

[54] **GUIDE STRIP AND NAIL COMBINATION**

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[22] Filed: **Mar. 3, 1971**
[21] Appl. No.: **120,446**

[30] **Foreign Application Priority Data**

Mar. 5, 1970 France.....7007902

[52] U.S. Cl.....145/129, 52/467
[51] Int. Cl.....B25b 29/00, E04c 1/34
[58] **Field of Search**145/129, 46; 24/152; 29/91.2, 91.4; 206/56 DF; 151/41.71; 85/50 R; 52/467

[56] **References Cited**

UNITED STATES PATENTS

154,580 9/1874 Buckner.....85/50 R X

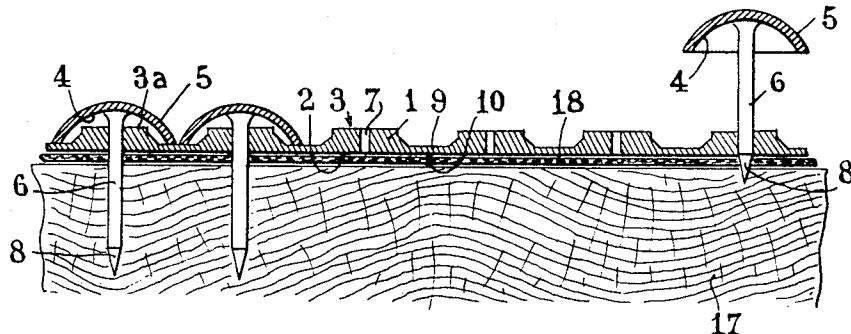
1,615,276 1/1927 Hudson85/50 R UX
2,620,008 12/1952 Mallard151/41.71
967,208 8/1910 Leslie52/467

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[57] **ABSTRACT**

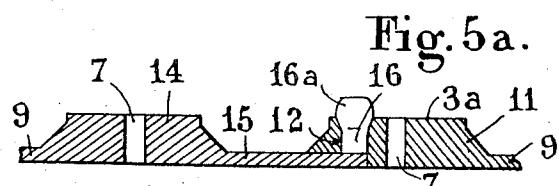
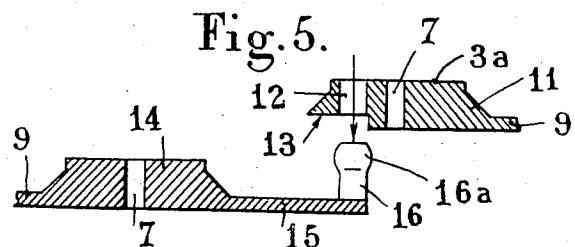
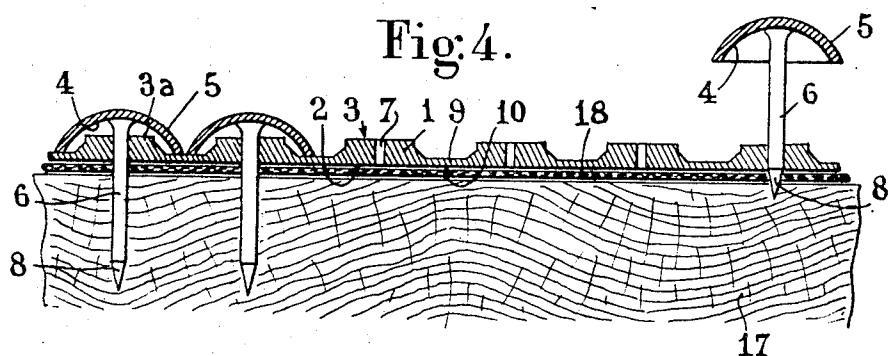
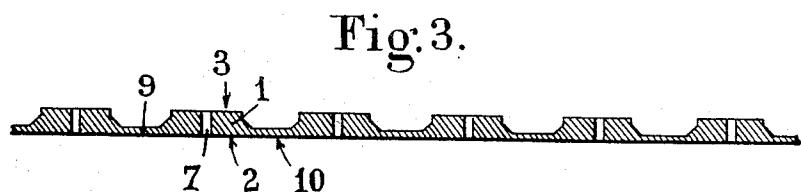
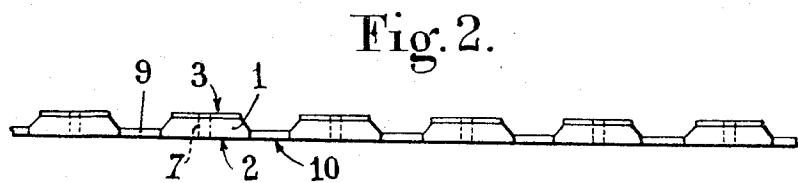
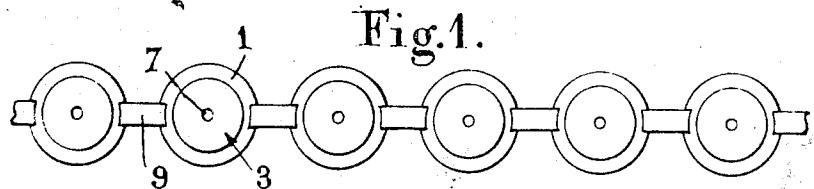
This guide is for driving bullen-nails. It consists of plastic material such as polyethylene, and comprises a plurality of aligned and spaced disks having a flat bottom face and an upper surface adapted to fit with more or less clearance into the lower hollow head of a bullen-nail, said disks being each formed with an axial through hole of a diameter slightly inferior to that of the nail point, said disks being furthermore interconnected at their bases by relatively thin, short and narrow lugs of such length that the distance between any pair of adjacent holes corresponds substantially to the diameter of the nail heads.

