

PATENTS EXAMINATION BOARD
PRACTICAL LEGAL PROBLEMS

EXAMINATION : JULY 2015

EXAMINERS: R BAGNALL
D DOHMEN

MODERATOR: C.E. PUCKRIN S.C.

DURATION: READING TIME – 60 MIN
EXAMINATION TIME – 4 HRS
TOTAL – 5 HRS

NOTES TO CANDIDATES:

1. Attached to the paper are copies of the following documents:
 - (i) A copy of the Patents Act No. 57 of 1978;
 - (ii) A copy of the Patent Regulations 1978; and
 - (iii) A copy of the Uniform Rules of the High Court under the Superior Courts Act 10 of 2013 (Rules 6, 14, 17, 18, 19, 21, 22, 23, 24, 25, 30, 35, 36 and 37).

2. Each candidate is also allowed access to (1) one dictionary during the exam.

3. This paper comprises copies of the following documents:
 - (i) Questions 1 to 4 (100 marks);
 - (ii) United States Patent A (8 pages);

- (iii) South African Patent B (8 pages);
 - (iv) United States Patent C (5 pages);
 - (v) UK Patent D (8 pages);
 - (vi) Sketch E (1 page); and
 - (vii) Document F (3 pages).
4. Prior to the hand out of the answer papers, candidates will have the opportunity to read the above documents and make notes for 60 minutes.
5. Where appropriate reference should be made to case law.
6. Please note that in the marking of answers:
- 30% of the marks will be allocated for advice on legal aspects;
 - 60% for technical advice; and
 - 10% for form of the advice.

QUESTION 1:

(25 marks)

Your client, a large home improvement and building supply company, MASS Build (Pty) Ltd, approaches you as they wish to expand their range of products in South Africa. In particular, your client wishes to import a range of tile spacers and offer a tile laying service using the spacers in South Africa.

Your client hands you a copy of United States Patent A (**attached**) which describes the product that your client wishes to import. This was provided to your client by the United States patent holder who has confirmed that there are no corresponding patents in South Africa. The patent was first published in 2013 and bears a 2011 priority date.

Before incurring any capital costs, your client needs to be sure that it is free to operate without fear of patent infringement in South Africa. You conduct a search through the South African Patent Office records and locate a single in-force and relevant South African patent which is **attached** hereto marked South African Patent B. The South African patent was granted in 2010 and bears a 2009 priority date.

Please provide your client with an infringement opinion as to whether or not its activities would amount to an infringement of South African patent B.

QUESTION 2:

(40 marks)

After you have completed the above infringement analysis, your client conducts its own search and draws to your attention the following patents, all of which were published prior to the priority date of South African Patent B:

- a) United States Patent C; and
- b) UK Patent D.

Furthermore, your client provides you with a sketch (Sketch E). He confirms that the tile spacer shown in Sketch E has been used commercially by many professionals and handymen in South Africa since well before the priority date of South African Patent B. The spacer is a cross-shape device that lies on the adhesive at the junction of four tiles, beneath the exposed face of the tiles, so that it is very difficult to retrieve once the tile adhesive has been set. The spacer C has planar top and bottom surfaces, so it does not matter which way up it is used. If the spacer is to be used other than at the junction of four tiles, one or two of the arms of the device are broken off.

Please provide your client with an opinion as to whether or not South African Patent B is valid and enforceable in South Africa in light of the prior art mentioned above.

QUESTION 3:

(20 marks)

In light of the advice that you have given in Questions 1 and 2, please provide your client with strategic advice highlighting what scenarios need to be considered, what strategies the patentee of South African Patent B might adopt and what options your client faces.

QUESTION 4:

(15 marks)

Your client, a US firm of patent attorneys, informs you that patent no. 2001/06543, which belongs to one of their clients, lapsed owing to the non-payment of renewal fees. You obtain a copy of an extract of the Patent Register and confirm that this is indeed the case. The first page of the patent certificate and form P2 are attached hereto marked Document F.

Your client provides you with the following explanation.

"When we file a new patent application in South Africa it is the responsibility of one of our document clerks to insert all of the essential filing details into our computerised maintenance system so that automatic renewal reminders are generated, two and four months prior to the due date for the payment of a renewal. These reminders are sent to the patentee for instructions. If we do not receive instructions by the due date, a further and last reminder is sent within the six month grace period for payment of renewal fees, advising the patentee that it is still possible to late pay the renewal fees.

The relevant data capturer diligently captured all of the essential details and the appropriate renewal reminders were generated and sent to the patentee.

Unfortunately, the patentee changed all of its postal and email addresses shortly after the filing of the application and, therefore, the patentee did not receive the relevant renewal reminders.

During a recent routine status review it came to the patentee's attention that the patent had indeed unintentionally lapsed. The patentee immediately instructed us to apply for restoration."

Please draft an affidavit for filing in support of the restoration application. Please also include the appropriate heading to the affidavit.

TOTAL: 100 marks

UNITED STATES PATENT A

HANDY, MULTI-PURPOSE TILE INSTALLATION SPACERS

TECHNICAL FIELD

This invention relates to spacers used when installing ceramic tiles, bricks, blocks and the like.

BACKGROUND ART

In the process of covering floor, wall and counter surfaces with ceramic tiles and the like, individual tiles or sheets of mosaic glued to a mesh webbing, are individually set into either some form of adhesive or some form of mortar. In the process of setting the individual pieces, it is known to use tile spacers to assist in achieving uniformly sized grout spacing between the tiles or sheets of mosaic. These are typically in the shape of a cross, so as to define a corner where four tiles will intersect. One leg of the cross can be cut off, making a T spacer, which can be used when an offset layup is utilized, with T-shaped grout spaces at the intersection of three tiles. The spacers are typically made of semi-rigid plastic having depths ranging from $\frac{1}{16}$ to $\frac{3}{16}$ of an inch, with spacing widths of between $\frac{1}{16}$ of an inch and $\frac{1}{4}$ of an inch. For bricks, cement blocks and larger tiles, larger sizes of spacers, with considerably more depth, are used.

The spacers are sometimes used edgewise as an aid to laying out an array of tiles where a long row of dry tiles can be laid out, set apart by the edgewise spacers. Such spacers also are sometimes used edgewise as stacking spacers for vertical installations (wall tiles).

Most tile layers have large, heavily callused fingers and find the spacers hard to handle. The spacers must be removed from the grooves between the tiles after the tiles are set, by means of a pick, thin spatula, or other spacer remover tool. When working with the spacers, it is difficult to handle them and move them around. Additionally, they provide no guide to the depth of the lay of the tiles (the uniformness of the final finish across several tiles) as the job proceeds.

DISCLOSURE OF INVENTION

Objects of the invention include provision of tile spacers which are easy to handle, which are easily removed after use, which assist in establishing a uniform lay of the tiles, and which can serve as a stacking spacer for vertical installations and as a layout spacer that is easily handled.

According to the present invention, a tile spacer includes a thin, semi-rigid platform having a straight tile spacer element on one side thereof and a corner tile spacer element on the other side thereof; the corner spacer element may be cross-shaped or tee-shaped.

The platform, which may typically be disk-like, assists in establishing a uniform lay of tiles, and holds the spacer element in use above the tile adhesive as well as a portion of the spacer up above the tiles so it is accessible for removal. The straight spacer is used principally as a handle, when the cross shaped spacer is used to space the intersection of four tiles, or when the tee-shaped spacer is used to space the intersection of three tiles. The straight spacer also serves as a stacking spacer for vertical tile installations and as a job layout spacer. The spacer in accordance with the present invention is easily handled since it can be gripped by the handle when being inserted for use and when being removed. It is also more easily removed once its purpose has been served. A single spacer can serve for either cross or tee corners as the case may be, as well as for straight spaces. The spacer in accordance with the present invention is scalable to suit a variety of uses, including tile, stone, slate, brick and block, etc.

Other objects, features and advantages of the present invention will become more apparent in the light of the following detailed description of exemplary embodiments thereof, as illustrated in the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a bottom perspective view of a cross-shaped spacer in accordance with the present invention;

FIG. 2 is a bottom perspective view of a tee-shaped spacer in accordance with the present invention;

FIG. 3 is a top perspective view of both the spacers of FIGS. 1 and 2;

FIG. 4 is a top perspective view of spacers according to FIG. 1 in use;

FIG.5 is a top, perspective view of spacer according to FIG.2 in use;

FIG 6 is an elevational view of spacers in accordance with Figures 1 and 2 in use with wall tiles and;

FIG.7 is a perspective view of spacers in accordance with Figures 1 and 2 in use bottom up.

