

Directly the edge of this paper is brought into contact with the outer edge of the gas flame, a gray coloration, due to arsenic, will be seen in the flame (test No. 1). The paper is burned a little, and the fumes that are given off will be found to have a strong garlic-like odor, due to the vapor of arsenic acid (test No. 2). Take the paper away from the flame and look at the charred end; the carbon will be colored a bronze red. This is a copper reduced by the carbon (test No. 3). Being now away from the flame, in a fine state of division, the copper is slightly oxidized by the air, and on placing the charred end, a second time, not too far into the flame, the flame will now be colored green by copper (test No. 4). By this simple means it is possible to form an opinion, without apparatus and without leaving the room, as to whether any wall-paper contains arsenic; for copper arseniate is commonly used in preparing wall-papers. The first and second tests would be yielded by an paper containing arsenic in considerable quantities.

THE REIGN OF GOOD QUEEN BESS.—Dr. B. W. Richardson, in his recently published abridgment of "The Health of Nations," the *magnum opus* of the lamented Sir Edwin Chadwick, in a chapter under the heading "Progressive Health," gives a comparison of mortality in the Elizabethan and Victorian eras:—

"According to John Graunt's reports, from the parish registers, the condition of the whole city of London, in the time of Queen Elizabeth, was very much that of a 'slum.' The death rate was in fact that of a slum, it was more than 40 per thousand, but now, under some advance towards unity and centralization, it is about 20 per thousand, still including upwards of one-third of preventable deaths. The death-rate then largely exceeded the birth-rate, while now the reverse is the case. The death-rate of the children under five years was then one-third, or 33 per 100. It is now 27 per 100, and grievously too heavy. The deaths from old age, or the age then called old, of seventy, were 7 per cent., they are now sadly too low, but even in the city proper they are 18 per cent. As to personal security, John Graunt boasted that not more than one in two thousand was then