June 2, 1970 I. W. BADER 3,515,271

ROUND HEADED NAIL ASSEMBLY

Filed May 14, 1968

FIG. 1

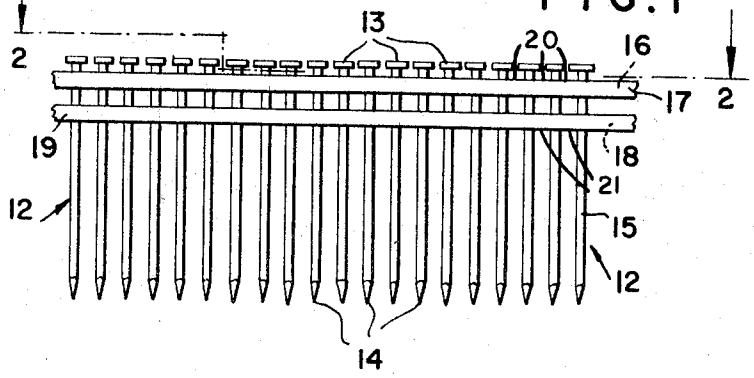


FIG. 2

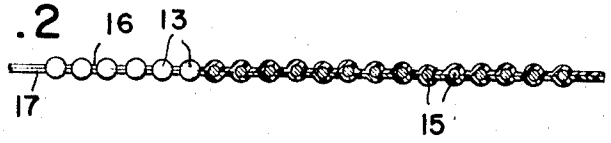
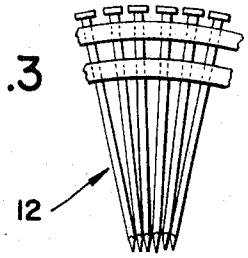


FIG. 3



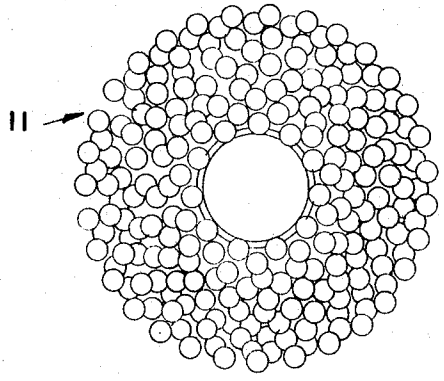
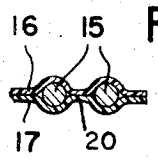


FIG. 5

FIG. 4



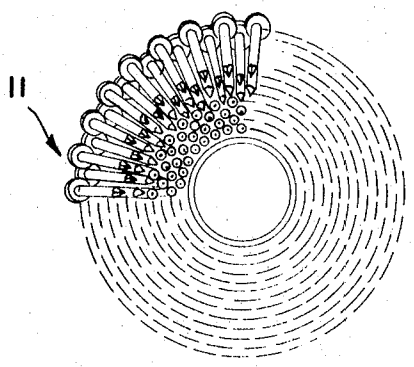


FIG. 6

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ROUND HEADED NAIL ASSEMBLY

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Continuation-in-part of application Ser. No. 616,746, Jan. 23, 1967. This application May 14, 1968, Ser. No. 729,113

Int. Cl. B65d 31/12

U.S. Cl. 206—56 3 Claims

ABSTRACT OF THE DISCLOSURE

A round headed nail assembly is shown which includes a plurality of laterally aligned round headed nails each having a head portion, a point portion, and an intervening median portion. Two pairs of spaced joining strips are adhesively disposed across the nails and the members of each pair are adhesively secured to opposite sides of the nails and to one another between the nails. One pair of joining members lies adjacent the head portions of the nails and the other pair of joining members is spaced below the first-named pair and above the median portion of the strip. The strip can therefore be placed in highly compacted form in the form of a "mushroom."

DESCRIPTION OF THE INVENTION

This invention relates to an assembly of round headed nails. This application is a continuation-in-part of my copending application Ser. No. 616,746 filed Jan. 23, 1967 which application will be abandoned upon the filing of this application.

Because of the high cost of labor the old manner of driving round-headed nails by means of the conventional hammer is impractical. With carpenters earning, in many cases, as much as five ($5.00) dollars an hour, a means of more rapid driving of such nails must be found.

One solution that has been proposed relates to the use of T-headed nails which are then formed into a strip and driven by a conventional fastener driving machine. Unfortunately T-headed nails do not comply with building code requirements in many cases because of the small surface area of the head.

It has been impossible to adhere round headed nails to one another because the head areas were not sufficiently adhesive to one another to permit this to be done. Therefore, in many cases, it has been proposed to cut out a portion of each of the heads of the nails and this cut-out portion is utilized to embraceably secure the opposite portion of such head. Again this does not, in many instances, comply with building code requirements.