BEST MODE FOR CARRYING OUT THE INVENTION

Referring to FIGS. 1-3, the tile spacers 8, 9 in accordance with the present invention include a platform portion 10 which has coplanar, flat surfaces 11, 12 on opposite faces thereof. Elongated, raised ridges extend outwardly of the faces of the platform 10 to form a straight spacer element 13 and corner spacer elements 14, 15 extending across the surface 11, 12, respectively. The platform portion 10 and ridges 13-15 are all made of a unitary piece of semi-rigid material, such as plastic. The corner spacer elements 14, 15 have legs that are mutually, orthogonally transverse to each other in the form of a cross (14) or a tee (15). In the embodiment disclosed herein, the platform 10 is a disk, although it need not necessarily be. It could be square with corners at the spacer elements 13, 14, a square with the spacers bisecting the sides, or any other shape that will provide a reasonable platform. The straight spacer element 13 is coaligned with one leg 14a, 15a of the corner spacer element 14, 15 so as to permit orienting either the corner spacer element 14, 15 or the straight spacer element 13 with respect to the tile being laid, while using the other spacer element as a handle. In the disclosed embodiment, the length of the straight spacer element 13 and of the coaligned leg 14a, 15a of the corner spacer element 14, 15 extends beyond the edge of the platform 10, so that the orientation of the straight spacer element 13 can be known, even when below the platform, as it is when used as described with respect to FIGS. 4 to 7, hereinafter.

For normal tiles (such as is used on kitchen counters and for bathroom walls and floors) the spacer may have a platform on the order of one inch in diameter, and the straight spacer element 13 may therefor be just under 1 inch in length. The platform may be about 1/16 inch thick, or it may be thicker, up to about inch. The

dimensions of the elements 13, 14 can typically be essentially the same as the simple tile spacers available in the prior art, which resemble the cross-shaped spacer element 14 herein. That is, the grouting width to be achieved and therefore the width of the spacer element may range from 1/32 of an inch up to 1/4 of an inch, or more and the depth may vary from about 1/8 of an inch to 1/4 of an inch in order to support the spacer element above the tile adhesive. Of course, much larger spacers will be used to handle cement block, glass brick and the like.

An illustration of the typical use of the spacer 8 of FIG.1, to line up an orthogonal, symmetrical array of tiles 18, is shown in FIG. 4. Therein, the spacer 8 is in the position shown in FIG. 3, with the cross-shaped spacer element 14 facing downward, and the straight spacer element 13 being used as a handle. Notice that the spacer 8, 9 not only assists in laying out the spacing between the tiles 16 so as to provide an orthogonal arrangement with uniform grout spaces 19, but it also establishes a uniform lay (without lippage) by assisting in causing the off-surface displacement of the tips of the tiles 16 to be more nearly uniform. If any of the tiles 16 are not laying flat, the uneven lay of the spacer is readily apparent, and the spacer can be easily removed so as to correct the lippage.

In FIG. 5, the tee-shaped spacer 9 is face down (as in FIG. 3) to align an orthogonal, offset array of tiles 20. In FIG. 6, the spacers 8, 9 are being used in the position of FIGS. 1 and 2 as stacking spacers for wall tiles 21. Of course, the spacer of FIG. 1 could be used in the corners as well as or instead of the straight spacers. In FIG 7, the spacers 8, 9 are being used in the position of FIGS. 1 and 2 as floor layout spacers, to assist in determining the span of a pattern of tiles 22. The spacers 8, 9 can be used as shown in FIGS. 6 and 7 to help provide minimum grout spaces when laying slate and the like. Thus, the spacers are easy to handle while being used for a variety of purposes.

In each case, the coaligned leg of the corner spacers and the straight spacer need not extend past the platform, if not desired in any use of the invention, or all of the legs may extend past the platform, if desired. The corner spacer could be y-shaped, or any other desired shape.

Thus, although the invention has been shown and described with respect to exemplary embodiments thereof, it should be understood by those skilled in the art that the foregoing and various other changes, omissions and additions may be made therein and thereto, without departing from the spirit and scope of the invention.

(CLAIMS OMITTED)

United States Patent A

Sheet 1 of 3

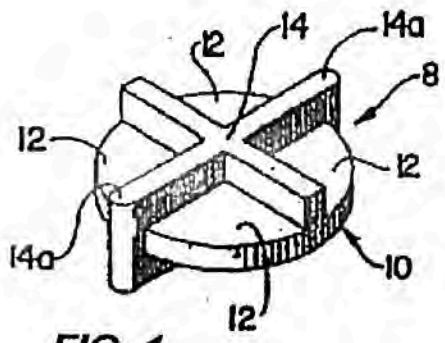


FIG. 1

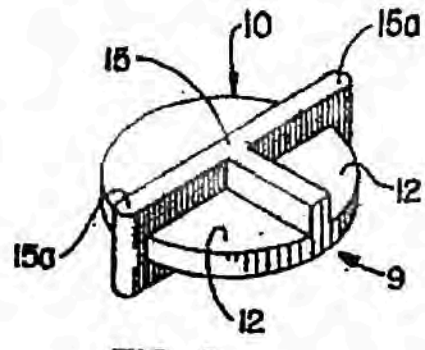


FIG. 2

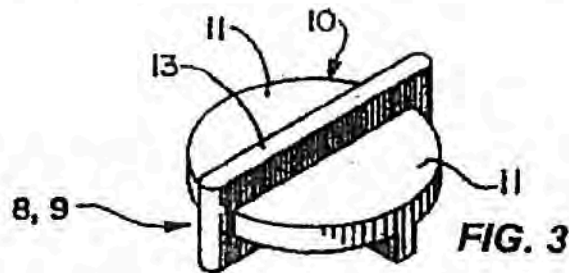


FIG. 3

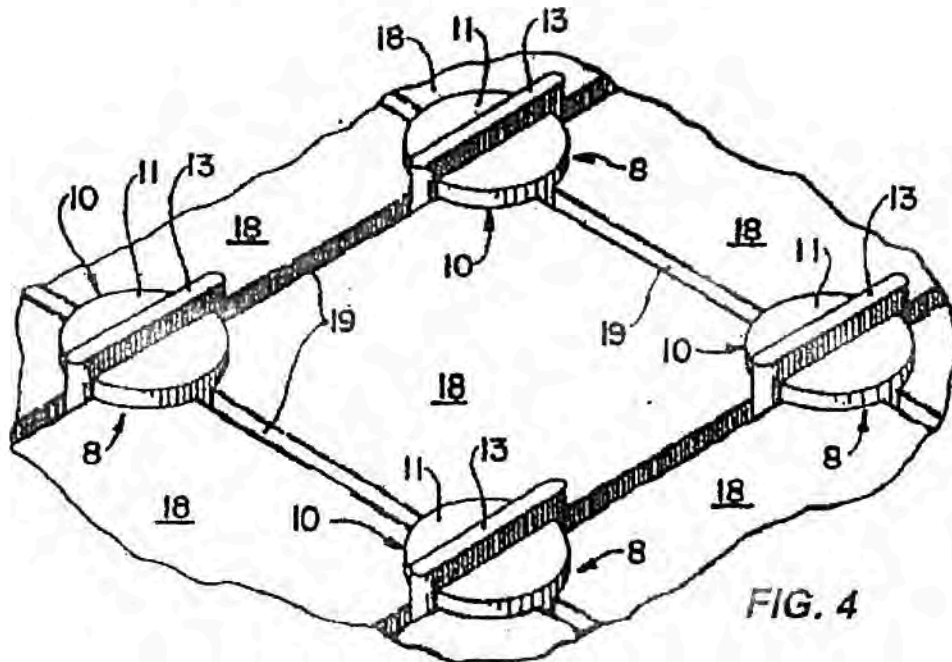


FIG. 4

United States Patent A
Sheet 2 of 3

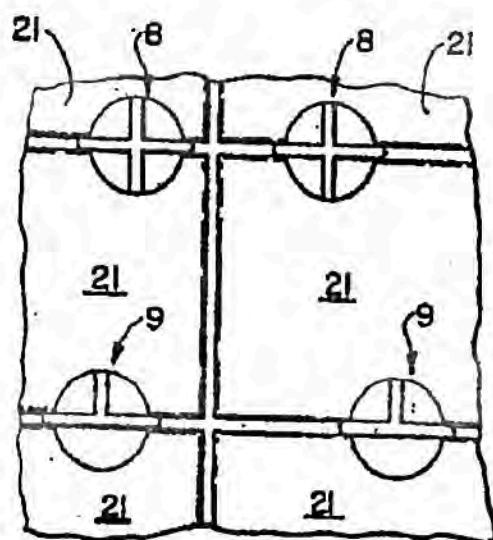
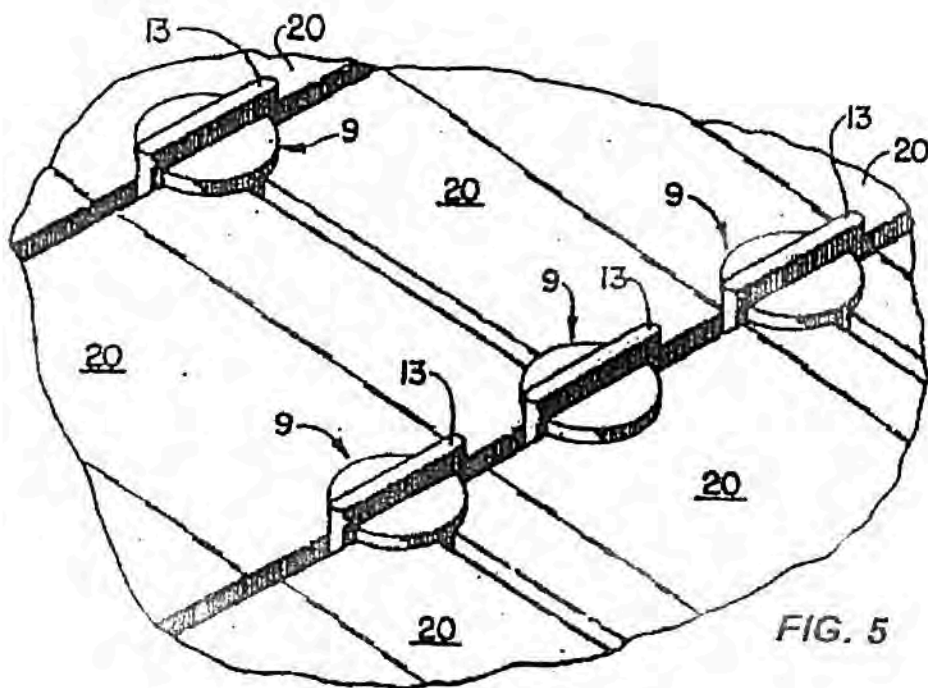


