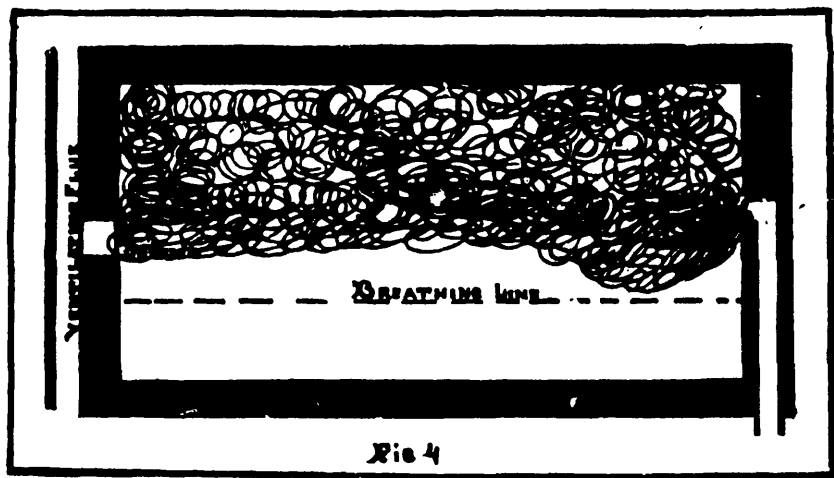
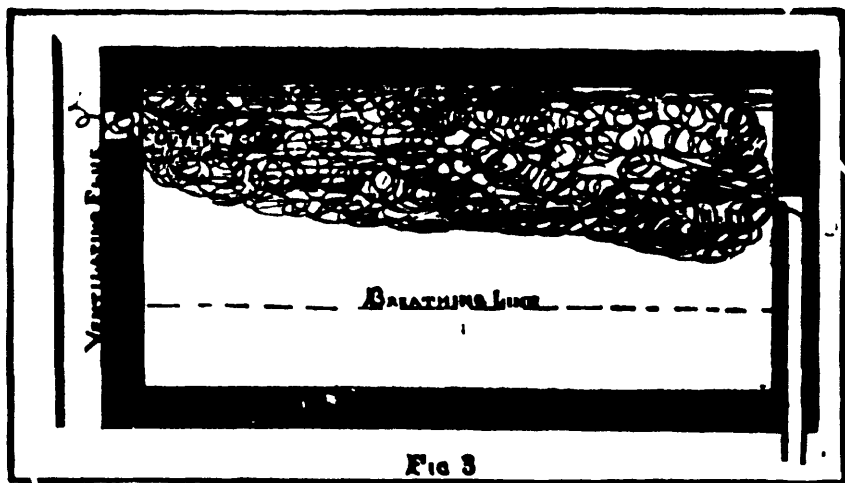


air occasions, as may be readily seen, an enormous loss of heat, without accomplishing the very points aimed at, the utilization of every particle of heat before it is allowed to escape, and the thorough mixing of the pure in-

coming air with the air already in the room. If any one doubts the correctness of the action of air as herein described, let him fill the incoming flue with smoke, that can be readily seen, and watch its course as it



enters, flows upward and outward, and see where the great mass of it goes. The dotted lines of this sketch indicate the breathing point of a person sitting.

"It may be well to explain that in these experiments the outlets have been at least *twice as large* as any inlets, and that there has always been heat in the outgoing flues to produce