3 Claims, 6 Drawing Figures



Patented May 8, 1973

3,731,723



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GUIDE STRIP AND NAIL COMBINATION

FIELD OF THE INVENTION

The present invention relates to guide means for facilitating and accelerating the driving of bullen-nails in upholstery material tensioned on any supports.

BACKGROUND OF THE INVENTION

It is known that the driving of bullen-nails in proper alignment and at regular intervals of spacings into upholstery material tensioned on seats, pieces of furniture, doors, walls or miscellaneous supports constitutes a difficult task. In addition to the difficulty of maintaining a constant spacing and alignment between the successive nails, a certain skill is required, especially from ordinary hands, for driving the bullen-nails one by one on a support covered with a tensioned upholstery material.

SUMMARY OF THE INVENTION

To avoid this inconvenience the present invention provides a guide strip intended for facilitating and accelerating the driving of bullen-nails, which is characterized in that it consists of plastic material such as polyethylene and comprises spaced relatively thick disks having a flat bottom face and an upper or outer face adapted to fit with more or less clearance into the hollow underface of the head of a bullen-nail, said disks further comprising an axial through hole of a diameter slightly inferior to that of the nail shank and being interconnected at their bases by relatively thin short and narrow lugs of such strength that the distance between any pair of adjacent holes corresponds substantially to the diameter of the nail heads.

Thus, it is only necessary to lay the guide strip along the projected bullen-nail alignment or path, and to drive home each nail through the hole of the relevant disk, the nail head covering said disk so that the nails appear in perfect contiguous alignment, with their heads concealing completely the disk-interconnecting lugs of the guide strip.

This guide strip consists of relatively flexible material so that it can accommodate any contour, whether flat, 45 skew or curved, and furthermore it is slightly extensible so that it can be somewhat stretched to the desired length and thus permit the locating of the end nail exactly at the desired point.

Preferably, this guide strip is prepared in sections of equal length, with male fastening means at one end and matching female fastening means at the other end, so that the necessary number of sections may be interconnected end to end to provide the desired total length without any visible interruption.

To use this guide strip the operator firstly positions the strip at the desired location and then drives by hand the sharp point of the bullen-nail into the central hole of said disk, to an extent sufficient to cause said point to penetrate slightly into the material or the seat or other support into which the nails are to be driven; each point is held with a sufficient force in its hole, in a plane normal to the disk main faces, due to the narrowness and length of the hole, and also to the material constituting the wall thereof; therefore, the operator may release the nail and drive same home with a hammer, the nail being driven in a perfectly straight

position under all circumstances, irrespective of the operator's skill, by virtue of the guiding action exerted by the disk hole on the nail shank along a relatively great length.