FIG. 6

United States Patent A
Sheet 3 of 3

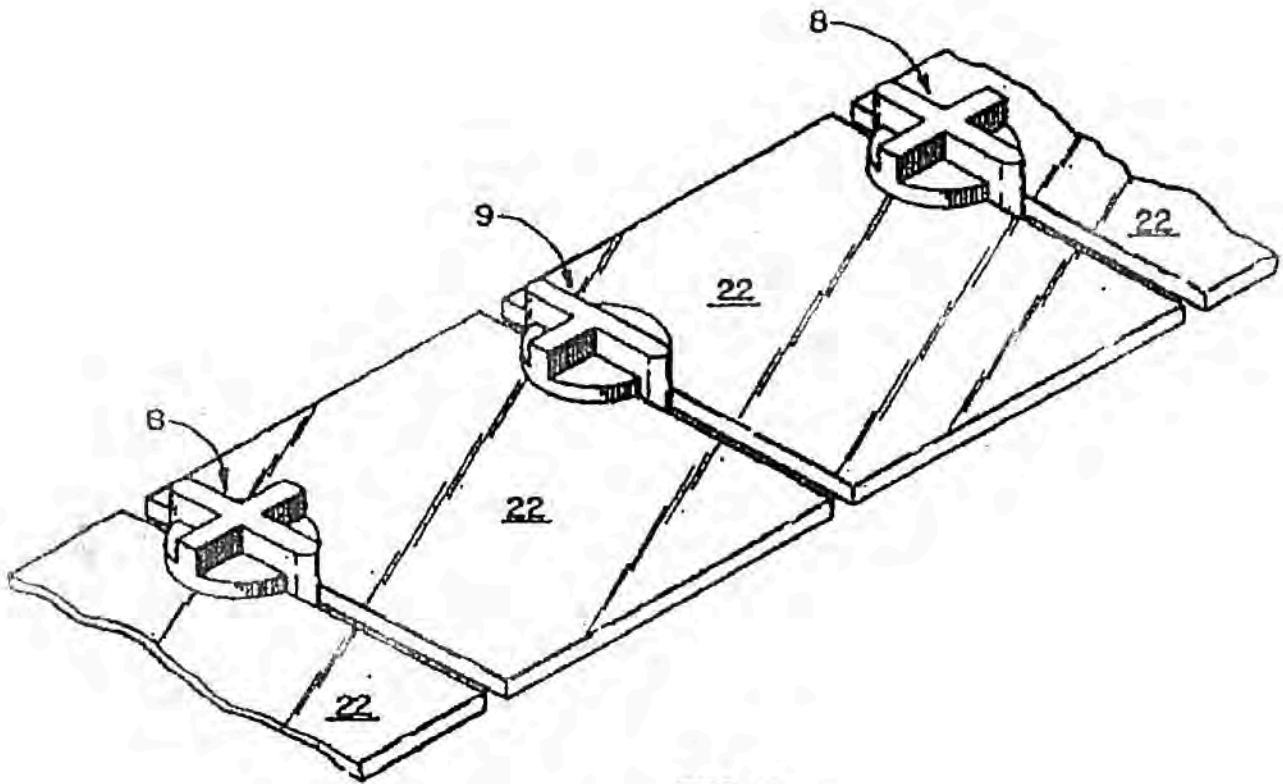


FIG. 7

SOUTH AFRICAN PATENT B

The present invention relates to a spacer member for aligning and spacing tiles relative to each other on a supporting structure such as a floor.

When laying tiles for a tile floor, it is desirable that the tiles be evenly spaced apart for the finished floor to be a quality installation and to look nice. It is very desirable, particularly for the professional tile contractor, to have available a device which will enable him to evenly space tiles while laying them. Such a device is time saving, labour saving and cost effective.

Tile spacers have been proposed which are disposed on the floor surface alongside a first tile. A second tile is then butted up against the tile spacer or spacers to define the desired separation. The adhesive on which the second tile has been laid on the floor surface is then allowed to set. Grout is then applied to the gap between the tiles to provide additional support for them and to enhance the appearance of the tiled surface.

Prior to the grout being applied it is necessary to remove the tile spacer or spacers from between the tiles, but this may be very difficult if the spacer has become set in the adhesive.

It is therefore an object of the invention to provide a tile spacer for use in spacing tiles.

It is a further object of the invention to provide a tile spacer that is readily removed from the gap between adjacent tiles.

The present invention meets these objects by providing at least one elongate spacer element adapted to be received between adjacent tiles above the support structure on which the tiles are laid and an extension of the at least one spacer element for removing the spacer element from between the tiles.

The at least one spacer element is supported above the support structure, so that it can be readily removed from the gap between the tiles, by bearing portions depending from the element. The bearing portions maintain the element clear of any tile adhesive in the gap between adjacent tiles, so that only the bearing portions have to be broken free of such adhesive when withdrawing the spacer from between the tiles.

The extension of the spacer element is advantageously elongate to provide opposed gripping faces.

In one embodiment, a first spacer element is adapted to be received between at least a first pair of adjacent tiles and a second spacer element extends perpendicularly to the first spacer element to be received in use between at least a second pair of adjacent tiles.

The tile spacer may be invertible, with the extension of the at least one spacer element being adapted to be received between adjacent tiles when the spacer member is in its inverted condition, and means for supporting the at least one spacer element above the supporting surface in the inverted condition.

Novel features of the invention will appear from the following description of preferred embodiments, given by reference to the accompanying drawings, in which:

Figs. 1 to 3 are perspective views of three embodiments of a spacer member in accordance with the invention, having arms representing respective cross sections with a pair of V-shaped bearing points at the free end of each arm for supporting the spacer member in either of two reversible positions;

Figs. 4 to 6 are perspective views of modified spacer members, corresponding to Figs. 1 to 3 respectively, which are useable in a single orientation and include an upwardly projecting wing-shaped handle; and

Fig. 7 is a plan view showing spacer members of Figs. 1, 2 and 3 and a number of tiles in aligned position, with several of the tiles being shown with portions broken away.

According to the present invention, the spacer members shown in Figs. 1 to 6 may be constructed of any material, such as plastic, drop forged steel, stamped from sheet, molded metallic material, ceramic, clay, wood or any other fibrous material.

The spacer member M1, shown in Fig. 1 and in aligned position between tiles T1-T2 and T3-T4 shown in Fig. 7, has the shape substantially of a capital letter T, with elongate arms 20, 21 and 22 formed integrally with and at right angles to each other. Each arm, as shown in Fig. 1, is provided at its free end with generally V-shaped or wedge-like bearing portions *a-b*, *c-d*, and *e-f*, respectively. The vertical distance between the bearing portions *a-b*, *c-d*, and *e-f* is substantially twice that of the thickness of the tiles. Thus the arms provide a handle both for placing and for removing the spacer members from their positions between tiles following the aligning of the latter on an adhesive covered supporting surface, as will be hereinafter described in detail. The small pointed contact surface areas of the bearing portions *a-b*, *c-d* and *e-f* hold the T shape surface of the spacer member above the adhesive-covered supporting surface while permitting the spacer member to be easily detached for removal from the fast drying adhesive.

The spacer member M2, shown in Fig. 2, is a modification of the spacer member M1, in which four moulded integrally formed radially extending elongate arms 23, 24, 25 and 26 are disposed at right angles to each other in the form of a cross-shaped figure. These serve as spacers at the adjacently disposed corners of any four tiles, such as T1, T2, T3 and T4, as best seen in Fig. 8. The arms 23 to 26 of the spacer member M2 are provided with bearing portions *b*, *c*, *e* and *g* on the upper end and with bearing portions *a*, *d*, *f* and *h* on the lower end (as viewed in Fig. 2). Again, the vertical height of the arms 23 to 26, including the bearing portions, is substantially twice the thickness of the tiles, thus providing a handle in either of the two orientations, which handle may be gripped by the fingers for placing and removing

the spacer from the aligned tiles.

The spacer member M3, shown in Fig. 3, is of elongate rectangular shape, but is otherwise similar to the spacer members M1 and M2. The ends of the spacer member M3, like those of spacer members M1 and M2, are provided with bearing portions *a-b* and *e-f* so as to furnish a minimum amount of contact surface area which may adhere to the adhesive on the floor. The vertical height of the spacer midway between the ends is substantially twice the thickness of the tiles, as shown in Fig. 7, so as to furnish a handle that may be gripped by the fingers for placing and removing the spacer member from between the tiles.

