

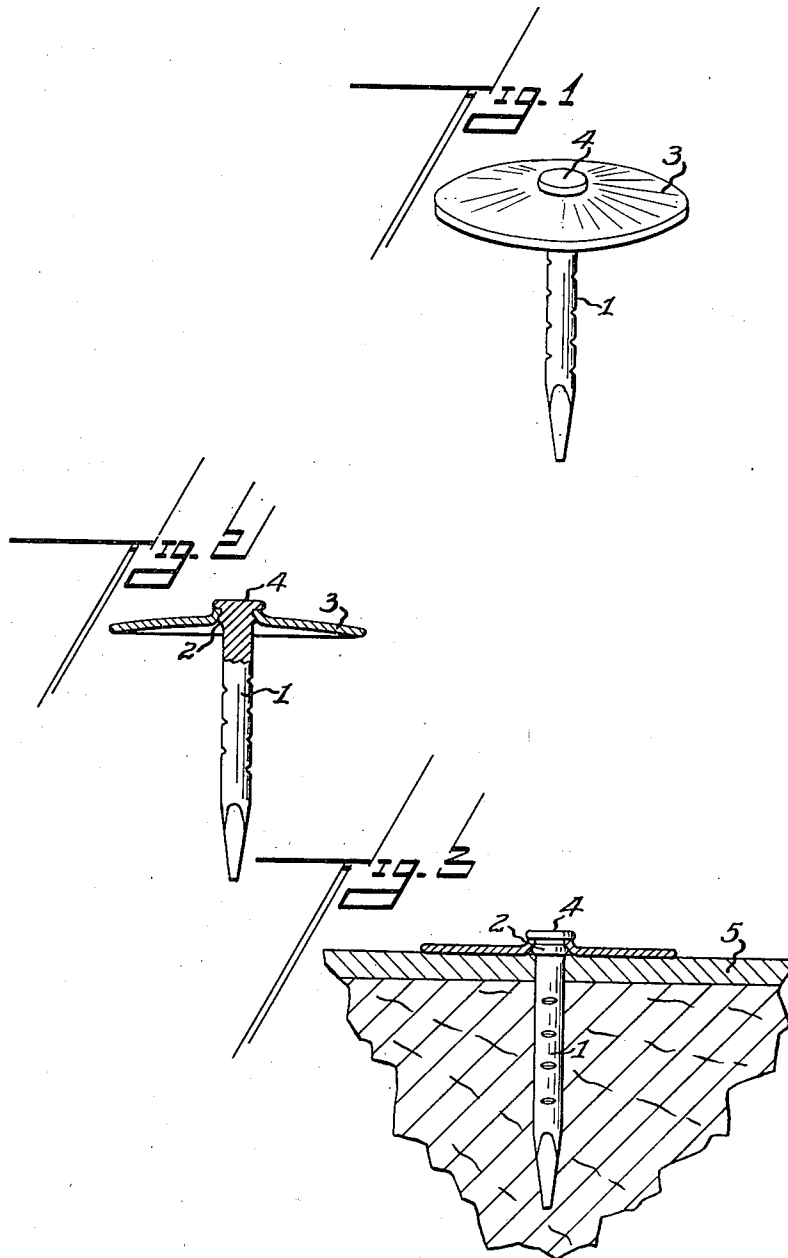
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ROOFING NAIL

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ROOFING NAIL

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2 Claims. (Cl. 108—33)

This invention relates to roofing nails such as are particularly adapted to secure felt, tar paper, or other flexible coverings to roofs, walls or other surfaces, and is a substitute for application Serial No. 427,214, filed Feb. 10, 1930.

A roofing nail has heretofore been employed comprising a sheet metal disk perforated to receive an ordinary nail shank, or otherwise adapted to have a nail driven centrally therethrough. Such nails, however, have failed to adequately prevent seepage of water under the disk and resultant rusting of the nail shank and leakage along said shank. Furthermore, such nails have imposed upon a roofer necessity of assembling the disk and nail preliminary to driving the same, thereby slowing up his work and rendering same difficult, only one hand being available to effect such assembly, the other being occupied by a hammer.