It has been further proposed to secure such round headed nails to one another by means of an adhesive strip extending across adjacent nails. This has not been satisfactory unless pressure-sensitive adhesive has been used in connection with the adhesive strip.

The instant invention avoids the disadvantages of the prior structures and produces a fastener strip which can be driven by a conventional fastener driving machine easily, quickly, and rapidly. The fasteners composing the strip are preferably round headed nails which comply, in all respects, with building code requirements.

In the structure of this invention round headed nails are placed alongside one another in laterally aligned relationship and junction members are disposed across the strip of nails. Obviously the heads of the nails are wider than the points of the nails. Therefore, even if the heads are placed in abutting relationship with one another the point portions of the nails will be spaced from

one another. For this reason a pair of joining members is required in order to produce a somewhat rigid structure.

However it is also important that the point portions of the nails be somewhat flexible. In fastener driving machines where such structures are employed the tolerances of the driving machine structures are such that a certain amount of flexibility is required in the strip so that the strip of fasteners will not jam the machine. This is provided by spacing the point portions of the nails from one another.

It is also preferable to disposed the strip of nails into a very compact magazine. If the joining members are placed above the median portions of the nails then the point portions thereof are free to move inwardly. Therefore a very compacted structure can be produced. In the preferred construction of this invention the nail assembly is formed in the form of a "mushroom" in which the assembly is repeatedly wound about itself. In this form it is also preferable that the head portions of successive convolutions of the assembly be disposed in different planes so as to form an extremely compact structure.

The above constitutes a brief description of this invention and some of the objects and advantages thereof. Other objects and advantages of this invention will become apparent to the reader of this specification as the description proceeds.

The invention will now be further described by reference to the accompanying drawings which are made a part of this specification.

FIG. 1 is a fragmentary side elevational view of the assembly of this invention.

FIG. 2 is a top plan view thereof taken along lines 2—2 of FIG. 1.

FIG. 3 is a fragmentary side elevational view of the assembly set forth in FIG. 1 but showing the manner in which the bottom portions of the nails thereof are placed in abutting relationship so as to produce a compacted structure.

FIG. 4 is a fragmentary top plan view of the structure shown in FIG. 3.

FIG. 5 is a top plan view of the compacted structure which includes a plurality of round headed nails and joining members.

FIG. 6 is a bottom plan view of the structure shown in FIG. 5.

The invention will now be further described by reference to the specific forms thereof as shown in the accompanying drawings.

The compacted structure **11** of this invention includes a plurality of round headed nails **12** each of which being formed with a head portion **13**, a point portion **14** and an intervening median portion **15**.

A first pair **16** and **17** of spaced complementary joining members extend across and between adjacent fasteners. Members **16** and **17** bear an adhesive on one face thereof. A second pair of complementary spaced joining members **18** and **19** also extend across and between adjacent fasteners. Members **18** and **19** also bear an adhesive on one face thereof. Members **16** and **17** extend across nails **12** and are adhesively secured thereto at laterally aligned points spaced from and adjacent to the head portions **13** thereof and joining members **18** and **19** extend across the nails **12** and are adhesively secured thereto at laterally aligned points spaced from and below the points of attachment of the first pair of joining members and above the median portions **15** of the said nails. The adhesive faces of members **16** and **17** are joined to one another at the portions **20** between adjacent nails **12**. Likewise the adhesive faces of members **18** and **19** are joined to one another at the portions **21**

between adjacent nails **12**. The adhesive used is conventional and can be a pressure sensitive adhesive, a contact bond adhesive or any other suitable type of adhesive.

As can be seen in FIGS. 5 and 6 the portions of the nails below the position of the joining members can be moved inwardly toward one another to form a compacted structure. In the compacted structure it is noted that the head portions **13** of each successive layer of nails **12** lie above one another so as to form a "mushroom" structure.

The foregoing sets forth the manner in which the objects of this invention are achieved.

I claim:

1. An assembly comprising a plurality of round headed nails each having a head portion, a point portion, and an intervening median portion, a first and second pair of spaced complementary joining members extending across and between adjacent fasteners, one member of each pair of said joining members secured to an opposite side of each of said nails and each of saids pairs of members secured to one another between said nails, said first pair of joining members extending across said nails at laterally aligned points spaced from and adjacent to the head portions thereof and the second pair of joining members across said nails at laterally aligned points spaced from and below the points of attachment of said first pair of joining members and above the median portions of said nails, so that the portions of said nails below the position of said joining members can be moved inwardly toward one another to form a compacted structure.

2. An assembly as described in claim **1** the head portions of each of said nails abutting one another.

3. An assembly as described in claim **2** said assembly being wound into a mushroom form with the heads of successive convolutions lying in different planes.

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