The duplex construction of the spacer members M1, M2 and M3 shown in Figs. 1, 2 and 3 possess the feature of being reversible, thereby greatly increasing their life in actual use.

Figs. 4, 5 and 6 disclose modifications of the spacer members M1, M2 and M3. In these spacer members M4, M5 and M6 the vertical height of the arm portions is substantially equal to the thickness of the tiles, resulting in the saving of a considerable amount of material and their consequent lighter weight. However, each spacer member is provided with a wing-shaped extension forming a handle for gripping the spacer member with the fingers.

The spacer members M4, M5 and M6 are respectively provided with three integrally formed arms 33, 34 and 35 (M4), four integrally moulded arms 29, 30, 31 and 32 (M5) and two integrally moulded arms 36 and 37 (M6). The wing-like shaped handle portion 39, 38 and 40, respectively, extends upwardly from the arms and is integral therewith. The arms of the spacer members are provided with similar bearing portions on the lower end so as to present the least contact surface with the adhesive serving to secure the tiles to the floor.

The laying of tiles on an adhesive-covered supporting surface is facilitated with the use of the spacer members of the present invention. The tiles to be cemented and

the spacer members are placed in their proper locations in approximate aligned relation in rows in a manner to rest lightly on the adhesive covering a flat supporting surface such as, for example, the floor of a room. As shown in Fig. 7, this step is followed by positioning a straight edge SE1 sideways of the tiles forming one of the outer disposed rows, and moving the straight edge SE1 sideways against the tiles and against the spacer members M3 to adjust the position of the tiles. The adjustment is carried out until the tiles and spacer members are in abutting relation to each other and in line parallel relative to the straight edge SE1. A second straight edge SE2 is then placed along the outer row of tiles at right angles to the straight edge SE1 to serve for successively imparting collective sideway movements to the tiles to cause their positioning adjusting movement in the coordinate disposed rows. The aligning sideways movements may be effected simultaneously with the movement of the straight edge SE1, until the tiles and the spacer members are all positioned in abutment against each other and, as the case may be, aligned against the wall moulding of the room. The tile adjusting operation is followed by the pressing of the tiles firmly onto the adhesive and by the setting of the adhesive. The spacer members are then removed to permit the filling with cement or grout of the spaces left between the tiles.

The arms forming the spacer members M1 to M6 may have a thickness suited to any width of joints between the tiles, as desired. It will also be appreciated that the spacer members may be used in other building or handyman operations, including, in appropriate orientations, the spacing of wall tiles and bench tiles.

CLAIMS:

1. A spacer member for aligning and spacing tiles relative to each other on a supporting surface, the spacer member providing at least one spacer element adapted to be received between adjacent tiles, means for supporting the at least one spacer element above the supporting surface, and an extension of the at least one spacer element for removing the spacer member from between the tiles.
2. A spacer member according to claim 1 wherein a first spacer element is adapted to be received between at least a first pair of adjacent tiles and a second spacer element extends at an angle to the first spacer element to be received in use between at least a second pair of adjacent tiles.
3. A spacer member according to claim 1 or 2 which is invertible, the extension of the at least one spacer element being adapted to be received between adjacent tiles when the spacer member is in its inverted condition, and means for supporting the at least one spacer element above the supporting surface in the inverted condition.
4. A spacer member according to any one of claims 1 to 3 wherein the supporting means are bearing portions depending from the at least one spacer element.
5. A spacer member according to any one of the preceding claims wherein the extension of the at least one spacer element is elongate to provide opposed gripping faces.

South African Patent B
Sheet 1 of 2

FIG. 1

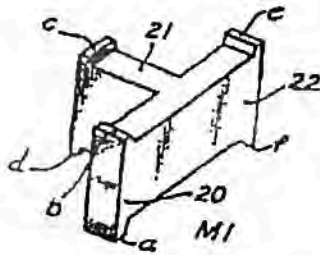


FIG. 2

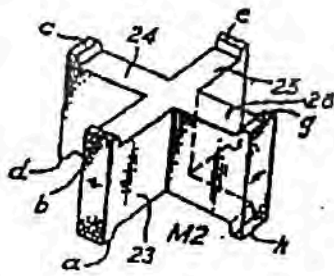


FIG. 3

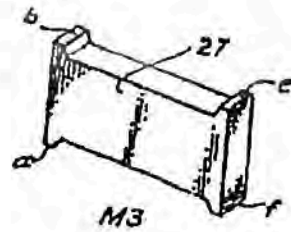


FIG. 4

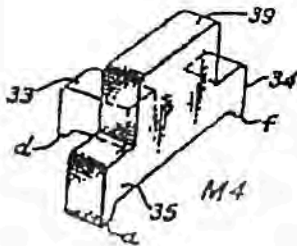


FIG. 5

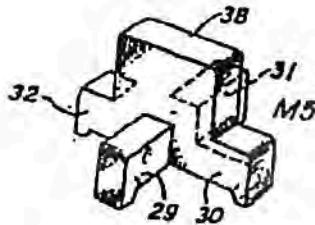
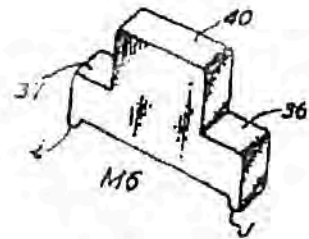


FIG. 6



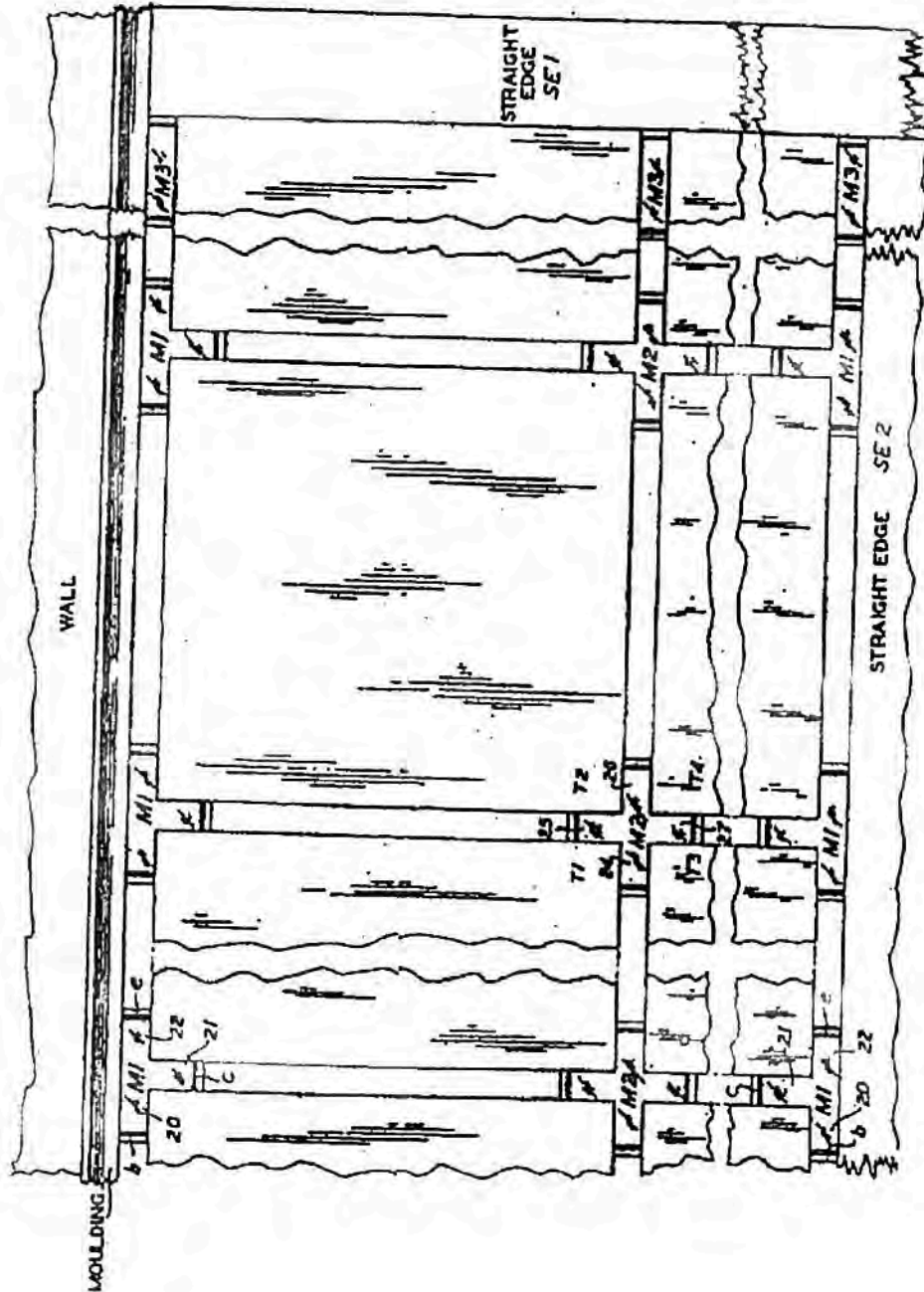


FIG. 7

UNITED STATES PATENT C

TILE SPACER FOR SIMULTANEOUSLY ALIGNING TILES ALONG THEIR WIDTH DURING SETTING

BACKGROUND OF THE INVENTION

This invention relates to devices to aid in the laying of tile, and in particular, to a tile spacer.

