

United States Patent

Drake et al.

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[54] CLAMPING APPARATUS

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[51] Int. Cl.A47g 27/04, B25b 7/00

[58] Field of Search254/57, 62, 63; 294/8.6;
81/5.1, 302, 424, 419; 29/268, 270

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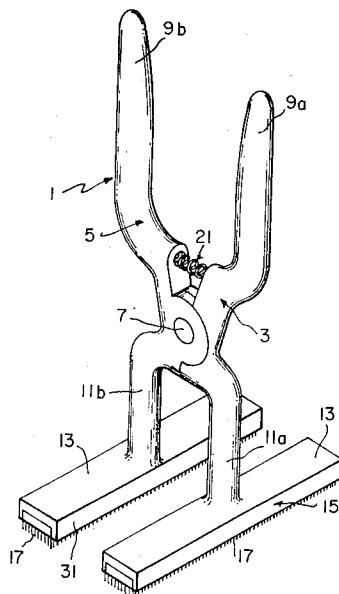
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[57] ABSTRACT

A clamping apparatus having two members pivotally joined together to form a squeeze handle means on one side of the point of juncture and a pair of leg portions on the other side. Each leg is attached to a contact member which has a plurality of pin members on its lower surface and a flat clamping side surface facing the other contact member. A spring urges the contact members towards one another when the handle is released from a squeezed position.

