Dec. 30, 1952 J. SCHEURMANN 2,623,431

THUMBTACK CONSTRUCTED TO PERMIT STACKING

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Fig. 1

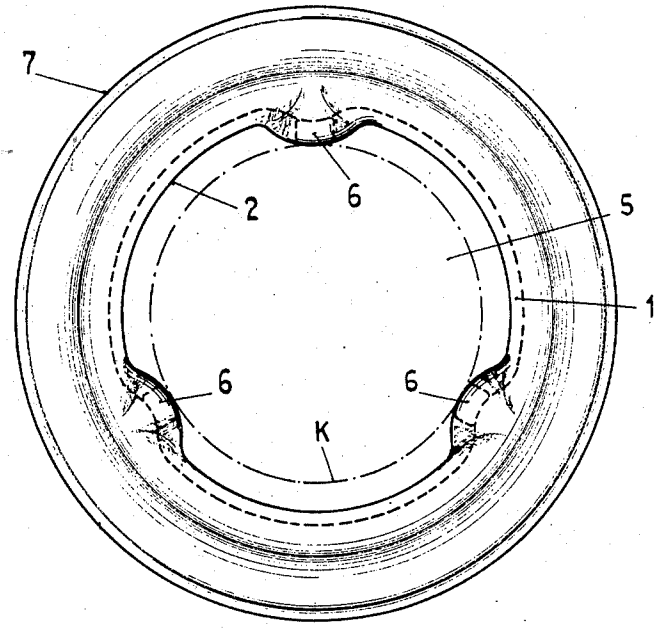
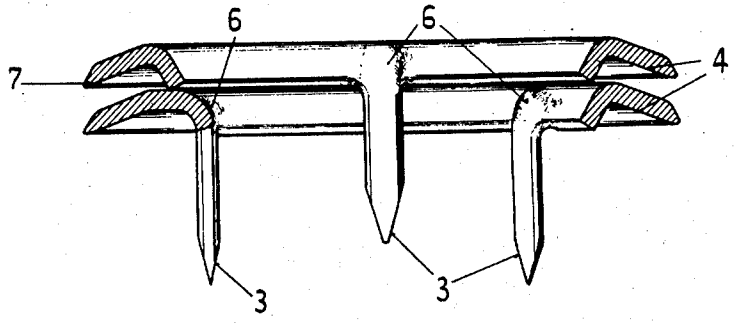


Fig. 2



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THUMBTACK CONSTRUCTED TO PERMIT STACKING

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3 Claims. (Cl. 85—13)

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The present invention refers to a thumbtack constructed to permit stacking.

The invention is characterized in that the head of the thumbtack has the shape of a continuous and hollow ring member and that the pins depending from said member project slightly into the inner space defined by said ring member in such a manner that between each two pins there is sufficient space left for respective pins of successive thumbtacks to be stacked thereon.

It is, therefore, one of the primary objects of the invention to provide means affording the manufacture of a sturdy and unitary thumbtack structure preferably made of sheet material, which may be easily handled for application to and withdrawal from a base surface to which it has been applied.

By way of example, an embodiment of the present invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a top plan view of a thumbtack drawn to an enlarged scale and disclosing features of the invention, and

Fig. 2 an axial cross section through two thumb tacks stacked one upon the other, and drawn to an enlarged scale.

In the example of embodiment shown the head 1 of the thumb tack has the shape of a circular and hollow ring member the axial cross section of which is roof-shaped or angular and adapted to increase the rigidity of the ring. The head 1 includes an inner peripheral portion, an outer peripheral portion in substantially coplanar relation with the inner peripheral portion, and an uppermost edge or crown spaced from the intermediate the inner and outer peripheral portions. The peripheral portions are connected to the uppermost edge by curved and converging surfaces, as clearly shown in Fig. 2. In the example of the embodiment shown three pins 3 displaced by 120° are provided, said pins projecting from the inner edge or inner peripheral portion 2 of said ring into an annular area, as is shown in Fig. 1 and defined by the dot-dash line or circular boundary K and the inner peripheral portion, so that between each two pins a space K for the next following thumb tack to be stacked thereon is provided.

Each of the pins 3 has at its base or root 8, as shown in Fig. 1, in relation to the inner space of the thumbtack an upwardly convex widening or enlargement 6 merging into an inwardly convex leg depending from said root or widening, by which said pins are made as resistant as possible and to a large extent protected against

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breakage at their base and point of bending. As clearly shown, the root 8 extends from the uppermost edge of the ring or head toward the inner peripheral portion and projects beyond the latter to define the enlargement or bulge portion 6, the latter being directed toward the center of the head 1 and supporting the respective leg of the pin 3 beyond the inner peripheral portion of the head.

The annular section 4 of said thumbtack head furthermore has the effect that on stacking the thumbtacks the inner peripheral portion of the ring which defines the lowermost edge thereof comes to lie on the crown or top edge of the head of the thumbtack thereunder, as can be seen in Fig. 2.

Accordingly, the stacked thumbtacks rest on each other with a certain space therebetween to allow the grippers of a suitable device (not shown) to separate said thumbtacks and to be inserted between the heads of two adjacent tacks or withdrawn from the inserted position. To ensure a faultless operation of said grippers or applicators (not shown), the outer edge 7 of the ring member is somewhat reduced in cross-section and thinner.

Instead of the three pins showns in the present example, the thumbtack could also be provided with two, four or more pins. The ring-shaped head of the thumbtack could be polygonal or of any other shape at least along the circular outer edge.

The thumb tack described is particularly suited for use in devices serving for the pressing in, drawing out and stacking of thumb tacks. Due to its execution described it is possible to stack a relatively large number of thumb tacks in the device mentioned. It can thus be seen that there has been provided, in accordance with the invention, a substantially ring-shaped head which is open at its bottom and is upwardly curved to provide a top edge and two depending legs, to thereby form circular inner and outer edges at the end of the legs, respectively, a plurality of pins extending from said inner edge and arranged substantially parallel to each other, and an enlargement forming the base of each pin and projecting beyond said circular inner edge and toward the center thereof whereby respective spaces at the inner edge and between said enlargements are provided to facilitate insertion of pins of successive thumb tacks to store the latter in stacked formation.

The outer edge of the head is further provided with a taper terminating substantially at the

level of the inner edge but is positioned a greater distance away from the top edge of said head than the distance between said top edge and said inner edge.

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

1. A tack structure adapted to be arranged in stacked formation, comprising a ring-shaped head including an inner peripheral portion and an uppermost edge spaced upwardly and outwardly of said inner peripheral portion, a plurality of pins each comprising an upwardly convex root merging into an inwardly convex leg depending from said root, said root extend approximately from said uppermost edge toward said inner peripheral portion and projecting beyond the latter to define a bulge portion directed toward the center of said head and supporting the respective leg at a location entirely inwardly beyond said inner peripheral portion, said pins being spaced from each other a sufficient distance along said inner peripheral portion for accommodating the legs of one or more tack structures within the space defined by said inner peripheral portion when arranged in stacked formation, said head including an outer peripheral portion arranged in substantially coplanar relation with said inner peripheral portion, whereby said inner peripheral portion defines the lowermost edge of said head, said lowermost edge being adapted to bear against the uppermost edge of an adjacent tack structure when arranged in stacked formation.

2. A tack structure according to claim 1, wherein said outer peripheral portion is spaced a greater distance from said uppermost edge than the distance of said inner peripheral portion from said uppermost edge.

3. A tack structure according to claim 1, wherein said head is substantially roof-shaped in cross section and includes a substantially uninterrupted and circular peripheral portion.

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