

Figure 12.38 The reflection of a pulse on a rope with a fixed end point. As the pulse arrives, it exerts a vertical force on the fixed anchor point, which in turn exerts an equal and opposite force on the string. When the string tugs up, the anchor point tugs down. This downward force on the rope generates an upside-down reflected pulse traveling in the opposite direction.

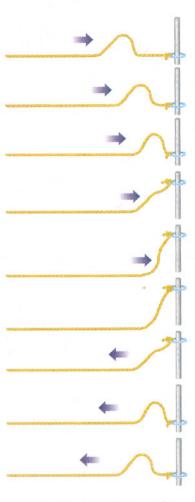


Figure 12.39 The reflection of a pulse on a rope with a free end point. That free end rises until all the energy of the end segment is stored elastically. It comes to rest at a maximum vertical displacement of twice the height of the crest. Carried up by its inertia, the end segment pulls upward on the rope, generating a reflected wavepulse that travels back toward the source, right side up and simply reversed.