SUMMARY OF THE INVENTION

One object of this invention is to provide a tile spacer for use in spacing tiles.

Another object is to provide such a tile spacer which may be used with a plurality of different sized tiles.

Another object of this invention is to provide such a tile spacer which would facilitate the laying of tiles perpendicularly to each other to obtain evenly sized grout joints throughout a room.

These and other objects will become apparent to those skilled in the art, in view of the following disclosure and accompanying drawings.

In accordance with the invention, generally stated, there is provided a tile spacer for use in laying multiple sizes of tiles. The tile spacer includes a pair of cross-members which are generally perpendicular to each other and a handle. The cross-members extend from a cross point a distance equal to at least one-fourth the width of the tile.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is an isometric view of tile spacers of the present invention in use;

Fig. 2 is a top view of the tile spacer;

Fig. 3 is a side view of the tile spacer;

Fig. 4. is a bottom view of the tile spacer;

Fig. 5 is a top plan view of the tile spacer in use to space four tiles having cut outs at their corners to receive a dot tile; and

Fig. 6. Is a top plan view of the tiles of FIG. 5 with the dot tile in place.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the Figures, reference numeral 1 generally refers to a tile spacer which is used to lay tiles 3 a set distance from each other in order to obtain grout joints 5 which are of uniform and constant width. Tile spacer 1 is seen to include cross-members 7 and 9 which are joined in a generally perpendicular relationship. Cross-members 7 and 9 are generally rectangular in cross-section with the vertical edges preferably being longer than the horizontal edges.

Cross-members 7 and 9 cross at a point 15, approximately equidistant from the ends of both members to create a space having four quadrants which can accept four tiles 3a-3d. An integral handle 13 extends up from cross-over point 15. The bottoms of members 7 and 9 each have pins 17 near the outer ends thereof. Member 7 also has a pair of pins 19 near the centre thereof, approximately directly beneath handle 13. Pins 19 on member 7 are on opposite sides of member 9. Two pins 19 are preferred, but four may be used. When four pins are used the second pair of pins are placed on member 9 on opposite sides of member 7.

The cross-members each extend a sufficient distance from the cross-over point 15 so that the tiles can be laid perpendicularly to each other at a set, constant distance from each other along their lengths without the need of very meticulously laying the tiles to obtain grout joints of constant widths. Preferably, the cross-members are at least one-fourth the length of the tile being laid.

Members 7 and 9 can be made to different widths to provide for different sized grout joints. For example, they can be $\frac{1}{8}$ ", $\frac{1}{4}$ ", $\frac{3}{8}$ ", or $\frac{1}{2}$ " in width. These are common sizes for grout joints.

The length of the members 7 and 9 can vary to accommodate varying sizes of tiles. For example, members 7 and 9 can extend $5\frac{1}{2}$ " from cross-over point 15 for use with 6"x6" tiles and $7\frac{1}{2}$ " for use with 8"x8", 10"x10", 12"x12", 13"x13", or 16"x16" tiles. Alternatively, an attachment can be provided which can be mounted on the cross-members so that they may be lengthened in order to accommodate differently shaped tiles, e.g. rectangular 4"x4" tiles. It will be seen that one size of the tile spacer can accommodate a plurality of tile sizes.

In use, after a tile adhesive has been spread on a floor, the spacer 1 is set in the adhesive. The pins 17 and 19 which extend down from the cross-members will hold members 7 and 9 above the adhesive at a level where the tiles can be urged against the cross-members. Tiles 3a-d are placed in the four quadrants and maneuvered so that two sides of each tile are adjacent to the vertical wall of the members 7 and 9. Once the tiles are positioned, the second spacer 2 is then placed adjacent tile 3a (as shown in FIG. 1) and tiles 3e-3g are set into place around spacer 2. Spacer 1 is then moved to another position, e.g. adjacent tile 3b and three more tiles are set into place in the three open quadrants, then spacer 2 is moved to a position adjacent to a tile already set in place and three more tiles are set into the open quadrants of spacer 2. This process continues until the entire room has been tiled. In this fashion, a room can be tiled and the grout joints can be kept to a constant width.

In FIGS. 5 and 6, the tile spacer 1 is shown with tiles 31 which have cutouts 33 at their corners to define an area 35 between the tiles which receive a dot tile 37. When the tiles 31 are laid using the tile spacer 1 as described above, the area 35 will automatically be formed at the proper size to receive dot tile 37. Tile spacer 1 can thus be used to set tiles having shapes other than square or rectangular, as long as the tile has at least two straight edges.

In view of above, it will be seen that the various objects and features of this invention are achieved and other advantageous results obtained. As various changes could be made in the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

Having thus described the invention, what is claimed and desired to be secured by Letters Patent is:

(CLAIMS OMITTED).

