35. We use Faraday's law in the form $\oint \vec{E} \cdot d\vec{s} = -(d\Phi_B/dt)$, integrating along the dotted path shown in the Figure. At all points on the upper and lower sides the electric field is either perpendicular to the side or else it vanishes. We assume it vanishes at all points on the right side (outside the capacitor). On the left side it is parallel to the side and has constant magnitude. Thus, direct integration yields $\oint \vec{E} \cdot d\vec{s} = EL$, where L is the length of the left side of the rectangle. The magnetic field is zero and remains zero, so $d\Phi_B/dt = 0$. Faraday's law leads to a contradiction: $EL = 0$, but neither E nor L is zero. Therefore, there must be an electric field along the right side of the rectangle.