BRIEF DESCRIPTION OF THE DRAWING

In order to afford a clearer understanding of this invention a typical form of embodiment thereof will now be described with reference to the attached drawing given by way of example. In the drawing:

FIG. 1 is a plan view from above of the guide strip;

FIG. 2 is a side elevational view thereof;

FIG. 3 is an axial longitudinal section;

FIG. 4 is a smaller view showing a few bullen-nails of which the first pair have been hammer-driven and the last one just slightly sunk by hand;

FIGS. 5 and 5a are fragmentary sectional views showing on a larger scale the mutual engagement of the 20 male and female connecting ends of adjacent strips.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The guide strip illustrated in the drawing consists of a 25 plurality of aligned disks 1 having each a flat bottom or base 2 and an upper surface 3 adapted to fit into the hollow underface 4 of the head 5 of a bullen-nail 6; these disks are each provided with a central through hole 7 of a diameter inferior to the major diameter of the tapered point 8 of the nail; these disks are interconnected by relatively thin short and narrow lugs 9 of which the base or underface 10 is coplanar with that of disks 1.

The disk 11 disposed at one end of the guide strip 35 (FIGS. 5 and 5a) has formed therein an additional through hole 12 off-set in relation to the central hole 7 and opening into a shouldered bottom portion 13; the disk 14 at the opposite end of this guide strip has a lug extension 15 somewhat longer than the lugs 9 and this lug extension carries an upstanding stud 16 formed with a ball-shaped head 16a and adapted to be forced fitted into the hole 12 of another strip section.

This end disk 11 comprises preferably a flat top face 3a to permit the expansion, between this face and the underface 4 of the nail head, of the ball-shaped head 16a of stud 16 after the latter has been driven into the corresponding hole 12; this ball-shaped head 16a will thus act as a rivet to ensure a firm and reliable coupling between the adjacent ends of a pair of successive strip sections.

Thus, a guide strip having any desired length may be obtained by interconnecting in end to end relationship as many strip sections as necessary, without producing any visible extra thickness or breaks, the length of lugs 15 being such that the distance between the holes of disks 11 and 14 of two different sections thus interconnected corresponds substantially to the diameter of a nail head, their thickness being equal to the shoulder 55 13 formed in the base of disk 11.

FIG. 4 illustrates how the bullen-nails 6 are held normally to the general plane of the guide strip once the sharp points 8 of these nails have been forced by hand through the central holes 7 of the corresponding disks, and somewhat into the material of the upholstery support, after passing through the decorative or other material 18 to be tensioned on this support; thus the 65

nail points are firmly clamped and fitted into these central holes 7, and a simple hammer stroke is sufficient for driving the nail home in a straight direction, the nail point or shank being firmly guided by the hole of which the length corresponds to the relatively considerable thickness of the disk, the nail head being eventually guided and held by the disk proper.

Of course, the upper face 3 of disks 1 may differ in shape from the one illustrated, provided only that it impart to the disks a sufficient thickness and assists in properly guiding the nail at the end of the driving operation.

What I claim is:

1. A guide strip in combination with bullen-nails, comprising a plurality of aligned and spaced disks having a flat base and an upper surface adapted to fit with clearance into the lower head of a bullen-nail, said disks being each formed with a central hole of a diameter less than that of the nail point, said disks being interconnected at their bases by lugs of such length that the distance between any pair of said adjacent central holes

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corresponds substantially to the diameter of the head of said nail.

2. Guide strip according to claim 1, characterized in that it is prepared in sections of same length and that it comprises male connecting means at one end and female connecting means at the other end, whereby as many sections as necessary for obtaining the desired total length without any visible interruption may be interconnected.

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3. Guide strip according to claim 2, characterized in that the male connecting means provided at one end of each section consists of an upstanding stud formed with a substantially ball-shaped head and that the female connecting means provided at the opposite end of each section consists of a through hole formed in the end disk and somewhat off-set with respect to said central hole thereof, a shoulder-forming cavity being formed in the base of this end disk for receiving an extension of the lug of said one end on which said stud is formed.

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