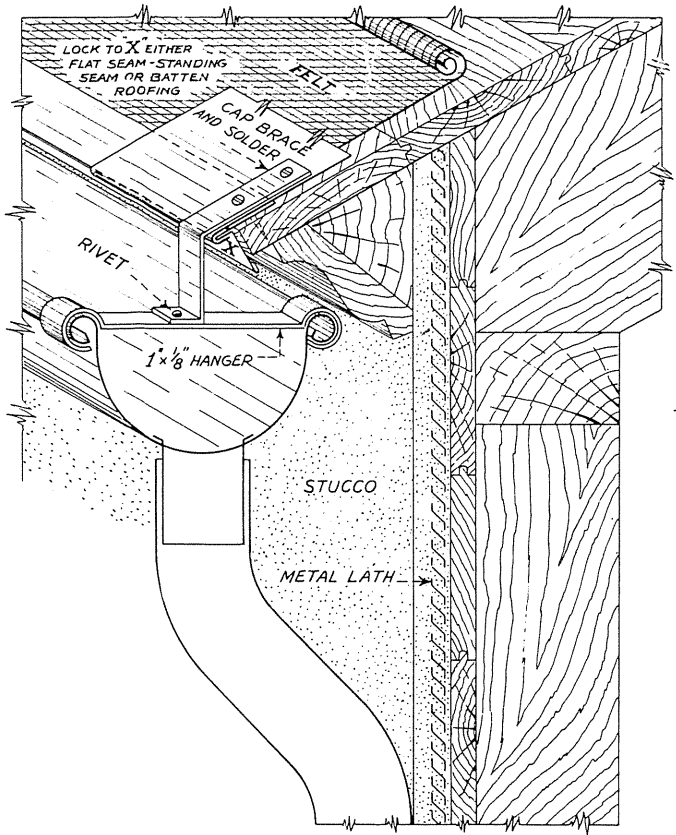


FIG. 1 DOUBLE BEAD EAVE TROUGH WITH HANGER FOR FLAT SEAM, STANDING SEAM AND BATTEN ROOF INSTALLATION
SCALE 2"=1'-0"

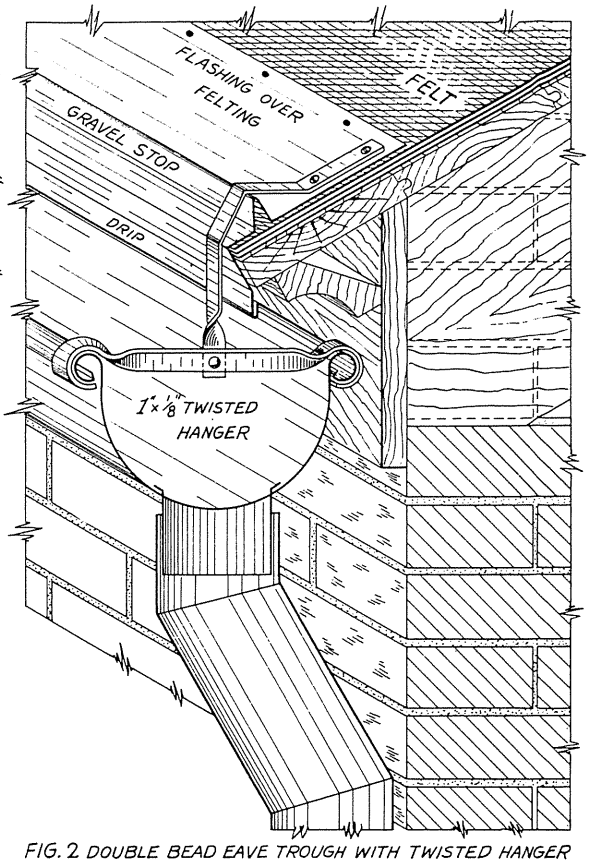


FIG. 2 DOUBLE BEAD EAVE TROUGH WITH TWISTED HANGER FOR COMPOSITION AND FLAT TILE ROOF INSTALLATION
SCALE 2"=1'-0"

