Aug. 11, 1931. W. H. F. ZIEDRICH 1,818,523

WIRE FASTENER

Filed May 17, 1929

Fig. 1

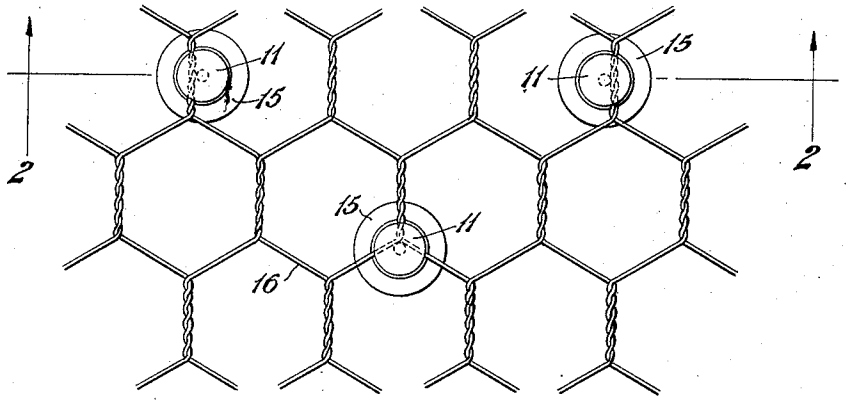


Fig. 2

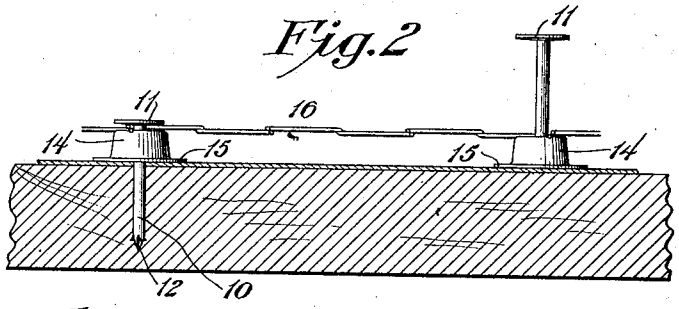


Fig. 3

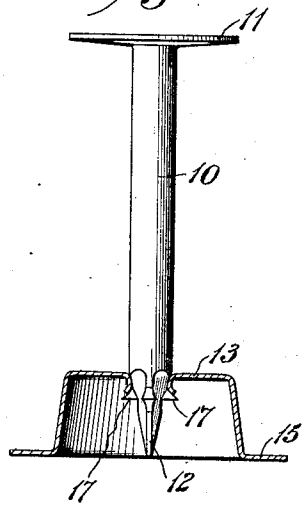
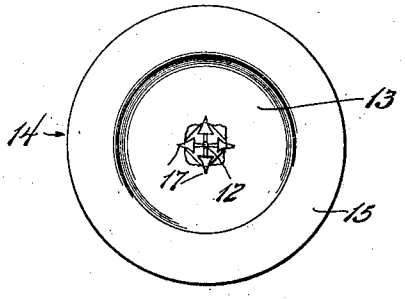


Fig. 4



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UNITED STATES PATENT OFFICE

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WIRE FASTENER

Application filed May 17, 1929. Serial No. 363,925.

This invention relates to wire fasteners and, among other objects, aims to provide an improved pre-assembled fastener including a nail and spacing element well adapted for use in securing reinforcing wire to sheathing to hold the wire uniformly spaced from the sheathing whereby it will be embedded in the plaster or stucco applied thereto. This application involves an improvement on my application, Serial No. 282,431, filed June 2, 1928, the main idea being to provide means whereby the furring nail is held assembled in the spacing member or button ready to be applied to the sheathing.

In the accompanying drawings:

Fig. 1 is a fragmentary side elevation showing reinforcing wire applied to sheathing by means of the preferred form of fasteners.

Fig. 2 is a fragmentary sectional view taken on the line 2—2 of Fig. 1;

Fig. 3 is a side elevation partly in section, and on an enlarged scale, of the fastener shown in Figs. 1 and 2; and

Fig. 4 is a bottom plan view, on an enlarged scale, of the fastener shown in Fig. 3.

Referring particularly to the drawings, the preferred form of pre-assembled fastener is shown in Figs. 2, 3 and 4 as comprising a galvanized furring nail 10 having an enlarged head 11 and a tapered point 12 penetrating and positively secured to the head 13 of a cup-shaped spacer button 14 having an enlarged annular flange 15 adapted to abut the sheathing or the outer surface of the building paper.

As set forth in my aforesaid application, the button member 14 is preferably formed by die stamping operations and is conveniently made of some relatively soft sheet metal such as brass, bronze, or the like so that it is practically rust-proof, and further, so that it may be easily penetrated by the point of one of the nails. Moreover, the thickness of the button is such that it will properly space the reenforcing wire from the sheathing, it being understood that it may be made of various thicknesses depending upon the particular requirements.

