

tops. These dots may be formed by lead burning (see p. 143); the edge of the lead at the hole is turned down slightly and the hole in the cornice is filled with molten lead from a strip of lead held over it and reduced to a molten condition by the flame of the lead burner; the molten lead is finished flush with the covering, and the dot is made inconspicuous by lightly hammering it and cleaning it off.

(b) Asphalt is often used in modern construction as a covering material. In the example shown at D a small channel is formed at the back and the top surface of the cornice is given a slight fall towards it; the channel falls slightly towards one end and delivers into a rain-water pipe. A 1-in. deep dovetail groove is formed along the full length of the cornice and about 3-in. from the front edge (see B) and a 1-in. square raglet is made along the bottom of the parapet (or each stone is formed with a rebated joint before being fixed). The 5 or 6-lb. lead flashing is bossed as shown at B and the hot asphalt is applied, finished smooth to a thickness of  $\frac{3}{4}$ -in., well tucked into both grooves and rounded off at the outer edge.

LEAD PIPE JOINTS

The various joints formed between lead pipes include the wiped joint, taft joint, block joint and Staern joint. The following is a description of two of these joints.

WIPED JOINT (see A', Fig. 75).—This is generally considered to be the strongest joint for lead pipes and is therefore employed in first-class work and especially for water pipes which have to withstand high pressures. Solder (see p. 143) consisting of 2 parts by weight of pig lead and 1 part pure tin is the jointing material.

The joint is made as follows: The end of each pipe is prepared as shown in the half-section, that of the upper pipe (when it is in a vertical position) being rasped down on the outside to leave a sharp edge, and the end of the lower pipe being slightly filed on the outside and then opened by hammering a tan-pin (E, Fig. 76) into it. Each end is painted with soil (a black powder consisting of lampblack, size and whiting, well mixed with hot water) for at least 3-in., depending upon the size of the joint. When this is dry, each end is scraped with the shave hook (G, Fig. 76) for a distance of 1½-in. or more (according to the length of the joint) so as to present a clean bright surface which is essential for the thorough adhesion of the solder. The appearance of the finished joint is improved if prior to shaving, a ring is carefully chalk-marked round and at the proper distance from the end of the pipe, and the shaving is performed by a series of scrapings working from the mark towards the open end. Care should be observed in not removing more of the lead than is necessary at each shaving, otherwise the joint will be weakened. As there is a danger of weakening the joint by cutting the shave hook into the pipe along the marked ring, some plumbers shave each end (and leave an irregular boundary) for a length slightly in excess of that required before the soil is applied, and the latter is then brushed on to form a band with a regular boundary and overlapping the irregular shaved boundary. As solder will not adhere to soil (hence the reason for "soiling") it follows that if the ring is carefully marked, the edge of the solder (see later) will be sharp and uniform. The inside of the lower opened end should also be shaved. Immediately

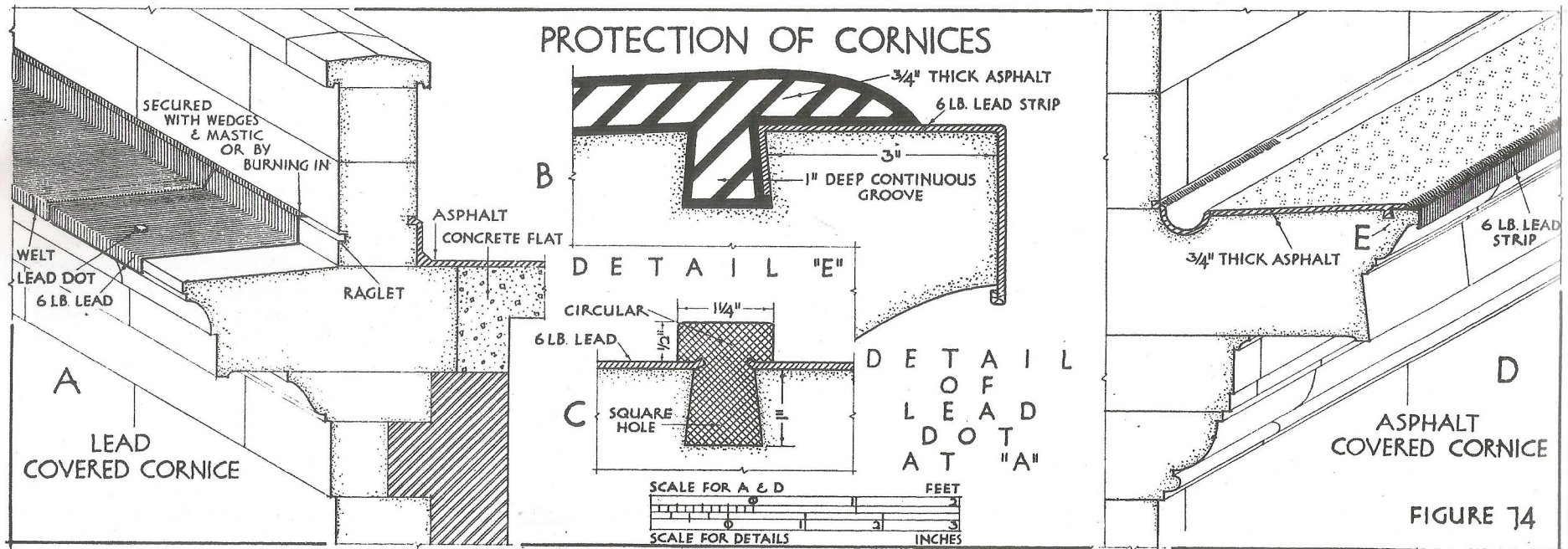


FIGURE 74