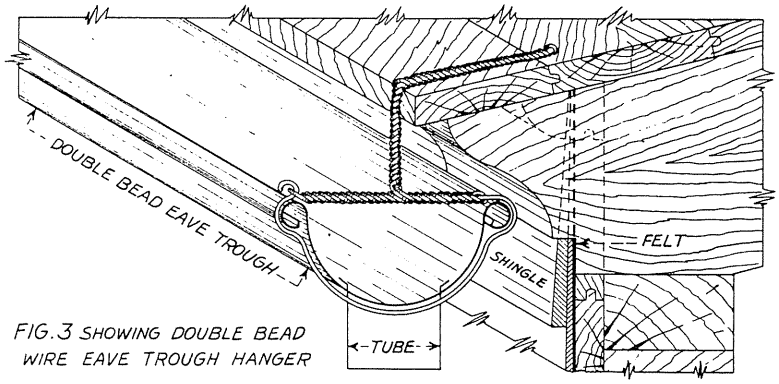
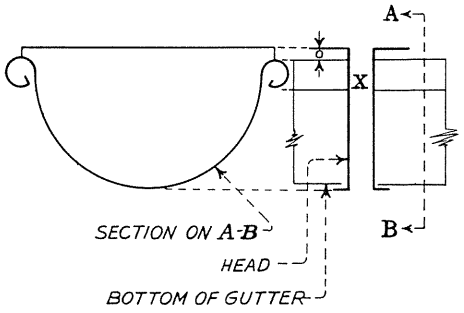


FIG. 3 SHOWING DOUBLE BEAD WIRE EAVE TROUGH HANGER



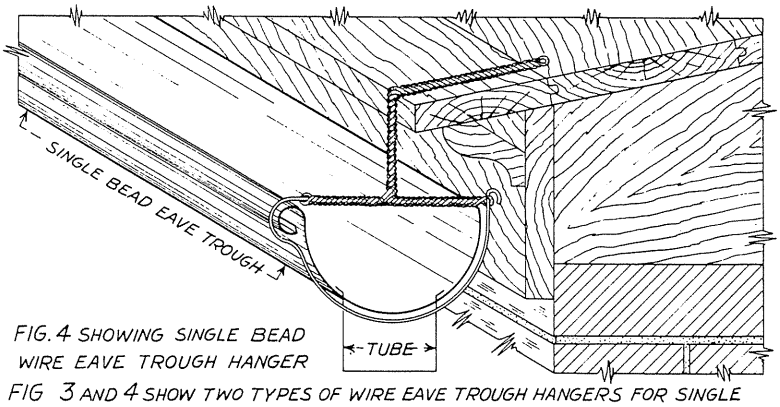


FIG. 4 SHOWING SINGLE BEAD WIRE EAVE TROUGH HANGER

FIG 3 AND 4 SHOW TWO TYPES OF WIRE EAVE TROUGH HANGERS FOR SINGLE AND DOUBLE BEAD TROUGHS, USED ON ROOFS HAVING SMALL AREA FOR ANY KIND OF ROOF INSTALLATION — SCALE 2"=1'-0

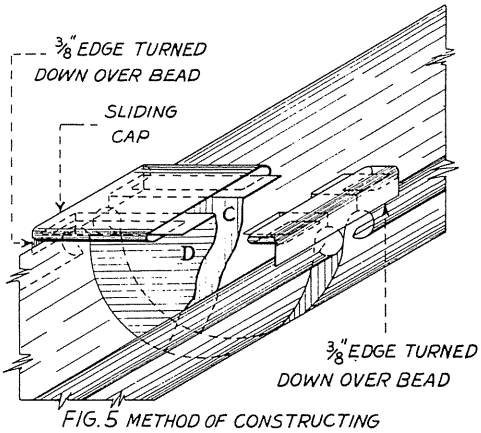


FIG. 5 METHOD OF CONSTRUCTING EXPANSION JOINT IN EAVE TROUGH
— SCALE-2"=1'0" —

NOTE } THE CONSTRUCTION METHODS OF CONNECTING FLAT SEAM, STANDING SEAM, BATTEN, TILE, SLATE AND COMPOSITION ROOFING TO EAVE TROUGHS ARE SHOWN ON DRAWINGS Nº 16-24

Drawing No. 13—(Continued from page 25)

on. The front edge of the gutter is at least 1½ in. lower than the upturned back. The gutter sets on the wood molding and is nailed to the sheathing at the top. The cap flashing is then applied.