To avoid the necessity for a carpenter to assemble each spacer and nail on the job, they are pre-assembled and finally secured together so that they are ready to be applied very quickly and so that the carpenter may take them out of his pocket, one at a time, and slip the buttons under one or more strands of the taut wire 16 where they are held ready to be struck with a hammer to clamp the wire between the nail heads and the button heads.

The nails and the buttons are assembled by driving the nail points through the button heads so that the points of the nails are about flush with the bases of the buttons, the tapered ends of the nails being preferably though not necessarily, a little longer than the depth of the buttons. To secure the nails to the buttons, the lower ends of the nails are shown as being swaged, conveniently by driving them into a swaging die or, if desired, by a spinning operation, so that they present tangs 17 (Fig. 3) which prevent the buttons from working loose and slipping off due to handling. These tangs are shown as being located near the upper part of button immediately below or adjacent to the jagged ends produced by puncturing the bead.

Referring to Figs. 1, 2 and 3, it will be seen that the heads of the furring nails and the heads of the buttons are of substantially the same diameter, so that they present relatively wide gripping surfaces. When the nails are driven home to grip the wire strands against the button heads, the buttons are somewhat deformed by the wire and this prevents the wire from pulling out when the plaster or stucco is applied. Moreover, the cups provide an air space between the building paper and the button heads to permit expansion and contraction, without cracking the plaster or stucco after it has set. However, the strength of the buttons is such that an ordinary hammer blow will not crush them and affect the proper spacing of the stretched wire from the sheathing. Further, the tangs produced by the swaging operation on the nail points serve to prevent the nails from being drawn out of the sheathing. Also the

shanks of the nails will seal the openings in the heads of the buttons so that no moisture can penetrate them and rust out the nails in the hollow portions of the buttons.

From the foregoing description, it will be apparent that the fasteners may be made very economically and are assembled ready for instant application. A carpenter can save about one-third of his time by using them instead of the nails and spacers which have to be assembled on the job or other types of assembled fasteners which present jagged or pointed portions and which are apt to stick together in his pocket. By reason of the buttons being securely fastened on the nails so that the points of the nails come about flush with the bases of the buttons, they may be pushed between the strands of the stretched wire and the building paper without tearing the paper. The buttons provide substantial braces for the nails and will withstand the tremendous strains imparted to them by the weight of the plaster or stucco without pulling out the nails. Another advantage resides in the fact that the punctured opening in the cap of the button is completely sealed by the nail. Further, the button is not subject to destructive expansion and contraction which would crack the plaster or stucco. Also, the projections or tangs on the nail points produced by the swaging operation enables the nails to hold firmly in place when they are driven into the sheathing.

Obviously the present invention is not restricted to the particular embodiment thereof herein shown and described.

What is claimed is:

1. In combination with a furring nail, a soft sheet metal spacer button having a deformable head positively secured to and interlocked with the tapered end of the nail so that the nail point lies substantially flush with the base of the button.

2. A spacing fastener of the class described comprising, in combination, a stamped out cup-shaped button member of relatively soft metal having a head and a continuous flanged base; a furring nail driven through the head and positively secured to and interlocked with its pointed end lying about flush with the base of the button so that the base of the button may be slid or pushed over building paper to set the head under reenforcing strands and the nail point will not tear the paper.

3. A spacing fastener for securing reenforcing wire to sheathing comprising, in combination, a cup-shaped button member made of relatively soft sheet metal and presenting an enlarged annular base flange; a deformable button head of substantial area; a furring nail penetrating the button head and presenting outwardly projecting tangs holding the button head assembled thereon with the point of the nail lying in a plane substantially flush with the base of the button member.

4. A spacing fastener of the class described comprising, in combination, a sheet metal, substantially cup-shaped button member of relatively soft metal presenting an annular base flange and a relatively large head portion; and a furring nail penetrating the head portion of the button, the tapered end of the nail being swaged and presenting outwardly projecting tangs cooperating with the punctured projections of the button head to hold the button head assembled on the nail so that the point of the nail does not project beyond the plane of the base of the button member, whereby the button member may be pushed under the strands of a reenforcing wire and the nail point will not tear the building paper on the sheathing.

5. A spacing fastener of the class described, comprising, in combination, a cup-shaped, button member having a continuous, annular base flange and a head of substantial area; a nail driven part way into the head to puncture the same; and swaged tangs on the nail to hold the button assembled, said button being adapted to be slid under a strand of wire and be held thereby, and being made of such material as to provide adequate strength to withstand the strains to which it is subjected by the weight of plaster or stucco.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature.

WILLIAM H. F. ZIEDRICH.