7 Claims, 6 Drawing Figures



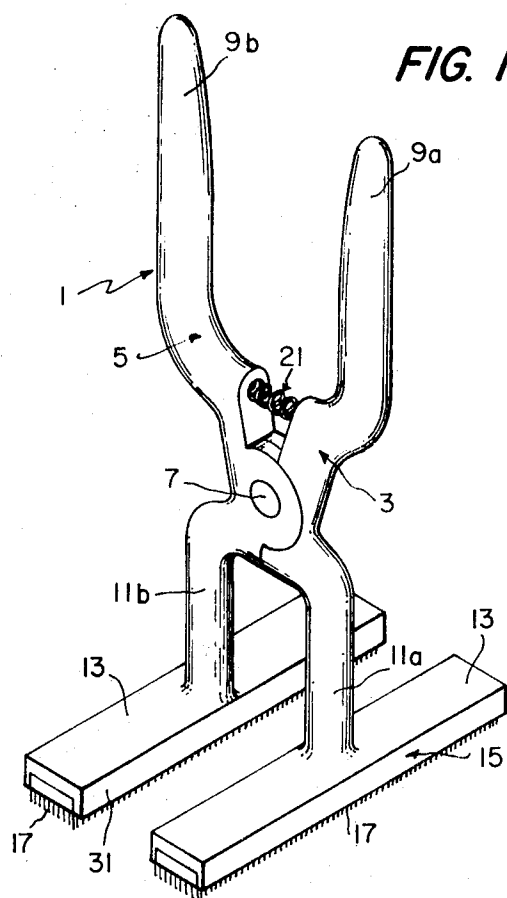


FIG. 1

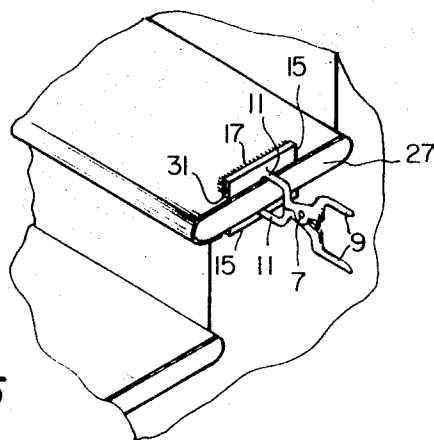


FIG. 5

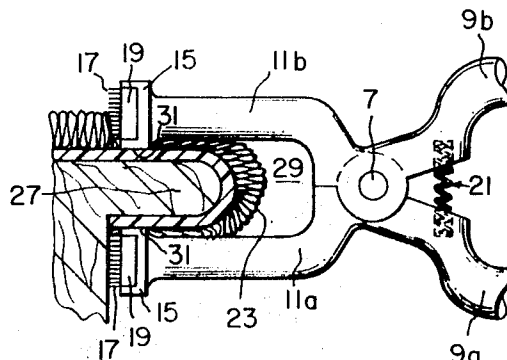


FIG. 6

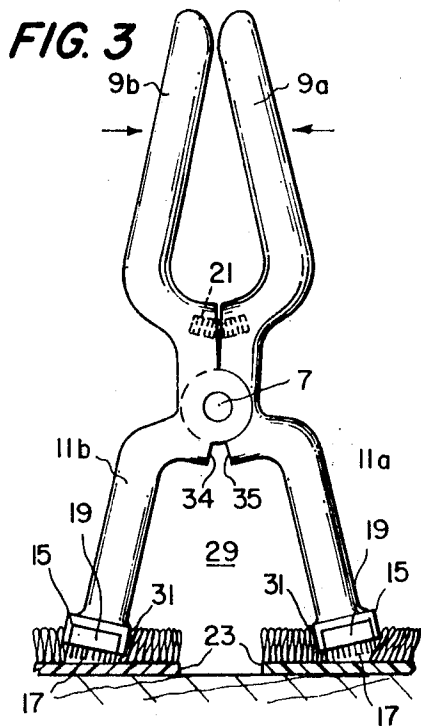


FIG. 3

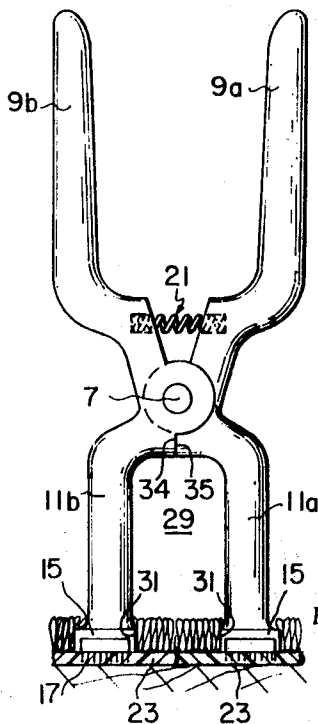


FIG. 4

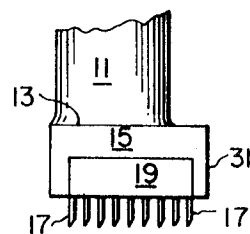


FIG. 2

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CLAMPING APPARATUS

The present invention is a multi-purpose clamping apparatus which is expressly designed for use in laying carpeting. The clamp may be used during seaming of two adjacent pieces of carpet into a single piece, and may also be used to hold pieces of carpeting on stair boards and the like. The apparatus is simple in construction and is easy to operate.

It is an object of this invention to provide a multi-purpose clamping apparatus which is useful in laying and securing carpeting.

It is a more specific object of this invention to provide a clamp which may be used to hold pieces of carpeting together with seaming and which may also be used to hold carpeting on stair portions and the like during tacking or gluing operations.

It is a further object of this invention to provide an apparatus which is simple in construction and easy to operate.

These and other objects will become apparent to one skilled in the art upon reading the description of the present invention and upon use of the invention in actual practice.

A preferred embodiment of the present invention has been chosen for purposes of illustration and is shown in the accompanying drawings which form a portion of this specification wherein:

FIG. 1 is a perspective view of the clamping apparatus;

FIG. 2 is a side view of one of the contact members of the clamp;

FIG. 3 is a side view of the clamp showing the handles in squeezed position during a seaming procedure;

FIG. 4 is a view similar to FIG. 3 showing the clamp securely holding two adjacent pieces of carpeting after release of the handles to their unsqueezed position;

FIG. 5 is a perspective view showing the apparatus clamped to a stairboard; and

FIG. 6 is a sectional view showing the apparatus used to clamp carpeting to a stairboard.

Similar numerals refer to similar parts throughout the several views.

