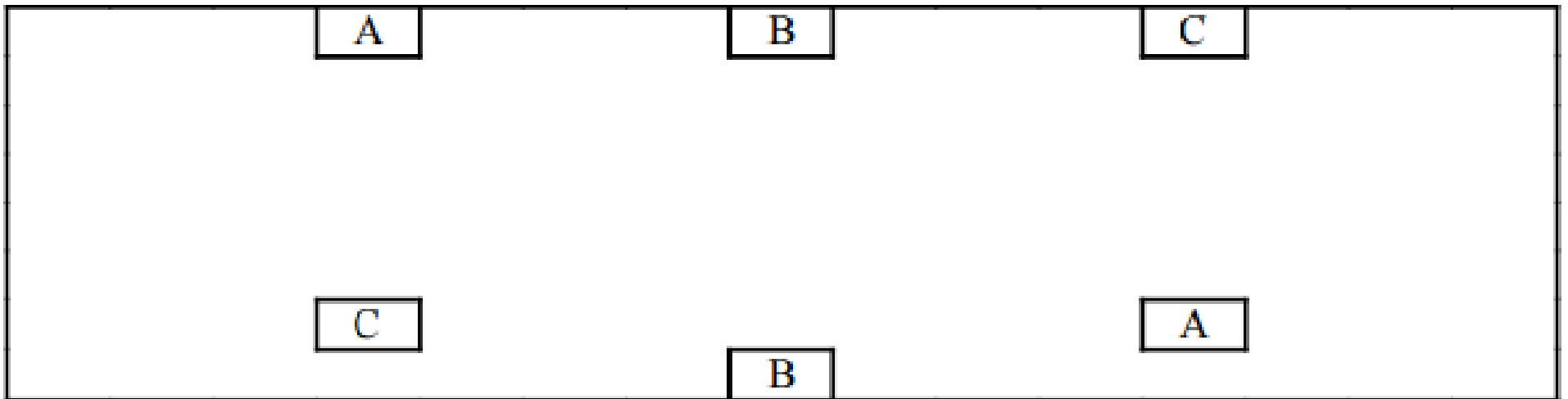
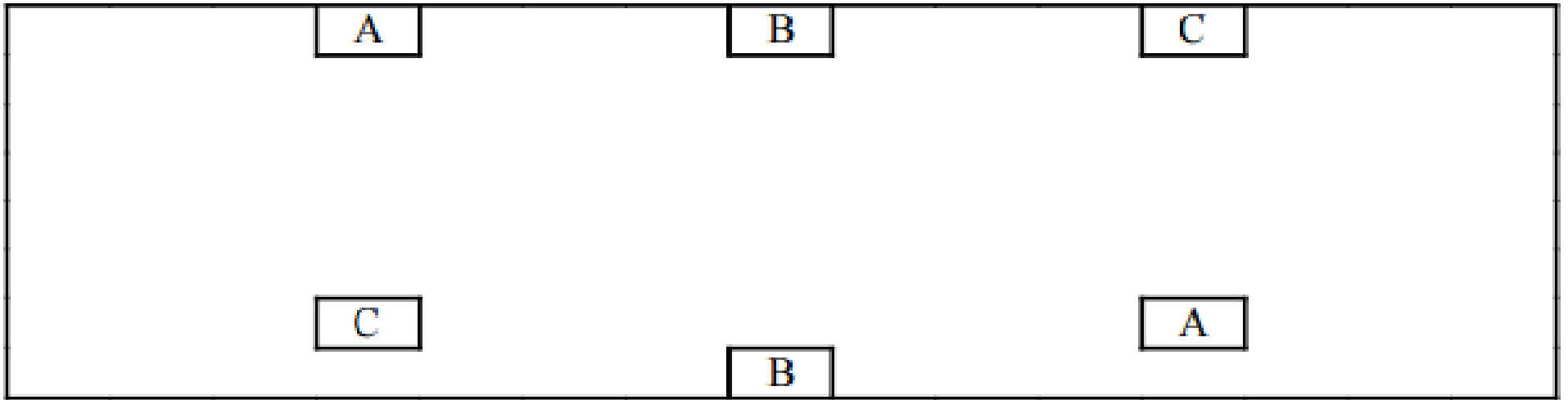


16. Another one from Paul Zeitz:

connect A to A, B to B, and C to C, without crossing lines or leaving the box.



5. The locker problem: begin with 1000 lockers, all open. Then 1000 people walk by, with the  $n$ th person switching (from open to closed, or from closed to open) all the lockers whose numbers are divisible by  $n$ . Which lockers are closed after all 1000 people have walked by? [How would you change the statement of this problem to make it more understandable? Restating the problem is often a good strategy for starting the “getting dirty” process.]