US Patent C
Sheet 1 of 2

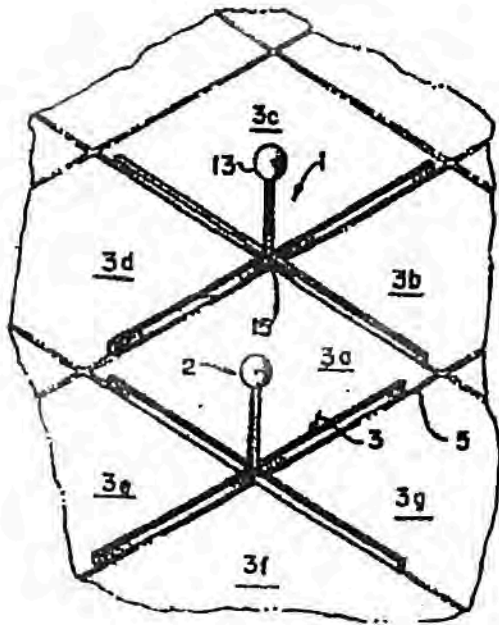


FIG. 1

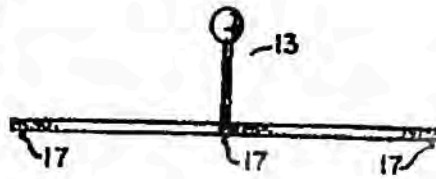


FIG. 3

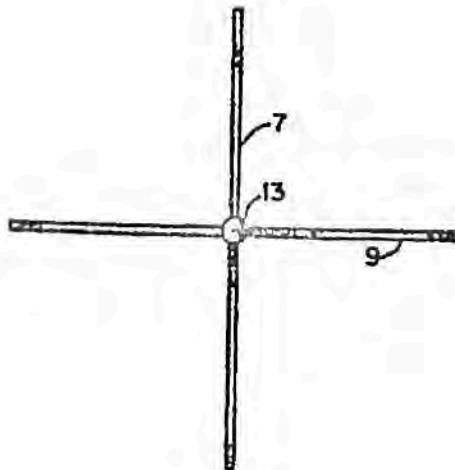


FIG. 2

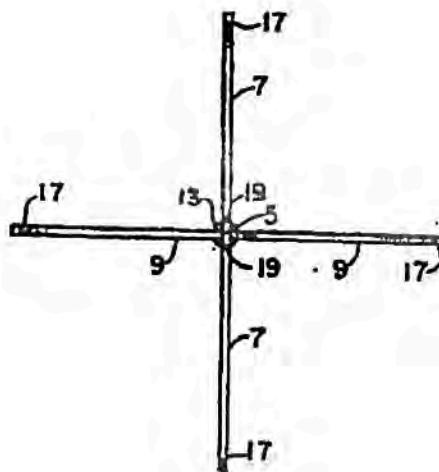


FIG. 4

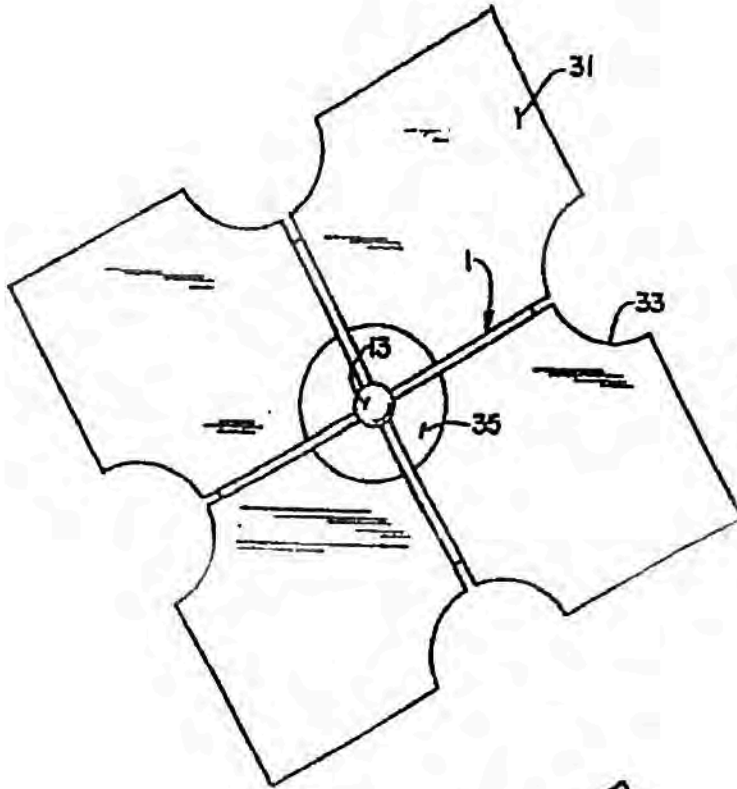


FIG. 5

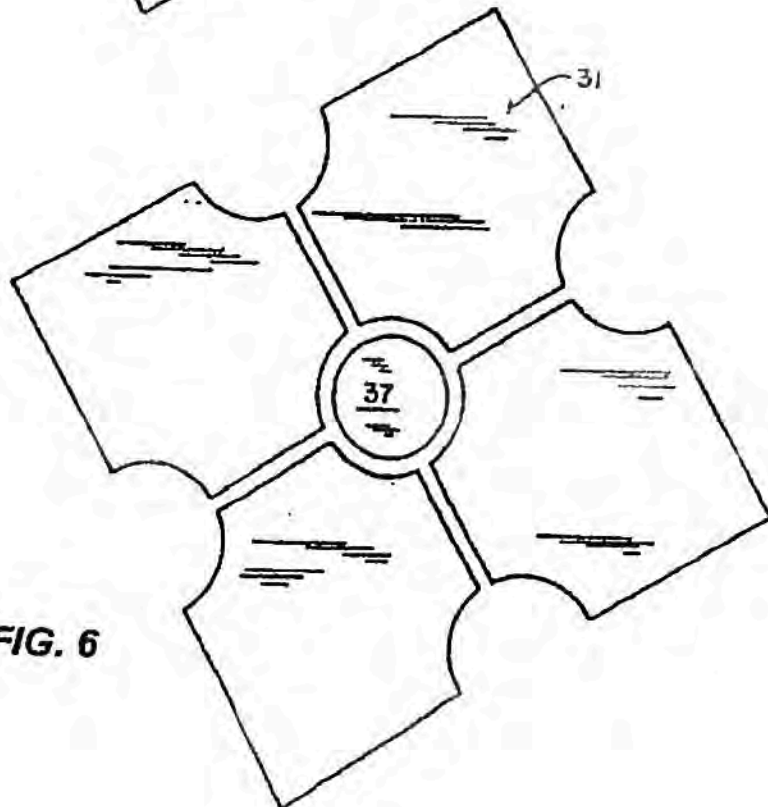


FIG. 6

UK PATENT D

DECK SPACING TOOL

BACKGROUND OF THE INVENTION

The present invention relates in general to a tool for use in the construction of decks, platforms, docks, outdoor structures and the like, and more specifically, a tool for spacing the top surface deck boards.

In constructing a deck, which is usually made of wooden boards, it is desirable that a uniform space, whatever it may be, be maintained between adjacent deck boards in order to allow surface water or rain to pass through the deck and also to aid in ventilation.

Currently, it is customary in building decks, and also suggested in construction and do-it-yourself books on the market today, to maintain an equal space between deck boards. The prior art suggests the use of handmade wooden spacers or the use of other devices such as nails of a certain size. Although this technique to some extent is useful and does work, it is cumbersome and unreliable and usually causes frustration to the user. Wooden spacers have a tendency to become wedged between the deck boards and become difficult and time consuming to remove. Both wooden spacers and nails also have a tendency to fall through the cracks while maneuvering the boards into place.

There is, therefore, an apparent need in constructing decks for a simple, reliable tool which will provide for even and uniform spacing between adjacent deck boards, and which will not fall between or easily become wedged between the boards, and which may be reused indefinitely.

It is therefore an object of the present invention to provide a deck spacing tool which overcomes the disadvantages of the prior art noted above.

SUMMARY OF THE INVENTION

The present invention is directed to a unitary deck spacing tool which is used as an aid for spacing the top surface of adjacent deck boards. The tool is characterized by a main body portion which comprises a pair of substantially generally horizontally extending stabilizing arms and at least one substantially vertically extending spacing blade attached to and between said stabilizing arms.

The spacing blade is placed between adjacent deck boards so as to maintain a uniform space prior to permanently nailing or screwing the deck boards in place. The tool may optionally contain a template means at the bottom or free edge of the spacing blade to facilitate marking the deck boards for holes to be drilled near the ends of the boards when using screws, or to indicate the location of nails for carrying out the same purpose. In a preferred embodiment, the main body portion comprises two vertically extending spacing blades on respective sides of the stabilizing arms, each of which has a different predetermined thickness to provide an optional spacing width to the user.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevational view of the device of the present invention;

FIG. 2 is a bottom elevational view of the device of FIG. 1;

FIG. 3 is a top elevational view of the device of FIG. 1 in use for spacing two deck boards;

FIG. 4 is a sectional view through lines 4-4 of FIG. 3;

FIG. 5 is a side elevational view of the device of FIG. 1 when used at the end of a board to position screw or nail holes.

FIG. 6 is a sectional view through lines 6-6 of FIG. 5; and

FIG. 7 is a bottom elevational view of the device of FIG. 1 which illustrates the placement of tethering means through a hole in the main body portion.

DETAILED DESCRIPTION OF THE INVENTION

The deck spacing tool of the present invention is illustrated in FIG. 1 by reference character 10. The tool may be made of any suitable material such as plastic, metal, wood, graphite, etc. Preferably the tool is made of any suitable durable plastic. The tool 10 in a preferred embodiment comprises a unitary structure which is made by injection molding a suitable plastic material such as acrylonitrile-butadiene-styrene (ABS), or ABS structural foam, or polystyrene structural foam. Preferably it is desired that the material be able to float on water, and in this

embodiment would comprise the addition of a foaming agent to the plastic material to enable flotation.

The tool comprises a pair of substantially flat horizontally extending stabilizing arms 12 as illustrated in FIGS. 1 and 2. Formed integral with arms 12 are vertically extending dual spacing blades 14 and 16, respectively, each having a different thickness in order to allow for varying spacing between deck boards as desired by the user. The unitary structure formed by the stabilizing arms and the spacing blades may be referred to as the main body portion. Typically, one blade would have a thickness of $\frac{1}{8}$ inches and the other blade, a thickness of $\frac{3}{16}$ inches. In order to facilitate insertion between adjacent deck boards, the exposed edges of both spacing blades are beveled as shown by 28. The spacing blade further contains at its bottom or exposed edge, template means 22 and 24 respectively, which are illustrated in the drawings as notches, and function to position adjacent nail or screw locations at the ends of the deck boards as will be hereinafter described in greater detail.

The stabilizing arms further contain a plurality of external and internal spacer stabilizing tabs 18 and 20 respectively, which further contain contact surfaces 18A, 18B, and 20A, 20B respectively, for spacing the main body portion of the deck tool above the deck boards as illustrated in FIG. 4, and also for proper positioning and stabilizing the template means at the end of the boards as illustrated in FIG. 6. The tool further contains the cut out portions 26 adjacent one end of the main body portion to allow access of the device to adjacent nail or screw locations when in use. The device optionally contains one or more holes 30 for tethering the device to a piece of twine or string 38 in order to secure the device to another object, or the user for purposes of retrieval (FIG. 7).

The use of the device for spacing boards is more clearly illustrated in FIGS. 3 and 4. In FIG. 3 the device is illustrated as maintaining an equal spacing between two adjacent deck boards 32 and 34 with vertically extending blade 16 separating said boards to the desired width. In this mode, the body portion of the tool is supported above the deck surface by stabilizing spacer members 18 and 20 on contact surfaces 18B and 20B respectively, as more clearly shown in the sectional view in FIG. 4. In an optional preferred embodiment, the vertically extending spacer

blades are slightly tapered to the desired angle, such as about 1°-5° to facilitate ease of removal from adjacent deck boards once the boards are fixed in place.

In a further embodiment, as illustrated in FIG. 5 or 6, template means 22 as shown in FIG. 5 are positioned at the end of board 36 to properly position nail or screw holes with a pencil. In using the template, flat end portion 40 is placed parallel with the side of board 36 to properly position the template notches 22. As illustrated in FIG. 6, stabilizing spacer means 18 and 20 aid in stabilizing and positioning said template means in use by maintaining a proper distance and providing stability with surfaces 18B and 20B providing contact against the end of board 36.

It should be understood that the length of blades 14 and 16, with associated template means 22 and 24, respectively, can be made to accommodate any width of deck board. As illustrated, blade 14 has been sized for 2x4's and blade 16 for 2x6's.

It can be seen that the deck spacing tool of the present invention provides an effective method for accurately spacing adjacent deck boards, and additionally to uniformly position nail and screw holes at the end of deck boards. The unitized device is reliable and inexpensive, and aids in efficiently constructing a deck having adjacent boards of uniform spacing.