The present invention is a clamping apparatus 1 comprising two arm members 3 and 5 that are pivotally joined together by bolt means 7. Each member forms a squeeze handle portion 9a and 9b on one side of the point of juncture and one of two leg members 11a and 11b on the other side. Each leg 11 is joined to the upper surface 13 of a contact member 15 which has pin means 17 on its lower surface. If desired, the pin means may be carried by an insert 19 joined to the contact member. A spring means 21 holds the contact members 15 close to one another when the handle means 9a and 9b are unflexed, and will return them to such a position when the handle portions are squeezed and then released.

As can be best seen in FIGS. 3 and 4, when a person desires to seam together two adjacent portions of carpet 23 which lie upon floor 25, he only needs to squeeze handles 9a and 9b together to separate contact members 15 from one another and press the pin means 17 into the carpet as shown. Release of the handles allows spring means 21 to return the contact members 15 to a position closer to one another. The portions of carpeting 23 are thereby held securely next to one another so they can be either sewn to one another or tacked to the floor 25 in that position.

Reference to FIGS. 3 and 4 of the drawings will show that there are stop means 34 and 35 which act upon each other to keep the contact members 15 in a spaced non-contacting relationship

when the handle means 9a and 9b are no longer squeezed, and the spring means 21 forces them together as shown in FIG. 4. This is done to provide that side clamping surfaces 31 may be substantially parallel at the usual width of a stair tread so that they may be most useful in a position as shown in FIG. 6 of the drawings as will be explained, and yet permit some control in pushing a seam of carpeting 23 together without bunching the seam 23.

By making this provision with the stop means 34 and 35, the clamp can also be used, as aforesaid, to hold pieces of carpet to such objects as stair boards 27 and the like as seen in FIGS. 5 and 6 of the drawings. This is possible due to the construction of the leg means 11 and contact member 15. The legs 11 are connected to the contact members 15 in such a way so as not to occupy the open space 29 between the legs 11 which lie adjacent to and above the contact members 15. Each contact member has a side clamping surface 31 which securely holds the carpeting 23 on the stair board. In a preferred embodiment, the legs 11a and 11b are U-shaped, but other variations are possible so long as space 29 is kept open so as to allow a portion of stair board 27 and carpet 23 to protrude therein as shown in FIG. 6.

As can be seen from the foregoing, the present invention is a multi-purpose clamping apparatus suitable for use in carpet laying operations. The clamp can be used to either hold two adjacent portions of carpet together during seaming, or may be used to clamp a piece of carpet to a stairboard during tacking or gluing procedures.

As various changes may be made in the form, arrangement and construction of the component parts of this invention without departing from the spirit and scope of the invention, all material hereinbefore is to be taken as illustrative only, and not in a limiting sense.

Wherefore we claim:

1. A clamping apparatus comprising two members pivotally joined together to form squeeze handle means and a pair of leg portions, each of said leg portions being attached to a contact member having a plurality of pins on its lower surface and a flat clamping side surface facing the other contact member, said leg portions being spaced from and extending parallel to one another to define an open space between and above each of said contact members, and spring means urging the contact members towards one another when the handle is released from a squeezed position.

2. An apparatus as claimed in claim 1, in which the leg portions form a generally U-shaped configuration.

3. An apparatus as claimed in claim 1, in which the pin means are joined to an insert which is affixed to the lower surface of the contact member.

4. An apparatus as claimed in claim 1, in which the leg portions are joined to the upper surface of the contact member.

5. An apparatus as claimed in claim 1, in which the two members pivotally joined together are provided with stop means to limit the movement of the contact members toward each other against the urging force of the spring means.

6. The apparatus as claimed in claim 5, in which the stop means maintain the contact members in spaced non-contacting relationship against the force of the spring means.

7. The clamping apparatus as defined in claim 1, in which the squeeze handle means are positioned on one side of the point of juncture where the two members are pivotally joined together, and a pair of leg portions are on the other side thereof.

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