comprises or further comprises adjusting the spaced relation of the support head and support foot in the first or second configuration using the adjustment means.

16. A support substantially as herein described and with reference to the accompanying drawings.

17. A method substantially as herein described and with reference to the accompanying drawings.

Application No:	GB0914612.7	**Examiner:**	Mrs Judith Peake
Claims searched:	1-17	**Date of search:**	18 May 2010

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X	1-6, 9-15	GB1030332 A (BLOXVICH LOCK STAMPING) See Figs 1 and 5
X	1-4, 9-15	GB2332013 A (SMITH) See whole document, Fig 1 particularly.
X	1-4, 9-15	NL1012538 C2 (OUWBEDRIJF WEKEROM) See WPI Abstract Accession Number 2001-242834 [25] and Figures 1 and 2
Y	1-5, 8-10, 12-15	DE19636959 A1 (WOLF) See Figs 1 and 2 and WPI Abstract Accession Number 1998-170074 [16]
Y	1-5, 8-10, 12-15	US2003/015641 A1 (CONRAD) See Figs 1-3
A	-	FR2924458 A1 (BOUYGUES BATIMENT ILE DE FRANCE)

Categories:

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^{X} :

Worldwide search of patent documents classified in the following areas of the IPC

E04G; F16B

The following online and other databases have been used in the preparation of this search report

Online: EPODOC, WPI

International Classification:

Subclass	Subgroup	Valid From
E04G	0025/04	01/01/2006
E04G	0021/26	01/01/2006
E04G	0023/04	01/01/2006
F16B	0007/10	01/01/2006