In another type of nail heretofore known, a sheet metal disk rigidly connected to a nail has been formed with a projecting rib adapted to imbed itself in the roofing on driving the nail, to establish a water seal. The formation of a disk with such a rib, however, complicates manufacture of such a nail, and undesirable weakening of the roofing sheet is caused by said rib. Such prior constructions furthermore have employed heads of rectangular form which have consequently been unsuited to be dished as in the present improvement.

An object of the invention is to provide a roofing nail comprising a sheet metal disk or plate rigidly connected to a shank formed of wire or the like, and to so form such disk that it will be firmly stressed throughout its area against the roofing or other material to be held in place when the nail is fully driven, whereby seepage of water under the head is positively prevented, and rusting of the shank or leakage around the shank is positively avoided.

These and various other objects the invention attains by the construction hereinafter described, and illustrated in the accompanying drawing, wherein:

Fig. 1 is a perspective view of my improved roofing nail.

Fig. 2 is an axial sectional view of said nail.

Fig. 3 is a fragmentary sectional view of a roof, having a sheet of covering material attached thereto by the improved nail.

In these views, the reference character 1 designates a shank formed of wire or the like, pointed at one end and formed adjacent to its other end with a slight enlargement 2, forming a shoulder

for seating a spring sheet metal disk 3. Said disk is formed with a central opening through which a shank 1 is snugly passed, and said shank is riveted down upon the top face of said disk as indicated at 4, whereby a strong, rigid, and permanent connection between disk and shank is established. Preferably the disk is upwardly indented closely adjacent to its central opening to form a pocket to receive the enlargement 2, whereby the latter will not prevent the disk lying flat against an engaged surface, and whereby the disk is reinforced in an adjacent and surrounding relation to the shank.

Said disk either prior or subsequent to its attachment to the shank 1 is slightly dished toward the point of the nail, so that when the nail is driven, as appears in Fig. 3, the margin of said disk initially engages the roofing sheet 5, and the driving force applied at the center of said disk thereupon flattens out said disk, as appears in Fig. 3, stressing it firmly throughout its area against said covering sheet. This establishes a very positive seal against leakage of water toward the shank from the disk periphery, without any appreciable resultant mutilation or weakening of the covering sheet.

It is a most essential feature of the described construction that the angle at which the disk 3 is dished is very slight, as otherwise the force applied in driving the nail will not be adequate to overcome the original set of the metal and effect the desired flattening of the disk. For the same reason, it is essential that the disk be thin enough that its stiffness will not unduly resist flattening of the disk. The disk thickness should be not more than one half that of the shank, and preferably is approximately one third of the shank diameter, as shown. It is to be noted that, for roofing nail purposes, the dished form of the disk would be a detriment rather than an asset, unless the disk were capable of flattening out as described, since a line contact with the roof or roofing material would be unlikely to seal out moisture from beneath the disk. By employing spring sheet metal, and preferably sheet steel, for the disk, it is assured that the latter will flex to a perfectly flat position and any tendency of the edge of the disk to turn up is avoided.

The invention is presented as including all such modifications and changes as come within the scope of the following claims.

What I claim is:

1. A roofing nail comprising a shank and a plate perforated substantially centrally for engagement by said shank, the shank having an

- enlargement below the plate seating the latter, and said plate being upwardly offset marginally of said central perforation to receive said enlargement, the shank being terminally upset against the top face of said plate, whereby the bottom face of said enlargement is disposed substantially in the lower plane of said plate, allowing the latter to fully and freely engage a surface into which the shank is driven.
- 5 2. A roofing nail comprising a shank, pointed at one end, and a resilient sheet metal disk rigidly mounted substantially at its center upon the other end of the shank, and so dished toward the pointed end of the shank and having such a thickness that it may be flattened against a surface into which the shank is driven, responsive to a moderate driving force, the resiliency of the disk causing its periphery to be firmly stressed against said surface, when flattened.
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