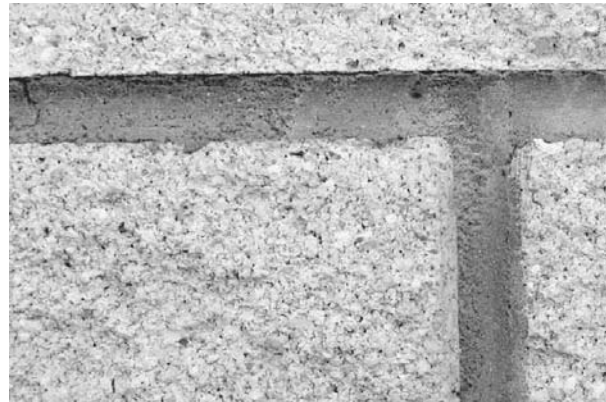


well compacted surface,  
tight bond line



rough surface, bond line  
separations

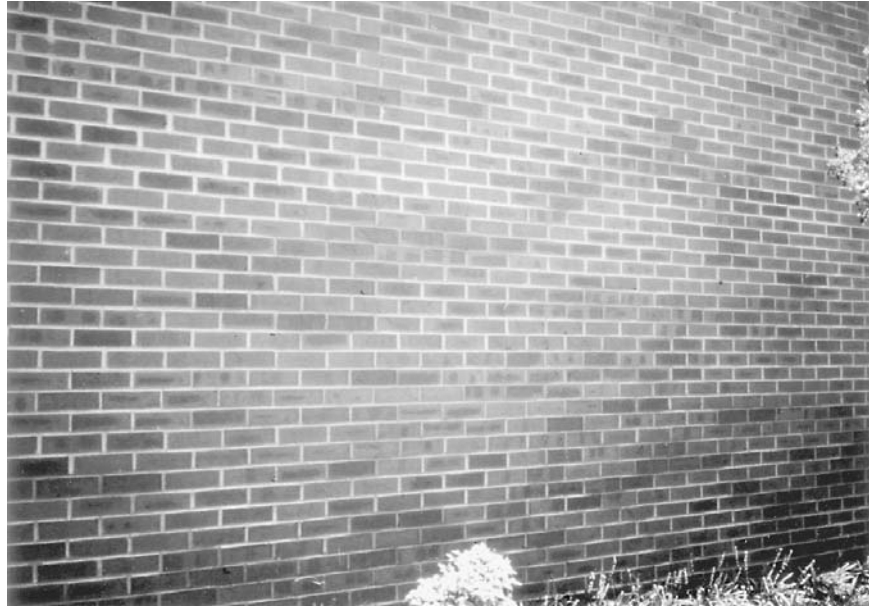


rough surface, bond line  
separations, voids

**Figure 15-24** Good joint tooling is the first line of defense against water penetration, and is especially critical in single-wythe walls.

Weep holes are required in masonry construction at the base course and at all other flashing levels (such as shelf angles, sills, and lintels) so that water that is collected on the flashing may be drained from the wall as quickly and effectively as possible. Weep holes should be spaced 16 to 24 in. on center, depending on the method used:

- Open head joints, large rectangular weep tubes, plastic grid, or vented weep covers at 24 in. on center in brick or 32 in. on center in block (*see Fig. 15-33*).



**Figure 15-25** Joints should be tooled at a consistent moisture content because drier mortar tools to a darker color than mortar that is wetter when tooled.



**Figure 15-26** Unsealed lap joints allow water to circumvent the flashing.

- Oiled rods, rope, or pins placed 16 in. on center in the head joints and removed before final set of the mortar (see *Fig. 15-34*).
- Cotton sash cord or other suitable wicking material placed 16 in. on center in the head joint (see *Fig. 15-35*).
- Small plastic weep tubes are not recommended because they clog too easily both during and after construction (see *Fig. 15-36*).

To function properly, weep holes must be unobstructed by mortar droppings or other debris. Blocked or missing weep holes can cause saturation of the masonry just above the flashing as moisture is dammed in the wall for longer periods of slow evaporation. Efflorescence, staining, corrosion of steel