

$$w = \frac{1}{2} \left(z + \frac{1}{z} \right)$$

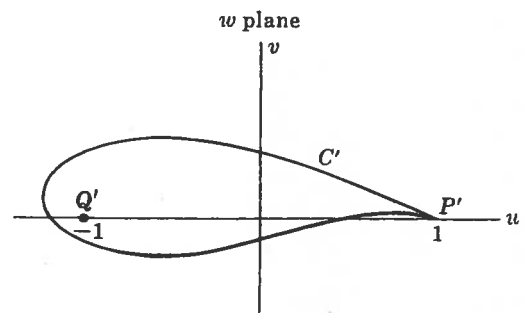
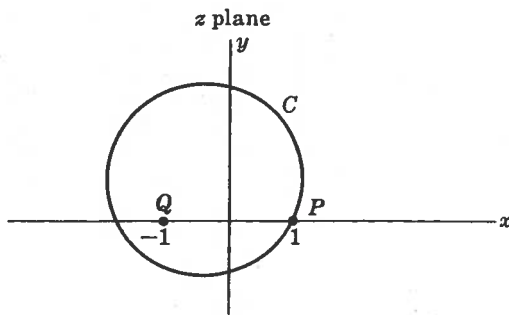
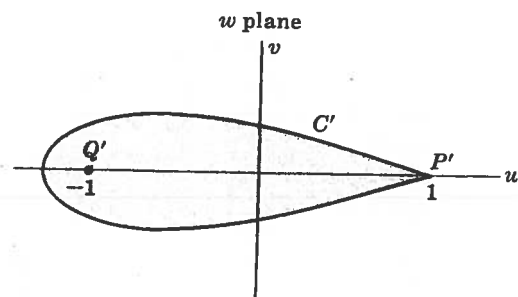
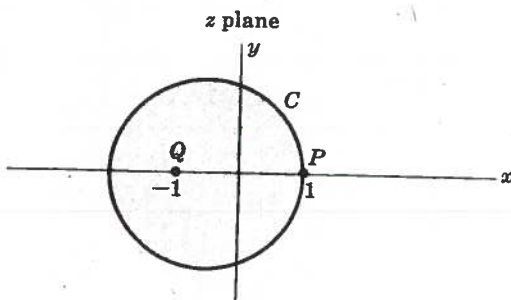
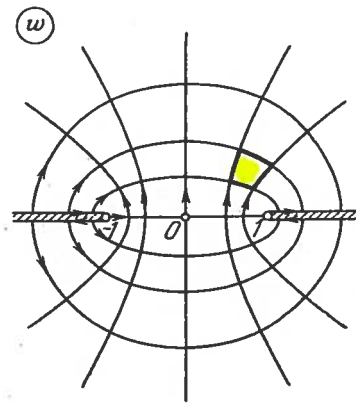
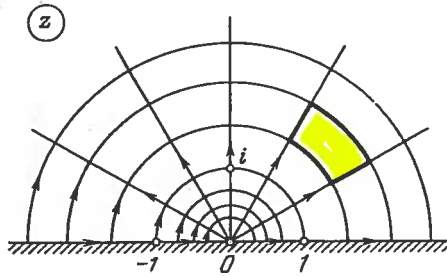
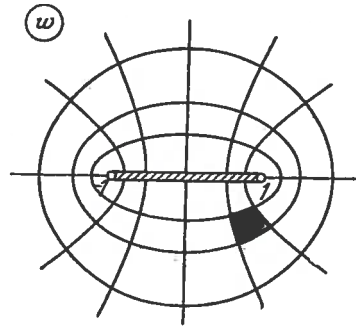
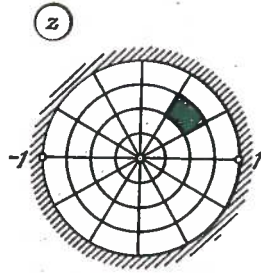


Fig. 8-89

Fig. 8-90

The fact that C' resembles the cross-section of the wing of an airplane, sometimes called an *airfoil*, is important in aerodynamic theory (see Chapter 10) and was first used by *Joukowski*. For this reason shapes such as C' are called *Joukowski airfoils* or *profiles* and $w = \frac{1}{2}(z + 1/z)$ is called a *Joukowski transformation*.