Although particular embodiments of the present invention have been disclosed herein for purposes of explanation, it should be understood that further modifications or variations thereof, will be apparent to those skilled in the art to which this invention pertains.

(CLAIMS OMITTED)

UK Patent D

Sheet 1 of 4

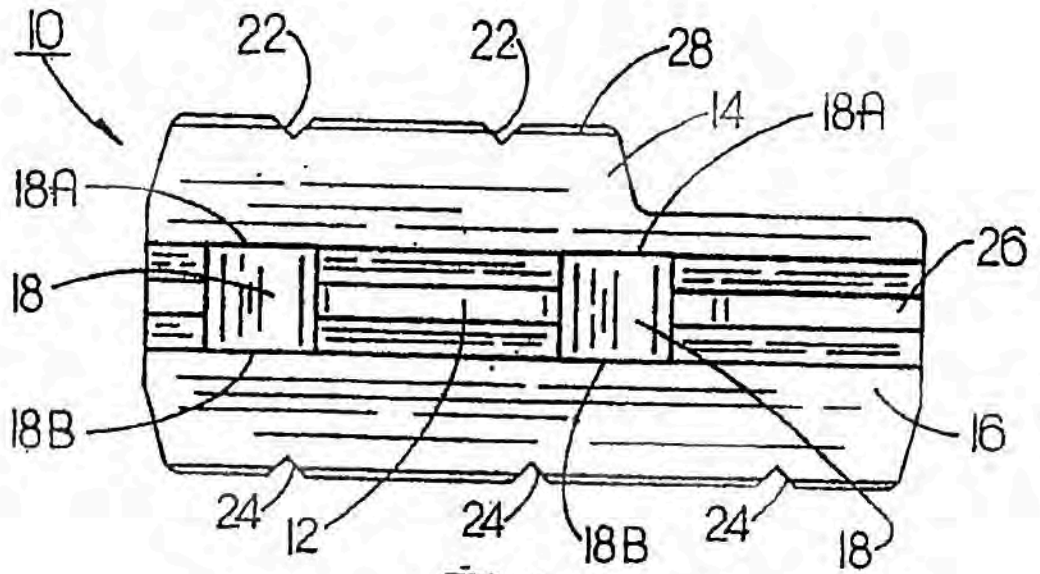


FIG. 1

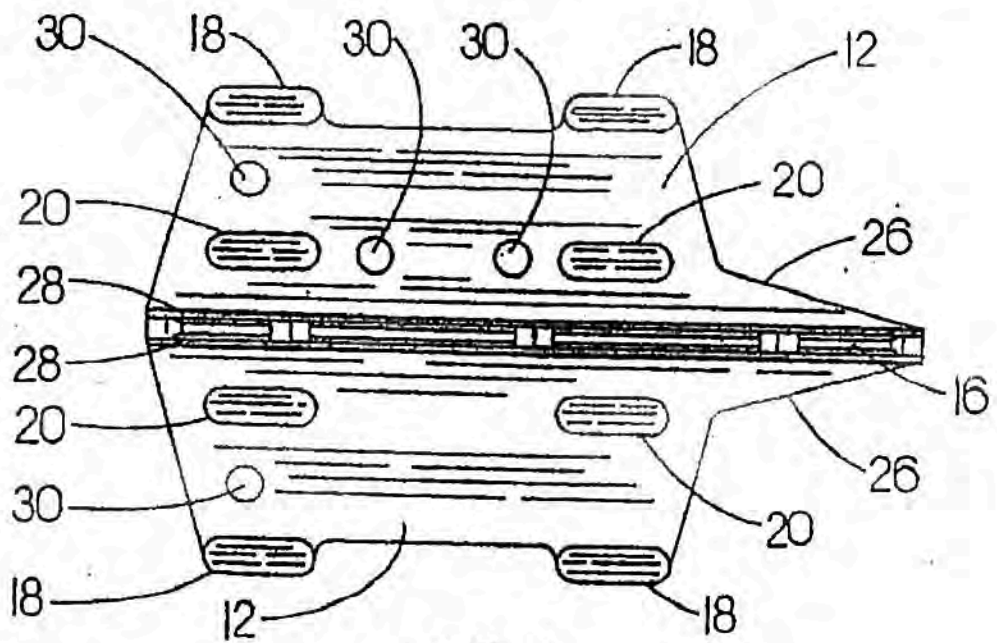


FIG. 2

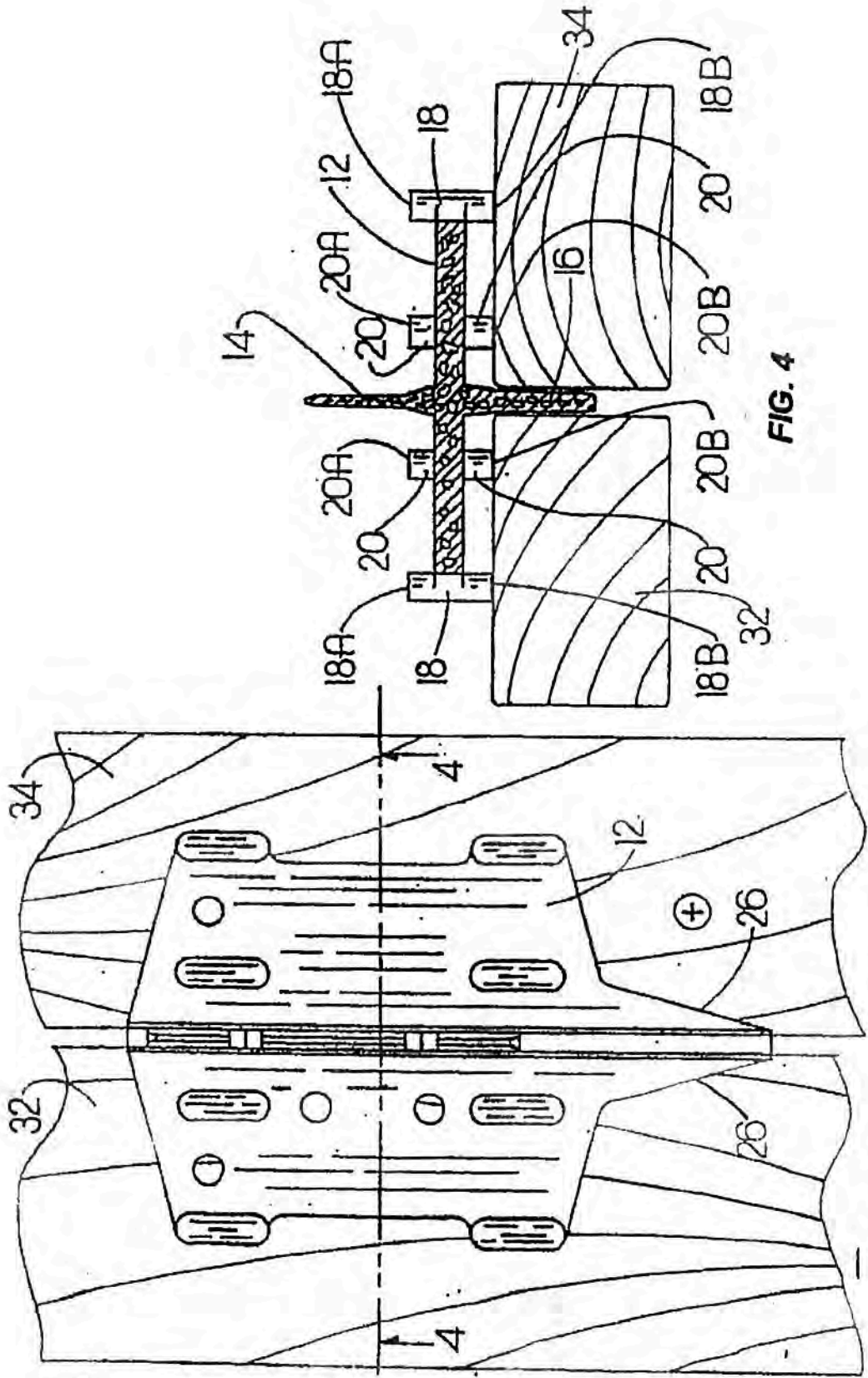


FIG. 4

FIG. 3

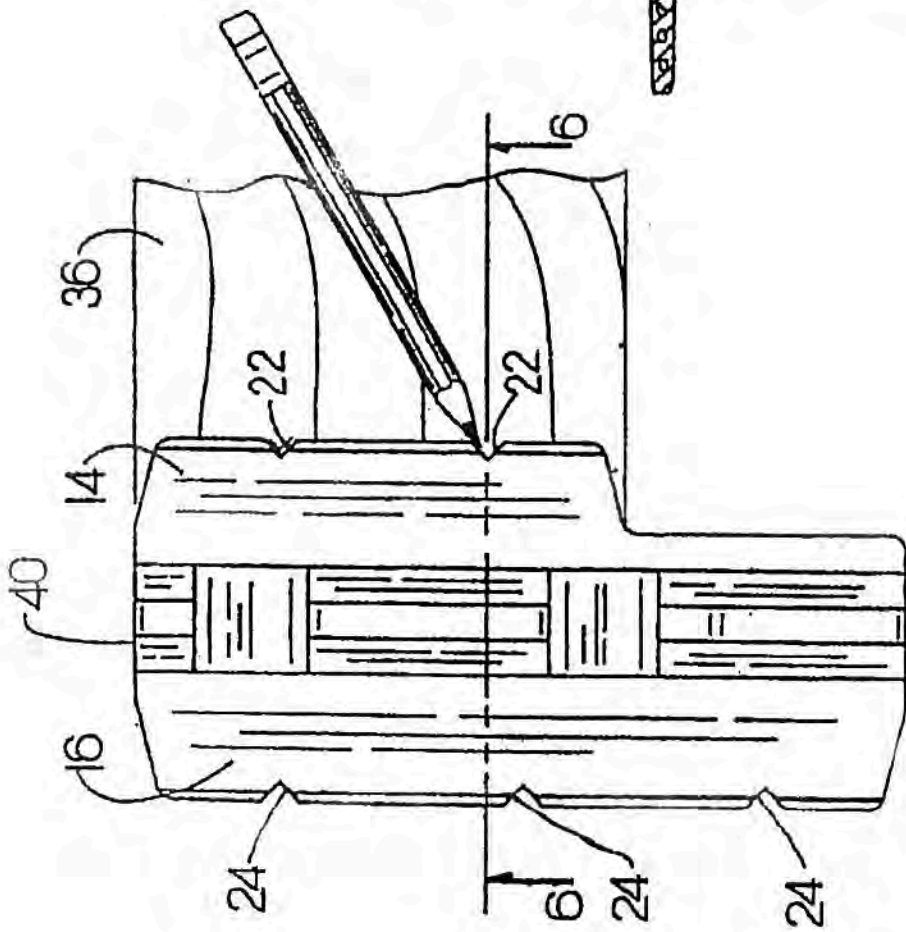


FIG. 5

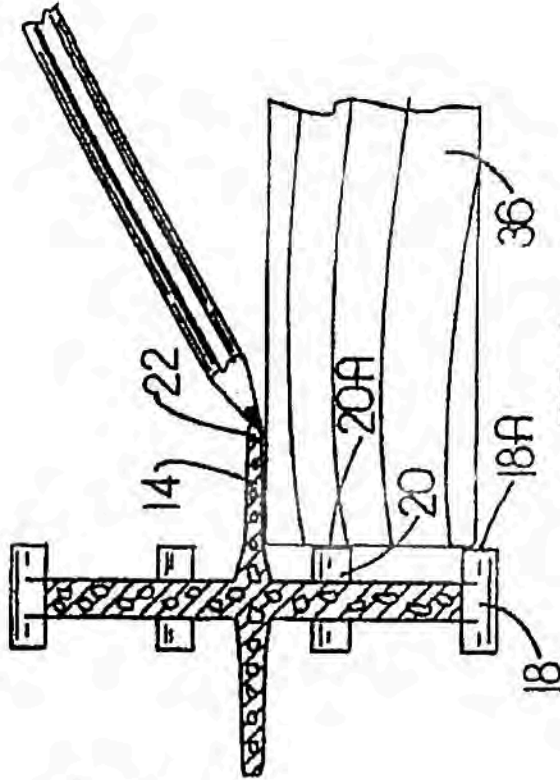


FIG. 6

UK Patent D
Sheet 4 of 4

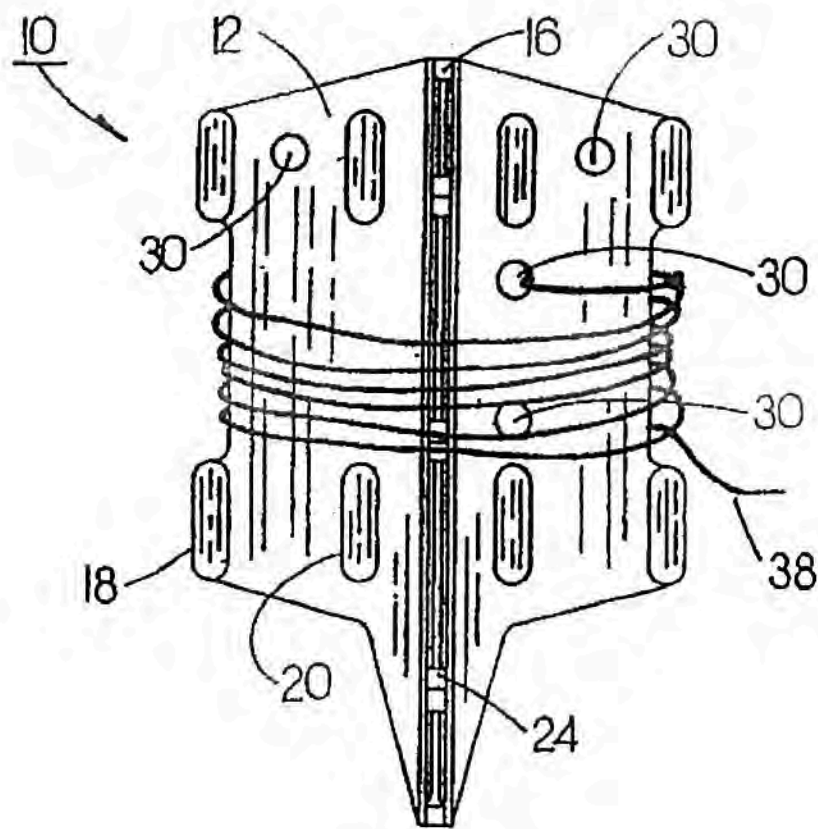
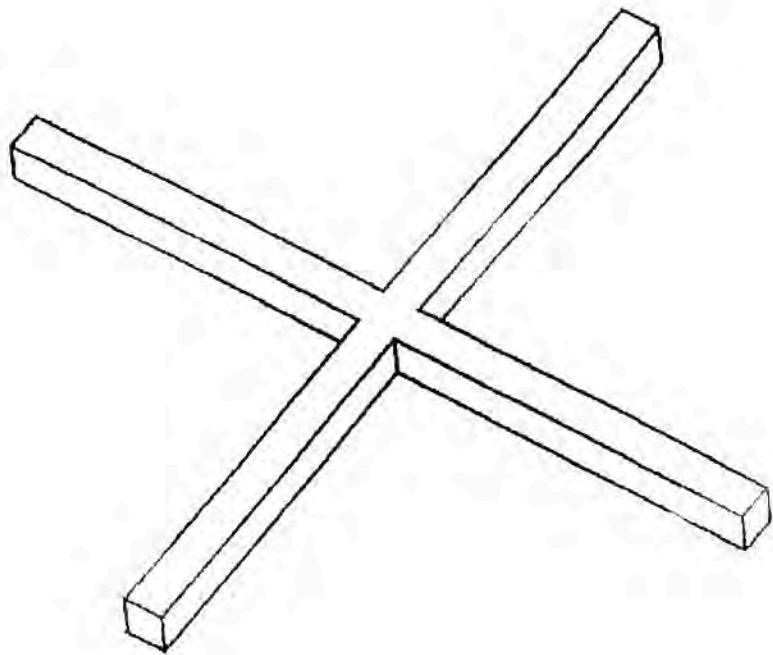


FIG. 7

SKETCH E



Document F



REPUBLIC OF SOUTH AFRICA

REPUBLIEK VAN SUID AFRIKA

PATENTS ACT, 1978

CERTIFICATE

In accordance with section 44 (1) of the Patents Act, No. 57 of 1978, it is hereby certified that:

MOVE ALLOVER INC.

Has been granted a patent in respect of an invention described and claimed in complete specification deposited at the Patent Office under the number

2001/06543

A copy of the complete specification is annexed, together with the relevant Form P2.

