April 22, 1941. D. POWELL 2,238,945

FURRING NAIL

Filed Nov. 5, 1938

Fig. 1.

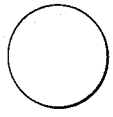


Fig. 2.




Fig. 3.

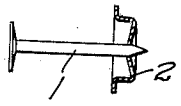



Fig. 4.

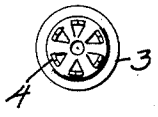



Fig. 5

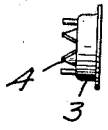



Fig. 6.

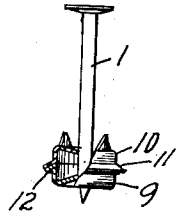
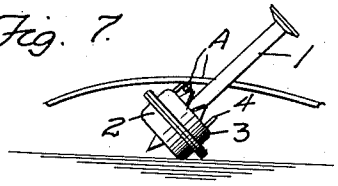



Fig. 7.



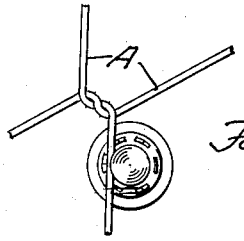
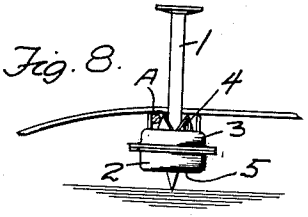




Fig. 9.

Fig. 8.



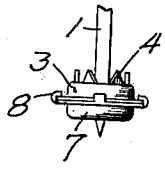




Fig. 11.

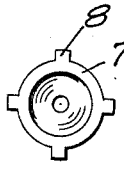



Fig. 10.

INVENTOR:
DAVID POWELL

BY O'Martin

ATTORNEY.

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# UNITED STATES PATENT OFFICE

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## FURRING NAIL

David Powell, Los Angeles, Calif.

Application November 5, 1938, Serial No. 239,151

5 Claims. (Cl. 72—118)

This invention relates to improvements in means for fastening wire netting to a wall surface in spaced relation thereto.

One of the steps in the construction of frame stucco buildings is to fasten building paper to the outside of the wall sheathing or the wall studding and to stretch wire netting over this paper a predetermined distance therefrom. Numerous devices have been developed for this purpose, and the present invention is an improvement on the prior art as exemplified by the many patents which have issued on such devices.

It is the general object of the invention to provide a simple, inexpensive and convenient device of the character referred to. To this end, the invention consists in the combinations hereinafter fully described. A preferred form of the invention is illustrated in the accompanying drawing, of which:

Fig. 1 illustrates the material from which the device of the invention preferably is made,

Fig. 2 marks the first step in the manufacture of my improved furring nail,

Fig. 3 is a cross sectional elevation of the device shown in Fig. 2,

Fig. 4 illustrates the third step in the manufacture of the invention,

Fig. 5 is a side elevation substantially in agreement with Fig. 4,

Fig. 6 is an elevational view showing the device of the invention assembled,

Figs. 7 to 9 illustrate the invention in various positions incidental to its use, and

Figs. 10, 11 show a slight modification of the invention.

The device illustrated in the drawing consists of a nail 1, on which two cup-shaped members 2 and 3 are shown mounted. These members are made from flat discs of galvanized material such as indicated in Fig. 1.

Various parts used in building construction, such as corner beads, are made from strips of thin galvanized metal, in which rows of large holes are punched for the purpose of anchoring stucco or plaster thereon. The waste accumulating in punching these holes forms the material for my furring device and because its cost is nominal, it is possible to produce a superior product at very small cost.

The discs may be gathered in a magazine and fed to a press in which they are struck up into the cup-shape of Figs. 2 and 3. They may then be divided into equal portions and one portion may be fed into dies, in which a number of lips 4 are extruded to form a crenelated crown, substantially as indicated in Figs. 4 and 5.

The two members are thereupon forced into the position on the nail indicated in Fig. 6, and the assembled device is ready for use. The foregoing steps in the manufacture of the invention are merely illustrative of a simple method of manufacture. In actual practice, these various steps are automatically taken in a machine designed for this purpose.

The device of the invention may be used in more than one way. The building paper may first be placed in position and held in place by the device, by driving the nail a short distance into the wall. The paper will then be held between the bottom portion 5 of the cup member 2 and the wall. The wire netting may then be stretched across the papered surface and strands of the netting be caused to seat in the crenelations of the cup member 3, whereupon the nail is driven home to lock the strand in position.

It is, however, difficult to stretch the wire netting evenly because the binder wire along the edges will not stretch readily and the central portion will. It is, for this reason, preferable first to fasten the paper with ordinary nails and then to apply the netting, using the device of the invention as illustrated in Figs. 7 and 8. A strand of wire netting is here indicated by the letter A. This strand may be somewhat loose, but it can be tightened by drawing it a short distance to one side, as indicated by the arrow. The device is, for this purpose, tilted and pushed under the wire strand, as indicated in Fig. 7, whereupon it is swung on the point of the nail into perpendicular position to effect this tightening. The nail may then be driven home to hold the strand of wire in position.

Some important features of the invention will now be pointed out. Other devices have been made, using only one cup member, but such devices have not been found practical because it has not been found possible to maintain a single cup in position on the nail while tilting the device to draw a wire strand taut. But in this case, it is seen that the two cups, pressed rim to rim on the nail, will stay very firmly in position. For particularly heavy duty, where the pressure might tend to tilt one cup relative to the other, it is possible to make a cup 7 with lips 8 and to bend these lips around the edge of the cup 3, substantially as indicated in Figs. 10 and 11.

It is important also to note that the bottom of the cup is not flat but somewhat inwardly di-

rected, as indicated in Fig. 3. The result is that the pointed end of the nail does not have to protrude as far beyond the bottom of the cup as it would in case a flat bottom were used, and the great advantage of this is that the insertion of the device under the wires thereby is greatly facilitated.

Another method of tying the two cup members together on the nail is indicated in Fig. 6, where the flanges **11**, **12**, of the cup members **9**, **10**, are made inclined. This result can be obtained without the necessity of performing any additional operation, because it is no more difficult to form the cup members in this manner. When intercontacting, the inclined flanges will maintain the two members firmly in axial position on the nail.

The drawing is merely illustrative of a preferred form of the invention, and modifications may be effected within the scope of the appended claims.

I claim:

1. A wire fastener comprising, a nail in combination with a drum comprising two identical cup-shaped members forced on to the nail with their rims intercontacting, one member having crenelations for seating the wire.

2. In a wire fastener, the combination with a nail, of a drum comprising two identical cup-shaped members having central perforations in which the nail is held frictionally seated, the members being arranged with intercontacting rims, the member nearest the nail head having notches for receiving the wire.

3. In a wire fastener, in combination, a nail, and a drum comprising two identical cup-shaped members having central perforations in which said nail is frictionally seated, the members being arranged with intercontacting rims, the member nearest the nail head having notches for receiving the wire, the bottoms of said members being drawn inward somewhat.

4. A wire fastener comprising, a nail in combination with a drum comprising two cup-shaped members forced on to the nail with their rims intercontacting, one member having notches for seating the wire, and means for locking the two members positively together.

5. In a wire fastener, the combination with a nail, of a drum made from two identical flanged cups arranged with their flanges abutting and axially perforated to seat tightly on the nail, the face of the drum nearest the nail head being notched to receive the wire, the opposite drum face being drawn inward to shorten the distance the nail point projects beyond said face.

DAVID POWELL.