

July 30, 1946.

J. J. SCHUTTEN

2,404,928

NAIL OR DOWEL PIN ANCHOR

Filed Feb. 9, 1945

Fig. 1.

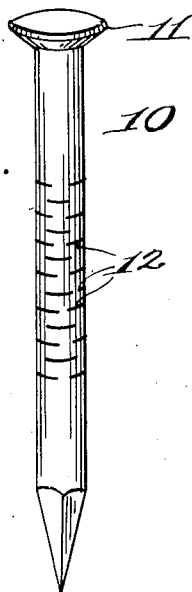


Fig. 2.

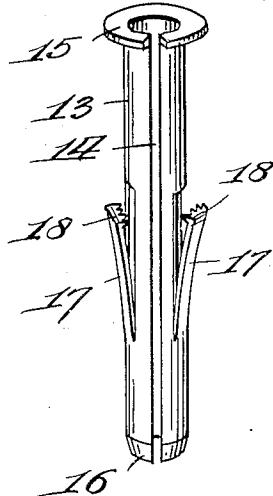


Fig. 3.

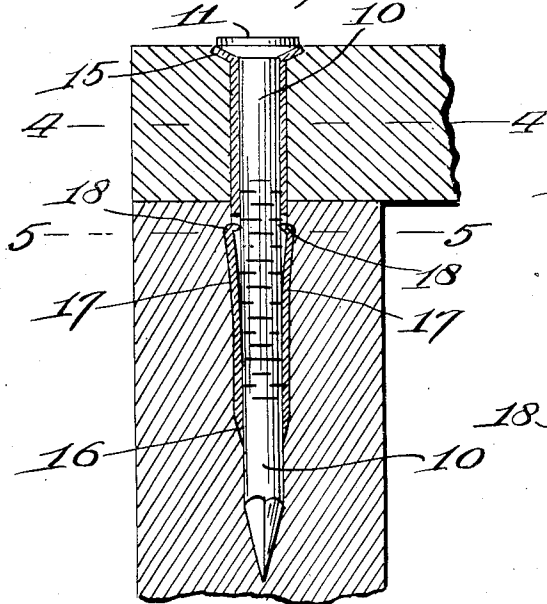


Fig. 4.

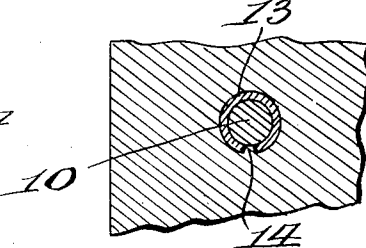
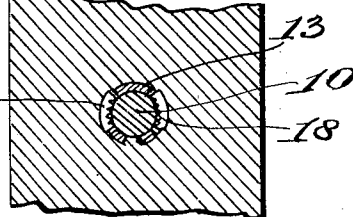


Fig. 5.



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UNITED STATES PATENT OFFICE

2,404,928

NAIL OR DOWEL PIN ANCHOR

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Application February 9, 1945, Serial No. 576,934

1 Claim. (Cl. 85—23)

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My invention relates to a nail or dowel pin anchor and has for its principal object, to provide simple, practical and highly effective means adapted to be conveniently associated with nails, dowels and the like, for very securely anchoring same in the parts into which they are driven and the particular form of the invention herein described and claimed, is especially applicable for use in the fabrication of packing boxes, crates and similar containers also for securely holding in assembled relation, the structural parts of furniture, buildings, store fixtures, wooden ships and the like.

A further object of my invention is to provide a nail and dowel pin anchor of the character referred to, which is formed from a single piece of thin resilient material, preferably sheet metal such as carbon steel, thus reducing manufacturing costs as compared to an anchor composed of two or more parts.

With the foregoing and other objects in view, my invention consists of certain novel features of construction and arrangement of parts which will be hereinafter more fully described and claimed and illustrated in the accompanying drawing in which:

Fig. 1 is a perspective view of a nail adapted to receive my improved anchor.

Fig. 2 is a perspective view of the anchor.

Fig. 3 is a sectional view through two parts of a box or building structure fastened with my improved anchor.

Fig. 4 is a horizontal section taken on the line 4—4 of Fig. 3.

Fig. 5 is a longitudinal section taken on the line 5—5 of Fig. 3.

Referring by numerals to the accompanying drawing, which illustrates a preferred embodiment of my invention, 10 designates a conventional wire nail having the usual head 11 and the surface of the body or shank, or a portion thereof, is roughened or corrugated by means of short horizontally disposed feather edged lips or ribs 12.

The anchoring element shown in Fig. 2 comprises a tubular body 13 formed of thin resilient sheet metal such as carbon steel, split lengthwise as designated by 14 and provided on its upper end with an outwardly projecting flange 15, slightly dished so as to conform to the shape of the underface of nail head 11.

The lower end of the wall of body 13 is provided with a beveled edge 16.

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Cut from the wall of body 13, are two or more longitudinally disposed narrow strips 17, the upper portions of which are bent outwardly from said wall and the upper ends of said strips are bent inwardly to form short horizontally disposed lips 18, having serrated edges.

In the use of my improved anchor, aligned holes approximately the same, or a very slight degree larger in diameter than the nail to be driven, are bored in the structural parts to be fastened and the anchor 13, after being contracted circumferentially, which action is possible due to the longitudinal slit 14, is forced into the holes.

The nail is now driven into the inserted anchor 15 and in so doing, said anchor is expanded so as to engage, with a considerable degree of friction, the surfaces surrounding the holes, thus anchoring the body 13 in the work and the nail is anchored to said body by the engagement of the teeth on the ends of lips 18, with the corrugated surface of said nail.

When fully driven, flange 11 rests on the upper surface of the work with the nail head 11 resting on said flange. (See Fig. 3.)

It will be understood that my improved anchor may be advantageously used for anchoring all forms of driven fastening members such as dowel pins, headless nails, metal pins and the like.

Thus it will be seen that I have provided a nail and dowel pin anchor, which is simple in structure, inexpensive of manufacture and very effective in performing the functions for which it is intended.

Various changes in the size, form and construction of the various parts of my improved nail and dowel pin anchor may be made and substituted for those herein shown and described, without departing from the spirit of the invention, the scope of which is set forth in the appended claim.

I claim as my invention:

A nail or dowel pin anchor comprising a longitudinally split tubular body formed of thin resilient material, longitudinally disposed strips cut from said body with the lower ends of said strips attached thereto, serrated lips projecting inwardly from the upper ends of said strips, an inclined flange projecting outwardly from the upper end of said body and the lower end of which body is bevelled inwardly.

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