

tobaccos present very little difference, if any, in regard to the amount of nicotine which they furnish, but the smoke they yield has widely different properties, and to take only one constituent, aldehyde—a common product of the destructive distillation of vegetable tissues—occurs only in minute quantity in the smoke of the Turkish or Egyptian cigarette, but it appears in distinctly measurable quantities in the smoke of the Virginian cigarette. Considering again, the great nations which universally use the pipe—the Dutch, the Boers, the Germans—some of the classes amongst which are seldom without a pipe in their mouths all day, or the cigar-smoking people of the Latin countries, the Spaniards, the Italians, the Brazilians, and so forth, we find a form of smoking which reduces the formation of aldehyde to a minimum, while the absorption of nicotine must be considerable. In short, in these instances the narcotic poison, nicotine, prevails, while the irritant, aldehyde, is virtually absent. It is tempting to place an interpretation upon these results which would regard the question of the harmfulness of excessive smoking in a new light. The presence, at any rate, of aldehydes in the smoke of the Virginian cigarette, which is so often smoked to excess, accompanied at the same time by an almost insignificant amount of nicotine, gives material for reflection when approaching the broad question of the evils of the cigarette habit. Furfurol, the principal aldehyde which we have found present in marked quantities in the cigarette smoke of a very popular tobacco, is stated to be about fifty times as poisonous as ordinary alcohol, and small doses cause “symptoms of transient irritation, such as ataxia, tremors, and twitching,” while in adequate quantities furfurol “gives rise to epileptiform convulsions, general muscular paralysis, ending in paralysis of the respiratory muscles.” Again, “one of the commonest effects of over-indulgence in tobacco is a chronic inflammation of the throat and upper parts of the respiratory passages, leading to hoarseness and excessive secretion of the mucous gland. This is explained by the constant application to the throat of an irritant alkaline vapour, and is probably not due to the specific action of nicotine; . . . it seems doubtful whether the nicotine ordinarily absorbed really has any action whatsoever.”

‘It follows from a consideration of the authoritative statements alluded to that furfurol is an undesirable constituent of tobacco smoke, and there is a probability that the least harmful tobacco will turn out to be that which yields a minimum of, or no furfurol at all, or any other aldehyde in the smoke of its partial combustion.’