

NEXT-TIME QUESTION

CONCEPTUAL Physics

When the temperature of the piece of metal is increased and the metal expands, will the gap between the ends become narrower, or wider, or remain unchanged?



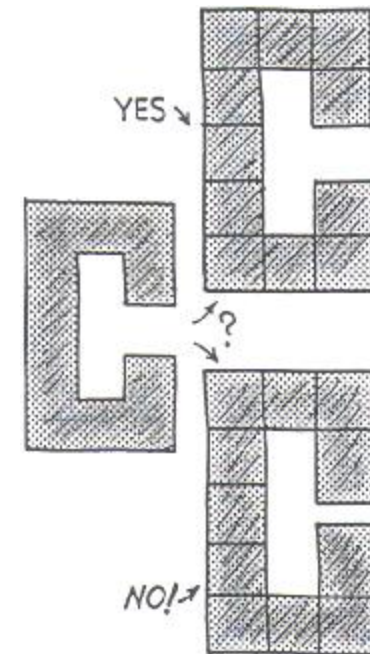
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Answer: wider

The gap will become wider when the metal expands. To see this, pretend the shape is composed of little blocks, each the size of the gap. When heated, each block expands the same. So if the metal is heated uniformly, every part expands at the same rate—even the gap.



Hewitt
Drawit!