In testimony thereof, the seal of the Patent Office has been affixed at Pretoria with effect

from the 27th day of December 2012


.....
Registrar of Patents

REPUBLIC OF SOUTH AFRICA

REGISTER OF PATENTS

OFFICIAL APPLICATION NO.		LODGING DATE: PROVISIONAL		ACCEPTANCE DATE	
22	01	2001/06543		22	
INTERNATIONAL CLASSIFICATION		LODGING DATE: COMPLETE		GRANTED DATE	
A23L		30 October 2011		27 December 2012	
FULL NAME(S) OF APPLICANT(S)/PATENTEE(S)					
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APPLICANTS SUBSTITUTED:				DATE REGISTERED	
71					
ASSIGNEE(S)				DATE REGISTERED	
71					
FULL NAME(S) OF INVENTOR(S)					
72	KELLEHER, Stephen, D. FIELDING, William, R. SAUNDERS, Wayne, S. WILLIAMSON, Peter, G.				
PRIORITY CLAIMED BY PCT INTERNATIONAL APPLICATION PCT/US2010/002041 FILED 21 July 2010		COUNTRY		NUMBER	
N.B. Use International Abbreviation for country (See Schedule 4)		33	US	31	12/798,423
				32	05 April 2010
TITLE OF INVENTION					
54	AN INJECTABLE PROTIEN PRODUCT AND METHOD				
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ADDRESS FOR SERVICE				REF:	
74	SA Patent Services				
PATENT OF ADDITION TO NO.			DATE OF ANY CHANGE		
61					
FRESH APPLICATION BASED ON			DATE OF ANY CHANGE		

