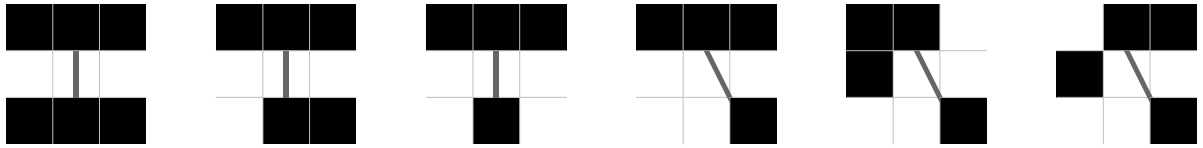
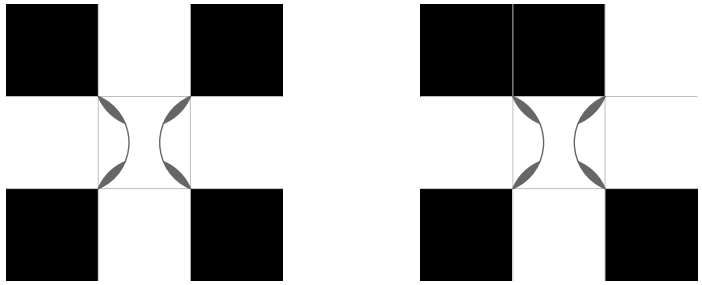
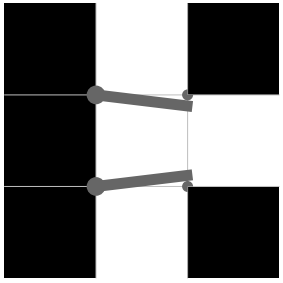


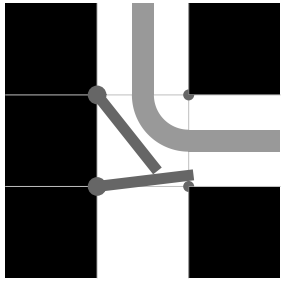
The six local arrangements where a dam is required to prevent the boundary from passing through the center cell, since any such boundary would result in instability. These are the configurations where a cell touches two stretches of land, one at three points.



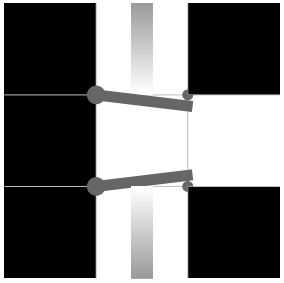
The two local arrangements requiring aquaduct crossings, shown as an east−west aquaduct passing under a north−south aquaduct. In the second arrangement, the north−south route ends immediately and so cannot be used by a boundary, and the net effect is the same as if a dam were to be placed between the two southern land cells.



A lock with both gates closed.



A lock with one gate open, allowing the boundary to pass through.



The boundary cannot cross a lock like this since the gates cannot both be open.