The braces, made of 1 x ⅛-in. band iron and spaced 30 in. on centers, are attached to the front of the gutter with round head bolts and nailed to the roof sheathing with two barbed roofing nails. These braces are properly capped and soldered.

Eaves Troughs and Hangers for Various Roofs

Drawing No. 14

Four types of eaves troughs and hangers for connection to any kind of roof installation as well as the method for constructing the expansion joint in the eaves trough, are presented in Drawing No. 14.

In Fig. 1 is shown an eaves trough with double bead with hanger for pitched roof construction. The eaves strip is shown at *X*. This eaves trough may be used with either a flat lock or standing seam roof. The hanger is made of ⅛ x 1-in. band iron. The brace is constructed to accurately surround both gutter beads. The vertical band is riveted to the center of the brace, bent to the proper angle of the roof, allowing for pitch to the outlets. The hanger is nailed to the roof sheathing with two barbed wire roofing nails. If a metal roof is used, then the hanger is capped and soldered.

An eaves trough with a double bead is presented in Fig. 2. The gravel stop and drip is applied to the roof as shown. The hanger is similar to that shown in Fig. 1, except that both the brace and hanger are twisted. This hanger is applied to the gutter the same as in Fig. 1 and also attached to the roof in the same way.

Eaves trough hangers for flat tile roofing are shown in Fig. 3 and 4, which give the single and double bead eaves trough. The hangers are regular commercial wire eaves trough hangers and are applied as shown. These may be used on small gutters requiring only light duty and draining roofs of small area.

Fig. 5 presents the method of constructing the expansion joint in the eaves trough. The upper part of the illustration shows two heads soldered in the ends of the eaves trough, the distance marked *X* being allowed between the heads, to provide for temperature variation. The lower part shows the space between the two heads marked *C* and *D* with expansion and sliding cap covering them.

Eaves Troughs Erected with Adjustable Hangers

Drawing No. 15

Some examples of eaves troughs erected in cast hangers with adjustable shanks for any pitch of roof and for any type of roof installation, are presented in Drawing No. 15.

Fig. 1 shows the adjustable shank driven into the joint of the brick or stone wall. The combined metal eaves strip and drip is nailed to the edge of the sheathing and metal roofing is locked to the projecting edge of the strip as at *A*. This is turned down as shown by *A′* in the diagram below. The turning down of the lock also covers the nail heads. The hangers are attached to the shank with bolts and are graded to allow pitch of the gutter to the outlets.

A roof construction with box cornice is shown in Fig. 2. The shank is screwed to the woodwork, as indicated. The metal eaves strip which covers the projecting beam is nailed at *A* on the bottom and covered with wood molding. It is also nailed at the upper edge of the roof. This type of eaves flashing is applicable to composition or flat tile roofs. Over this flashing the roofing is applied, and the gutters are attached to the hanger the same as shown in Fig. 1.

In Fig. 3 the shank is screwed to the side of the projecting rafter. The eaves strip is formed as shown and nailed to the roof sheathing. Over the projecting flange *A* either standing seam or a flat lock roofing is applied. The edge of the eaves strip is turned down, as the edge *A* acts as a drip. The gutter hangers are again applied as in Fig. 1 and 2.

As shown in Fig. 4, the combination cant and eaves strip is applied as at *B*, and the adjustable shank is nailed to the roof sheathing before the slate is applied, as shown in the broken view, 1, 2 and 3. The gutter hangers are applied in the same way as shown in Fig. 1, 2 and 3.